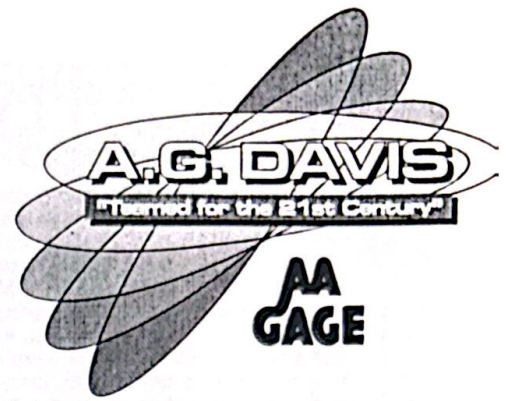


Flush Pin Gages Indicator Depth Gages



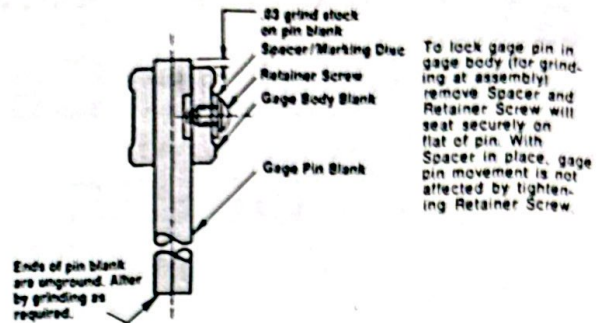
Set Masters



A.G. Davis standards
available on tracing and
AutoCAD templates

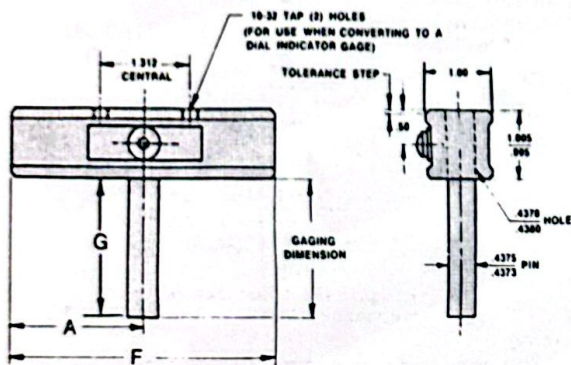
A G DAVIS BAR TYPE FLUSH PIN GAGES

The name A. G. Davis has for almost two decades been synonymous with flush-pin gaging. Although flush-pin gages had been in general use for at least half a century, it wasn't until A. G. Davis introduced flush-pin gage blanks that true standardization and economy was brought to this field of gaging. Many large metal-working companies had achieved engineering economies by standardizing on flush-pin gage designs. But, each gage had to be custom built one-at-a-time. Deliveries were usually figured in months and fabrication economies were marginal. A. G. Davis applied mass production techniques to the fabrication of their flush-pin gage designs. The results, off-the-shelf gage blanks that can be finish ground to your specifications at 50% to 60% cost savings and delivered in less than one week after receipt of order. Interchangeability of A. G. Davis gage blank component parts means that they can be used and reused from job to job. This concept of total gaging economy has made A. G. Davis Gage Blanks the "STANDARD OF INDUSTRY".



A. G. Davis Gage Blanks are hardened and ground gage bodies and gage pins. They are finish ground with the exception of the ends of the gage pin, which will be altered by grinding to your specifications. Body and pin blanks are heat treated through to the center to ensure that extensive grinding modifications can be performed without affecting hardness of wear surfaces (see Specifications, Page 12). Gage blanks can be finish ground to your specifications by A. G. Davis or your own tool room. If finish ground by A. G. Davis, shipment can be one week after receipt of order. Standardized alteration charges at A. G. Davis ensures that finish ground gages are available at very nominal costs.

"BF" SERIES BAR



USE FULL SCALE TRACING TEMPLATE 15

SELECTIVE GAGE BLANK DIMENSIONS					
F		A		G	
Bar Length	Model Number	Pin Location	Model Number	Pin Length	Model Number
2.0	BF2	1.0	A1	2.0	G2
4.0	BF4	2.0	A2	4.0	G4
6.0	BF6	3.0	A3	6.0	G6
8.0	BF8	4.0	A4	8.0	G8
10.0	BF10	5.0	A5	—	—
12.0	BF12	6.0	A6	—	—

ORDERING INSTRUCTIONS

To order gage blank, specify:

A. G. Davis Model BF2 A1 G2
 Bar Length Pin Location Pin Length

To order finish ground gage,

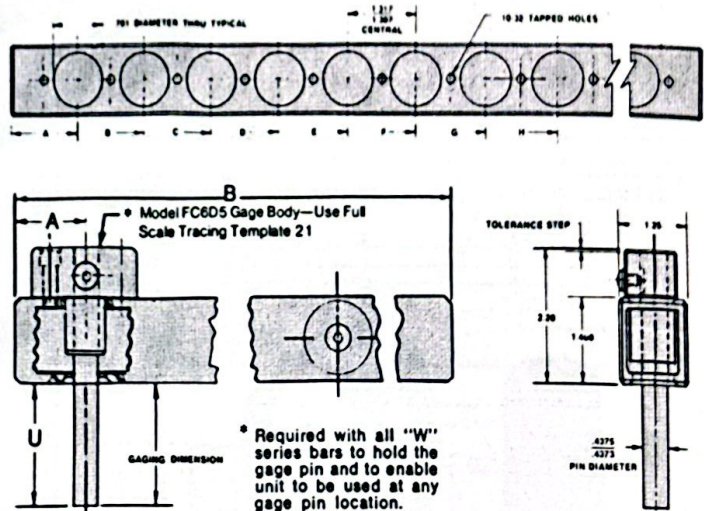
ALSO SPECIFY:

Minimum gaging dimension _____

Maximum gaging dimension _____

Tolerance step on gage pin
(or gage bar, as desired)

"W" SERIES BAR



USE FULL SCALE TRACING TEMPLATE 9

BAR SELECTOR AND PIN LOCATION GUIDE											
(B) Bar Length	Bar Model Number	Gage Pin Location A								U	
		1.32	2.62	3.94	5.25	6.56	7.88	9.18	10.50	Pin Length	Model Number
13.12	WW	A	B	C	D	E	—	—	—	2.0	U2
15.75	WX	A	B	C	D	E	F	—	—	4.0	U4
18.38	WY	A	B	C	D	E	F	G	—	6.0	U6
21.00	WZ	A	B	C	D	E	F	G	H	8.0	U8

ORDERING INSTRUCTIONS

To order gage blank, specify:

A. G. Davis Model WW A FC6D5 U2
 Bar Length Location of Gage Pin Gage Body Pin Length

To order finish ground gage,

ALSO SPECIFY:

Minimum gaging dimension _____

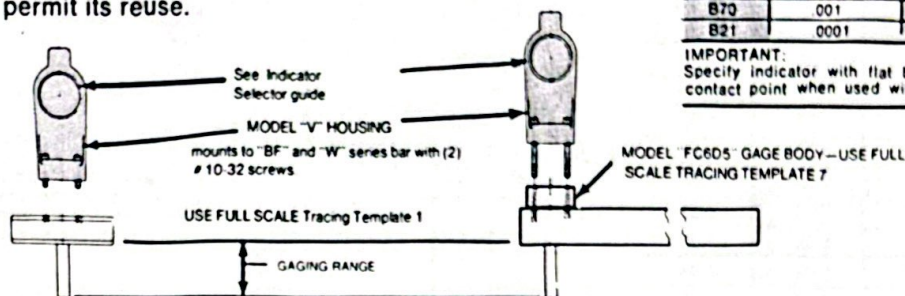
Maximum gaging dimension _____

Tolerance step on gage pin
(or gage bar, as desired)

Note: see page 26 for method of determining manufacturing tolerances on gaging dimensions and tolerances dimensions

CONVERTING "BF" AND "W" SERIES FLUSH PIN GAGES TO DIAL INDICATOR GAGES— with the A. G. DAVIS Model "V" housing

No modification to the flush pin gage is required if the tolerance step is on the gage body. Where the tolerance step is on the gage pin (and does not exceed .050) the end of the gage pin can be ground flat and adjustment in the Model "V" housing will permit its reuse.



INDICATOR SELECTOR GUIDE			
MODEL NO.	GRADUATION	RANGE	BALANCE DIAL
B3Q	.0005	.050	0-10-0
B5M	.0005	.075	0-15-0
B7Q	.001	.125	0-25-0
B21	.0001	.025	0-5-0

IMPORTANT:
Specify indicator with flat back and 1" long flat contact point when used with model "V" housing

"BF" SERIES BAR

USE FULL SCALE TRACING TEMPLATE 8

ORDERING INSTRUCTIONS

EXAMPLE:

To convert A. G. Davis Model BF2A1 flush pin gage with gaging range of 1.740/1.746 to dial indicator gage

Specify: A. G. Davis Model VB3Q
Housing ☐
Dial Indicator ☐

To order complete gage

Specify: A. G. Davis Model

VB3Q-BF2A1-G2-1.740/1.746

Diagram showing the breakdown of the model number:
VB3Q: Dial/Electronic Indicator Housing
BF2A1: Bar Length and Pin Location (See Selective Gage Blank Dimensions - Page 2)
G2: Pin Length
1.740/1.746: Gaging Range



"W" SERIES BAR

USE FULL SCALE TRACING TEMPLATE 9

ORDERING INSTRUCTIONS

EXAMPLE:

To convert A. G. Davis Model WWA-FC6D5-U2 flush pin gage with gaging range of 1.740/1.746 to dial indicator gage

Specify: A. G. Davis Model VB3Q
Housing ☐
Dial Indicator ☐

To order complete gage

Specify: A. G. Davis Model

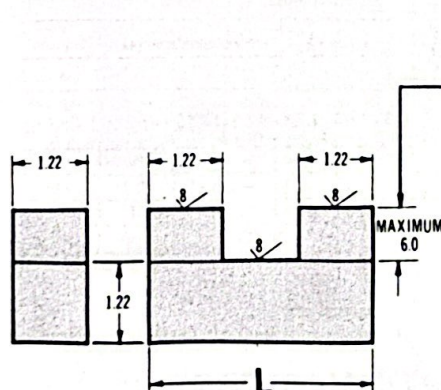
VB3Q-WWA-FC6D5-U2-1.740/1.746

Diagram showing the breakdown of the model number:
VB3Q: Dial/Electronic Indicator Housing
WWA-FC6D5: Bar Length and Pin Locations (See Bar Selector and Pin Location Guide - Page 2)
U2: Gage Body
1.740/1.746: Gaging Range

"Off-the-Shelf" DEPTH MASTERS MODEL DM SERIES

MODELS DM-3.5 through DM-10

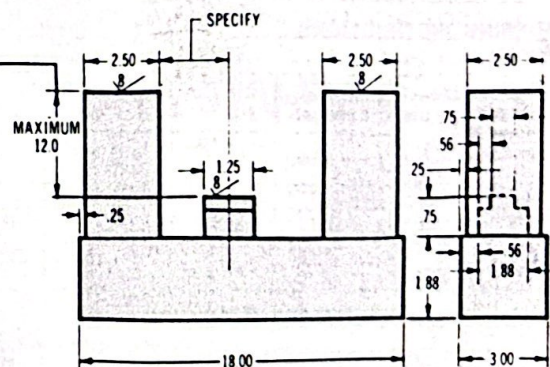
MODEL DM-18 only



MEAN SET DIMENSIONS
Specify tolerance code for allowable manufacturing tolerance on mean set dimensions.

Tolerance Code *	Manufacturing Tolerance
A	±.0001
B	±.0002
C	±.0005

*Actual measured dimension marked on request



Depth Master Model Number	L Dimension
DM- 3.5	3.5
DM- 6	6.0
DM- 8	8.0
DM-10	10.0
DM-18	18.0

NOTE: All Depth Masters are processed through an extensive stress relief and deep freeze cycle for lasting stability

ORDERING INSTRUCTIONS

EXAMPLE:

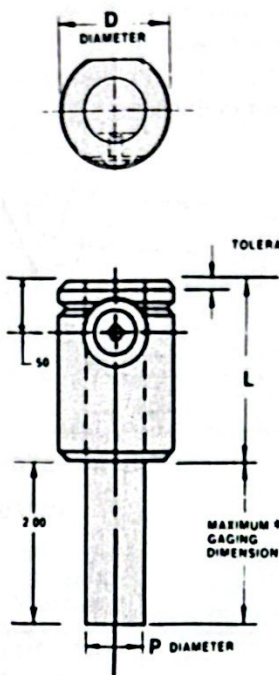
To order a Depth Master for use with A. G. Davis "BF" or "W" Series Depth Gage to check 1.740/1.746 dimension

Specify
A. G. Davis Model DM 3.5 B 1.743
Model Number Tolerance Code Mean Set Dimension

AG DAVIS BARREL TYPE FLUSH PIN GAGES

BARREL TYPE FLUSH-PIN GAGE BLANK SELECTOR GUIDE

BARREL BLANK MODEL NUMBER	P GAGE PIN DIAMETER +.0000 -.0003	D BARREL DIA.	L BARREL LENGTH
250	.250	1.00	1.00
281	.2812	1.00	1.00
312	.3125	1.00	1.00
343	.3437	1.00	1.00
375	.375	1.00	1.25
406	.4062	1.03	1.32
437	.4375	1.06	1.38
468	.4687	1.09	1.44
500	.500	1.12	1.50
562	.5625	1.18	1.62
593	.5937	1.21	1.68
625	.625	1.25	1.75
687	.6875	1.32	1.88
750	.750	1.38	2.00



TYPICAL MODIFICATIONS



USE FULL SCALE TRACING
TEMPLATE 10

ORDERING INSTRUCTION:

To order gage blank, specify:
A. G. Davis Model 250

TO ORDER FINISH GROUND GAGE

Also specify:
Minimum gaging dimension _____
Maximum gaging dimension _____
Tolerance step on gage pin
(or gage body, as desired)

*See page 8 for method of determining manufacturing tolerance on gaging dimension and step dimension.

CONVERTING BARREL TYPE FLUSH PIN GAGES TO DIAL INDICATOR GAGES

No modification to the gage pin is required if the tolerance step is on the gage body. Where the tolerance step is on the gage pin (and does not exceed .050) the end of the gage pin can be ground flat and adjustment in the Model CHR. 1 housing will permit its reuse. Gage body alterations are required as per drawing.

ORDERING INSTRUCTIONS

EXAMPLE:

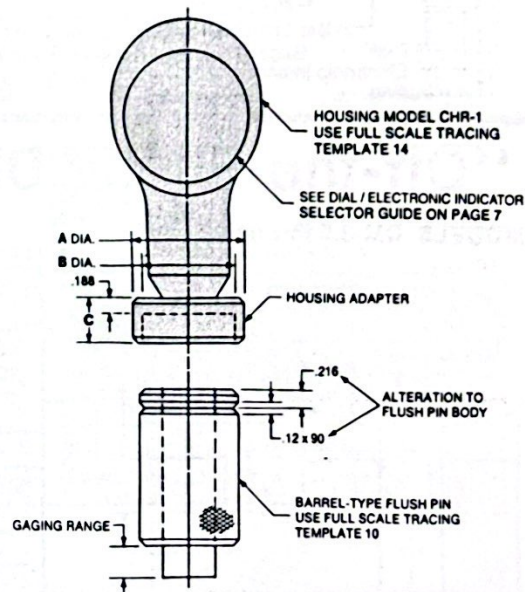
To convert Davis Barrel Type Flush Pin Gage with Model 250 .372-.378 Gaging Range to Dial Indicator Gage

Specify: A. G. Davis Model

CHR-1 - A687 - B3Q

Housing _____
Adapter _____
Model Number _____
Dial _____
Indicator _____

HOUSING ADAPTER SELECTOR GUIDE				
Barrel Blank Number	A Outside Dia.	B Inside Dia.	C Adapter Length	Adapter Model Number
250 Thru 375	1.20	1.02	.56	A 687
406 Thru 500	1.32	1.14	.56	A 688
562 Thru 625	1.45	1.27	.56	A 689
687 Thru 750	1.58	1.39	.56	A 690



OFF-THE-SHELF DEPTH MASTERS MODEL DM-B

ORDERING INSTRUCTIONS

EXAMPLE:

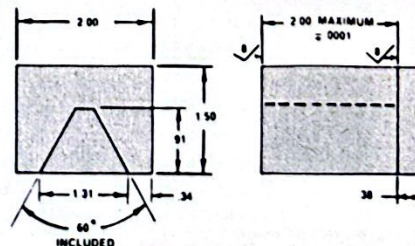
To order a depth master for use with A. G. Davis barrel type indicator depth gage with gaging range of .372/.378

SPECIFY: A. G. Davis Model DM-B - .3750

Master Model Number _____
Mean Set Dimension _____

NOTE:

All depth masters are processed through an extensive stress relief and deep freeze cycle for lasting stability



TO ORDER COMPLETE GAGE

Specify: A. G. Davis Model

CHR-1 - A687 - B3Q - 250 - .372/.378

Housing _____
Adapter _____
Model Number _____
Dial Indicator _____
Barrel Blank _____
Model Number _____
Gaging Range _____

AG DAVIS LARGE DIAMETER COUNTERSINK TYPE FLUSH PIN GAGES MODEL 1500, 3000 and 4500

ORDERING INSTRUCTIONS

To order gage blanks

Specify:

A. G. Davis Model 1500, 3000 or 4500

To order finish ground gage
also specify:

MINIMUM COUNTERSINK DIAMETER _____

MAXIMUM COUNTERSINK DIAMETER _____

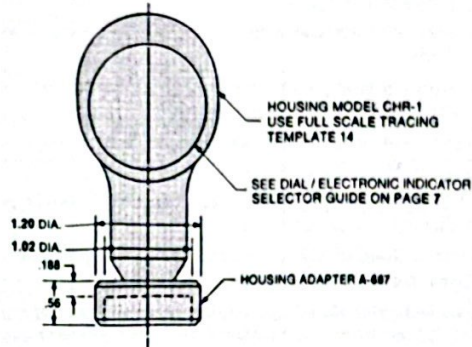
MEAN INCLUDED ANGLE _____

Tolerance step on gage pin
(or gage bar) as desired

*SEE PAGE 8 FOR METHOD OF
DETERMINING FINISH GRIND
DIMENSIONS

CONVERTING 1500, 3000 AND 4500 MODEL FLUSH PIN GAGES TO DIAL INDICATOR

No modification to the flush pin gage is required
if the tolerance step is on the gage body.
Where the tolerance step is on the gage pin,
(and does not exceed .050) the end of the
gage pin can be ground flat and adjustment
in the model "CHR 1" housing will permit its reuse.

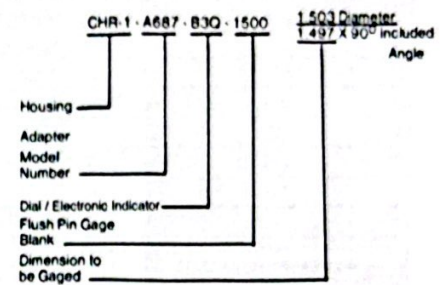


ORDERING INSTRUCTIONS

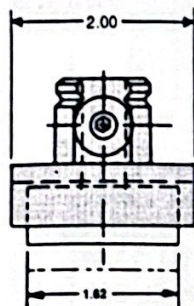
Example:

To convert Davis Model 1500 Flush Pin Gage
for checking 1.504 / 1.497 Diameter Countersink
with 90° included Angle

Specify: A. G. Davis Model

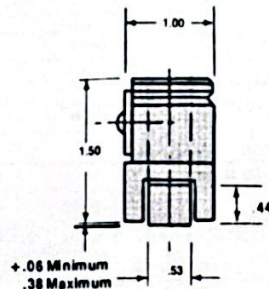


(SETTING MASTERS
AVAILABLE UPON REQUEST)



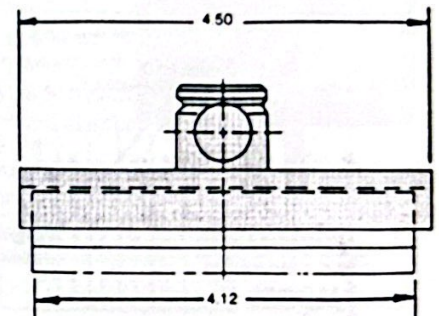
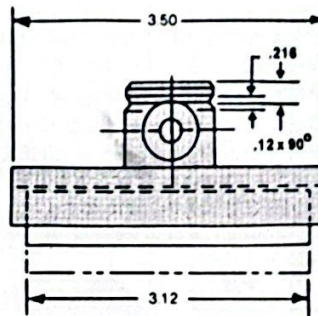
MODEL 1500

For countersink diameters
from .75 to 1.50
Use full scale tracing
Template 11



MODEL 3000

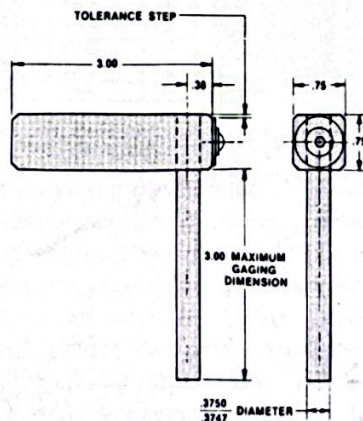
For countersink diameters
from 1.50 to 3.00
Use full scale tracing
Template 12



MODEL 4500

For countersink diameters
from 3.00 to 4.00
Use full scale tracing
Template 13

AG DAVIS "S" SERIES FLUSH PIN BAR



MODEL S

ORDERING INSTRUCTIONS

To order gage blank, Specify
A. G. Davis Model "S"

To order finish ground gage,
also Specify:

MAXIMUM GAGING DIMENSION _____

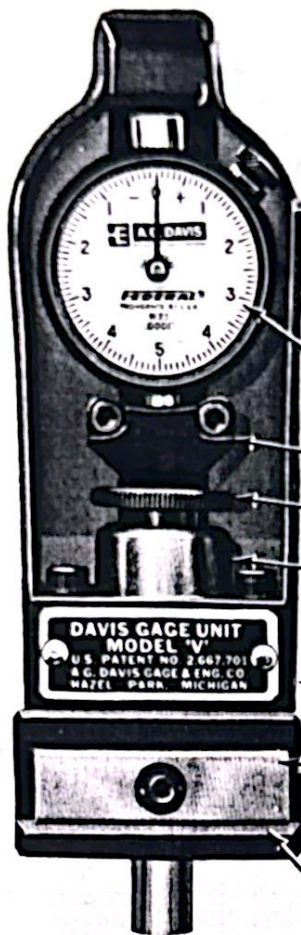
MINIMUM GAGING DIMENSION _____

Tolerance step on gage pin
(or gage body) as desired

USE FULL SCALE TRACING
TEMPLATE 16



A G DAVIS INDICATOR DEPTH GAGES



**INDICATOR
DEPTH GAGE
MODEL V**

ACCESSORY CONTACT POINTS can be mounted in # 4-48 NF tapped hole in end of gage pin.

GROUND AND LAPPED surface full length of gage pin allows pin to be reversed in Model "SM" housing to use accessory contact points.

A.G.Davis standards available on tracing and AutoCAD templates

Sturdy, lightweight aluminum guard for maximum protection of the dial indicator.

Simple, fast, .200 vertical adjustment of dial indicator to master settings.

Positive, safe clamping and positioning of dial indicator is assured with A. G. Davis "recessed" clamp.

"In-Travel" limit adjustment prevents internal damage to dial indicator and eliminates full revolution misreading.

Constant preload spring tension assures repeat readings between set master and piece part.

Gage Transfer Mechanism minimizes wear from side pressure on the indicator contact point.

A. G. Davis Indicator Housings may be mounted from the top with #10-32 or from the bottom with 1/4-20 socket-head screws.

Replaceable soft marking plates are provided for stamping gage identification.

Rust preventive black oxide treatment on all non-gaging surfaces.

"B" Series Bars and Gage Pins are of highest grade tool steel hardened to R/C 62-64 and stabilized. ("W" Series Bars are hardened to R/C 58-62 and stabilized.)

Finger groove is provided on both sides of "B" Series Bars for positive gripping.



**ADJUSTABLE
SELF ZEROING
DEPTH GAGE
MODEL SM**



MODEL "K"



MODEL "V"



MODEL "H"



MODEL "SM"

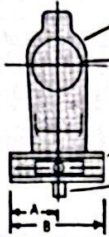
A. G. Davis Indicator Depth Gages are made up of interchangeable "building-block" gage components. In minutes, the individual components can be assembled and set up to check specific depth dimensions. Upon completion of the job, the components may be disassembled and placed in storage—ready for the next depth gage problem. Setting Davis depth gages to a specific gaging dimension is fast and simple. Once set they can be read easily and precisely by the operator.

When using indicator depth gages on high production jobs (where gage member wear is a factor) good gaging practice dictates the use of a set master that simulates the piece part condition. Often designing and building a special set master is either too costly or too time-consuming to meet job deadlines. So—Davis Depth Gages and economical off-the-shelf Set Masters are an ideal solution. Rigidity and accuracy is combined with adjustability and interchangeability, and equally important, they are available to you right now.

A G DAVIS DEPTH GAGE SELECTOR GUIDE

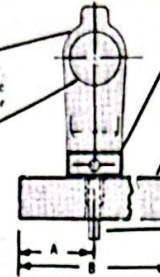
To select A. G. DAVIS Depth Gage, specify the model numbers of the individual components in the order shown below

"BF" SERIES



- 1 Specify Housing Model "V", "K", "SM" or "H" (depending on the size and type dial indicator required) from Selector Guide
- 2 Specify Dial / Electronic Indicator Model from Indicator Selector Guide
- 3 Specify Bar Model (refer to bar length "B" and pin location "A" in Bar Selector Guide)
- 4 Specify Pin Model from Pin Selector Guide

"W" SERIES



- 1 Specify Housing Model "V", "K", "SM" or "H" (depending on the size and type dial indicator required) from Selector Guide
- 2 Specify Dial / Electronic Indicator Model from Indicator Selector Guide
- 3 Specify Gage Body Model FC6D5 required with all "W" Series Bars to hold the Gage Pin and to enable the housing to be used at any gage pin location
- 4 Specify Bar Model (refer to bar length "B" and pin location "A" in Bar Selector Guide)
- 5 Specify Pin Model from Pin Selector Guide

A. G. DAVIS HOUSING AND INDICATOR SELECTOR GUIDE

Housing	Model No.	Graduation	Range	Balance Dial
MODEL "V" or MODEL "SM" Specify Model "V" or "SM" when using American Gage Design (AGD) Group I Dial Indicators. (1 11/16" Bezel Diameter). Specify indicator with flat back 1" long flat end contact point with "V" unit. Specify flat back and regular point with "SM" unit.	B21	0001	025	0-5-0
	B2Q	00025	025	0-5-0
	B3K	00025	050	0-10-0
	B3Q	0005	050	0-10-0
	B3W	001	050	0-10-0
	B5M	0005	075	0-15-0
	B6K	0005	100	0-20-0
	B71	0005	125	0-25-0
	B7Q	001	125	0-25-0
	J1K	0001	008	0-4-0
MODEL "H" Specify indicator with 3/4" flat end contact point.	J6K	0005	040	0-20-0
	J81	001	100	0-50-0

Housing	Model No.	Graduation	Range	Balance Dial
Model "K" Specify Model "K" when using American Gage Design (AGD) Group II Dial Indicators. (2 1/4" Bezel Diameter). Specify indicator with flat back and 1" long flat end contact point.	C1/2K	00005	010	0-2-0
	C1K	0001	020	0-4-0
	C21	0001	025	0-5-0
	C2Q	00025	025	0-5-0
	C3K	00025	050	0-10-0
	C3Q	0005	050	0-10-0
	C3W	001	050	0-10-0
	C5M	0005	075	0-15-0
	C6K	0005	100	0-20-0
	C6Q	001	100	0-20-0
	C71	0005	125	0-25-0
	C7Q	001	125	0-25-0

BAR SELECTOR AND PIN LOCATION GUIDE ("BF" Series)

BAR LENGTH "B"	BASE PIN LOCATION "A"					
	1.8	2.8	3.8	4.8	5.8	6.8
2.0	BF2A1					
4.0	BF4A1	BF4A2				
6.0	BF6A1	BF6A2	BF6A3			
8.0	BF8A1	BF8A2	BF8A3	BF10A4		
10.0	BF10A1	BF10A2	BF10A3	BF10A4	BF10A5	
12.0	BF12A1	BF12A2	BF12A3	BF12A4	BF12A5	BF12A6

BAR SELECTOR AND PIN LOCATION GUIDE ("W" Series)

(B) BAR LENGTH	BAR MODEL NUMBER	BASE PIN LOCATION "A"								
		1.32	2.82	3.84	5.25	6.56	7.88	9.18	10.50	
13.12	WW	A	B	C	D	E	-	-	-	
15.75	WX	A	B	C	D	E	F	-	-	
18.38	WY	A	B	C	D	E	F	G	-	
21.00	WZ	A	B	C	D	E	F	G	H	

PIN SELECTOR GUIDE ("BF" Series) WITH "V", "K" or "H" UNIT

GAGE PIN MODEL NO.	LENGTH ADJUSTMENT		GAGE PIN MODEL NO.	LENGTH ADJUSTMENT	
	MINIMUM	MAXIMUM		MINIMUM	MAXIMUM
R1	0	200	R16	3 000	3 200
R2	200	400	R17	3 200	3 400
R3	400	600	R18	3 400	3 600
R4	600	800	R19	3 600	3 800
R5	800	1 000	R20	3 800	4 000
R6	1 000	1 200	R21	4 000	4 200
R7	1 200	1 400	R22	4 200	4 400
R8	1 400	1 600	R23	4 400	4 600
R9	1 600	1 800	R24	4 600	4 800
R10	1 800	2 000	R25	4 800	5 000
R11	2 000	2 200	R26	5 000	5 200
R12	2 200	2 400	R27	5 200	5 400
R13	2 400	2 600	R28	5 400	5 600
R14	2 600	2 800	R29	5 600	5 800
R15	2 800	3 000	R30	5 800	6 000

PIN SELECTOR GUIDE ("W" Series) WITH "V", "K" or "H" UNIT

GAGE PIN MODEL NO.	LENGTH ADJUSTMENT		GAGE PIN MODEL NO.	LENGTH ADJUSTMENT	
	MINIMUM	MAXIMUM		MINIMUM	MAXIMUM
M7	0	200	M22	3 000	3 200
M8	200	400	M23	3 200	3 400
M9	400	600	M24	3 400	3 600
M10	600	800	M25	3 600	3 800
M11	800	1 000	M26	3 800	4 000
M12	1 000	1 200	M27	4 000	4 200
M13	1 200	1 400	M28	4 200	4 400
M14	1 400	1 600	M29	4 400	4 600
M15	1 600	1 800	M30	4 600	4 800
M16	1 800	2 000	M31	4 800	5 000
M17	2 000	2 200	M32	5 000	5 200
M18	2 200	2 400	M33	5 200	5 400
M19	2 400	2 600	M34	5 400	5 600
M20	2 600	2 800	M35	5 600	5 800
M21	2 800	3 000	M36	5 800	6 000

PIN SELECTOR GUIDE ("BF" Series) WITH "SM" UNIT

GAGE PIN MODEL NO.	LENGTH ADJUSTMENT MINIMUM-MAXIMUM
P3	000-3 000
P6	3 000-6 000
P9	6 000-9 000

PIN SELECTOR GUIDE ("W" Series) WITH "SM" UNIT

GAGE PIN MODEL NO.	LENGTH ADJUSTMENT MINIMUM-MAXIMUM
K3	000-3 000
K6	3 000-6 000
K9	6 000-9 000
K12	9 000-12 000

"BF" SERIES ORDERING INSTRUCTIONS

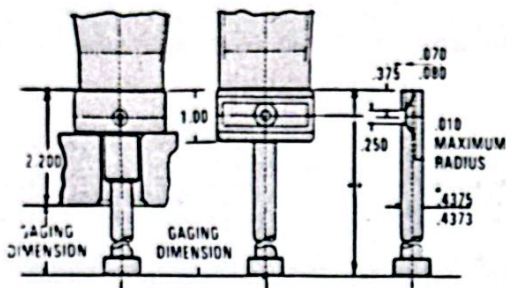
EXAMPLE	V	B21	BF2A1	R1
Housing				
Dial Indicator				
Bar Length & Pin Location				
Gage Pin				

"W" SERIES ORDERING INSTRUCTIONS

EXAMPLE	V	B21	WWA	FC6D5	M7
Housing					
Dial Indicator					
Bar Length & Pin Location					
Gage Body (required with all "W" Series Bars)					
Gage Pin					

SPECIAL GAGE PINS

When designing special gage pins for use with A. G. Davis "BF" or "W" Series Indicator Depth Gages, follow procedures outlined below.



*Maintain 4.375 pin diameter for 1,000 plus .200 below bottom of "B" Bar and/or 4.373
2.200 plus .200 below bottom of "W" Bar.

**Dimension 1,000 plus gaging dimension when used with "B" Bar and 2,200 plus gaging dimension when used with "W" Bar.

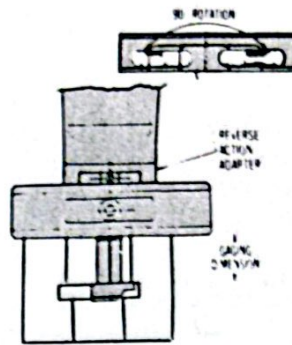
STOCK GAGE PINS

Stock pins available from A. G. Davis with the following "A" diameters: .625, .750, .875, 1,000, 1,125, 1,375, 1,500, 2,000.



To order: Specify any model R or M Gage Pin with the diameter "A" required.
Example: Model R14A.625.

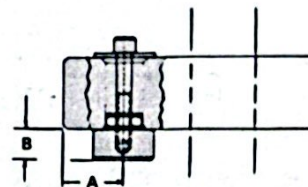
REVERSE ACTION GAGE PINS



The A. G. Davis Reverse Action Adapter (for use with "BF" or "W" Series Indicator Depth Gages) permits 90° rotation of gage pin.

Quotation on request—please furnish outline of piece part to be checked and configuration of gage pin.

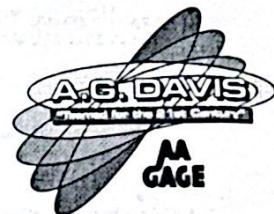
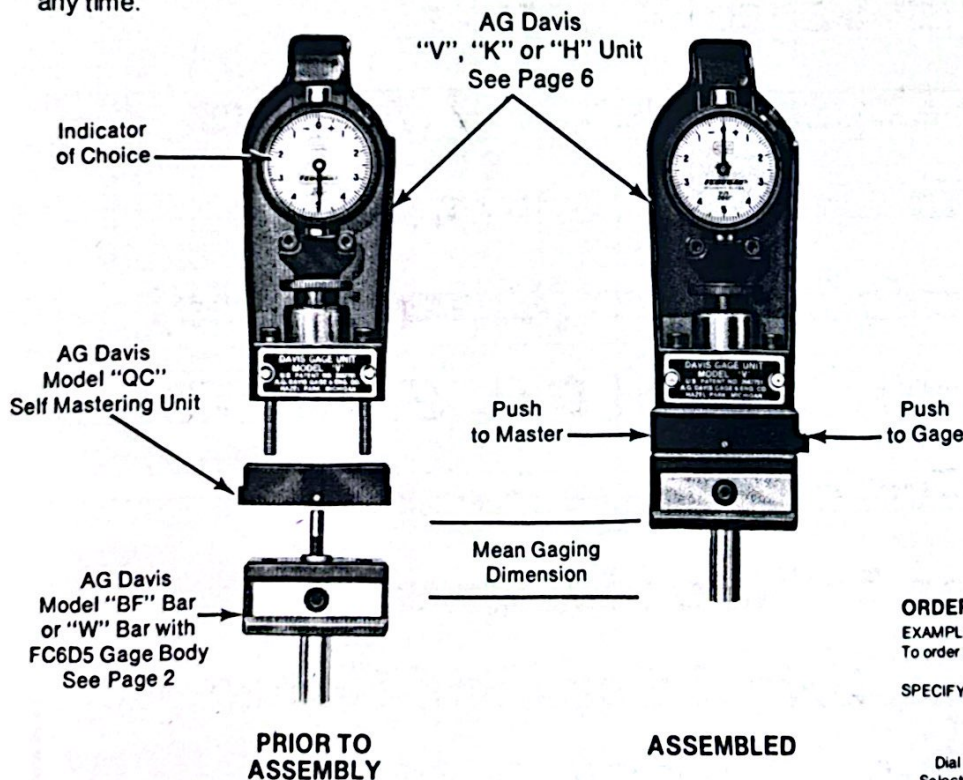
RISERS FOR "W" SERIES BARS



Risers are available from A. G. Davis for quick mounting in any gage pin location "A". (See Bar Selector and Pin Location Guide, page 2.) Quotation on request—Specify riser dimension "B".

AG DAVIS SELF MASTERING UNIT MODEL "QC"

Use with A. G. Davis "BF" or "W" bar. Eliminate costly special masters. Check setting of indicator at any time.



ORDERING INSTRUCTIONS

EXAMPLE:

To order a Self Mastering Indicator depth gage to check 1.740/1.746 dimension

SPECIFY: AG Davis Model V B3Q BF2A1 QC 1.743

Housing
Dial Indicator
Selective Gage
Blank Dimensions
Bar Length
and Pin Location
Mean Set
Dimension
Self
Mastering
Unit