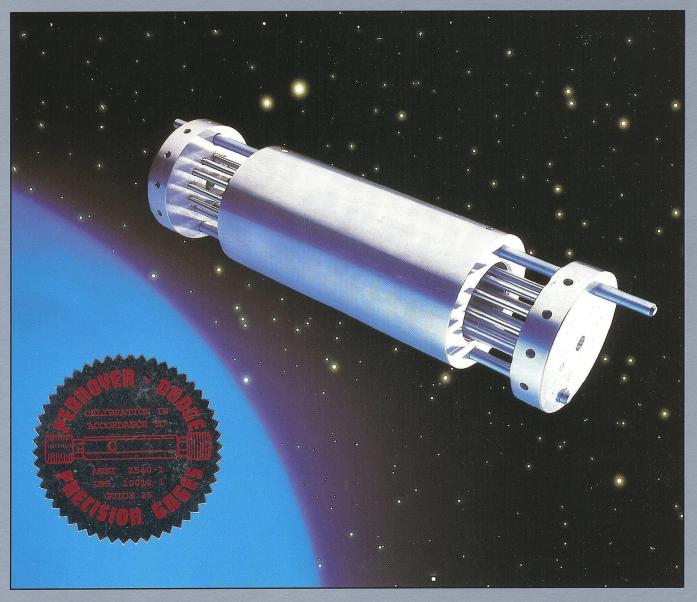
## PENNUTER ODGE C O M P A N Y

PRECISION GAGES



GAGING AND TOOLING SPECIALIST SINCE 1948

QUALITY SALES SERVICE



### MESSAGE FROM THE PRESIDENT



Dear Customer,

Welcome to **Pennoyer-Dodge Company**! You are about to meet a family owned company that has been in the Precision Gage business since 1948. **Pennoyer-Dodge Company** is a leader in the manufacturing of all types of precision thread and cylindrical gages, as well as the design and manufacturing of special fixture gaging.

The basic philosophy of **Pennoyer-Dodge Company** has always been that our customers deserve our best effort. We know that quality and confidence is a prime concern in this competitive market.

The following pages will introduce you to consider the capabilities of our staff and our history of quality gaging as it relates to your individual problem areas.

If you are already a customer, we would like to take this opportunity to thank you for your patronage. **Pennoyer-Dodge Company** values the opportunity to continue serving you for all your gaging needs.

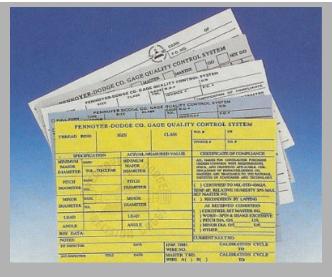
Hazel L. Dodge

Robert Dodge

#### **SALES AND SERVICE**

When you buy from Pennoyer-Dodge Company you're buying proven quality and reliability. Our knowledgeable sales and engineering staff offer expert phone service in sales and technical information.

We invite you to phone us at (1-818-547-2100) and let our staff assist you with your gaging requirements.



### CALIBRATION AND RECONDITIONING SERVICE

To aid customers in the calibration requirements of ISO 10012-1, ANSI/NCSL Z540-1, Mil-Std-45662A, **Pennoyer-Dodge Company** supplies complete certificates of calibration for all gages traceable to N.I.S.T. These certificates contain basic as well as actual measured values. Used gage certifications show not only the as-found values, but if reconditioned, we also include the new in-tolerance values. Sizeable cost and time saving can be achieved through this reconditioning process.



### QUALITY CONTROL

Pennoyer-Dodge Company maintains a strict quality control program to insure the accuracy of its measurements. There is a in-process surveillance throughout the manufacturing process that insures the quality of our product. Final inspection is performed on all gauges by trained technicians in our environmentally controlled labs.

All Pennoyer-Dodge Company final inspection equipment is recalibrated on a designated recall schedule. The accuracy of all our final inspection equipment, measuring blocks and thread wires, are traceable to N.I.S.T. Pennoyer-Dodge Company maintains a quality control manual which adheres to the most stringent government requirements.





### Welcome to Pennoyer-Dodge Company!

#### **SALES AND SERVICE**

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### **COMPANY HOURS**

6:00AM to 4:30 PM P.S.T.

MONDAY-FRIDAY
SATURDAYS 6:00AM TO NOON



### **Pennoyer-Dodge Company**

When you need it right and right away!

Accepted Methods of Payment









	Table of C	ontents
Taperlock Thread Gages	4 - 6	NPT Tape
Reversible Thread Plug Gages	7	Cylindric
S.T.I. Thread Plug Gages X-Tolerance	9	Cylindric
Standard Thread Ring Gages	10-11	Cylindric
Truncated Setting Plug Gages	12-13	Cylindric
Progressive Setting Plug Gages	14-15	Cylindric
Metric Thread Plug Gages	16	Standard
Metric Reversible Plug Gages	17	Special G
Metric Thread Ring Gages	18	Before Pl
Metric Truncated Setting Plug Gages	19	Twister G
NPTF Taper Pipe Ring & Plug Gages	20	Twister C
ANPT Taper Pipe Ring & Plug Gages	21	Twister In

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### Pennoyer-Dodge Co. Taperlock Thread Plug Gages

American Gage Design CLASS X RIGHT HAND

#### **How To Order**

#5-44 UNF

#6-32 UNC

#6-40 UNF

#8-32 UNC

#8-36 UNF

# 10-24 UNC

# 10-32 UNF

#12-24 UNC

#12-28 UNF

# 12-32 UNEF

1/4-20 UNC

1/4-28 UNF

1/4-32 UNEF

5/16-18 UNC

5/16-24 UNF

3/8-16 UNC

3/8-24 UNF

3/8-32 UNEF

7/16-14 UNC

7/16-20 UNF

5/16-32 UNEF

- 1. State Quantity desired.
- 2. Nominal size and threads per inch and class of fit.

Example: 1/4-28 UNF-2B

- 3. Go or Not Go or a complete double end.
- 4. Handles: Either single end or double end / special marking may be added for

118.00

112.00

112.00

112.00

112.00

112.00

112.00

112.00

112.00

144.00

106.00

106.00

164.00

106.00

106.00

164.00

116.00

116.00

184.00

116.00

116.00

20.00

20.00

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#2

#2

#2

#2

#2

49.00

46.00

46.00

46.00

46.00

46.00

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46.00

46.00

62.00

43.00

43.00

72.00

43.00

43.00

72.00

48.00

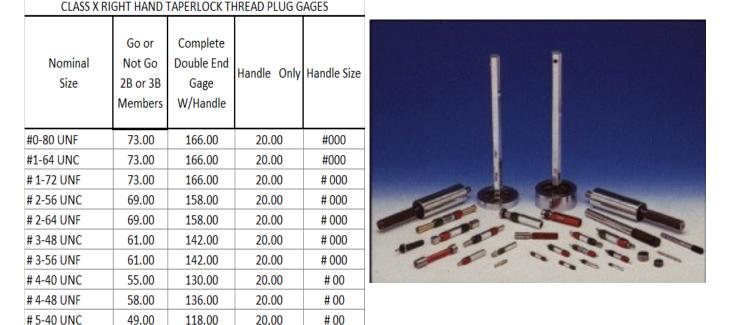
48.00

82.00

48.00

48.00

- an additional charge. (\$20.00 min). Handles ordered in colors other than Red or Green add \$20.00 per handle.
- 5. Long Form Calibration Reports are required, add \$25.00 per member.6. Calibration stickers available @ \$10.00 per sticker (advise calibration cycle
- 7. CHROME: Add 55% to each member.
- 8. "J" Series thread: Add \$10.00 per plug member.



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# Pennoyer-Dodge Co. Taperlock Thread Plug Gages

American Gage Design

#### **How To Order**

5/8-24 UNEF

3/4-10 UNC

3/4-16 UNF

3/4-20 UNEF

7/8-9 UNC

7/8-14 UNF

7/8-20 UNEF

1-8 UNC

1-12 UNF

1-14 UNS

1-20 UNEF

1 1/16-18 UNEF

1 1/8-7 UNC

1 1/8-12 UNF

1 1/8-18 UNEF

1 3/16-18 UNEF

1 1/4-7 UNC

1 1/4-12 UNF

1 1/4-18 UNEF

15/16-20 UNEF

13/16-20 UNEF

11/16-24 UNEF

- 1. State Quantity desired.
- Nominal size and threads per inch and class of fit.

Example: 1/4-28 UNF-2B

- 3. Go or Not Go or a complete double end.
- 4. Handles: Either single end or double end / special marking may be added for

206.00

206.00

150.00

146.00

206.00

224.00

170.00

164.00

224.00

232.00

188.00

182.00

182.00

258.00

268.00

222.00

216.00

268.00

280.00

228.00

220.00

280.00

93.00

93.00

65.00

63.00

93.00

102.00

75.00

72.00

102.00

106.00

84.00

81.00

81.00

119.00

124.00

101.00

98.00

124.00

130.00

104.00

100.00

130.00

20.00

20.00

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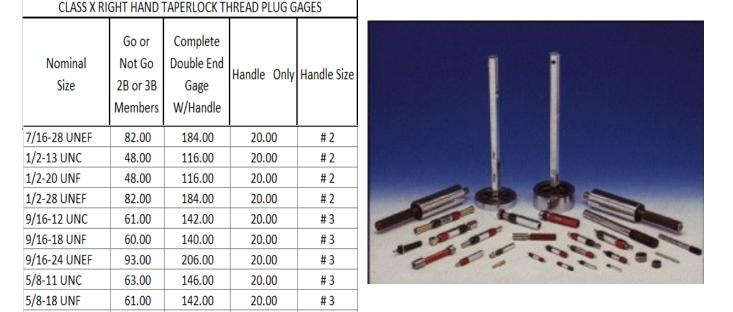
#5

#5

#5

an additional charge. (\$20.00 min). Handles ordered in colors other than Red or Green add \$20.00 per handle.

- 5 Long Form Calibration Reports are required, add \$25.00 per member.
- Calibration stickers available @\$10.00 per sticker (advise calibration cycle)
   CHROME: Add 55% to each member.
- 8. "J" Series thread: Add \$10.00 per plug member.



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# Pennoyer-Dodge Co. Taperlock Thread Plug Gages

American Gage Design

### **How To Order**

- 1. State Quantity desired.
- Nominal size and threads per inch and class of fit.
   Example: 1/4-28 UNF-2B
- 3. Go or Not Go or a complete double end.
- 4. Handles: Either single end or double end / special marking may be added for
- an additional charge. (\$20.00 min). Handles ordered in colors other than Red or Green add \$20.00 per handle.
- 5. Long Form Calibration Reports are required, add \$25.00 per member.
- 6. Calibration stickers available @ \$10.00 per sticker (advise calibration cycle)
- 7. CHROME: Add 55% to each member.
- 8. "J" Series thread: Add \$10.00 per plug member.

CLASS X RIGHT HAND TAPERLOCK THREAD PLUG GAGES					
Nominal Size	Go or Not Go 2B or 3B Members	Complete Double End Gage W/Handle	Handle Only	Handle Size	
1 5/16-18 UNEF	140.00	300.00	20.00	#5	
1 3/8-6 UNC	115.00	250.00	20.00	# 5	
1 3/8-12 UNF	110.00	240.00	20.00	# 5	
1 3/8-18 UNEF	145.00	310.00	20.00	# 5	
17/16-18 UNEF	152.00	324.00	20.00	# 5	
1 1/2-6 UNC	126.00	272.00	20.00	# 5	
1 1/2-12 UNF	121.00	262.00	20.00	# 5	
1 1/2-18 UNEF	160.00	340.00	20.00	# 5	





## Pennoyer-Dodge Co. Reversible Thread Plug Gages

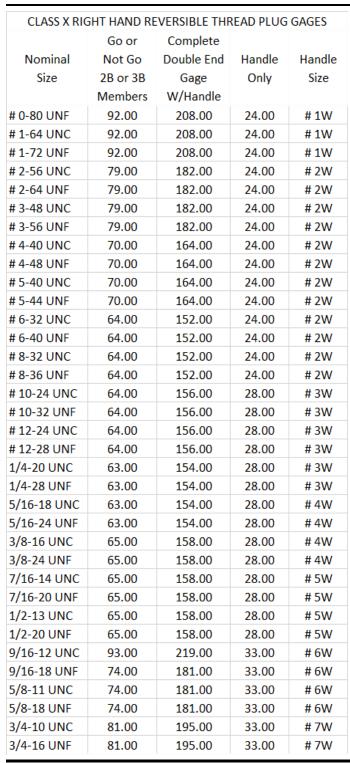
American Gage Design

#### **How To Order**

- 1. State Quantity desired.
- Nominal size and threads per inch and class of fit. Example: 1/4-28 UNF-2B
- 3. Go or Not Go or a complete double end.
- 4. Handles: Either single end or double end.

Handles ordered in colors other than Red or Green collets and other than plain handles, call for current pricing.

- 5. Special marking may be added for an additional charge. (\$20.00 min).
- 6. Long Form certifications are required, add \$25.00 per member.
- 7. Calibration stickers available @ \$10.00 per sticker (advise calibration cycle)
- 8. CHROME: Add 55% to each member.
- 9. If Trilock style desired, price upon application.





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### S.T.I. Thread Plug Gages x-Tolerance

### American Gage Design

### **How To Order**

- 1. State Quantity desired.
- Nominal size and threads per inch and class of fit. Example: 1/4-28 UNF-2B S.T.I.
- 3. Go or Not Go or a complete double end.
- 4. Handles: Either single end or double end. Handles ordered in colors other than Red or Green add \$20.00 per handle.
- 5. Special marking may be added for an additional charge. (\$20.00 min).
- 6. Long Form Calibration Reports are required, add 25.00 per member.
- 7. Calibration stickers available @ \$10.00 per sticker (advise calibration cycle)
- 8. "W" tolerance (Inspection Grade) add 30%. Must purchase long form calibration reports.
- 9. CHROME: Add 55% to each member.
- 10. "J" series thread add \$10.00 per plug member.

CLASS X RIGHT HAND S.T.I. THREAD PLUG GAGES					
	Go and	Complete			
Nominal	2B, 3B	Double End	Handle	Handle	
Size	Not Go	2B, 3B Gage	Only	Size	
	Member	W/Handle			
# 2-56 UNC	76.00	172.00	20.00	# 00	
# 4-40 UNC	70.00	160.00	20.00	# 00	
# 4-48 UNF	70.00	160.00	20.00	# 00	
# 6-32 UNC	64.00	148.00	20.00	#0	
# 6-40 UNF	64.00	148.00	20.00	#0	
# 8-32 UNC	63.00	146.00	20.00	#0	
# 10-24 UNC	64.00	148.00	20.00	#0	
# 10-32 UNF	63.00	146.00	20.00	#0	
1/4-20 UNC	63.00	146.00	20.00	#1	
1/4-28 UNF	63.00	146.00	20.00	#1	
5/16-18 UNC	64.00	148.00	20.00	#2	
5/16-24 UNF	63.00	146.00	20.00	#1	
3/8-16 UNC	64.00	148.00	20.00	# 2	
3/8-24 UNF	64.00	148.00	20.00	#2	
7/16-14 UNC	69.00	158.00	20.00	#3	
7/16-20 UNF	64.00	148.00	20.00	# 2	
1/2-13 UNC	70.00	160.00	20.00	#3	
1/2-20 UNF	68.00	156.00	20.00	#3	





### Pennoyer-Dodge Co. Standard Thread Rings Gages

American Gage Design

#### **How To Order**

- 1. State Quantity desired. 2. Nominal size and threads per
- inch and class of fit. Example: 1/4-28 UNF-2A
- 3. Go or Not Go or a set of gages.

- 4. Special marking for an additional charge.(\$20.00 min.)
- 5. Long Form Calibration Reports are required, add 25.00 per member.
- 6. Calibration stickers available @ \$10.00 per sticker (advise calibration cycle).
- 7. CHROME: Add 55% for sizes #10 and up, per ring.
- 8. For "J" series (MIL-S-8879 and SAE-AS-71051), ADD \$80.00 per Go ring.

CLASS X RIGHT HAND AGD THREAD RING GAGES					
Nominal Size	Go or Not Go 2A or 3A	Go & Not Go Sets 2A or 3A	Ring Holder	Ring Holder Size	
# 0-80 UNF	180.00	360.00	30.00	1T	
# 1-64 UNC	168.00	336.00	30.00	1T	
# 1-72 UNF	168.00	336.00	30.00	1T	
# 2-56 UNC	156.00	312.00	30.00	1T	
# 2-64 UNF	156.00	312.00	30.00	1T	
# 3-48 UNC	156.00	312.00	30.00	1T	
# 3-56 UNF	156.00	312.00	30.00	1T	
# 4-40 UNC	143.00	286.00	30.00	1T	
# 4-48 UNF	143.00	286.00	30.00	1T	
# 5-40 UNC	130.00	260.00	30.00	1T	
# 5-44 UNF	130.00	260.00	30.00	1T	
# 6-32 UNC	126.00	252.00	30.00	1T	
# 6-40 UNF	126.00	252.00	30.00	1T	
# 8-32 UNC	122.00	244.00	30.00	1T	
# 8-36 UNF	122.00	244.00	30.00	1T	
# 10-24 UNC	122.00	244.00	30.00	1T	
# 10-32 UNF	122.00	244.00	30.00	1T	
# 12-24 UNC	122.00	244.00	30.00	1T	
# 12-28 UNF	122.00	244.00	30.00	1T	
# 12-32 UNEF	148.00	296.00	30.00	1T	
1/4-20 UNC	118.00	236.00	30.00	2T	
1/4-28 UNF	118.00	236.00	30.00	2T	
1/4-32 UNEF	148.00	296.00	30.00	2T	
5/16-18 UNC	119.00	238.00	30.00	2T	
5/16-24 UNF	119.00	238.00	30.00	2T	
5/16-32 UNEF	148.00	296.00	30.00	2T	
3/8-16 UNC	124.00	248.00	30.00	3T	
3/8-24 UNF	124.00	248.00	30.00	3T	
3/8-32 UNEF	149.00	298.00	30.00	3T	
7/16-14 UNC	123.00	246.00	30.00	3T	
7/16-20 UNF	123.00	246.00	30.00	3T	
7/16-28 UNEF	149.00	298.00	30.00	3T	
1/2-13 UNC	124.00	248.00	30.00	3T	
1/2-20 UNF	124.00	248.00	30.00	3T	
1/2-28 UNEF	151.00	302.00	30.00	3T	
9/16-12 UNC	144.00	288.00	35.00	4T	
9/16-18 UNF	144.00	288.00	35.00	4T	



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### Pennoyer-Dodge Co. Standard Thread Rings Gages

American Gage Design

#### **How To Order**

- 1. State Quantity desired. 2. Nominal size and threads per inch and class of fit.
- Example: 1/4-28 UNF-2A 3. Go or Not Go or a set of gages.

- Special marking for an additional charge.(\$20.00 min.)
   Long Form Calibration Reports are required, add \$25.00 per member.
- 6. Calibration stickers available @ \$10.00 per sticker (advise calibration cycle)
- 7. CHROME: Add 55% for sizes #10 and up, per ring.
- 8. For "J" series (MIL-S-8879 and SAE-AS-71051), ADD \$80.00 per Go ring.

CLASS X	CLASS X RIGHT HAND AGD THREAD RING GAGES					
Nominal Size	Go or Not Go 2A or 3A	Go & Not Go Sets 2A or 3A	Ring Holder	Ring Holder Size		
9/16-24 UNEF	167.00	334.00	35.00	4T		
5/8-11 UNC	144.00	288.00	35.00	4T		
5/8-18 UNF	144.00	288.00	35.00	4T		
5/8-24 UNEF	190.00	380.00	35.00	4T		
11/16-24 UNEF	190.00	380.00	35.00	4T		
3/4-10 UNC	177.00	354.00	35.00	4T		
3/4-16 UNF	174.00	348.00	35.00	4T		
3/4-20 UNEF	216.00	432.00	35.00	4T		
13/16-20 UNEF	216.00	432.00	35.00	4T		
7/8-9 UNC	195.00	390.00	40.00	5T		
7/8-14 UNF	191.00	382.00	40.00	5T		
7/8-20 UNEF	228.00	456.00	40.00	5T		
15/16-20 UNEF	228.00	456.00	40.00	5T		
1-8 UNC	234.00	468.00	40.00	5T		
1-12 UNF	231.00	462.00	40.00	5T		
1-14 UNS	231.00	462.00	40.00	5T		
1-20 UNEF	262.00	524.00	40.00	5T		
1 1/16-18 UNEF	298.00	596.00	40.00	5T		
1 1/8-7 UNC	298.00	596.00	40.00	5T		
1 1/8-12 UNF	296.00	592.00	40.00	5T		
1 1/8-18 UNEF	307.00	614.00	40.00	5T		
1 3/16-18 UNEF	307.00	614.00	45.00	6T		
1 1/4-7 UNC	308.00	616.00	45.00	6T		
1 1/4-12 UNF	305.00	610.00	45.00	6T		
1 1/4-18 UNEF	319.00	638.00	45.00	6T		
1 5/16-18 UNEF	319.00	638.00	45.00	6T		
1 3/8-6 UNC	319.00	638.00	45.00	6T		
1 3/8-12 UNF	313.00	626.00	45.00	6T		
1 3/8-18 UNEF	335.00	670.00	45.00	6T		
1 7/16-18 UNEF	335.00	670.00	45.00	6T		
1 1/2-6 UNC	350.00	700.00	45.00	6T		
1 1/2-12 UNF	338.00	676.00	45.00	6T		
1 1/2-18 UNEF	358.00	716.00	45.00	6T		



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### Pennoyer-Dodge Co. Truncated Setting Plug Gages

American Gage Design

### **How To Order**

- 1. State Quantity desired.
- 2. Nominal size and threads per inch and class of fit. Example: 1/4-28 UNF-2A

**Call Toll Free** 1-800-736-4243

- 3. Go or Not Go or a complete double end.
- 4. Handles: Either single end or double end. Handles ordered in colors other

than Red or Green add \$20.00 per handle.

- 5. Special marking may be added for an additional charge. (\$20.00 min).
- 6. Long Form Calibration Reports are required, add \$25.00 per member.
- 7. Calibration stickers available @ \$10.00 per sticker (advise calibration cycle)
- 8. "W" Tolerance P.D.: add 30%. 9. "J" Series thread: Add \$10.00 per plug member.
- 10.Full Form set plugs available upon request.

CLASS X P.D. RIGHT HAND TRUNCATED SETTING PLUG GAGES					
W-TOL ON LEAD & ANGLE					
	Go or	Complete			
Nominal	Not Go	Double End	Handle Only	Handla Siza	
Size	2A or 3A	Gage	Tidilale Olly	Tidilale Size	
	Members	W/Handle			
# 0-80 UNF	124.00	268.00	20.00	# 000	
# 1-64 UNC	124.00	268.00	20.00	# 000	
# 1-72 UNF	124.00	268.00	20.00	# 000	
# 2-56 UNC	124.00	268.00	20.00	# 000	
# 2-64 UNF	124.00	268.00	20.00	# 000	
# 3-48 UNC	111.00	242.00	20.00	# 000	
# 3-56 UNF	111.00	242.00	20.00	# 000	
# 4-40 UNC	105.00	230.00	20.00	# 00	
# 4-48 UNF	105.00	230.00	20.00	# 00	
# 5-40 UNC	105.00	230.00	20.00	# 00	
# 5-44 UNF	105.00	230.00	20.00	# 00	
# 6-32 UNC	101.00	222.00	20.00	# 00	
# 6-40 UNF	101.00	222.00	20.00	# 00	
# 8-32 UNC	101.00	222.00	20.00	# 0	
# 8-36 UNF	101.00	222.00	20.00	# 0	
# 10-24 UNC	101.00	222.00	20.00	# 0	
# 10-32 UNF	101.00	222.00	20.00	# 0	
# 12-24 UNC	105.00	230.00	20.00	# 0	
# 12-28 UNF	105.00	230.00	20.00	# 0	
# 12-32 UNEF	126.00	272.00	20.00	# 0	
1/4-20 UNC	94.00	208.00	20.00	# 1	
1/4-28 UNF	94.00	208.00	20.00	# 1	
1/4-32 UNEF	128.00	276.00	20.00	# 1	
5/16-18 UNC	94.00	208.00	20.00	# 1	
5/16-24 UNF	94.00	208.00	20.00	# 1	
5/16-32 UNEF	128.00	276.00	20.00	# 1	
3/8-16 UNC	95.00	210.00	20.00	# 2	
3/8-24 UNF	95.00	210.00	20.00	# 2	
3/8-32 UNEF	149.00	318.00	20.00	# 2	



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### Pennoyer-Dodge Co. Truncated Setting Plug Gages

American Gage Design

#### **How To Order**

5/8-11 UNC

5/8-18 UNF

5/8-24 UNEF

3/4-10 UNC

3/4-16 UNF

3/4-20 UNEF

7/8-9 UNC

7/8-14 UNF

7/8-20 UNEF

1-8 UNC

1-12 UNF

1-14 UNS

1-20 UNEF

1 1/8-7 UNC

1 1/8-12 UNF

1 1/8-18 UNEF

1 3/16-18 UNEF

1 1/16-18 UNEF

15/16-20 UNEF

13/16-20 UNEF

11/16-24 UNEF

123.00

123.00

170.00

175.00

142.00

140.00

177.00

184.00

169.00

166.00

195.00

195.00

186.00

183.00

183.00

211.00

215.00

215.00

207.00

227.00

231.00

266.00

266.00

360.00

370.00

304.00

300.00

374.00

388.00

358.00

352.00

410.00

410.00

392.00

386.00

386.00

442.00

450.00

450.00

434.00

474.00

482.00

20.00

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#4

#4

#5

- 1. State Quantity desired.
- 2. Nominal size and threads per inch and class of fit.

Example: 1/4-28 UNF-2A

- 3. Go or Not Go or a complete double end.
- 4. Handles: Either single end or double end. Handles ordered in colors other

CLASS X P.D. RIGHT HAND TRUNCATED SETTING PLUG GAGES

than Red or Green add \$20.00 per handle.

- 5. Special marking may be added for an additional charge. (\$20.00 min).
- 6. Long Form Calibration Reports are required, add \$25.00 per member.
- Calibration stickers available @ \$10.00 per sticker (advise calibration cycle) "W"Tolerance P.D.: add 30%.
- "J" Series thread: Add \$10.00 per plug member.
   10.Full Form set plugs available upon request.

	W-TOL (	ON LEAD & AI	NGLE		
	Go or	Complete			
Nominal	Not Go	Double End	Handle Only	Handla Siza	
Size	2A or 3A	Gage	naticile Offiy	natiule size	
	Members	W/Handle			
7/16-14 UNC	98.00	216.00	20.00	# 2	
7/16-20 UNF	98.00	216.00	20.00	# 2	
7/16-28 UNEF	149.00	318.00	20.00	# 2	
1/2-13 UNC	102.00	224.00	20.00	# 2	
1/2-20 UNF	102.00	224.00	20.00	# 2	
1/2-28 UNEF	155.00	330.00	20.00	# 2	
9/16-12 UNC	116.00	252.00	20.00	#3	
9/16-18 UNF	116.00	252.00	20.00	#3	- 1
9/16-24 UNEF	165.00	350.00	20.00	#3	

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### Pennoyer-Dodge Co. Truncated Setting Plug Gages

American Gage Design

#### **How To Order**

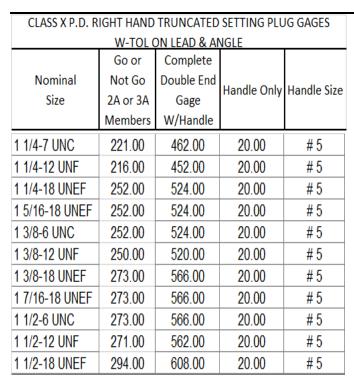
- 1. State Quantity desired.
- 2. Nominal size and threads per inch and class of fit.

Example: 1/4-28 UNF-2A

- 3. Go or Not Go or a complete double end.
- 4. Handles: Either single end or double end. Handles ordered in colors other

than Red or Green add \$20.00 per handle.

- 5. Special marking may be added for an additional charge. (\$20.00 min).
- 6. Long Form Calibration Reports add \$25.00 per member.
- 7. Calibration stickers available @ \$10.00 per sticker (advise calibration cycle) 8. "W" tolerance P.D.: add 30%.
- 9. "J" Series thread: Add \$10.00 per plug member.
- 10.Full Form set plugs available upon request.







# Pennoyer-Dodge Co. \*Progressive Setting Plug Gages

American Gage Design

#### **How To Order**

- 1. State Quantity desired.
- 2. Nominal size and threads per inch and class of fit.
  - Example: 1/4-28 UNF-2A Progressive
- 3. Go or Not Go or a complete double end.
- Handles: Either single end or double end. Handles ordered in colors other than Red or Green add \$20.00 per handle.
- 5. Special marking may be added for an additional charge. (\$20.00 min)
- 6. Long Form certifications are required, add \$50.00 per member.
- 7. Calibration stickers available @ \$10.00 per sticker (advise calibration cycle)
- 8. J series thread add \$10.00 per plug member.

### CLASS X P.D. RIGHT HAND PROGRESSIVE SETTING PLUG GAGES

CLASS X P.D. RIGHT HAND PROGRESSIVE SETTING PLUG GAGES					
W-TOL ON LEAD & ANGLE					
	Go or	Complete			
Nominal	Not Go	Double End	Handle Only	Handla Ciza	
Size	2A or 3A	Gage	nanule Only	nanule Size	
	Members	W/Handle			
# 0-80 UNF	304.00	628.00	20.00	# 000	
# 1-64 UNC	304.00	628.00	20.00	# 000	
# 1-72 UNF	304.00	628.00	20.00	# 000	
# 2-56 UNC	304.00	628.00	20.00	# 000	
# 2-64 UNF	304.00	628.00	20.00	# 000	
# 3-48 UNC	279.00	578.00	20.00	# 000	
# 3-56 UNF	279.00	578.00	20.00	# 000	
# 4-40 UNC	279.00	578.00	20.00	# 00	
# 4-48 UNF	279.00	578.00	20.00	# 00	
# 5-40 UNC	253.00	526.00	20.00	# 00	
# 5-44 UNF	253.00	526.00	20.00	# 00	
# 6-32 UNC	253.00	526.00	20.00	# 00	
# 6-40 UNF	253.00	526.00	20.00	# 00	
# 8-32 UNC	253.00	526.00	20.00	# 0	
# 8-36 UNF	253.00	526.00	20.00	# 0	
# 10-24 UNC	253.00	526.00	20.00	# 0	
# 10-32 UNF	253.00	526.00	20.00	# 0	
# 12-24 UNC	253.00	526.00	20.00	# 0	
# 12-28 UNF	253.00	526.00	20.00	# 0	
# 12-32 UNEF	317.00	654.00	20.00	# 0	
1/4-20 UNC	213.00	446.00	20.00	# 1	
1/4-28 UNF	213.00	446.00	20.00	# 1	
1/4-32 UNEF	287.00	594.00	20.00	# 1	
5/16-18 UNC	213.00	446.00	20.00	# 1	
5/16-24 UNF	213.00	446.00	20.00	# 1	
5/16-32 UNEF	315.00	650.00	20.00	# 1	
3/8-16 UNC	227.00	474.00	20.00	# 2	
3/8-24 UNF	227.00	474.00	20.00	# 2	
3/8-32 UNEF	344.00	708.00	20.00	# 2	
7/16-14 UNC	227.00	474.00	20.00	# 2	
7/16-20 UNF	227.00	474.00	20.00	# 2	
7/16-28 UNEF	344.00	708.00	20.00	# 2	
1/2-13 UNC	247.00	514.00	20.00	# 2	
1/2-20 UNF	247.00	514.00	20.00	# 2	
1/2-28 UNEF	358.00	736.00	20.00	# 2	



<sup>\*</sup> Progressive master setting plugs differ from conventional truncated setting plugs in that the plug member contains two distinct P.D. limit areas. The limits are based on the Min. and Max. P.D. limits for the ring gage it will be used to inspect. The front portion contains the minimum P.D. limit with a full form major diameter, while the back portion contains the maximum P.D. limit with a truncated major diameter.

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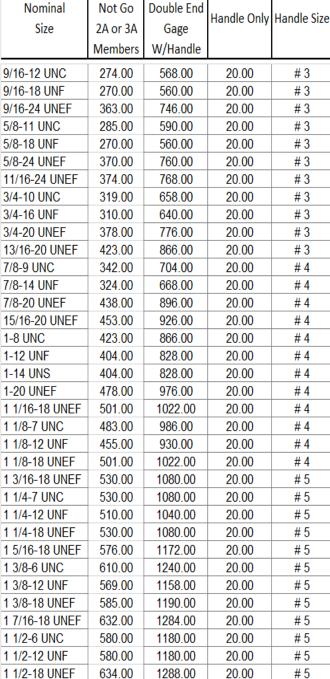
### Pennoyer-Dodge Co. \*Progressive Setting Plug Gages

### American Gage Design

#### **How To Order**

- 1. State Quantity desired.
- 2. Nominal size and threads per inch and class of fit.
  - Example: 1/4-28 UNF-2A Progressive
- 3. Go or Not Go or a complete double end.
- . Handles: Either single end or double end. Handles ordered in colors other than Red or Green add \$20.00 per handle.
- 5. Special marking may be added for an additional charge. (\$20.00 min)
- 6. Long Form certifications are required, add \$50.00 per member.
- 7. Calibration stickers available @ \$10.00 per sticker (advise calibration cycle)
- 8. "J" series thread add \$10.00 per plug member.







Progressive master setting plugs differ from conventional truncated setting plugs in that the plug member contains two distinct P.D. limit areas. The limits are based on the Min. and Max. P.D. limits for the ring gage it will be used to inspect. The front portion contains the minimum P.D. limit with a full form major diameter, while the back portion contains the maximum P.D. limit with a truncated major diameter.

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# Pennoyer-Dodge Co. Metric Thread Plug Gages

American Gage Design

#### **How To Order**

- 1. State Quantity desired.
- 2. Nominal size and threads per inch and class of fit.
- Example: 10.00 x 1.25-6H
- 3. Go or Not Go or a complete double end.
- 4. Handles: Either single end or double end. Handles ordered in colors other

than Red or Green add \$20.00 per handle.

- 5. Special marking may be added for an additional charge. (\$20.00 min).
- 6. Long Form Calibration Reports are required, add \$25.00 per member.
- 7. Calibration stickers available @ \$10.00 per sticker (advise calibration cycle)
- 8. CHROME: Add 55% to each member
- 9. For "MJ Series", Add \$10.00 per plug member.







### Pennoyer-Dodge Co. Metric Reversible Plug Gages

### American Gage Design

### **How To Order**

- 1. State Quantity desired.
- Nominal metric size and metric threads per inch and class of fit.
   Example: 10.00 x 1.25-6H
- 3. Go or Not Go or a complete double end.
- 4. Handles: Either single end or double end. Handles ordered in colors other than Red or Green collets and other than plain handles, call for current pricing.
- 5. Special marking may be added for an additional charge. (\$20.00 min).
- 6. Long Form Calibration Reports are required, add \$25.00 per member
- 7. Calibration stickers available @ \$10.00 per sticker (advise calibration cycle)
- 8. CHROME: add 55% to each member.

### CLASS X RIGHT HAND METRIC REVERSIBLE THREAD PLUG GAGES

Nominal Size	Go or Not Go 6h	Complete Double End Gage W/Handle	Handle Only	Handle Size
M1.6 x 0.35	101.00	226.00	24.00	# 1W
M2.0 x 0.40	93.00	210.00	24.00	# 2W
M2.5 x 0.45	93.00	210.00	24.00	# 2W
M3.0 x 0.50	81.00	186.00	24.00	# 2W
M3.5 x 0.60	81.00	186.00	24.00	# 2W
M4.0 x 0.70	76.00	176.00	24.00	# 2W
M5.0 x 0.80	76.00	180.00	28.00	# 3W
M6.0 x 1.00	74.00	176.00	28.00	# 3W
M8.0 x 1.25	70.00	168.00	28.00	# 4W
M10 x 1.25	76.00	180.00	28.00	# 5W
M10 x 1.50	76.00	180.00	28.00	# 5W
M12 x 1.25	76.00	180.00	28.00	# 5W
M12 x 1.50	76.00	180.00	28.00	# 5W
M12 x 1.75	76.00	180.00	28.00	# 5W





### Pennoyer-Dodge Co. Metric Thread Ring Gages

American Gage Design

### **How To Order**

- 1. State Quantity desired.
- 2. Nominal metric size and metric threads per inch and class of fit. Example: 10.00 x 1.25-6g
- 3. Go or Not Go or a complete set of rings.

- Special marking may be added for an additional charge(\$20.00 min).
   Long Form Calibration Reports add \$25.00 per member.
   Calibration stickers available @ \$10.00 per sticker (advise calibration cycle)
- 7. CHROME: Add 55% for size 5.0mm and up, per ring
- 8. For "MJ Series", add \$80.00 per GO ring.

CLASS X RIGHT HAND METRIC THREAD RING GAGES					
Nominal Size	Go or Not Go 6g Rings	Go and Not Go 6g Pair of Rings	Ring Holder	Ring Holder Size	
M1.6 x 0.35	207.00	414.00	30.00	# 1T	
M2.0 x 0.40	178.00	356.00	30.00	# 1T	
M2.5 x 0.45	178.00	356.00	30.00	# 1T	
M3.0 x 0.50	158.00	316.00	30.00	# 1T	
M3.5 x 0.60	158.00	316.00	30.00	# 1T	
M4.0 x 0.70	148.00	296.00	30.00	# 1T	
M5.0 x 0.80	148.00	296.00	30.00	# 1T	
M6.0 x 1.00	132.00	264.00	30.00	# 1T	
M8.0 x 1.25	132.00	264.00	30.00	# 2T	
M10 x 1.25	139.00	278.00	30.00	# 3T	
M10 x 1.50	139.00	278.00	30.00	# 3T	
M12 x 1.25	143.00	286.00	30.00	# 3T	
M12 x 1.50	148.00	296.00	30.00	# 3T	
M12 x 1.75	148.00	296.00	30.00	# 3T	
M14 x 1.50	163.00	326.00	35.00	# 4T	
M14 x 2.00	163.00	326.00	35.00	# 4T	
M16 x 1.50	163.00	326.00	35.00	# 4T	
M16 x 2.00	163.00	326.00	35.00	# 4T	
M18 x 1.50	218.00	436.00	35.00	# 4T	
M18 x 2.50	255.00	510.00	35.00	# 4T	
M20 x 1.50	265.00	530.00	35.00	# 4T	
M20 x 2.50	265.00	530.00	35.00	# 4T	
M22 x 1.50	270.00	540.00	40.00	# 5T	



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### Pennoyer-Dodge Co. Metric Truncated Setting Plug Gages

### American Gage Design

#### **How To Order**

- 1. State Quantity desired.
- 2. Nominal metric size and metric threads per inch and class of fit. Example: 10.00 x 1.25-6g
- 3. Go or Not Go or a complete double end.
- 4. Handles: Either single end or double end. Handles ordered in colors other

than Red or Green add \$20.00 per handle.

- 5. Special marking may be added for an additional charge. (\$20.00 min).
- 6. Long Form Calibration Reports are required, add \$25.00 per member.
- 7. Calibration stickers available @ \$10.00 per sticker (advise calibration cycle)
  8. "W" tolerance P.D.: add 30%.
  9. Full Form set plugs available upon request.

- 10. For "MJ Series", add \$10.00

### CLASS X RIGHT HAND METRIC SETTING PLUG GAGES W-TOL ON LEAD & ANGLE

Nominal Size	Go or Not Go 6g	Complete Double End Gage W/Handle	Handle Only	Handle Size
M1.6 x 0.35	144.00	308.00	20.00	# 000
M2.0 x 0.40	134.00	288.00	20.00	# 000
M2.5 x 0.45	134.00	288.00	20.00	# 000
M3.0 x 0.50	130.00	280.00	20.00	# 00
M3.5 x 0.60	130.00	280.00	20.00	# 00
M4.0 x 0.70	126.00	272.00	20.00	# 0
M5.0 x 0.80	126.00	272.00	20.00	# 0
M6.0 x 1.00	113.00	246.00	20.00	# 0
M8.0 x 1.25	113.00	246.00	20.00	# 1
M10 x 1.25	122.00	264.00	20.00	# 2
M10 x 1.50	122.00	264.00	20.00	# 2
M12 x 1.25	124.00	268.00	20.00	# 2
M12 x 1.50	124.00	268.00	20.00	# 2
M12 x 1.75	124.00	268.00	20.00	# 2
M14 x 1.50	144.00	308.00	20.00	#3
M14 x 2.00	144.00	308.00	20.00	#3
M16 x 1.50	144.00	308.00	20.00	#3
M16 x 2.00	144.00	308.00	20.00	#3
M18 x 1.50	156.00	332.00	20.00	#3
M18 x 2.50	160.00	340.00	20.00	#3
M20 x 1.50	160.00	340.00	20.00	#3
M20 x 2.50	160.00	340.00	20.00	#3
M22 x 1.50	218.00	456.00	20.00	# 4



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### NPTF Taper Pipe Ring & Plug Gages

American Gage Design

#### **How To Order**

- 1. State Quantity desired.
- Nominal size and L-1, L-2, or plain taper for ring gages and L-1, L-3, or plain taper for plug gages.
   Example: 1/16-27 NPTF L-2 RING
- 3. Handles: Either single end or double end. Handles ordered in colors other

than Red or Green add \$20.00 each per handle.

- 4. Special marking for an additional charge, (\$20.00 min.)
- NPTF plugs come with one basic step. If MN and /or MX steps desired, add \$35.00 per each additional step 1/16-27 to 1 1/2, Above 1 1/2, \$50.00.
- 6. Long Form Calibration Reports are required, add \$25.00 per member.
- 7. Calibration stickers available @ \$10.00 per sticker (advise calibration cycle)

### NPTF TAPER PIPE THREAD GAGES

Nominal Size	L-1 Ring Gage	L-2 ring Gage	Plain Taper Ring Gage	L-1 Plug Gage	L-3 Plug Gage	Plain Taper Plug Gage	Handle Only	Handle Size
1/16 - 27	283.00	331.00	361.00	129.00	149.00	232.00	20.00	#1
1/8 - 27	252.00	331.00	361.00	116.00	118.00	232.00	20.00	#2
1/4 - 18	247.00	340.00	361.00	121.00	124.00	232.00	20.00	#3
3/8 - 18	258.00	340.00	361.00	142.00	149.00	232.00	20.00	#3
1/2 - 14	273.00	355.00	361.00	158.00	165.00	232.00	20.00	#4
3/4 - 14	299.00	378.00	408.00	170.00	185.00	255.00	20.00	#4
1 - 11.5	324.00	421.00	433.00	190.00	208.00	269.00	20.00	#5
1 1/4 - 11.5	384.00	474.00	464.00	210.00	221.00	283.00	20.00	#5
1 1/2 - 11.5	403.00	505.00	525.00	239.00	247.00	311.00	20.00	#5
2 - 11.5	494.00	590.00	577.00	288.00	294.00	424.00	20.00	#5
2 1/2 - 8	561.00	703.00	675.00	453.00	464.00	634.00	35.00	#6
3 - 8	689.00	830.00	819.00	505.00	510.00	695.00	35.00	#6



#### NOTE:

Master gages for NPT working gages are L-1 design.

Master gages for NPTF working gages are special design to encompass the L-1 and L-3 length for the master ring and the L-2 and L-3 length on the master plug. A set consists of (1) master plug and (1) master ring.

MIL-P-7105B and SAE-AS-71051 does not specify design on ANPT master. Pennoyer-Dodge Co. designs these masters the same as the NPTF.

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### ANPT Taper Pipe Ring & Plug Gages

American Gage Design

#### **How To Order**

- 1. State Quantity desired.
- 2. Nominal size and L-1, L-2, or plain taper for ring gages and L-1,
- L-3, or plain taper for plug gages. Example: 1/16-27 ANPT L-1 RING
- 3. Handles: Either single end or double end. Handles ordered in colors other

than Red or Green add \$20.00 each per handle

- 4. Special marking for an additional charge, (\$20.00 min.)
- ANPT plugs come with one basic step. If MN and /or MX steps desired, add \$35.00 per each additional step 1/16-27 to 1 1/2, Above 1 1/2, \$50.00.
   Long Form Calibration Reports are required, add \$25.00 per member.
- 7 Calibration stickers available @ \$10.00 per sticker (advise calibration cycle)

		ANI	PT TAPER PI	PE THREAD	GAGES			
Nominal Size	L-1 Ring Gage	L-2 ring Gage	Plain Taper Ring Gage	L-1 Plug Gage	L-3 Plug Gage	Plain Taper Plug Gage	Handle Only	Handle Size
1/16 - 27	283.00	336.00	366.00	185.00	227.00	232.00	20.00	#1
1/8 - 27	252.00	336.00	366.00	185.00	185.00	232.00	20.00	#2
1/4 - 18	247.00	340.00	366.00	185.00	185.00	232.00	20.00	#3
3/8 - 18	258.00	340.00	366.00	175.00	185.00	232.00	20.00	#3
1/2 - 14	273.00	355.00	366.00	165.00	185.00	232.00	20.00	#4
3/4 - 14	299.00	399.00	409.00	190.00	191.00	255.00	20.00	#4
1 - 11.5	324.00	432.00	433.00	193.00	227.00	269.00	20.00	#5
1 1/4 - 11.5	384.00	482.00	464.00	210.00	227.00	283.00	20.00	#5
1 1/2 - 11.5	403.00	507.00	525.00	239.00	232.00	311.00	20.00	#5
2 - 11.5	494.00	604.00	577.00	288.00	273.00	424.00	20.00	#5
2 1/2 - 8	561.00	718.00	677.00	453.00	438.00	654.00	35.00	#6
3 - 8	689.00	848.00	827.00	505.00	494.00	710.00	35.00	#6



#### NOTE:

Master gages for NPT working gages are L-1 design.

Master gages for NPTF working gages are special design to encompass the L-1 and L-3 length for the master ring and the L-2 and L-3 length on the master plug. A set consists of (1) master plug and (1) master ring.

MIL-P-7105B and SAE-AS-71051 does not specify design on ANPT master. Pennoyer-Dodge Co. designs these masters the same as the NPTF.

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### NPT Taper Pipe Ring & Plug Gages

American Gage Design

#### **How To Order**

- 1. State Quantity desired.
- 2. Nominal size and L-1 for ring gages or for plug gages.
- Example: 1/16-27 NPT L-1 RING or 1/16-27 NPT L-1 PLUG
- 3. Handles: Either single end or double end. Handles ordered in colors other than Red or Green add \$20.00 each per handle.
- 4. Special marking for an additional charge, (\$20.00 min.)
- 5. NPT plugs come with one basic step. If MN and /or MX steps desired, add \$35.00 per each additional step 1/16-27 to 1 1/2, Above 1 1/2, \$50.00.
- 6. Long Form Calibration Reports are required, add \$25.00 per member.
- 7. Calibration stickers available @ \$10.00 per sticker (advise calibration cycle)

N	PT TAPER P	IPE THREAD	GAGES	
Nominal Size	L-1 Ring Gage	L-1 Plug Gage	Handle Only	Handle Size
1/16-27	283.00	113.00	20.00	# 1
1/8-27	232.00	87.00	20.00	# 2
1/4-18	242.00	89.00	20.00	# 3
3/8-18	252.00	98.00	20.00	#3
1/2-14	273.00	111.00	20.00	# 4
3/4-14	294.00	126.00	20.00	# 4
1"- 11.5	319.00	139.00	20.00	# 5
1 1/4 - 11.5	384.00	155.00	20.00	# 5
1 1/2 - 11.5	403.00	175.00	20.00	# 5
2" - 11.5	494.00	211.00	20.00	# 5
2 1/2 - 8	561.00	263.00	35.00	# 6
3"- 8	615.00	304.00	35.00	# 6
3 1/2 - 8	846.00	453.00	40.00	# 7
4" - 8	1037.00	500.00	40.00	# 7
5" - 8	1211.00	711.00	40.00	# 7
6" - 8	1421.00	834.00	40.00	#7



#### NOTE:

Master gages for NPT working gages are L-1 design.

Master gages for NPTF working gages are special design to encompass the L-1 and L-3 length for the master ring and the L-2 and L-3 length on the master plug. A set consists of (1) master plug and (1) master ring.

MIL-P-7105B and SAE-AS-71051 does not specify design on ANPT master. Pennoyer-Dodge Co. designs these masters the same as the NPTF.



### Pennoyer-Dodge Co. Cylindrical Taperlock Gages

American Gage Design

### **How To Order**

- 1. State Quantity desired.
- 2. Nominal decimal size and tolerance class. Examples: .1500 class XX Go member, .1500 XX Go S.E.,
  - .1500 .1509 XX D.E. Gage.
- 3. Go or Not Go or a complete double end.
- 4. Handles, either single end or double end. Handles ordered in colors other than Red or Green add \$20.00 per handle.
- 5. Special marking may be added for an additional charge. (\$20.00 min).6. Long Form calibration reports must be purchased on all classes: add \$25.00 per member.
- 7. Calibration stickers available @ \$10.00 per sticker (advise calibration cycle)
- 8. CHROME: Add 55% to each member.

	CYLINDRICAL TAPERLOCK GAGES										
Nominal Size		Go Class XX Members	Not Go Class XX Members	Go & Not Go D.E. Class XX W/Handle	Go Class X Members	Not Go Class X Members	Go & Not Go D.E. Class X W/Handle	Go Class Y & Z Members	Not Go Class Y & Z Members	Go & Not Go D.E. Class Y & Z	Handle Only
Above	To & Incl				Wichibers		Williamo		Wellibers	W/Handle	
0.059 (1.499mm)	0.105 (2.667mm)	96.00	88.00	204.00	84.00	70.00	174.00	72.00	70.00	162.00	20.00
0.105 (2.667mm)	0.230 (5.842mm)	83.00	82.00	185.00	72.00	66.00	158.00	69.00	66.00	155.00	20.00
0.230 (5.842mm)	0.510 (12.954mm)	83.00	82.00	185.00	72.00	68.00	160.00	70.00	68.00	158.00	20.00
0.510 (12.954mm)	0.825 (20.955mm)	92.00	90.00	202.00	78.00	73.00	171.00	75.00	72.00	167.00	20.00
0.825 (20.955mm)	1.135 (28.829mm)	95.00	93.00	208.00	82.00	76.00	178.00	78.00	75.00	173.00	20.00
1.135 (28.829mm)	1.510 (38.354mm)	97.00	96.00	213.00	90.00	83.00	193.00	81.00	76.00	177.00	20.00





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### Pennoyer-Dodge Co. Cylindrical Reversible Gages

### American Gage Design

#### **How To Order**

- 1. State Quantity desired.
- 2. Nominal decimal size and tolerance class and Go, Not Go or Master. Examples: .1500 class XX Go member, .1500 XX Go S.E., .1500 - .1509 XX D.E. Gage.
- 3. Types: Go, Not Go or Master, single end or a complete double end.
- 4. Handles: Either single end or double end. Handles ordered in colors other
- than Red or Green collets and other than plain handles, call for current pricing. 5. Special marking may be added for an additional charge. (\$20.00 min).
- 6. Long Form calibration reports must be purchased on all classes: add \$25.00 per member.
- 7. Calibration stickers available @ \$10.00 per sticker (advise calibration cycle)
- 8. All pin style above 1.010, price upon application.
- 9 CHROME: Add 55% to each member. Sizes < .080, price upon application.
- 10. XXX gages price upon application, on sizes .125 and larger.
- 11. Use Z prices shown below for inch sizes in thousands and half thousands, and two decimal places metric sizes. For Z pin sizes other than this, use X & Y column pricing.
- 12. Extra length gages available, price on application.

		CYL	INDRICAL R	EVERSABLE (	GAGES			
Nominal Size		Class XX Member	Class XX Double End	Class X & Y MemberS	Class X & Y Double End	Class Z Members	Class Z Double End	Handle Only
Above	To & Incl							
.035 (0.889mm)	.075 (1.905mm)	119.00	262.00	79.00	182.00	71.00	166.00	24.00
.075 (1.905mm)	.180 (4.572mm)	108.00	240.00	72.00	168.00	65.00	154.00	24.00
.180 (4.572mm)	.281 (7.137mm)	93.00	210.00	62.00	148.00	56.00	136.00	24.00
.281 (7.137mm)	.406 (10.312mm)	93.00	214.00	62.00	152.00	56.00	140.00	28.00
.406 (10.312mm)	.510 (12.954mm)	95.00	218.00	63.00	154.00	57.00	142.00	28.00
.510 (12.954mm)	.635 (16.129mm)	104.00	241.00	69.00	171.00	62.00	157.00	33.00
.635 (16.129mm)	.760 (19.304mm)	110.00	253.00	73.00	179.00	66.00	165.00	33.00
.760 (19.304mm)	1.010 (25.654mm)	128.00	299.00	85.00	213.00	77.00	197.00	43.00



Handle Size	Above	To & Including
1W	.030	.075
2W	.075	.180
3W	.180	.281
4W	.281	.406
5W	.406	.510
6W	.510	.635
7W	.635	.760
8W	.760	1.010

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### Pennoyer-Dodge Co. Cylindrical Trilock Gages

American Gage Design

### **How To Order**

- 1. State Quantity desired.
- 2. Nominal decimal size and tolerance class class and Go, Not Go or Master. Examples: .1500 class XX Go member, .1500 XX Go S.E., .1500 - .1509 XX D.E. Gage.
- 3. Go or Not Go or a complete double end.
- 4. Handles: Either single end or double end. Handles ordered in colors other than Red or Green add \$20.00 per handle.
- 5. Special marking may be added for an additional charge. (\$20.00 min).6. Long Form calibration reports must be purchased on all classes: add \$25.00 per member. Calibration stickers available @ \$10.00 per sticker (advise calibration cycle)
- 8. All pin style above .760 up to and including 1.500 price upon application.
- 9. All trilock style from .760 up to and including 1.500 price upon application.
- 10. CHROME: Add 55% to each member
- 11.XXX gages quoted upon request.

	CYLINDRICAL TRILOCK GAGES										
Nomir	nal Size	Go Class XX Members	Not Go Class XX Members	Go & Not Go Double End Class XX	Go Class X Members	Not Go Class X Members	Go & Not Go Double End Class X	Class Class Y & Z Y & Z Members Member		Go & Not Go Double End Class Y & Z	Handle Only
Above	To & Incl.			W/Handle			W/Handle	iviempers	iviembers	W/Handle	
1.510 (38.354mm)	2.010 (51.054mm)	138.00	133.00	306.00	130.00	117.00	282.00	126.00	112.00	273.00	35.00
2.010 (51.054mm)	2.510 (63.754mm)	167.00	147.00	349.00	143.00	129.00	307.00	130.00	120.00	285.00	35.00
2.510 (63.754mm)	3.010 (76.454mm)	194.00	167.00	431.00	168.00	134.00	372.00	143.00	132.00	345.00	35.00
3.010 (76.454mm)	3.510 (89.154mm)	283.00	223.00	586.00	239.00	210.00	529.00	210.00	194.00	484.00	40.00



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# Pennoyer-Dodge Co. Cylindrical Progressive Gages

American Gage Design

### **How To Order**

- 1. State Quantity desired.
- Nominal decimal size and tolerance class and Go, Not Go or Master. Examples: .1500 class XX Go member, .1500 XX Go S.E., .1500 .1509 XX D.E. Gage.
- 3. Handles: Either single end or double end. Handles ordered in colors other than Red or Green add \$20.00 per handle.
- 4. Special marking may be added for an additional charge. (\$20.00 min).
- Long Form calibration reports must be purchased on all classes: add \$50.00 per member.
- 6. Calibration stickers available @ \$10.00 per sticker (advise calibration cycle)
- 7. CHROME: Add 55% to each member.

	CYLINDRICAL PI	ROGRESSIVE GAGE	S		
Nomi	Class XX Members	Class X Members	Class Y & Z Members	Handle Only	
.059 (1.499mm)	.105 (2.667mm)	C.I.Q.	C.I.Q.	C.I.Q.	20.00
.105 (2.667mm)	.150 (3.810mm)	135.00	123.00	114.00	20.00
.150 (3.810mm)	.185 (4.699mm)	133.00	121.00	109.00	20.00
.185 (4.699mm)	.230 (5.842mm)	135.00	121.00	110.00	20.00
.230 (5.842mm)	.365 (9.271mm)	135.00	121.00	111.00	20.00
.365 (9.271mm)	.510 (12.954mm)	138.00	121.00	113.00	20.00
.510 (12.954mm)	.635 (16.129mm)	147.00	131.00	121.00	20.00
.635 (16.129mm)	.760 (19.304mm)	147.00	131.00	121.00	20.00
.760 (19.304mm)	.825 (20.955mm)	149.00	131.00	121.00	20.00
.825 (20.955mm)	1.135 (28.829mm)	164.00	140.00	135.00	20.00
1.135 (28.829mm)	1.510 (38.354mm)	187.00	146.00	137.00	20.00



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### Pennoyer-Dodge Co. Cylindrical Ring Gages

American Gage Design

### **How To Order**

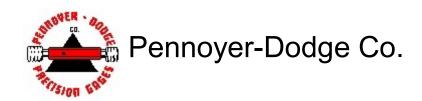
- 1. State Quantity desired.
- 2. Nominal decimal size and tolerance class. Example: .150 class XX

  3. Go or Not Go or a Master ring.
- 4. Special marking may be added for an additional charge. (\$20.00 min).
- 5. Long Form calibration reports must be purchased on all classes: add \$25.00
- Calibration stickers available @ \$10.00 per sticker (advise calibration cycle)
   CHROME: Add 55% per ring for .125 and up.
- 8. XXX Master rings quoted upon request.

	CYLINDRICAL RING GAGES								
Nomi Size		Class XX Members	Class X Members	Class Y & Z Members					
.065 (1.651 mm)	.070 (1.778mm)	310.00	295.00	285.00					
.070 (1.778mm)	.100 (2.540mm)	295.00	280.00	270.00					
.100 (2.540mm)	.150 (3.810mm)	243.00	197.00	187.00					
.150 (3.810mm)	.230 (5.842mm)	197.00	177.00	169.00					
.230 (5.842mm)	.365 (9.271mm)	164.00	152.00	144.00					
.365 (9.271mm)	.510 (12.954mm)	173.00	152.00	144.00					
.510 (12.954mm)	.825 (20.955mm)	197.00	177.00	169.00					
.825 (20.955mm)	1.135 (28.829mm)	204.00	181.00	177.00					
1.135 (28.829mm)	1.510 (38.354mm)	216.00	202.00	193.00					
1.510 (38.354mm)	2.010 (51.054mm)	255.00	228.00	219.00					
2.010 (51.054mm)	2.510 (63.754mm)	328.00	278.00	268.00					
2.510 (63.754mm)	3.010 (76.454mm)	361.00	304.00	293.00					
3.010 (76.454mm)	3.510 (89.154mm)	439.00	374.00	361.00					
3.510 (89.154mm)	4.010 (101.854mm)	492.00	430.00	417.00					
4.010 (101.854mm)	4.760 (120.904mm)	570.00	475.00	461.00					
4.760 (120.904mm)	5.510 (139.954mm)	748.00	601.00	585.00					



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### Gage Re-Calibration Charges

The following "Standard Published" prices are for calibration of customer submitted thread plugs; thread rings; pipe plugs and rings; and cylindrical plug and rings regardless of calibration results.

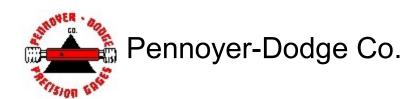
Expedited, safety related and Special Calibration charges are priced on application and will not be waived, regardless of the calibration results.

**Pennoyer-Dodge Co.** also manufacture's and/or calibrates many other types of gages. Please call/fax your inquiries.

Calibration of gages in accordance to ISO 10012-1, ANSI/NCSL Z540-1, Mil-Std-45662A. Minimum order is \$50.00

THREAD PLUGS (PER MEMBER)	STANDARDS		SET PLUGS		W	ORKING NPT L-1 PIPE	WORKING L-1 / L-3 NPTF / ANPT		WORKING SIX STEP		
ANY SIZE 60 DEGREE & METRIC'S FROM # 0 THRU 3"	40.0	00		50.00		75.00	90.00		80.00		
OVER 3" TO 6"	55.0	00		65.00		CALL	C	CALL	CALL		
OVER 6" and High/Low				CAL	L FC	OR CURRENT P	RICING				
THREAD RINGS (PER RING)	STAN	DARDS		WORKING NPT L-1 PIPE		WORKIN L-1 / L NPTF / A	-2	WORKIN	IG SIX STEP		
STANDARD UNC, UNF AND UNEF FROM # 0 TO 1 1/2"	50.00			90.00	140.00		)	100.00			
SPECIALS 0-80 TO 3" (60 DEGREE)	80.00			100.00	175.00		)	10	100.00		
OVER 3" (60 DEGREE)				CAL	LF(	OR CURRENT P	RICING				
CYLINDRICAL PLUGS		PER MEMBER									
UP TO .020		CALL FOR CURRENT PRICING									
ABOVE .020 THRU 5.00		50.00									
OVER 5.00					CAL	L FOR CURRE	NT PRICI	٧G			
FOR XXX TOL. CALIBRATION					CAL	L FOR CURRE	NT PRICI	NG			
CYLINDRICAL RINGS		PER MEMBER									
.062 THRU .125						95.00					
ABOVE .125 THRU 4.010				80.00							
ABOVE 4.010 THRU 6.010		90.00									
OVER 6.010		CALL FOR CURRENT PRICING									
FOR XXX TOL. CALIBRATION					CAL	L FOR CURRE	NT PRICI	NG			

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### **Special Gage Listing**

Special Precision Gages Now Manufactured by

### **Pennoyer-Dodge Company**

### PLUG GAGES - THREAD Standard 60° N.F., N.C.,

UNC, UNF, UNJ, UNJF, NEF, UNEF Setting "X" and "W" tolerance S.T.I. "X" and "W" tolerance Acme 29° Stub & Trapezoidal Threads

Buttress Threads Metric Threads Whitworth 55° Straight Pipe,

NPSC,NPSF,NPSI, NPSM, NPSL

Taper Pipe, NPT, NPTF,

ANPT, BSP
Taper Pipe, Setting
British Pipe Threads
Taper Threads
Square Threads

A N Port Hose Fittings Position Gages

### **RING GAGES-THREAD**

Metric
60°N.F., N.C., UNC, UNJ,
UNJF, NEF & UNEF
Acme & Trapezoidal
Buttress
Whitworth 55°
Straight Pipe, NPSC, NPSF,
NPSI, NPSM, NPSL
Taper Pipe, NPT, NPTF, ANPT
British Pipe
Taper
Square

### VARIABLE GAGING - INTERNAL & EXTERNAL

Tri rolls
Internal Thread Comparator

#### **SNAP GAGES**

Plain Adjustable
Built-up
Fixed Solid
Special Indicating
Roll Thread to Mil-Std-8879A and
Mil-Std-7742A, Amendment No. 1
Methods A and B.

#### **AIR GAGE TOOLING**

Air Ring Air Probe Related Masters

#### **OIL FIELD GAGES**

Sucker Rod Casing Tubing Line Pipe Rotary

### PLUG GAGES -PLAIN CYLINDRICAL

Flat, hex, & Square Progressive Type Plain Taper (Master) Brown & Sharpe, Medical Type Gages. Morse or any Special Taper to Print. Plain Cylindrical, Taperlock, Reversible, Trilock Master Disks Style 1,2 & 3 Paddle Type Depth M S Flush Flush Pin **Functional** A N Port **Thread Measuring Wires** 

### RING GAGES -PLAIN CYLINDRICAL

Plain, Go, Not Go, Master Setting Taper Progressive

### SPECIAL TOOLING Hole Location Gages

Drill Fixtures
Milling Fixtures
Mandrills
Template Gages
Spanner Gages
Receiver Gages
Fixture Gages
Functional Gages
Concentricity & Runout Gages
Profile Gages
Crimping Tool Gages
Flush Pin Gages
Paddle Gages
Chamber Gages

#### **SPECIAL SERVICES**

Certification on all types of Gages listed, traceable to N.I.S.T. Lead Screws
Thread Grinding to close tolerances.
Jig Grinding
Lap I.D. and O.D.
Lapping of Plugs and Rings Both Plain and Threads.

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### Accurate Formula To Compute The Pitch And Major/Minor Diameters For Before Plate Thread Plugs And Thread Rings\*

If no plating tolerance is given, then it is assumed that the maximum plating thickness will be nominal or minimum thickness given plus 50%. (see ASME B1.1-2003, pg. 64, 7.4.2; pg. 65, 7.5.2) The diameters of the gaging for external threads will be smaller while the diameters of the gaging for internal threads will be larger, than standard.

#### **THREAD PLUGS**

For the Go plug pitch diameter, **add** the **MAX**. amount of plate. For the Not Go pitch diameter, **add** the **MIN**. amount of plate. For the majors of work plugs, **increase** the major diameter on Go work plug by using half the **MAX**. amount of plate. On Not Go work plugs, **increase** the major diameter by using half the **MIN**. amount of plate.

#### **Example**

#### **THREAD RINGS**

For the Go ring, **subtract** the MAX. amount of plate. For the Not Go ring, **subtract** the MIN. amount of plate. For the minors of thread rings, **decrease** the minor diameter on the Go thread ring by using half the MAX. amount of plate. On Not Go thread rings, **decrease** the minor diameter by using half the MIN. amount of plate.

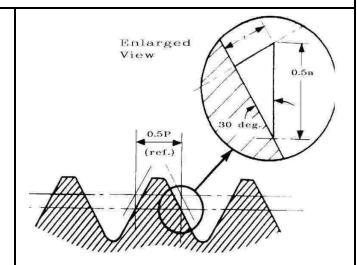
#### Example

Based on .0002 to .0003 allowance per side (multiply by 4) .0002 X 4 = .0008 MIN. .0003 X 4 = .0012 MAX. 1/4-28 UNF 2A B/P

Basic GO P.D. .2258 - .0012 MAX. = .2246 Go P.D.

Basic NOT GO P.D. .2225 - .0008 MIN. = .2217 Not Go P.D.

<u>Basic GO minor</u> .2103 - (.0012 / 2) = .2097 B/P Go minor. <u>Basic NOT GO minor</u> .2148 - (.0008 / 2) = .2144 B/P Not Go minor.



### RATIO OF PITCH DIAMETER CHANGE TO THICKNESS OF COATING (60° ONLY)

t = thickness of coating a = pitch diameter change due to coating

0.25a = t and a = 4t or the pitch diameter of a  $60^{\circ}$  thread changes by four times the thickness of the coating

#### BEFORE PLATING RATIOS FOR PITCH DIAMETER

60° thread = 4:1 29° Acme = 8:1 7°-45° Buttress = 4.3138:1 14° 30'-5° Buttress = 11.9311:1 10° Square thread = 23:1

Anodic Coatings—When calculating dimensions for pre-anodize gaging, a modification from the two above examples given, must be made.

For example, when calculating the increase in dimensions for the pre-anodize work plug gages, the value of thickness amount of the anodize applied, must be, for gage calculations purposes, reduced by one half, i.e., if the minimum and maximum applied anodize thickness dimensions were, .0004 to .0006 per surface, the values used in the calculations, would be only one half of the application, or .0002 to .0003 per surface. The results, in this example, would then be the same values, as the example shown above for the thread plugs. For thread rings, the same procedure would be utilized, in reverse. Reference Data: MIL-A-8625F, page 16.

In accordance with ANSI/ASME B1.1 Latest Rev.

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Fax 1-818-240-5719

### PENNOYER-DODGE CO.

introduces

"TWIST'ER GAGES"



**MMC** 

**RFC** 

**LMC** 

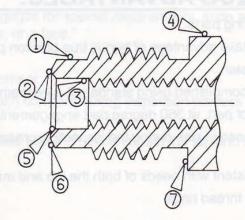






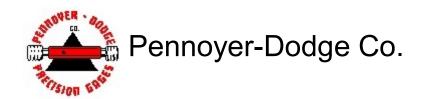
Carlo

SPC



Functional Location - P.D. Limit & Size "When you want it Right...and Right away"

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### "TWISTER OUT"

## YOUR CHOICE FOR FUNCTIONAL THREADED AXIS LOCATION, REGARDLESS OF FEATURE SIZE

### "TWISTER OUT" RING PRINCIPLE:

The "TWISTER OUT" ring with it's P.D. (Functional Diameter) related ground O.D. and faces, works by two independent thread gage sections that, when twisted, grips the flanks of the product thread. This locks and locates the functional thread axis of the product thread. At this point a variety of inspection techniques are possible, such as true position, runout, and concentricity to the part functional P.D. (Functional Diameter) datum.

### "TWISTER OUT" RING FEATURES:

- Reliable functional pitch diameter datum source for location of functional thread axis position.
- \* Accuracy to .0001
- No complicated moving parts.
- · Easily adapted for SPC.
- \* Use of high quality tool steel (Chrome also available).
- · Engineered and manufactured in the U.S.A.

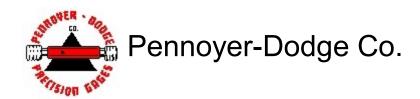
### "TWISTER OUT" RING ADVANTAGES:

Allows part manufacturer to accurately determine runout, perpendicularity, true position, and

- concentricity of part parameters to the P.D. (Functional Diameter) RFS EXAMPLE:
- Inspects functional thread plug gages for special requirements, such as: "Pitch diameter of gages must run within .0002 to centers, or a face."
- · Assures assemblability .
- Checks 360 degree part engagement.
- Major and minor diameters remain constant during inspection process as compared to alternate types of gaging.
- Portability and accuracy consistent with the needs of both the lab and manufacturing environment

Prices available upon application

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### "TWISTER IN"

## YOUR CHOICE FOR PRECISION THREAD LOCATION AND FUNCTIONAL SIZE

### "TWISTER IN" PLUG PRINCIPLE:

The "TWISTER" plug works by movable thread gage segments that engage one flank angle, while the thread body engages the opposite thread flank angle of the product thread. The resultant "flank grip" establishes the functional size and/or functional thread axis of the part, depending on how the twister plug is fabricated.

### "TWISTER IN" PLUG FEATURES:

- Reliable functional pitch diameter datum source for functional size determination and/or functional thread axis location.
- Accuracy to .0001
- No complicated moving parts.
- Easily adapted for SPC.
- · Consistent readings.
- Locks readings in place.
- \* Use of high quality tool steel (Chrome also available).
- Engineered and manufactured in the U.S.A.

### "TWISTER IN" PLUG ADVANTAGES:

- Allows part manufacturer to take advantage of <a href="mailto:bonus">bonus</a>
  true position part tolerancing <a href="mailto:bonus">\overline{\text{D}} \overline{\text{D}} \overline{\text{D}} \overline{\text{D}} \overline{\text{D}} \overline{\text{P.D. (Functional Diameter)}}
- No need for solid ring set master.
- · Assures assemblability.
- Can measure functional size of part, at 360 degree part engagement.
- Major diameter does not increase in size during the inspection process, as compared to alternate types of gages.
- · Portability and accuracy consistent with the needs of both the lab and manufacturing environment
- Calibrate adjustable and solid thread rings.

Prices available upon application

#### STANDARD GAGING

Pennoyer-Dodge Company has one of the largest selections of standard and special gages in stock. In many instances they are available for immediate delivery.

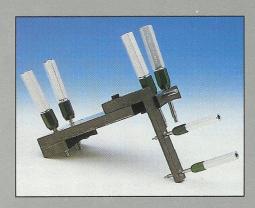




All gages are certified in accordance to MIL-STD-45662A and are traceable to the N.I.S.T.

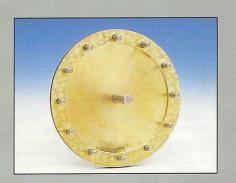






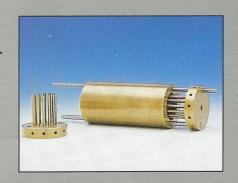
### **CUSTOM ENGINEERING AND SPECIAL TOOLING**

- Fabrication of custom gages to existing gage drawings.
- Design and fab capabilities from concept to completion per ANSI Y14.5.
- As a leader in the design and production of Functional Gages, we are familiar with the problems of the manufacturing industry. We invite you to request our services regardless of your R & D or engineering needs. We can design a new gage, or develop a less costly method to meet your present gaging needs.



### OTHER SERVICES

- Parts analysis and "troubleshooting".
- Contract Jig Grinding with open machine time available.
- Custom Lapping.
- Special Thread Grinding.



"When you want it right ... and right away" - Call...

FAX: (818) 240-5719 (213) 245-8971 (818) 240-1170

### **INDUSTRIES SERVED**

- AEROSPACE AIRCRAFT AUTOMOTIVE COMMERCIAL APPLICATION
- COMPUTER DEFENSE ELECTRONICS

- MEDICAL
   NUCLEAR
   OIL FIELD
   ORDINANCE













### PRODUCTS AND SERVICES AVAILABLE

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