



Perma-Cal Industries, Inc.
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 www.perma-cal.com

Perma-Cal Dial Availability Chart

(Consult factory for special or custom dials)

Pressure Ranges

UNITS OF MEASUREMENT	PSI		BAR		FSW		MSW \ FSW	
	CODE	RANGE	CODE	RANGE	CODE	RANGE	CODE	RANGE
DIAL CODES AND PRESSURE RANGES	00 (135°) ²	15						
	01	30	40	2	70	70	87	21 \ 70
	02 (135°)	30	41 (135°)	2	71 (200°)	100	86	45 \ 150
	03	60	42	4	72	150		
	04	100	43	7	73	250	88	76 \ 250
	05	150	44	10	74	300	89	90 \ 300
	23	160			75	350	90	100 \ 350
	06	200	45	14	76	450	91	140 \ 450
	07	300	46	20	77	600		
	08	400	56	28	78	700	93	225 \ 750
	20	500	47	35	79	1000	94	300 \ 1000
	09	600	48	40	85	1200	96	350 \ 1200
	10	800			80	1500	95	450 \ 1500
	11	1000	49	70	81	2000		
	12	1500	50	100	82	3500		
	13	2000	51	140				
	14	3000	52	200				
	22	4000	55	280				
	15	5000	53	350				
	16	6000	57	400				
	21	8000						
	17	10,000	54	700				
	18 ²	15,000						

- NOTES:
1. All gauges above 5,000 psi (or equivalent) are $\pm 1\%$ F.S. descending accuracy.
 2. For accuracy limitations, see Technical Bulletin 'Compound, Vacuum & HP Gauge Accuracy' for details.
 3. Pressure codes in this bulletin are primarily for Perma-Cal's internal operations and are subject to change without notice. When ordering, to assure the desired pressure range is secured, write the pressure range and unit of measurement for each line item on the order. If a conflict occurs between a specified pressure code and the designated pressure range / unit of measurement, the latter shall prevail in processing the order.



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Pressure Ranges

UNITS OF MEASUREMENT	KgCM ² \ PSI		PSI \ kPa		kPa	
DIAL CODES AND PRESSURE RANGES	CODE	RANGE	CODE	RANGE	CODE	RANGE
	AA	2 \ 30	BA	30 \ 200	CA	200
					CB	250
	AC	4 \ 60	BC	60 \ 400	CC	400
	AD	7 \ 100	BD	100 \ 700	CD	700
	AE	10.5 \ 150	BE	150 \ 1000	CE	1000
	AL	11 \ 160			CL	1600
	AF	14 \ 200	BF	200 \ 1400	CF	1400
	AG	21 \ 300	BG	300 \ 2000	CG	2000
	AH	28 \ 400	BH	400 \ 2800	CI	2800
	AI	35 \ 500	BI	500 \ 3500		
	AJ	42 \ 600	BQ	600 \ 4000	CJ	4000
	AY	56 \ 800				
	AK	70 \ 1000	BK	1000 \ 7000	CK	7000
	AM	105 \ 1500	BM	1500 \ 10,000	CM	10,000
	AN	140 \ 2000	BN	2000 \ 14,000	CN	14,000
	AP	210 \ 3000	BP	3000 \ 20,000	CP	20,000
	AQ	280 \ 4000			CQ	25,000
	AR	350 \ 5000	BR	5000 \ 35,000	CR	35,000
	AS	420 \ 6000	BS	6000 \ 40,000	CS	40,000
					CW	60,000
	AT	700 \ 10,000	BT	10,000 \ 70,000	CT	70,000
	AU ²	1000 \ 15,000				

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Pressure Ranges

UNITS OF MEASUREMENT	PSI \ BAR		MPa		KgCM ²	
	CODE	RANGE	CODE	RANGE	CODE	RANGE
DIAL CODES AND PRESSURE RANGES	DA	30 \ 2			GA	2
	DC	60 \ 4			GC	4
	DD	100 \ 7			GD	7
	DE	150 \ 10	EE	1	GE	10
	DL	160 \ 11			GL	16
	DF	200 \ 14				
	DG	300 \ 20	EG	2	GG	20
	DH	400 \ 28			GH	25
	DI	500 \ 35				
	DJ	600 \ 40	EJ	4	GJ	40
	DY	800 \ 55				
	DK	1000 \ 70			GK	60
	DM	1500 \ 100	EM	10	GM	100
	DN	2000 \ 140			GN	160
	DP	3000 \ 210	EP	20	GP	200
	DQ	4000 \ 280	EQ	25	GQ	250
	DR	5000 \ 350	ER	35		
	DS	6000 \ 400	ES	40	GS	400
	DT	10,000\700	ET	70	GT	600
	DU ²	15,000\1000			GU ²	1000

- NOTES:
1. All gauges above 5,000 psi (or equivalent) are $\pm 1\%$ F.S. descending accuracy.
 2. For accuracy limitations, see Technical Bulletin 'Compound, Vacuum & HP Gauge Accuracy' for details.
 3. Pressure codes in this bulletin are primarily for Perma-Cal's internal operations and are subject to change without notice. When ordering, to assure the desired pressure range is secured, write the pressure range and unit of measurement for each line item on the order. If a conflict occurs between a specified pressure code and the designated pressure range / unit of measurement, the latter shall prevail in processing the order.



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Vacuum and Compound Ranges ¹

UNITS OF MEASUREMENT	PSI		BAR		PSI / kPa		kPa		KgCM ²	
DIAL CODES AND VACUUM \ PRESSURE RANGES	CODE	RANGE	CODE	RANGE	CODE	RANGE	CODE	RANGE	CODE	RANGE
	25	30"Hg-0	60	-1 \ 0	B0	30"/-100	C0	-100 \ 0		
	26	30"Hg-0-15								
	27	30"Hg-0-30	61	-1 \ 0 \ +2	B1	30-0-30			G1	760-0-2
	24	30"Hg-0-60	62	-1 \ 0 \ +3			C2	-100 \ 0 \ 300	G2	760-0-4
	29	30"Hg-0-100	63	-1 \ 0 \ +7					G3	760-0-6
	28	30"Hg-0-150	64	-1 \ 0 \ +10			C4	-100 \ 0 \ 900	G4	760-0-10
	30	30"Hg-0-200	65	-1 \ 0 \ +14						
	31	30"Hg-0-300								
	32	30"Hg-0-400	67	-1 \ 0 \ +28						
	33	30"Hg-0-500								
	34	30"Hg-0-600								

UNITS OF MEASUREMENT	Receiver Ranges ²		Refrigerant Ranges ²		Additional Ranges	
DIAL CODES AND RANGES	CODE	RANGE	CODE	RANGE	CODE	RANGE
	35	0-100% (with numerals)	RC	30"Hg-0-30 R114	A1	-1 \ 0 \ 2 kg \ cm
	36	0-10 sq rt (with numerals)	RG‡	30"Hg-0-150 Ammonia	WA	840"H ² O \ 30 PSI
	37	0-100 linear (less numerals)	RH	30"Hg-0-150 R12	WB	70 FFW
	38	0-10 sq rt (less numerals)	RI	30"Hg-0-150 R22	WC	150 FFW
	39	3-15 psi (with numerals)	RL	30"Hg-0-200 R134a	WF	460 FFW
			RQ‡	30"Hg-0-300 Ammonia	WH	1000 FFW
			RR	30"Hg-0-300 R12	XA	0-60"Hg Positive Pressure
			RS	30"Hg-0-300 R22	XV	0-760 mm Hg VAC \ 0-30 in Hg VAC (135° arc)
			‡ Specify microbrazed welds		XY	0-760 mm Hg VAC (135° arc)

- NOTES: 1. For accuracy limitations, see Technical Bulletin 'Compound, Vacuum & HP Gauge Accuracy' for details.
2. ±1% F.S. accuracy only.
3. Pressure codes in this bulletin are primarily for Perma-Cal's internal operations and are subject to change without notice. When ordering, to assure the desired pressure range is secured, write the pressure range and unit of measurement for each line item on the order. If a conflict occurs between a specified pressure code and the designated pressure range / unit of measurement, the latter shall prevail in processing the order.



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Test Dial Specifications - PSI Ranges

CODE	RANGE	FIGURE INTERVAL		DIAL GRADUATIONS			
		MAJOR	MINOR	MAJOR	INTERMEDIATE		MINOR
					Long	Short	
00	0-15 (135°)	5	1	5	1	0.5	0.1
01	0-30	5	1	5	1	0.5	0.1
02	0-30 (135°)	5	1	5	-	1	0.2
03	0-60	5	1	5	-	1	0.2
04	0-100	10	2	10	2	1	0.5
05	0-150	10	2	10	2	1	0.5
23	0-160	10	2	10	2	1	0.5
06	0-200	20	2	10	-	2	1
07	0-300	50	10	50	10	5	1
08	0-400	50	10	50	-	10	2
20	0-500	50	10	50	-	10	2
09	0-600	50	10	50	-	10	2
10	0-800	100	20	100	20	10	5
11	0-1000	100	20	100	-	20	5
12	0-1500	100	20	100	-	20	5
13	0-2000	200	20	100	-	20	10
14	0-3000	500	100	500	100	50	10
22	0-4000	500	100	500	-	100	20
15	0-5000	500	100	500	-	100	20
16	0-6000	500	100	500	-	100	20
21	0-8000	1000	200	1000	-	200	40
17	0-10,000	1000	200	1000	-	200	50
18	0-15,000	1000	200	1000	-	200	50

NOTE: Minor dial graduations on some 6" and 8½" gauges may have twice the resolution of the number shown. Graduations on 2½" gauges may not comply with ASME B40.1 or the above chart due to space limitations.



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Process Dial Specifications - PSI Ranges

CODE	RANGE	FIGURE INTERVAL		DIAL GRADUATIONS			
		MAJOR	MINOR	MAJOR	INTERMEDIATE		MINOR
					Long	Short	
00	0-15 (135°)	5	-	5	-	1	0.25
01	0-30	3	-	3	-	1	0.2
02	0-30 (135°)	5	-	5	-	1	0.5
03	0-60	5	-	5	-	2.5	0.5
04	0-100	10	-	10	-	5	1
05	0-150	15	-	15	-	5	1
23	0-160	20	-	20	-	10	2
06	0-200	20	-	20	-	10	2
07	0-300	50	-	50	-	10	2
08	0-400	50	-	50	-	25	5
20	0-500	50	-	50	-	25	5
09	0-600	100	-	100	-	25	5
10	0-800	100	-	100	-	50	10
11	0-1000	100	-	100	-	50	10
12	0-1500	150	-	150	-	50	10
13	0-2000	200	-	200	-	100	20
14	0-3000	500	-	500	-	100	25
22	0-4000	500	-	500	-	250	50
15	0-5000	500	-	500	-	250	50
16	0-6000	1000	-	1000	500	250	50
21	0-8000	1000	-	1000	-	500	100
17	0-10,000	1000	-	1000	-	500	100
18	0-15,000	1500	-	1500	-	500	100

NOTE: Minor dial graduations on some 6" and 8½" gauges may have twice the resolution of the number shown. Graduations on 2½" gauges may not comply with ASME B40.1 or the above chart due to space limitations.



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Test Dial Specifications - Vacuum and Compound Ranges ²

CODE	RANGE	FIGURE INTERVAL		DIAL GRADUATIONS			
		MAJOR	MINOR	MAJOR	INTERMEDIATE		MINOR
					Long	Short	
26	30"Hg-0 0-15 PSI	10 5	2 1	10 5	- -	2 1	0.5 0.2
25	30"Hg-0	5	1	5	-	1	0.25
27	30"Hg-0 0-30 PSI	10 5	2 1	10 5	- -	2 1	0.5 0.2
24	30"Hg-0 0-60 PSI	10 5	2 1	10 5	- -	2 1	0.5 0.2
29	30"Hg-0 0-100 PSI	10 10	5 2	10 10	- 2	5 1	1 0.5
28	30"Hg-0 0-150 PSI	10 10	5 2	10 10	- -	5 2	1 0.5
30	30"Hg-0 0-200 PSI	30 20	10 2	30 20	- 10	10 2	2 1
31	30"Hg-0 0-300 PSI	30 50	10 10	30 50	- 10	10 5	2 1
32	30"Hg-0 0-400 PSI	30 50	- 10	30 50	- -	15 10	5 2
33	30"Hg-0 0-500 PSI	30 50	- 10	30 50	- -	10 10	5 2
34	30"Hg-0 0-600 PSI	30 50	- 10	30 50	- -	10 10	5 2

- NOTES: 1. Minor dial graduations on some 6" and 8½" gauges may have twice the resolution of the number shown. Graduations on 2½" gauges may not comply with ASME B40.1 or the above chart due to space limitations.
2. For accuracy limitations, see Technical Bulletin 'Compound, Vacuum & HP Gauge Accuracy' for details.



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Process Dial Specifications - Vacuum and Compound Ranges ²

CODE	RANGE ³	FIGURE INTERVAL		DIAL GRADUATIONS			
		MAJOR	MINOR	MAJOR	INTERMEDIATE		MINOR
					Long	Short	
26	30"Hg-0 (132°) 0-15 PSI (135°)	5 5	- -	10 5	- -	5 1	10 0.5
25	30"Hg-0 (135°)	5	-	5	-	2.5	0.5
27	30"Hg-0 (66°) 0-30 PSI (135°)	10 5	- -	10 5	- -	5 2.5	1 0.5
24	30"Hg-0 (66°) 0-60 PSI	10 5	- -	10 5	- -	5 2.5	1 0.5
29	30"Hg-0 (40°) 0-100 PSI	30 10	- -	10 10	- -	- 5	2 1
28	30"Hg-0 (26°) 0-150 PSI	30 15	- -	10 15	- -	- 5	2 1
30	30"Hg-0 (20°) 0-200 PSI	30 20	- -	15 20	- -	- 10	5 2
31	30"Hg-0 (13°) 0-300 PSI	30 30	- -	30 30	- -	15 10	5 2
32	30"Hg-0 (10°) 0-400 PSI	30 50	- -	30 50	- -	15 25	7.5 5
33	30"Hg-0 (8°) 0-500 PSI	30 50	- -	30 50	- -	15 25	7.5 5
34	30"Hg-0 (7°) 0-600 PSI	30 100	- -	30 50	- -	15 25	7.5 5

- NOTES: 1. Minor dial graduations on some 6" and 8½" gauges may have twice the resolution of the number shown. Graduations on 2½" gauges may not comply with ASME B40.100 or the above chart due to space limitations.
2. For accuracy limitations, see Technical Bulletin 'Compound, Vacuum & HP Gauge Accuracy' for details.
3. Unless otherwise specified, the arc for the positive pressure side is 270°. All other arcs are rounded to the nearest integer.



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Test Dial Specifications - BAR Ranges

CODE	RANGE	FIGURE INTERVAL		DIAL GRADUATIONS			
		MAJOR	MINOR	MAJOR	INTERMEDIATE Long Short	MINOR	
40	0-2	.5	0.1	0.5	- 0.05	0.01	
41	0-2 (135°)	.5	0.1	0.5	- 0.1	0.02	
42	0-4	.5	0.1	0.5	- 0.1	0.02	
43	0-7	1	0.1	1	0.5 0.1	0.025	
44	0-10	1	0.2	1	- 0.2	0.05	
45	0-14	2	0.2	2	1 0.2	0.1	
46	0-20	2	0.2	2	1 0.2	0.1	
56	0-28	4	-	4	- 1	0.2	
47	0-35	5	-	5	- 1	0.2	
48	0-40	5	1	5	- 1	0.2	
49	0-70	5	1	5	- 1	0.25	
50	0-100	10	2	10	2 1	0.5	
51	0-140	20	2	20	10 2	0.5	
52	0-200	20	2	20	10 2	1	
55	0-280	40	-	40	- 10	2	
53	0-350	50	10	50	- 10	2	
57	0-400	50	-	50	- 10	2	
54	0-700	100	10	100	50 10	2.5	

NOTE: Minor dial graduations on some 6" and 8½" gauges may have twice the resolution of the number shown. Graduations on 2½" gauges may not comply with ASME B40.1 or the above chart due to space limitations.



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Process Dial Specifications - BAR Ranges

CODE	RANGE	FIGURE INTERVAL		DIAL GRADUATIONS			
		MAJOR	MINOR	MAJOR	INTERMEDIATE		MINOR
					Long	Short	
40	0-2	.5	-	.5	-	0.1	0.02
41	0-2 (135°)	.5	-	.5	-	0.25	0.05
42	0-4	.5	-	.5	-	0.25	0.05
43	0-7	1	-	1	-	0.25	0.05
44	0-10	1	-	1	-	0.5	0.1
45	0-14	2	-	2	-	0.5	0.1
46	0-20	2	-	2	-	1	0.2
56	0-28	4	-	4	-	1	0.2
47	0-35	5	-	5	-	1	0.25
48	0-40	5	-	5	-	2.5	0.5
49	0-70	10	-	10	-	2.5	0.5
50	0-100	10	-	10	-	5	1
51	0-140	20	-	20	-	5	1
52	0-200	20	-	20	-	10	2
55	0-280	40	-	40	-	10	2
53	0-350	50	-	50	-	10	5
57	0-400	50	-	50	-	25	5
54	0-700	100	-	100	-	25	5

NOTE: Minor dial graduations on some 6" and 8½" gauges may have twice the resolution of the number shown. Graduations on 2½" gauges may not comply with ASME B40.1 or the above chart due to space limitations.



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Test Dial Specifications - FSW Ranges

CODE	RANGE	FIGURE INTERVAL		DIAL GRADUATIONS			
		MAJOR	MINOR	MAJOR	INTERMEDIATE Long Short	MINOR	
70	0-70 (135°)	10	2	10	2 -	0.5	
71	0-100 (200°)	10	2	10	2 1	0.5	
72	0-150	10	2	10	2 -	0.5	
73	0-250	25	5	25	5 -	1	
74	0-300	50	10	50	10 5	1	
75	0-350	50	10	50	10 -	2	
76	0-450	50	10	50	10 -	2	
77	0-600	50	10	50	10 -	2	
78	0-700	100	10	100	50 10	2.5	
79	0-1000	100	20	100	20 -	5	
85	0-1200	100	20	100	20 10	5	
80	0-1500	100	20	100	20 10	5	
81	0-2000	200	20	100	20 -	10	
82	0-3500	500	100	500	100 -	20	

Process Dial Specifications - FSW Ranges

74	0-300	50	-	50	10	-	2

NOTE: Minor dial graduations on some 6" and 8½" gauges may have twice the resolution of the number shown. Graduations on 2½" gauges may not comply with ASME B40.1 or the above chart due to space limitations.



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Test Dial Specifications - MSW/FSW Ranges

CODE	RANGE	FIGURE INTERVAL		DIAL GRADUATIONS			
		MAJOR	MINOR	MAJOR	INTERMEDIATE		MINOR
					Long	Short	
87	0-21	3	-	3	1	0.5	0.1
	0-70	10	-	10	5	1	0.25
88	0-76	5	-	5	1	0.5	0.25
	0-250	50	10	50	10	5	1
89	0-90	10	5	10	5	1	0.5
	0-300	50	10	50	10	5	1
90	0-100	10	5	10	5	1	0.5
	0-350	50	10	50	10	-	2
91	0-140	10	-	10	5	-	0.5
	0-450	50	-	50	10	-	2
93	0-225	25	-	25	5	-	1
	0-750	100	-	100	50	10	2.5
94	0-300	50	-	50	10	-	2
	0-1000	100	-	100	25	-	5
95	0-450	50	-	50	10	-	2
	0-1500	100	-	100	25	-	5

NOTE: Minor dial graduations on some 6" and 8½" gauges may have twice the resolution of the number shown. Graduations on 2½" gauges may not comply with ASME B40.1 or the above chart due to space limitations.