

# Air Probe Dimensional Data-Single Master - series 60 - 80

## AIR PROBE DIMENSIONAL DATA, Series 60, 70, & 80

Air probe body dimensions ( inches / millimeters ):

Size above -incl.	Dimension A			Dim. C	Figure	Available Series
	APT	APB	APS			
<b>.059 - .073</b> 1.50 - 1.85	<b>.190</b> 4.83	<b>.080</b> 2.03	<b>.050</b> 1.27	<b>.625</b> 15.88	<b>A</b>	<b>70</b>
<b>.073 - .120</b> 1.85 - 3.05	<b>.190</b> 4.83	<b>.080</b> 2.03	<b>.050</b> 1.27	<b>.625</b> 15.88	<b>A</b>	<b>70</b>
<b>.120 - .18</b> 3.05 - 4.65	<b>.250</b> 6.35	<b>.085</b> 2.16	<b>.065</b> 1.65	<b>.750</b> 19.05	<b>A</b>	<b>60 &amp; 70</b>
<b>.183 - .300</b> 4.65 - 7.62	<b>.375</b> 9.53	<b>.095</b> 2.41	<b>.075</b> 1.91	<b>1.000</b> 25.40	<b>A</b>	<b>60 &amp; 70</b>
<b>.300 - .485</b> 7.62 - 12.32	<b>.440</b> 11.18	<b>.095</b> 2.41	<b>.075</b> 1.91	<b>1.000</b> 25.40	<b>A</b>	<b>.60, 70 &amp; 80</b>
<b>.485 - .860</b> 12.32 - 21.84	<b>.500</b> 12.70	<b>.095</b> 2.41	<b>.075</b> 1.91	<b>1.000</b> 25.40	<b>B</b>	<b>.60, 70 &amp; 80</b>
<b>.860 - 2.510</b> 21.84 - 63.75	<b>.750</b> 19.05	<b>.095</b> 2.41	<b>.075</b> 1.91	<b>1.000</b> 25.40	<b>B</b>	<b>60, 70 &amp; 80</b>
<b>2.510 - 5.865</b> 63.75 - 148.97	<b>.875</b> 22.23	<b>.105</b> 2.67	<b>.085</b> 2.16	<b>1.000</b> 25.40	<b>C</b>	<b>60, 70 &amp; 80</b>
<b>5.865 - 8.260</b> 148.97 - 209.80	<b>1.062</b> 26.97	<b>.125</b> 3.17	<b>.105</b> 2.67	<b>1.000</b> 25.40	<b>C</b>	<b>60 &amp; 80</b>

Air probe body clearances ( inches / micrometers ):

Size above - incl.	Clearance class				
	1	2	3	4	5
<b>.059 - .120</b> 1.50 - 3.05	<b>.00015</b> 3.81	<b>.0003</b> 7.62	<b>.0004</b> 10.16	----	----
<b>.120 - .183</b> 3.05 - 4.65	<b>.00015</b> 3.81	<b>.0003</b> 7.62	<b>.0004</b> 10.16	<b>.0006</b> 15.24	<b>.0010</b> 25.40
<b>.183 - .246</b> 4.65 - 6.25	<b>.00015</b> 3.81	<b>.0003</b> 7.62	<b>.0005</b> 12.70	<b>.0008</b> 20.32	<b>.0018</b> 45.72
<b>.246 - .300</b> 6.25 - 7.62	<b>.0002</b> 5.08	<b>.0004</b> 10.16	<b>.0006</b> 15.24	<b>.0010</b> 25.40	<b>.0022</b> 55.88
<b>.300 - .485</b> 7.62 - 12.32	<b>.0002</b> 5.08	<b>.0004</b> 10.16	<b>.0006</b> 15.24	<b>.0012</b> 30.48	<b>.0026</b> 66.04
<b>.485 - .540</b> 12.32 - 13.72	<b>.0003</b> 7.62	<b>.0004</b> 10.16	<b>.0007</b> 17.78	<b>.0014</b> 35.56	<b>.0030</b> 76.20
<b>.540 - 1.510</b> 13.72 - 38.35	<b>.0003</b> 7.62	<b>.0004</b> 10.16	<b>.0008</b> 20.32	<b>.0016</b> 40.64	<b>.0030</b> 76.20
<b>1.510 - 3.010</b> 38.35 - 76.45	----	<b>.0005</b> 12.70	<b>.0009</b> 22.86	<b>.0018</b> 45.72	<b>.0030</b> 76.20
<b>3.010 - 4.510</b> 76.45 - 114.55	----	<b>.0006</b> 15.24	<b>.0010</b> 25.40	<b>.0020</b> 50.80	<b>.0030</b> 76.20
<b>4.510 - 6.510</b> 114.55 - 165.40	----	----	<b>.0012</b> 30.48	<b>.0022</b> 55.88	<b>.0034</b> 86.36

Jet data & fittings:

Series	Jet dia.	Fitting
60	.048	.375-32 UNEF
70	.023	.281-40 UNS
80	.094	.375-32 UNEF

<sup>1</sup> Ser. 60 not available in sizes below .120" (3.05mm).

<sup>2</sup> Ser. 80 not available in sizes below .360" (9.14mm).

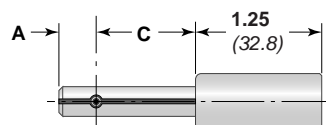


Figure A

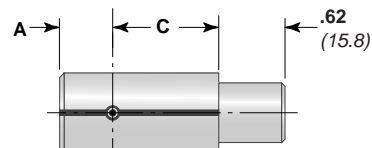


Figure B

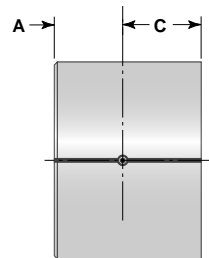


Figure C

### Clearance recommendations Series 60 thru 80

Clearance values for single mastered gaging members are referenced to the nominal master sizes. Users should pick clearances that allow the probe to enter the workpieces at their maximum material condition, and at the same time, not have excessive clearance at the minimum material condition. To determine the body size of a single master air probe, subtract the clearance value shown from the nominal master ring. For air ring gages, add the value shown to the nominal setting master.

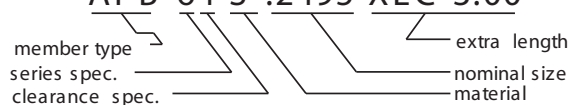
Guide lines for clearances are as follows:

Product tolerance	WGC specs.
.00001"-.00012" (.2μ - 3μm)	62, 71
.00012"-.0004" (3μ - 10μm)	63, 72
.0004" - .0020" (10μ - 50μm)	64, 73
.0020" - .0040" (50μ - 100μm)	65

Best accuracy will always be obtained with single mastered gages by mastering near the middle of the product tolerance.

### Sample order code for Single master air probes

APB-64-S-.2495-XLC-3.00

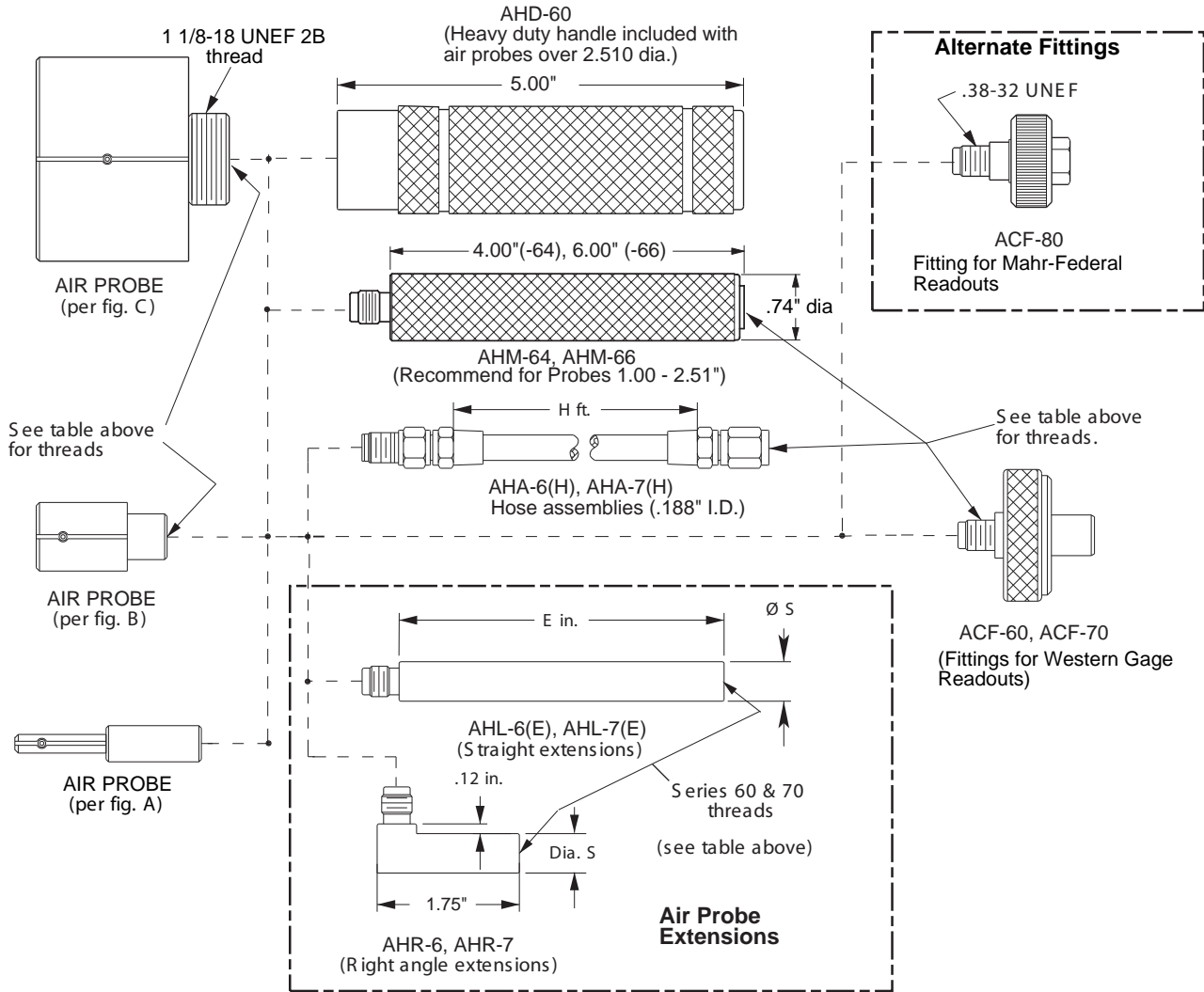


(Air Probe Blind - Spec 64 - Steel - Range - Extra Long dim. C = 3.00")

See pages 26 & 27 for more detail on specifying air probes

# Accessories for Air Probes - single Master - series 60 thru 80

AIR GAGE SERIES	THREAD SIZE	Ø S	(HOSE ASSY PART NO.S)		(PROBE EXTENTION PART NO.S)		
			DIM H = 3 ft.	DIM H = 5 ft.	DIM E = 2 in.	DIM E = 4 in.	DIM E = 6 in.
60	.38-32 UNEF	.485"	AHA-63	AHA-65	AHL-62	AHL-64	AHL-66
70	.28-40 UNS	.360"	AHA-73	----	AHL-72	AHL-74	----
80	.38-32 UNEF	.485"	AHA-63	AHA-65	AHL-62	AHL-64	AHL-66



## AIR PROBE ACCESSORIES SERIES 60 THRU 80

AHA-63	Hose ass'y, 3 ft .38-32 UNEF	AHR-6	Rt. Angle adapter, .38-32 UNEF
AHA-65	Hose ass'y, 5 ft .38-32 UNEF	AHR-7	Rt. Angle adapter, .28-40 UNS
AHA-66	Hose ass'y, 6 ft .38-32 UNEF	<b>REPAIR PARTS</b>	
AHA-73	Hose ass'y, 3 ft .28-40 UNS	AOR-10	O-ring kit for series 60, 10 pcs
AHL-62	Handle/ext., 2 in x .38-32 UNEF	AOR-07	O-ring kit for series 70, 10 pcs
AHL-64	Handle/ext., 4 in x .38-32 UNEF	<b>READOUT FITTINGS</b>	
AHL-66	Handle/ext., 6 in x .38-32 UNEF	ACF-60	Fitting, use on: Milli Check, Micro Air - Ser.60
AHL-72	Handle/ext., 2 in x .28-40 UNS	ACF-70	Fitting, use on: Milli Check, Micro Air - Ser.70
AHL-74	Handle/ext., 4 in x .28-40 UNS	ACF-80	Fitting, use on Mahr-Federal Readouts
AHD-60	Heavy duty handle 6" x Ø 1.20"		
AHM-64	Medium duty handle 4" x Ø .74"		
AHM-66	Medium duty handle, 6" x Ø .74"		