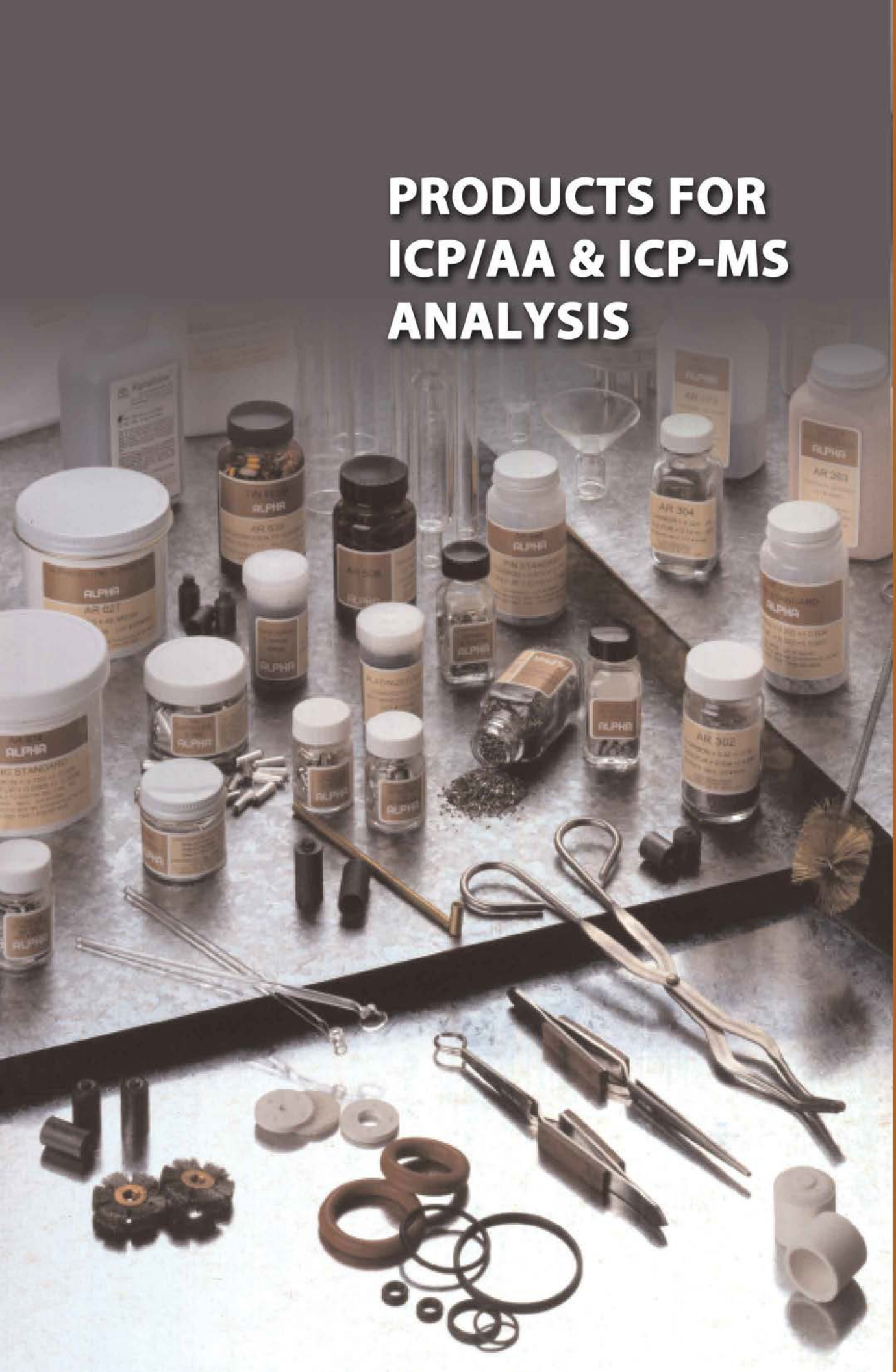
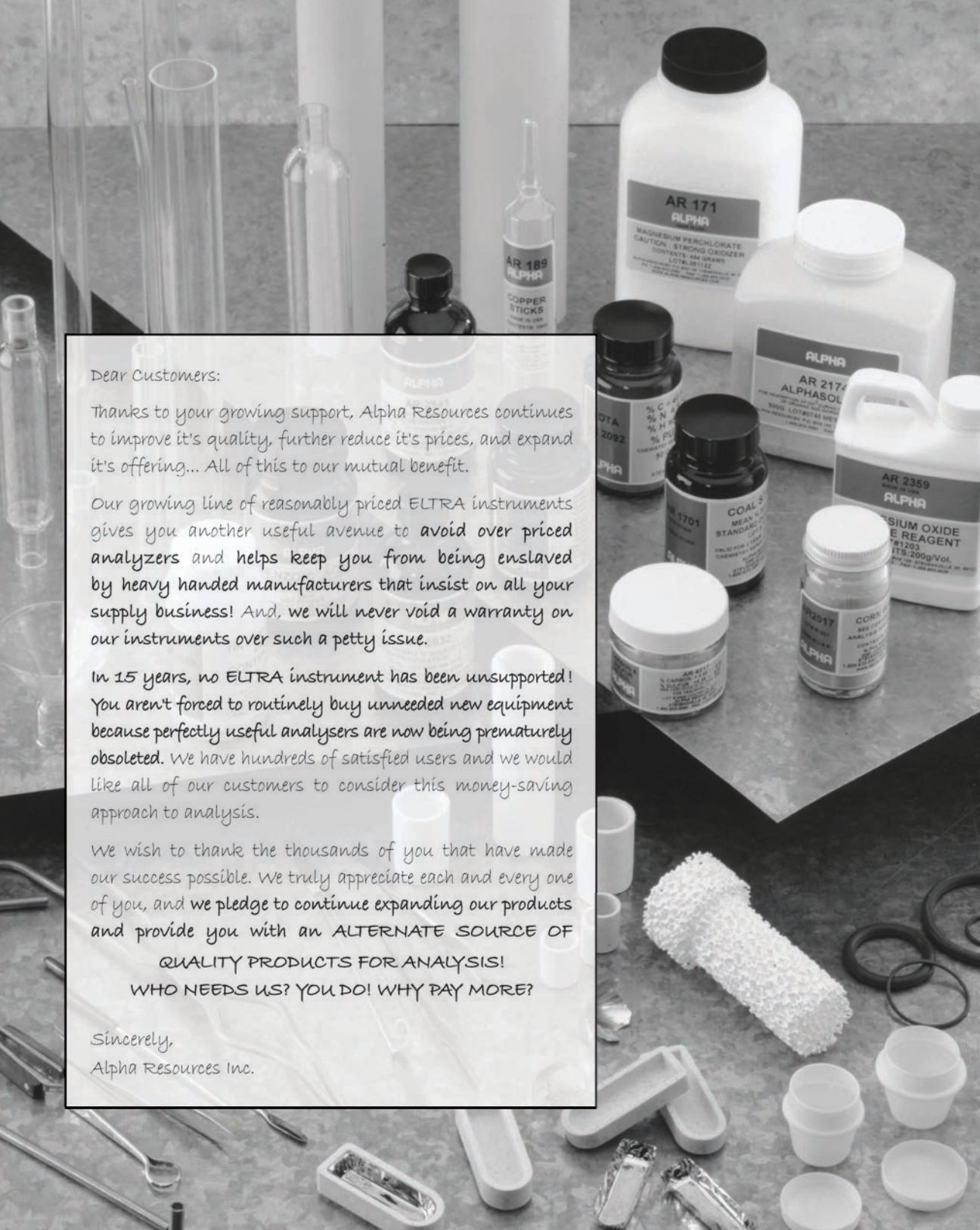
PRODUCTS FOR ICP/AA & ICP-MS ANALYSIS



ALPHA®



Dear Customers:

Thanks to your growing support, Alpha Resources continues to improve it's quality, further reduce it's prices, and expand it's offering... All of this to our mutual benefit.

Our growing line of reasonably priced ELTRA instruments gives you another useful avenue to **avoid over priced analyzers** and **helps keep you from being enslaved by heavy handed manufacturers that insist on all your supply business!** And, **we will never void a warranty on our instruments over such a petty issue.**

In 15 years, no ELTRA instrument has been unsupported! You aren't forced to routinely buy unneeded new equipment because perfectly useful analysers are now being prematurely obsoleted. We have hundreds of satisfied users and we would like all of our customers to consider this money-saving approach to analysis.

We wish to thank the thousands of you that have made our success possible. We truly appreciate each and every one of you, and **we pledge to continue expanding our products and provide you with an ALTERNATE SOURCE OF QUALITY PRODUCTS FOR ANALYSIS!**
WHO NEEDS US? YOU DO! WHY PAY MORE?

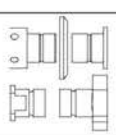
Sincerely,
Alpha Resources Inc.

GRAPHITE PRODUCTS FOR FLAMELESS AA

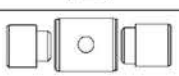
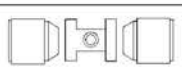
NEW PRODUCTS

Alpha Resources has expanded the Graphite products for flameless AA!! We now offer more items and more appropriate quantity selection. The tubes, platforms and contact sets we offer provide **good sensitivity, long life and reliable reproducibility of results**. As indicated below, you can purchase these tubes and platforms separately or as pre-inserted sets. If you do not see that part number you require or have a part number you would like us to cross, don't hesitate to call us and one of our knowledgeable salespeople will be happy to assist you. Please **call Alpha today at 1-888-742-9068** to begin using these economical items.

PERKIN ELMER® TYPES

ALPHA PART NO.	PERKIN ELMER® PART NO.	PYRO COATING	DESCRIPTION	PICTURED SMALLER THAN ACTUAL SIZE	QUANTITY
AAA-0698	N/A	NO	STANDARD TUBES		10/PK
AAA-0699	B007-0699	NO			50/PK
AAA-5197	B010-5197	YES			5/PK
AAA-0341	B300-0341	YES			10/PK
AAA-0342	B300-0342	YES			20/PK
AAA-1504	B009-1504	YES			50/PK
AAA-7111	B013-7111	YES	PLATFORM TUBES		5/PK
AAA-1092	B012-1092	YES			10/PK
AAA-1254	B300-1254	YES			20/PK
AAA-9322	B010-9322	YES			50/PK
AAA-7112	B013-7112	SOLID	PLATFORMS		5/PK
AAA-1091	B012-1091	SOLID			10/PK
AAA-1256	B300-1256	SOLID			20/PK
AAA-9324	B010-9324	SOLID			50/PK
AAA-1260	B300-1260/B300-1262	YES	INTEGRATED PLATFORMS AND TUBES		5/PK
AAA-1259	N/A	YES			10/PK
AAA-1258	B050-9346/B300-1264	YES			20/PK
AAA-1257	N/A	YES			50/PK
AAA-5058	N/A	YES	INTEGRATED FORKED PLATFORMS AND TUBES		5/PK
AAA-5057	B050-5057	YES			20/PK
AAA-5056	N/A	YES			50/PK
AAA-0363	B018-0363	NO	NON ZEEMAN CONTACT SETS		5 SETS
AAA-8490	B012-8490	NO			1 SET
AAA-0361	B018-0361	NO	ZEEMAN		5 SETS
AAA-6823	B011-8432	NO			1 SET
AR-079	N930-0260TRITON X-100 WETTING AGENT				118mL

VARIAN® TYPES

ALPHA PART NO.	VARIAN® PART NO.	PYRO COATING	DESCRIPTION	PICTURED SMALLER THAN ACTUAL SIZE	QUANTITY
AAA-0012	63-100012-00	YES	PARTITION TUBES		10/PK
AAA-0011	63-100011-00	YES	PLATFORM TUBES		10/PK
AAA-0013	63-100013-00	SOLID	PLATFORMS		10/PK
AAA-0016	63-100016-00 and 63-100018-00	NO	ELECTRODE (2) SHROUD		1 SET
AAA-0017	63-100017-00 and 63-100019-00	NO	ELECTRODE (2) SHROUD (ZEEMAN)		1 SET
AAA-0020	N/A	YES	INTEGRATED FORKED PLATFORM AND TUBE		10/PK

THERMO JARRELL ASH®

ALPHA PART NO.	PART NO.	COATING	DESCRIPTION	QUANTITY
AAA-4403	N/A	NO	STANDARD TUBE	10/PK
AAA-4402	N/A	YES	STANDARD TUBE	10/PK

ATI UNICAM®

ALPHA PART NO.	PART NO.	COATING	DESCRIPTION	QUANTITY
AAA-9504	9423-393-95041	YES	ELC (EXTENDED LIFETIME CUVETTES)	10/PK
AAA-9503	9423-393-95031	NO	RIDGED	10/PK

ICP/AA SINGLE ELEMENT STANDARDS

All standard concentrations are 1000 ±3 µg/mL in aqueous solution unless noted otherwise. **CONCENTRATIONS OF 10,000 µg/mL ARE AVAILABLE UPON REQUEST.** All standards are packaged in 250 ml high-density polyethylene DOT-2E bottles unless noted otherwise. The **accuracy** of all standards is **certified** against National Institute of Standards and Technology **(NIST)** Spectrometric Standard Solutions. A **certificate** of analysis and a material safety data sheet are **included** with each standard. All standards are **certified** accurate for a period of **one year** from the date of purchase.

Please call Alpha at 1-888-742-9068 for more details

ELEMENT	SOURCE, PURITY, MATRIX	CAT. NO.
Aluminum	Al metal, 99.999%, 2% HNO_3	APS-10001-1
	Al metal, 99.999%, 2% HCl	APS-10001-2
Antimony	Sb metal, 99.999%, 10% HCl	APS-10002-2
	Sb metal, 99.999%, 5% HNO_3 + Trace HF	APS-10002-3
Arsenic	As metal, 99.999%, 2% HNO_3	APS-10003-1
	As metal, 99.999%, 2% HCl	APS-10003-2
	As_2O_3 as As^{+3},99.999%, 2% HCl	APS-10003-6
	As metal as As^{+5}, 99.999%, 2% NaOH	APS-10003-7
Barium	$BaCO_3$, 99.99%, 2% HNO_3	APS-10004-1
	$BaCO_3$, 99.99%, 2% HCl	APS-10004-2
Beryllium	Be metal, 99.5%, 2% HNO_3	APS-10005-1
	Be metal, 99.5%, 2% HCl	APS-10005-2
Bismuth	Bi metal, 99.999%, 2% HNO_3	APS-10006-1
	Bi metal, 99.999%, 2% HCl	APS-10006-2
Boron	H_3BO_3, 99.99%, H_2O	APS-10007-4
Cadmium	Cd metal, 99.999%, 2% HNO_3	APS-10008-1
	Cd metal, 99.999%, 2% HCl	APS-10008-2
Calcium	$CaCO_3$, 99.99+%, 2% HNO_3	APS-10009-1
	$CaCO_3$, 99.99+%, 2% HCl	APS-10009-2
Carbon	$Na_2C_2O_4$, 99.9+%, H_2O	APS-100071-4
Cerium	CeO_2, 99.99%, 2% HNO_3	APS-100010-1
	CeO_2, 99.99%, 2% HCl	APS-100010-2
Cesium	Cs_2CO_3, 99.99%, 1% HNO_3	APS-100011-1
	Cs_2CO_3, 99.99%, 1% HCl	APS-100011-2
Chromium	Cr metal, 99.999%, 2% HNO_3	APS-100012-1
	Cr metal, 99.999%, 2% HCl	APS-100012-2
	Cr metal as Cr^{+3}, 99.999%, 2% HCl	APS-100012-6
	$K_2Cr_2O_7$ as Cr^{+6}, 99.998%, H_2O	APS-100012-7
Cobalt	Co metal, 99.998%, 2% HNO_3	APS-100013-1
	Co metal, 99.998%, 2% HCl	APS-100013-2
Copper	Cu metal, 99.999%, 2% HNO_3	APS-100014-1
	Cu metal, 99.999%, 2% HCl	APS-100014-2
Dysprosium	Dy_2O_3, 99.99%, 2% HNO_3	APS-100015-1
	Dy_2O_3, 99.99%, 2% HCl	APS-100015-2
Erbium	Er_2O_3, 99.99%, 2% HNO_3	APS-100016-1
	Er_2O_3, 99.99%, 2% HCl	APS-100016-2
Europium	Eu_2O_3, 99.99%, 2% HNO_3	APS-100017-1
	Eu_2O_3, 99.99%, 2% HCl	APS-100017-2
Gadolinium	Gd_2O_3, 99.99%, 2% HNO3	APS-100018-1
	Gd_2O_3, 99.99%, 2% HCl	APS-100018-2

ELEMENT	SOURCE, PURITY, MATRIX	CAT. NO.
Gallium	Ga metal, 99.999%, 2% HNO_3	APS-100019-1
	Ga metal, 99.999%, 2% HCl	APS-100019-2
Germanium	$(NH_4)_2$ GeF_5, 99.99%, 1% HNO_3	APS-100020-1
	Ge metal, 99.999%, 5% Oxalic Acid	APS-100020-5
Gold	Au metal, 99.99%, 2% HCl	APS-100021-2
Hafnium	Hf metal, 99.9%, 2% HNO_3 + 0.5% HF	APS-100022-3
Holmium	Ho_2O_3, 99.99%, 2% HNO_3	APS-100023-1
	Ho_2O_3, 99.99%, 2% HCl	APS-100023-2
Indium	In metal, 99.999%, 2% HNO_3	APS-100024-1
	In metal, 99.999%, 2% HCl	APS-100024-2
Iridium	$(NH_4)_3IrCl_6$, 99.998%, 10% HCl, 100mL	APS-100025-2
Iron	Fe metal, 99.999%, 2% HNO_3	APS-100026-1
	Fe metal, 99.999%, 2% HCl	APS-100026-2
Lanthanum	La_2O_3, 99.999%, 2% HNO_3	APS-100027-1
	La_2O_3, 99.999%, 2% HCl	APS-100027-2
Lead	Pb metal, 99.995%, 2% HNO_3	APS-100028-1
	Pb metal, 99.995%, 2% HCl	APS-100028-2
Lithium	Li_2CO_3, 99.999%, 1% HNO_3	APS-100029-1
	LiCl, 99.999%, 1% HCl	APS-100029-2
	$^6Li_2CO_3$, 99.5%, 1% HNO_3	APS-100029-6I
Lutetium	Lu_2O_3, 99.99%, 2% HNO_3	APS-100030-1
	Lu_2O_3, 99.99%, 2% HCl	APS-100030-2
Magnesium	Mg metal, 99.99%, 2% HNO_3	APS-100031-1
	Mg metal, 99.99%, 2% HCl	APS-100031-2
Manganese	Mn metal, 99.99%, 2% HNO_3	APS-100032-1
	Mn metal, 99.99%, 2% HCl	APS-100032-2
Mercury	Hg metal, 99.998%, 2% HNO_3	APS-100033-1
Molybdenum	Mo metal, 99.999%, 2% HCl	APS-100034-2
	Mo metal, 99.999%, 2% HNO_3 + HF	APS-100034-3
	$(NH_4)_2$ MoO_4, 99.999%, H_2O	APS-100034-4
Neodymium	Nd_2O_3, 99.99%, 2% HNO_3	APS-100035-1
	Nd_2O_3, 99.99%, 2% HCl	APS-100035-2
Nickel	Ni metal, 99.999%, 2% HNO_3	APS-100036-1
	Ni metal, 99.999%, 2% HCl	APS-100036-2
Niobium	Nb metal, 99.99%, 2% HNO_3+0.5% HF	APS-100037-3
Osmium	(NH4)2 OsCl6, 99.996%, 10% HCl, 100mL	APS-100070-2
Palladium	Pd metal, 99.99%, 5% HNO_3	APS-100038-1
	Pd metal, 99.99%, 5% HCl	APS-100038-2
Phosphorus	$(NH_4)H_2PO_4$, 99.95%, 0.05%, HNO_3	APS-100039-1
Platinum	Pt metal, 99.99%, 5% HCl	APS-100040-2

ICP/AA SINGLE ELEMENT STANDARDS

ELEMENT	SOURCE, PURITY, MATRIX	CAT. NO.
Potassium	KNO_3, 99.999%, 1% HNO_3 KCl, 99.99%, 1% HCl	**APS-100041-1** **APS-100041-2**
Praseodymium	Pr_6O_{11},99.99%, 2% HNO_3 Pr_6O_{11},99.99%, 2% HCl	**APS-100042-1** **APS-100042-2**
Rhenium	Re metal, 99.99%, 2% HNO_3 Re metal, 99.99%, 2% HCl	**APS-100043-1** **APS-100043-2**
Rhodium	$(NH_4)_3RhCl_6$,99.99%,10%HCl, 100mL	**APS-100044-2**
Rubidium	$RbNO_3$, 99.95%, 2% HNO_3 RbCl, 99.95%, 2% HCl	**APS-100045-1** **APS-100045-2**
Ruthenium	$(NH_4)_2RuCl_6$,99.99%,10% HCl,100mL	**APS-100046-2**
Samarium	Sm_2O_3, 99.99%, 2% HNO_3 Sm_2O_3, 99.99%, 2% HCl	**APS-100047-1** **APS-100047-2**
Scandium	Sc_2O_3, 99.99%, 2% HNO_3 Sc_2O_3, 99.99%, 2% HCl	**APS-100048-1** **APS-100048-2**
Selenium	Se metal, 99.99%, 2% HNO_3 Se metal, 99.99%, 2% HCl	**APS-100049-1** **APS-100049-2**
Silicon	Na_2SiO_3, 99.99%, H_2O $(NH_4)_2$ SiF_6, 99.99%, H_2O	**APS-100050-4** **APS-100050-4F**
Silver	Ag metal, 99.999%, 2% HNO_3	**APS-100051-1**
Sodium	$NaNO_3$, 99.99%, 1% HNO_3 NaCl, 99.98%, 1%, HCl	**APS-100052-1** **APS-100052-2**
Strontium	$SrCO_3$, 99.99%, 2% HNO_3 $SrCO_3$, 99.99%, 2% HCl	**APS-100053-1** **APS-100053-2**
Sulfur	H_2SO_4, 99.999%, H_2O	**APS-100054-5**
Tantalum	Ta metal, 99.99%, 2% HNO_3+0.5% HF	**APS-100055-3**

ELEMENT	SOURCE, PURITY, MATRIX	CAT. NO.
Tellurium	Te metal, 99.99%, 2% HCl Te metal, 99.99%, 2% HNO_3 + 0.2% HF	**APS-100056-2** **APS-100056-3**
Terbium	Tb_4O_7, 99.99%, 2% HNO_3 Tb_4O_7, 99.99%, 2% HCl	**APS-100057-1** **APS-100057-2**
Thallium	Tl metal, 99.999%, 2% HNO_3	**APS-100058-1**
Thorium	ThO_2, 99.99%, 2% HNO_3 ThO_2, 99.99%, 2% HCl	**APS-100059-1** **APS-100059-2**
Thulium	Tm_2O_3, 99.99%, 2% HNO_3 Tm_2O_3, 99.99%, 2% HCl	**APS-100060-1** **APS-100060-2**
Tin	Sn metal, 99.998%, 20% HCl Sn metal, 99.998%, 2% HNO_3 + 0.5% HF	**APS-100061-2** **APS-100061-3**
Titanium	Ti metal, 99.99%, 20% HCl Ti metal, 99.99%, 2% HNO_3 + 0.1% HF	**APS-100062-2** **APS-100062-3**
Tungsten	W metal, 99.99%, 5% HNO_3 + 0.5% HF	**APS-100063-3**
Uranium	U_3O_8, 99.968%, 2% HNO_3	**APS-100064-1**
Vanadium	NH_2VO_3, 99.99%, 2% HNO_3 NH_4VO_3, 99.99%, 2% HCl	**APS-100065-1** **APS-100065-2**
Ytterbium	Yb_2O_3, 99.99%, 2% HNO_3 Yb_2O_3, 99.99%, 2% HCl	**APS-100066-1** **APS-100066-2**
Yttrium	Y_2O_3, 99.99%, 2% HNO_3 Y_2O_3, 99.99%, 2% HCl	**APS-100067-1** **APS-100067-2**
Zinc	Zn metal, 99.999%, 2% HNO_3 Zn metal, 99.999%, 2% HCl	**APS-100068-1** **APS-100068-2**
Zirconium	Zr metal, 99.84%, 2% HNO_3 + 0.5% HF	**APS-100069-3**

The ICP/AA standards, both single element and the various multi-element standards are prepared by using metals, salts or oxides, which have been verified to be of high purity. The acids used in these preparations are sub-boiled prior to use.

A Certificate of Analysis showing exact chemistry accompanies each standard that we ship out. All standards are certified accurate for a period of one year from the date of shipment. If you do not see the standard you require, please contact us as we can probably produce it as a special order. Call us at 1-888-742-9068.

Can't find what your looking for?

Please contact us directly at 1-888-742-9068

LECO® is a registered trademark of Leco Corporation

LECO® part numbers appear in (parentheses)

ICP/AA STANDARDS

Alpha Resources also offers its customers the following for use with their ICP/AA analyzers:

- High Purity Metals, Salts and Oxides for use to create your own standards
- Ion Chromatography Standards
- Matrix Modifiers
- Other single element concentration standards ranging from 100 -10,000 ppm

QUALITY CONTROL STANDARDS

STANDARD I
APS-1031 Contents 250 mL (in 5% HNO_3)

ELEMENT	CONC., µg/mL	ELEMENT	CONC., µg/mL
Al	100	Mg	100
As	100	Mn	100
B	100	Mo	100
Ba	100	Ni	100
Be	100	P	100
Ca	100	*S	100
Cd	100	Se	100
Co	100	Si	100
Cr	100	U	100
Fe	100	V	100
K	100	Y	500
Li	100	Zn	100

STANDARD 2
APS-1032 Contents 250 mL (in 5% HCl)

ELEMENT	CONC., µg/mL	ELEMENT	CONC., µg/mL
Sb	100	Sn	100
Na	100	Y	500

STANDARD 3
APS-1033 Contents 250 mL (in 5% HNO_3)

ELEMENT	CONC., µg/mL	ELEMENT	CONC., µg/mL
Cu	100	Tl	100
Pb	100	Y	500
Ag	100		

STANDARD 4
APS-1007 Contents 250 mL (in 5% HNO_3)

ELEMENT	CONC., µg/mL	ELEMENT	CONC., µg/mL
Al	100	Si	50
Ba	100	Ag	100
B	100	Na	100
K	1000		

SIMULATED RAIN WATER

Contents 250 mL

ELEMENT	APS-1073 LEVEL I — mg/L	APS-1076 LEVEL II — mg/L
PH, 25° C	4.3	3.6
Specific Conductance (s/cm, 25° C)	26	130
Fluoride	0.05	0.10
Chloride	0.20	1.00
Nitrate	0.50	7.00
Sulfate	2.00	11.00
Sodium	0.20	0.40
Potassium	0.05	0.10
Ammonium	0.50	1.00
Calcium	0.01	0.05
Magnesium	0.02	0.05

DRINKING WATER POLLUTANT STANDARDS

PRIMARY DRINKING WATER METALS
APS-1071 Contents 250 mL (in 2% HNO_3)

ELEMENT	CONC., µg/mL	ELEMENT	CONC., µg/mL
Arsenic	100	Lead	100
Barium	50	*Mercury	20
Cadmium	50	Selenium	50
Chromium	100	Silver	10

SECONDARY DRINKING WATER METALS
APS-1072 Contents 250 mL (in 2% HNO_3)

ELEMENT	CONC., µg/mL	ELEMENT	CONC., µg/mL
Copper	50	Manganese	50
Iron	100	Zinc	50

TRACEMETALS IN DRINKING WATER
APS-1075 Contents 250 mL (in 5% HNO_3)

ELEMENT	CONC., µg/mL	ELEMENT	CONC., µg/mL
Aluminum	120	Manganese	40
Arsenic	80	Molybdenum	100
Antimony	10	Nickel	60
Barium	50	Potassium	2500
Beryllium	20	Rubidium	10
Bismuth	10	Selenium	10
Cadmium	10	Silver	2
Calcium	35000	Sodium	6000
Chromium	20	Strontium	250
Cobalt	25	Tellurium	3
Copper	20	Thallium	10
Iron	100	Uranium	10
Lead	40	Vanadium	30
Lithium	20	Zinc	70
Magnesium	9000		

SEDIMENT AND SOIL SOLUTIONS

Contents 250 mL each (in 5% HNO3) CONC: µg/ml

		Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe
APS-1066	River Sediment A	250	.5	.60	.50	-	.10	300	300	.10	1	1200
APS-1067	River Sediment B	600	.04	.20	4	-	.03	300	15	015	1	400
APS-1068	Estuarian Sediment	700	.004	.10	-	.02	.0004	80	.80	.10	.20	350
APS-1069	Soil A	500	.03	.2	5	-	.003	350	-	-	.30	200
APS-1070	Soil B	700	.40	6	7	-	.20	125	.40	.10	3	350

Continued

	Pb	Mg	Mn	Ni	P	K	Se	Si	Na	Tl	Th	U	V	Zn
APS-1066	7	70	80	.50	-	150	.02	-	50	.01	.02	.01	.25	15
APS-1067	2	120	6	.50	10	200	.01	3000	50	.01	.10	.03	1	5
APS-1068	.30	100	4	.30	5	150	.05	3000	200	-	.10	-	1	1.5
APS-1069	.40	70	.10	.30	10	200	.01	3000	70	-	.10	.01	.10	1
APS-1070	60	80	100	.20	10	210	-	3000	100	-	.10	.25	.80	70

Please contact us directly at 1-888-742-9068

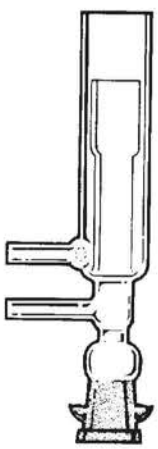
ICP GLASSWARE FROM ALPHA SCIENTIFIC GLASS

ALPHA SCIENTIFIC GLASS

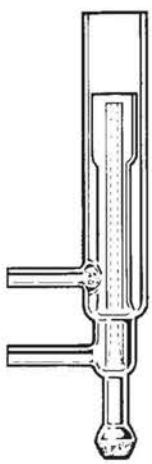
Alpha's skilled glass shop now fabricates even **more parts for your ICP/AA and ICP/MS** needs. This **larger section** has glassware used on many different types of instruments. Everything from **torches, bonnets, spray chamber, and nebulizers to quartz cells**. As you would expect from Alpha, these items are affordably priced, **conform to all specifications**, and are acceptable replacements for the OEM parts. When available, we have referenced the **OEM part number in parenthesis**.

If you do not see the part you require, please contact us. We can probably manufacture it for you. Give us a call today to start saving money. **Toll free 1-888-742-9068.**

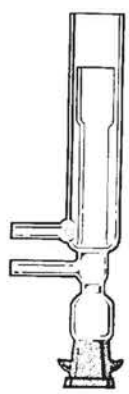
BAIRD®



APT-5129
(075129)
Torch, Plasma
PSX low flow
HF resistant



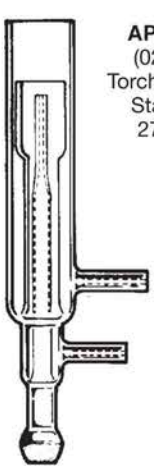
APT-2400L
(075542)
Torch, Plasma
PST low flow



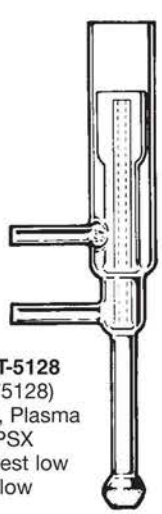
APT-5145
(075145)
Torch, Plasma
PST low flow
HF resistant

APT-6459
(676459)
AFS/ICP
Torch Injector
Only

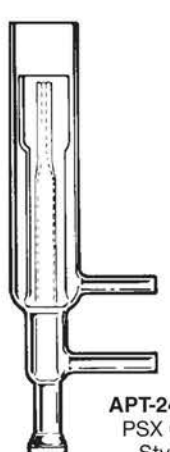
APT-6458
(676458)
AFS/ICP
Torch and
Injector



APT-2499
(025515)
Torch, Plasma
Standard
27 MHz



APT-5128
(075128)
Torch, Plasma
PSX
Labtest low
flow



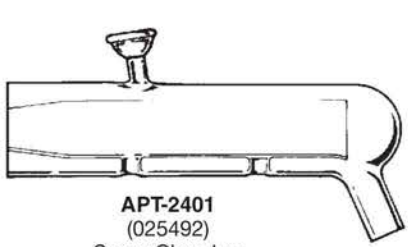
APT-2401L
PSX Old
Style
(069972)
40 MHZ
Low Flow

APT-0699
(069987)
HF/CR
27 MHZ Torch

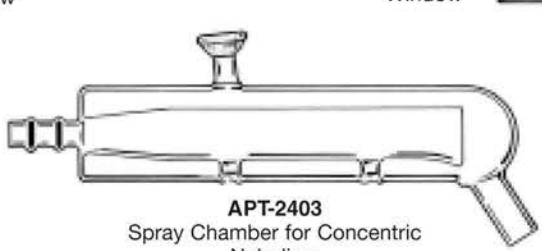
APT-7611
(077611)
ICP Window
Tube

APT-7200
(077200)
PST Purge
Window

APT-02410
(025491)
Torch Bonnet



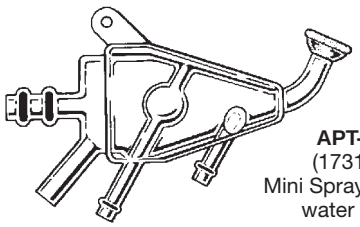
APT-2401
(025492)
Spray Chamber



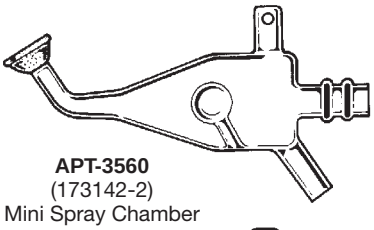
APT-2403
Spray Chamber for Concentric
Nebulizer

ICP GLASSWARE FROM ALPHA SCIENTIFIC GLASS

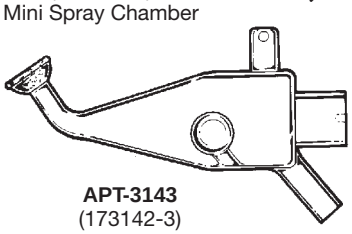
ARL®



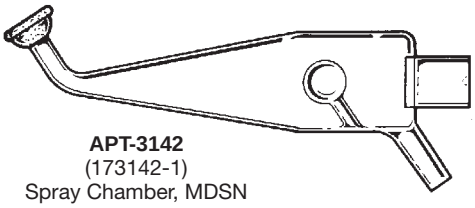
APT-3144
(173142-4)
Mini Spray Chamber,
water cooled



APT-3560
(173142-2)
Mini Spray Chamber

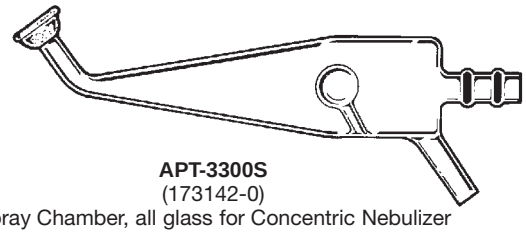


APT-3143
(173142-3)
Mini MDSN Spray Chamber

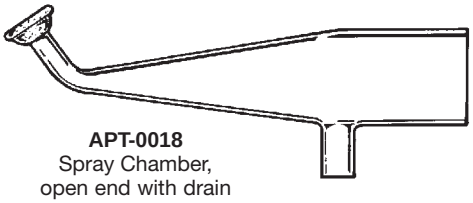


APT-3142
(173142-1)
Spray Chamber, MDSN

APT-1390
(1390008-0)
Spray Chamber, open end with impact bead



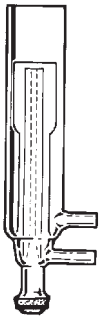
APT-3300S
(173142-0)
Spray Chamber, all glass for Concentric Nebulizer



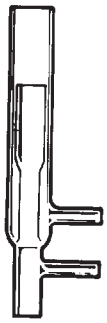
APT-0018
Spray Chamber,
open end with drain

APT-4857 (144857) Mini Alumina Injector

APT-4856 (1200079) Alumina Injector Tip



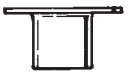
APT-1370
(137000)
ICPQ
Torch



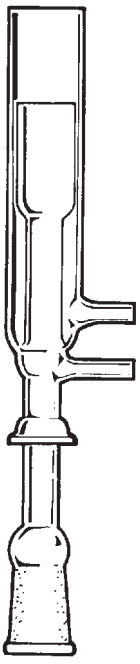
APT-3400HF
(173473)
Mini Torch
Body
HF/CR

APT-3400MB
(173251)
Torch
Bonnet
Induction Coil
M/S

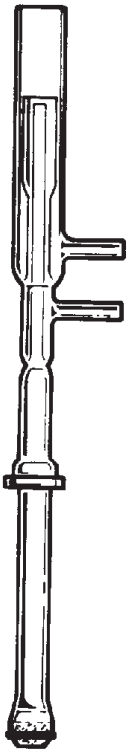
APT-3400
(139009-3)
Standard
Maxi Torch



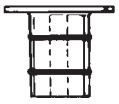
APT-3400B
(173252)
Mini Bonnet



APT-3480
(173131)
Quartz
Torch Body
HF/CR



APT-3400M
(173463)
Mini Torch

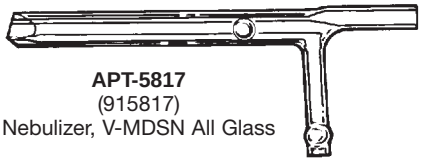


APT-2051
Torch Insert
for MDSN
Spray Chamber

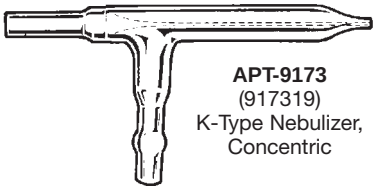
APT-3787
(S213787)
Maxim CR
Torch

APT-2056
O-Ring for
Spray Chamber

APT-3403
(S111403)
Maxim
Torch

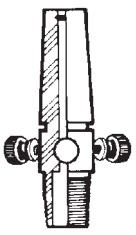


APT-5817
(915817)
Nebulizer, V-MDSN All Glass

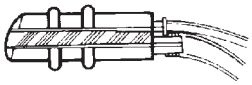


APT-9173
(917319)
K-Type Nebulizer,
Concentric

APT-2044
Teflon Insert



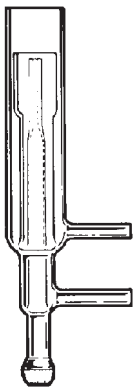
APT-2045
Teflon Insert,
adjustable



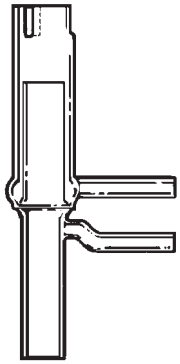
APT-3259
(173259)
Nebulizer,
Babbington V Groove

ICP GLASSWARE FROM ALPHA SCIENTIFIC GLASS

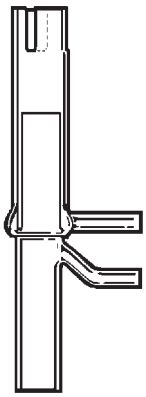
PERKIN-ELMER®



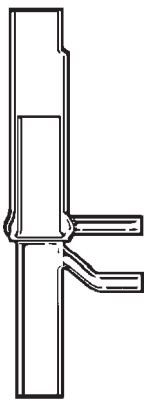
APT-2400H
(0047-2048)
Torch, one piece with ball joint



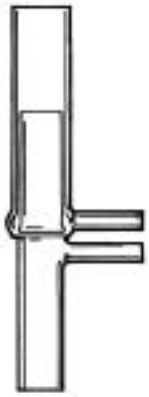
APT-1690
(N068-1690)
P40/P400
Torch Body with side arms organic



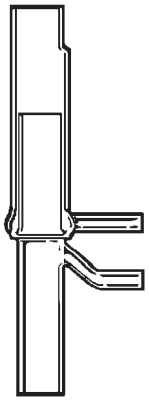
APT-5500#2
(N058-0528)
Torch Body, Type II



APT-5500#1
(N069-0568)
Torch Body, Optima



APT-5379
(N069-5379)
Optima 3000XL Axial

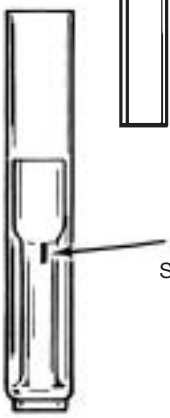


APT-1662
(N069-1662)
Optima DV
(Single Slot)

APT-1662B
(N069-1662)
Optima DV
(Two Slots)

APT-1662C
OPTIMA DV
(Three Slots)

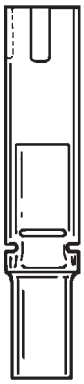
APT-1662W
OPTIMA DV
Wear Metals
(Single Slot)



APT-5297
(N077-5297)
Copper Foil Ignition Contact Strip for APT-5506

APT-5506
(N077-0338)
Demountable Torch PE 2000/4000 DV

APT-5500
(N058-0233)
Torch Body, Demountable



APT-5505
(N058-0376)
Torch Body, Demountable with Vertical Slots

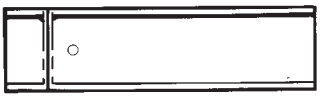
APT-2635
(N069-5362)
High Purity Alumina (99.8%) Injector for Axial ICP (3.26 inch)

APT-2184
(N812-6041) / (N058-2184)
Injector, 2.0mm. Same as APT-2635 only longer (4.24 inch)

APT-2185
(N058-2185)
Injector, 1.5mm
(4.24 Inch)

APT-2186
(N058-2186)
Injector, .86mm
(4.24 Inch)

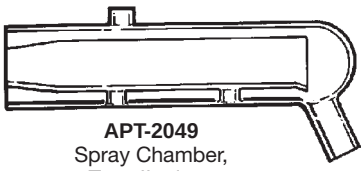
APT-5177
(N077-5177)
Injector, 2.0mm ID
(5.55 Inch)



APT-1234
(N068-1234)
Purge Extension

APT-5227
(N077-5227)
Injector, 0.8mm ID
(5.55 Inch)

APT-5228
(N077-5228)
Injector, 1.2mm ID
(5.55 Inch)

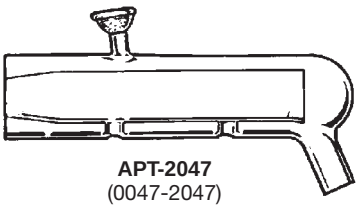


APT-2049
Spray Chamber, Type II, glass

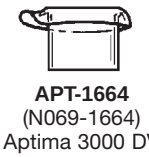
APT-5442
(N069-5442)
Sample Injector Tip, Quartz 2.0mm XL/DV

APT-0672
(N068-0672)
Short Radial Purge Tube

APT-5500B
(0047-2033)
Torch Bonnet

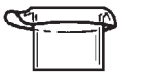


APT-2047
(0047-2047)
Spray Chamber



APT-1689
(N069-1689)
3000 DV Radial Purge Tube

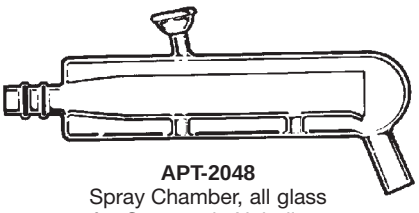
APT-0322
(N077-0322)
4000 Radial Purge Tube



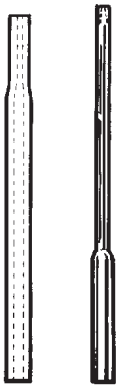
APT-1664
(N069-1664)
Aptima 3000 DV

APT-1497
(N058-1497)
Purge Extension Window, UV

APT-1116
Purge Window
(NO77-1116)



APT-2048
Spray Chamber, all glass for Concentric Nebulizer



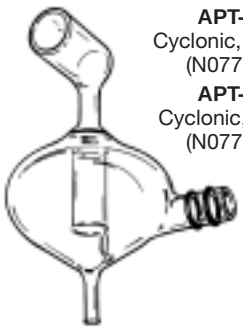
APT-1631
(N068-1631)
Sample Injector Tip, Quartz 1.2

APT-1632
(0047-3292)
Sample Injector Tip, Quartz, 1.6

APT-1633
Sample Injector Tip, Quartz 2.0

APT-6500I
(N058-0449)
Sample Injector Tip, Quartz 1.6

APT-6501I
Sample Injector Tip, Quartz 2.0



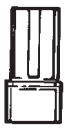
APT-2188
Cyclonic, 3300 DV
(N812-2188)

APT-6052
Cyclonic, No Baffle
(N077-6052)

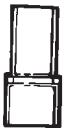
APT-6053
Cyclonic, w/Baffle
(N077-6053)

APT-0769
"O" Ring Kit
(N069-0769)

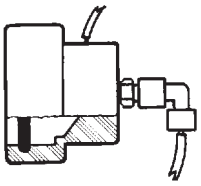
APT-5500X
(0047-3560)
Extension with slot



APT-5510X
(0047-3052)
Extension

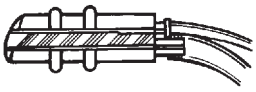


NEBULIZERS



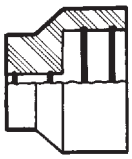
APT-0092
Fixed Cross-Flow
Nebulizer
(35mm chamber)

APT-0092S
For Small Spray Chamber
(34mm chamber)



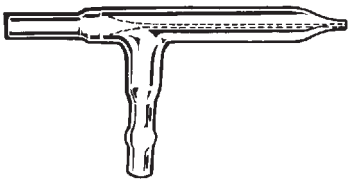
APT-5105
Nebulizer, Babbington V-Groove

APT-5740
(991005740)
V-Groove Peek Nebulizer



APT-5203
Teflon Endcap for Spray Chambers

APT-5204
Teflon Endcap for Babbington Nebulizer



MEINHARD® CONCENTRIC NEBULIZERS

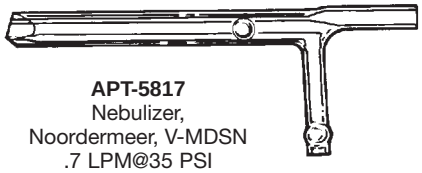
APT-0068	C-Type, 0.5 mlpm, 50 psi
APT-0069	C-Type, 0.5 mlpm,
APT-0070	C-Type, Recessed Tip, 1mlpm
APT-0071	C-Type, Recessed Tip, 2mlpm
APT-0072	C-Type, Recessed Tip, 3mlpm
APT-0073	C-Type,1mlpm, 50 psi
APT-0074	A-Type, Flush Tip, 1mlpm
APT-0076	A-Type, Flush Tip, 2mlpm
APT-0077	A-Type, Flush Tip, 3mlpm
APT-0078	C-Type, 2mlpm
APT-0079	A-Type, 3mlpm (Quartz)
APT-0080	K-Type, Nebulizer
APT-0082	K-Type, Nebulizer, Trace
APT-0083	HEN, Nebulizer
APT-0084	KH-Type, 50 psi

APT-5012
Modified Lichte
.7 L/min

APT-5013
Modified Lichte
1.0 L/min

APT-5016
Special Spray Chamber
for Modified Lichte

APT-2056
O-ring for
Spray Chambers
Using Concentric
Nebulizers
(Shown Actual Size)



APT-5817
Nebulizer,
Noordermeer, V-MDSN
.7 LPM@35 PSI

NEBULIZER CROSS REFERENCE CHART

OEM TYPE	ALPHA NO.	OEM NO.	J.E. MEINHARD® NO.
PERKIN ELMER	APT-0079	PE# WE02-4371	TQ-30-A3
	APT-0080	PE# N068-1574	TR-30-K3
	APT-0072	PE# N810-2011	TR-30-C3
	APT-0069	PE# N810-2012	TR-30-C0.5
	APT-0077	PE# 0047-2020	TR-30-A3
	APT-0073	PE# 0047-2022	TR-50-C1
ISA	APT-0073	47.929.001	TR-50-C1
	APT-0071	47.929.002	TR-30-C2
	APT-0072	47.929.003	TR-30-C3
	APT-0068	47.929.004	TR-50-C0.5
	APT-0070	47.929.006	TR-30-C1
FINNIGAN	APT-0084	70005-98010	CIR-50-HK
ARL	APT-0077	914319-000M	TR-30-A3
	APT-0080	915375-000M	TR-30-K3
	APT-5817	915817	—
	APT-9173	917319	—
	APT-3259	173259	—
VG	APT-0077	1040894	TR-30-A3
SPECTRO	APT-0070	76060510	TR-30-C1
TJA	APT-0082	134365-00/139184-00	TR-30-K2
LECO®	APT-0072	500-72	TR-30-C3
VARIAN	APT-5740	991005740	—
	APT-8160	201008160	—

LECO® is a registered trademark of Leco Corporation

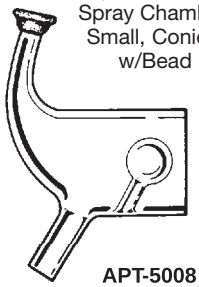
LECO® part numbers appear in (parentheses)

ICP GLASSWARE FROM ALPHA SCIENTIFIC GLASS

SPECTRO®

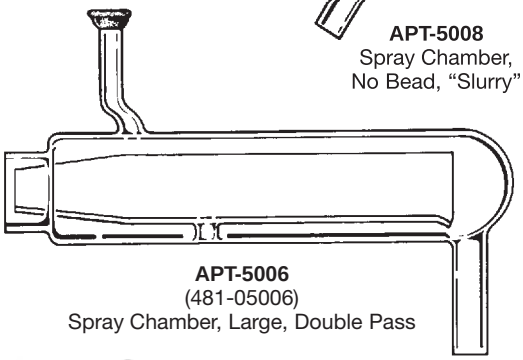
SEE PAGE 46
FOR ICP TUBING

APT-5015
Cyclonic Spray Chamber, 12/5 Socket, 13mm Drain



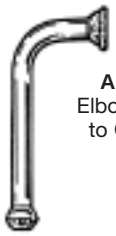
APT-5007
(481-05003)
Spray Chamber, Small, Conical w/Bead

APT-5008
Spray Chamber, No Bead, "Slurry"

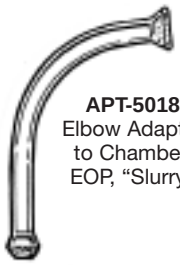


APT-5006
(481-05006)
Spray Chamber, Large, Double Pass

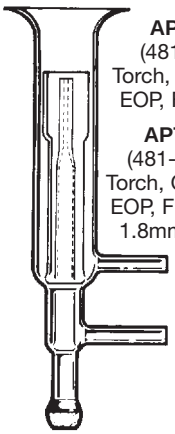
APT-5016
Cyclonic Spray Chamber for Modified Lichte Nebulizer, 13mm Drain



APT-5017
Elbow Adapter to Chamber, EOP

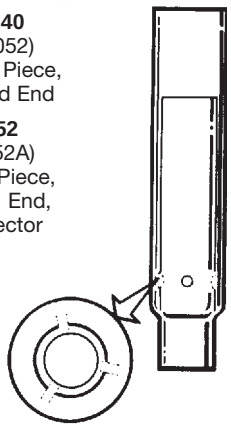


APT-5018
Elbow Adapter to Chamber, EOP, "Slurry"

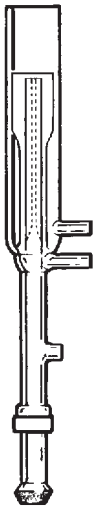


APT-5040
(481-05052)
Torch, One Piece, EOP, Flared End

APT-5052
(481-05052A)
Torch, One Piece, EOP, Flared End, 1.8mm Injector



APT-8204
(48206002)
Torch, Demountable



APT-8205
(75060596)
Quartz Torch, One Piece, 1.8mm bore

APT-8206
(48-205001)
Oils Torch, One Piece, 1.0mm bore

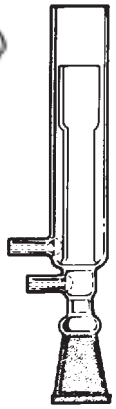
APT-8207
Quartz Torch Wear Metals Torch, 1.8mm Injector

APT-4821
EOP, Demountable Torch, Flared End

APT-4820
(48206007)
EOP, Demountable Torch

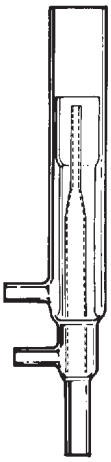
VARIAN®

APT-8170
(201008700)
Cyclonic Spray Chamber



APT-7299
(2010072900)
Quartz Torch, HF Demountable, ICP-ES

APT-7930
(2010079300)
Quartz Torch, HF Demountable, ICP-MS



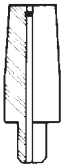
APT-6969
(2010069690)
Torch, ICP-ES

APT-7830
(2010078300)
Torch, ICP-MS

APT-8120
(2010081200)
Axial Torch, Low Flow, One Piece

APT-8340
(2010083400)
Demountable Axial Torch

APT-7079
(2010070790)
Torch Bonnet



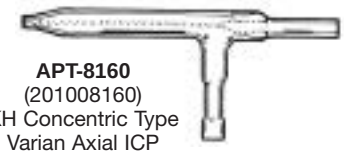
APT-5730
(9910057300)
Injector Tube Holder, Teflon

APT-6759
(2410067590)
Injector Tip, Alumina 1.8mm

APT-8121
ICP-ES Torch with Ball Joint

APT-5700
(9910057000)
Injector Tip, Quartz 1.8mm

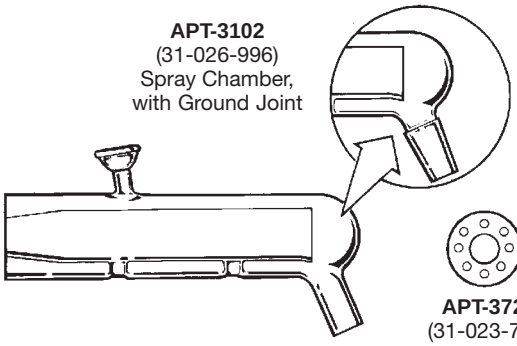
APT-9040
(2010090400)
Vista Axial Torch with 90° Bend



APT-8160
(201008160)
KH Concentric Type Varian Axial ICP

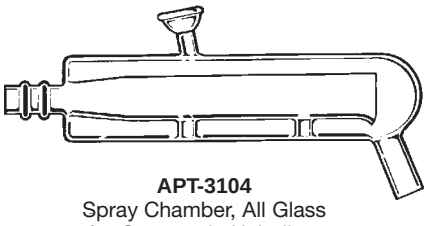
ICP GLASSWARE FROM ALPHA SCIENTIFIC GLASS

JOBIN YVON®



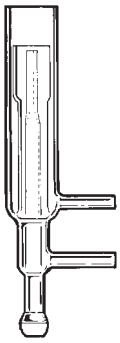
APT-3102
(31-026-996)
Spray Chamber,
with Ground Joint

APT-3724
(31-023-724)
Teflon Spacer
Ring

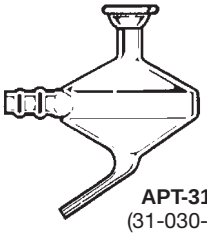


APT-3104
Spray Chamber, All Glass
for Concentric Nebulizer

APT-3723
(31-023-723)
Quartz Tube,
inner, demountable

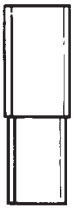


APT-4901
(49-010-100)
Standard Torch

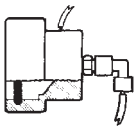


APT-3103
(31-030-809)
Spray Chamber,
Cyclonic

APT-3103B
(31-031-279)
Spray Chamber,
Cyclonic,
No Baffle Shown



APT-3722
(31-023-722)
Quartz Tube,
outer, demountable



APT-4792
(47-929-008)
Fixed Cross-Flow
Nebulizer

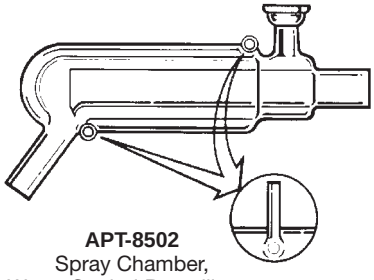
APT-3549
(31-023-549)
Teflon Endcap
for
Spray Chambers

O-RING CHART	
APT-2138	(46-702-138)
APT-7011	(46-701-105)
APT-2342	(46-702-342)
APT-2360	(46-702-360)

APT-1589
(31-021-589)
Alumina Injector Tube

APT-1590
Quartz Injector Tube

FINNIGAN MAT/TS SOLA®

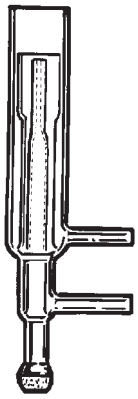


APT-8502
Spray Chamber,
Water Cooled Borosilicate

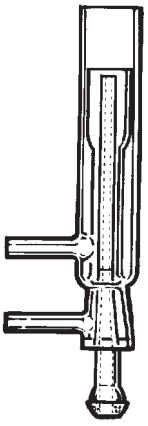
APT-8503
Spray Chamber,
Water Cooled Quartz

APT-8499
Fixed Element
Torch

APT-8498
Element
Torch,
Demountable
(Set)



APT-8500
Standard Torch

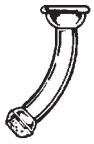


APT-8501
Torch,
Demountable
and Injector
Quartz

APT-8498
Element Torch,
Demountable
(Set)

APT-5011
Alumina Injector

APT-8497
Demountable
Torch

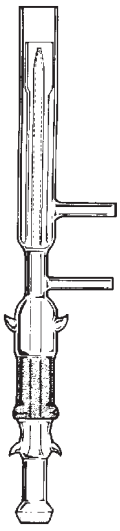


APT-8504
Elbow Ball/Socket
Borosilicate

APT-8505
Elbow Ball/Socket
Quartz

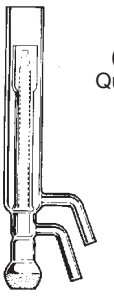
ICP GLASSWARE FROM ALPHA SCIENTIFIC GLASS

TJA®

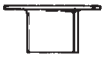


APT-9000
(19040054)
Quartz Torch with removable tip.

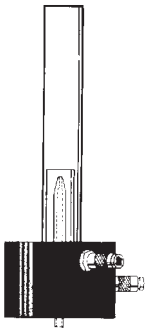
APT-9000ET
Quartz Torch with extra tip.



APT-2000
(19040073)
2000-2400 Series Quartz Torch
1.0mm Injector

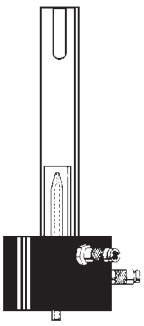


APT-0075
(19040075)
Quartz Bonnet



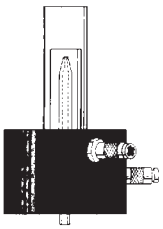
APT-4003
(126432-03)
Torch, Trace, High Flow

APT-4003B
(126440-03)
w/o Injector



APT-4006
(126432-04)
Axial Torch with Slot with Injector

APT-4006B
(126440-06)
w/o Injector



APT-3202
(126432-02)
High/Low Flow Torch, Aqueous

APT-3202B
(126440-02)
w/o Injector

APT-3201
(126432-01)
High Flow Torch, Aqueous

APT-3201B
(126440-01)
w/o Injector

APT-5124
(125124-01)
High Flow Torch, Organics

APT-1254
O-Ring for all Injectors

APT-0701
(12540701)
Quartz Injector Tip, organics
1.0mm bore

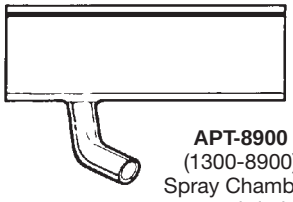
APT-0701C
Ceramic Injector
(same as above)

APT-0700
(12540700)
Quartz Injector Tip, aqueous
1.5mm bore

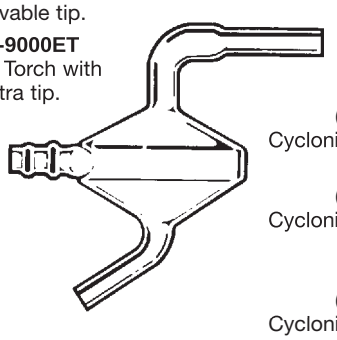
APT-0700C
Ceramic Injector
(same as above)

APT-0201
(13650201)
Quartz Injector
2.0mm

APT-0202
(13650202)
Quartz Injector
2.4mm



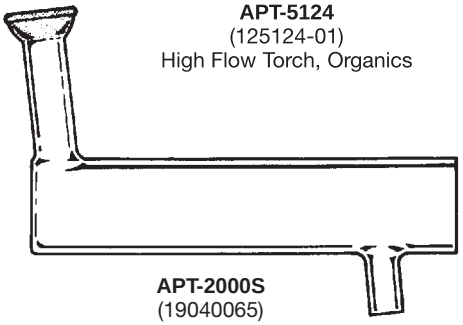
APT-8900
(1300-8900)
Spray Chamber, curved drain, open ends



APT-2751
(13610500)
Cyclonic Spray Chamber

APT-1381
(13812000)
Cyclonic Spray Chamber
No Baffle

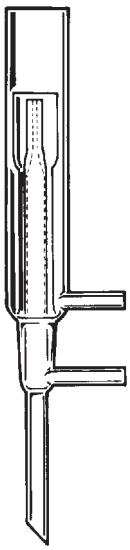
APT-6120
(13612000)
Cyclonic Spray Chamber
Two Piece



APT-2000S
(19040065)
Standard Spray Chamber

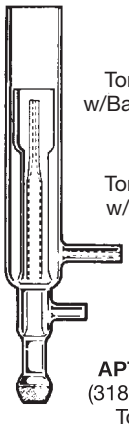
APT-1279
Short Neck with Curved Drain

LEEMAN LABS®



APT-1100
(318-0016)
Torch, One Piece, Beveled End 1.0 injector

APT-1105
Torch,One Piece, Beveled end 1.5 injector



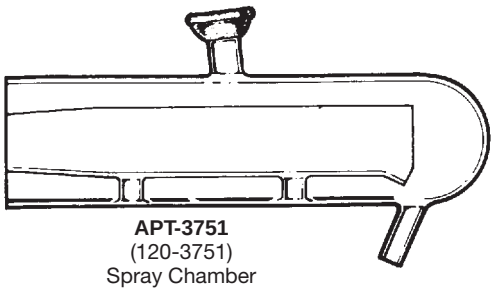
APT-1103
(120-3748)
Torch, One Piece w/Ball Joint, aqueous

APT-1102
(120-3749)
Torch, One Piece w/Ball Joint, Oils

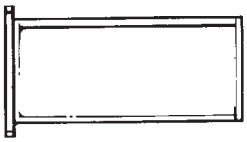
APT-0026
(318-00026)
Torch,
Tandem Aqueous

APT-0027
Torch,
Tandem Organics

APT-1101
(318-0004)
Quartz Injector Tip for APT-1104

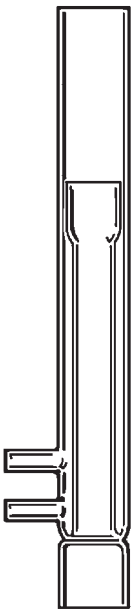


APT-3751
(120-3751)
Spray Chamber



APT-0034
(121-0034)
Quartz Optical Window/Purge Tube

APT-1104
(318-0001)
Torch,
Demountable Radial ICP

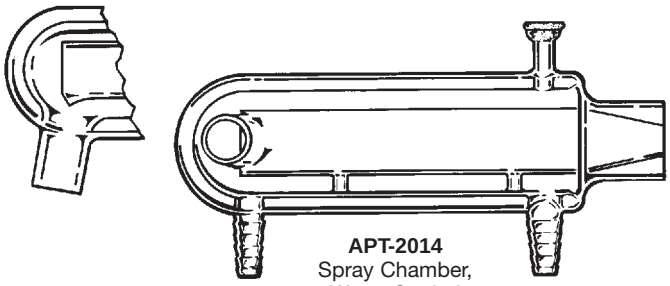


APT-1069
(318-0069)
Torch,
Demountable Axial ICP

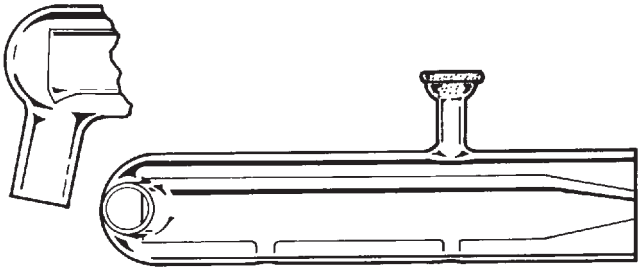
ICP GLASSWARE FROM ALPHA SCIENTIFIC GLASS

SCIEX®

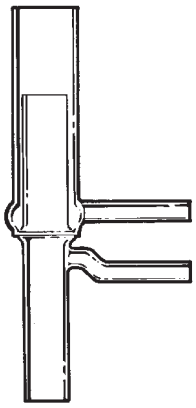
SEE PAGES 33 THROUGH 35
FOR ICP/AA STANDARDS



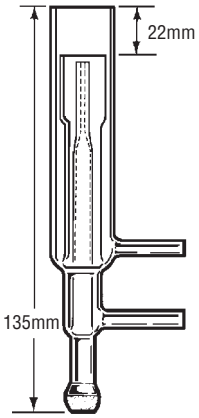
APT-2014
Spray Chamber,
Water Cooled



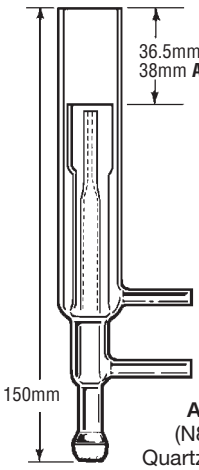
APT-2012
Spray Chamber



APT-2006
(N812-2006)
Quartz Torch
with Side Arms
ICP/MS

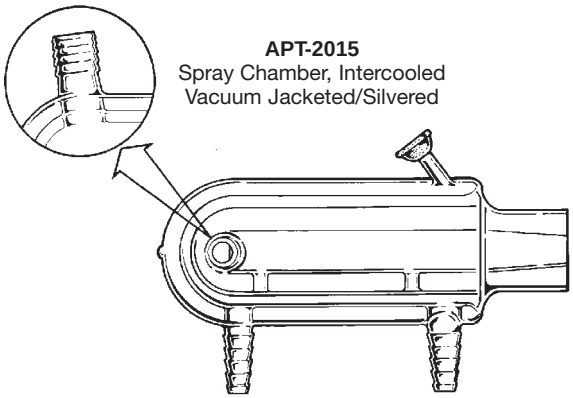


APT-2003
(N810-2001)
Quartz Torch,
Short



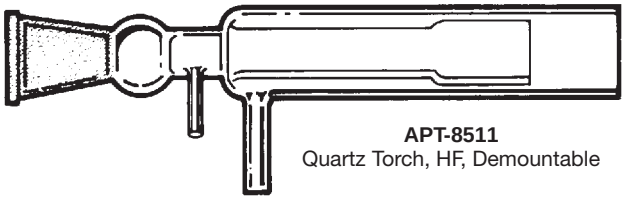
APT-2001
(N810-2001)
Quartz Torch, Long
38mm Length

APT-2002
Quartz Torch
36.5mm Length

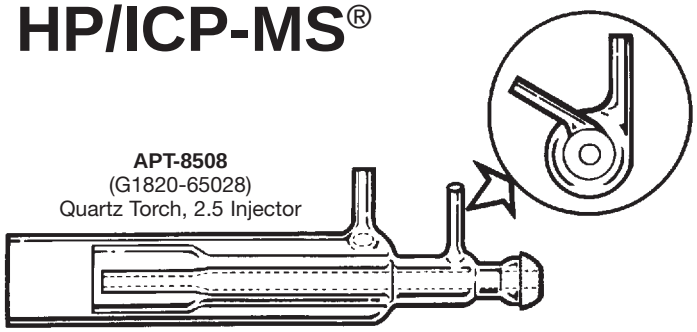


APT-2015
Spray Chamber, Intercooled
Vacuum Jacketed/Silvered

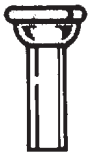
HP/ICP-MS®



APT-8511
Quartz Torch, HF, Demountable

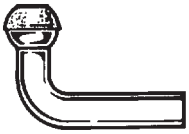


APT-8508
(G1820-65028)
Quartz Torch, 2.5 Injector



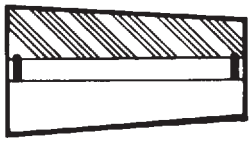
APT-8509
Socket Adapter,
Borosilicate

APT-8510
Socket Adapter,
Quartz

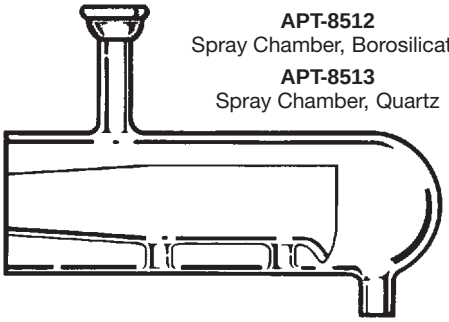


APT-8506
Ball Adapter,
Borosolicate

APT-8507
Ball Adapter,
Quartz



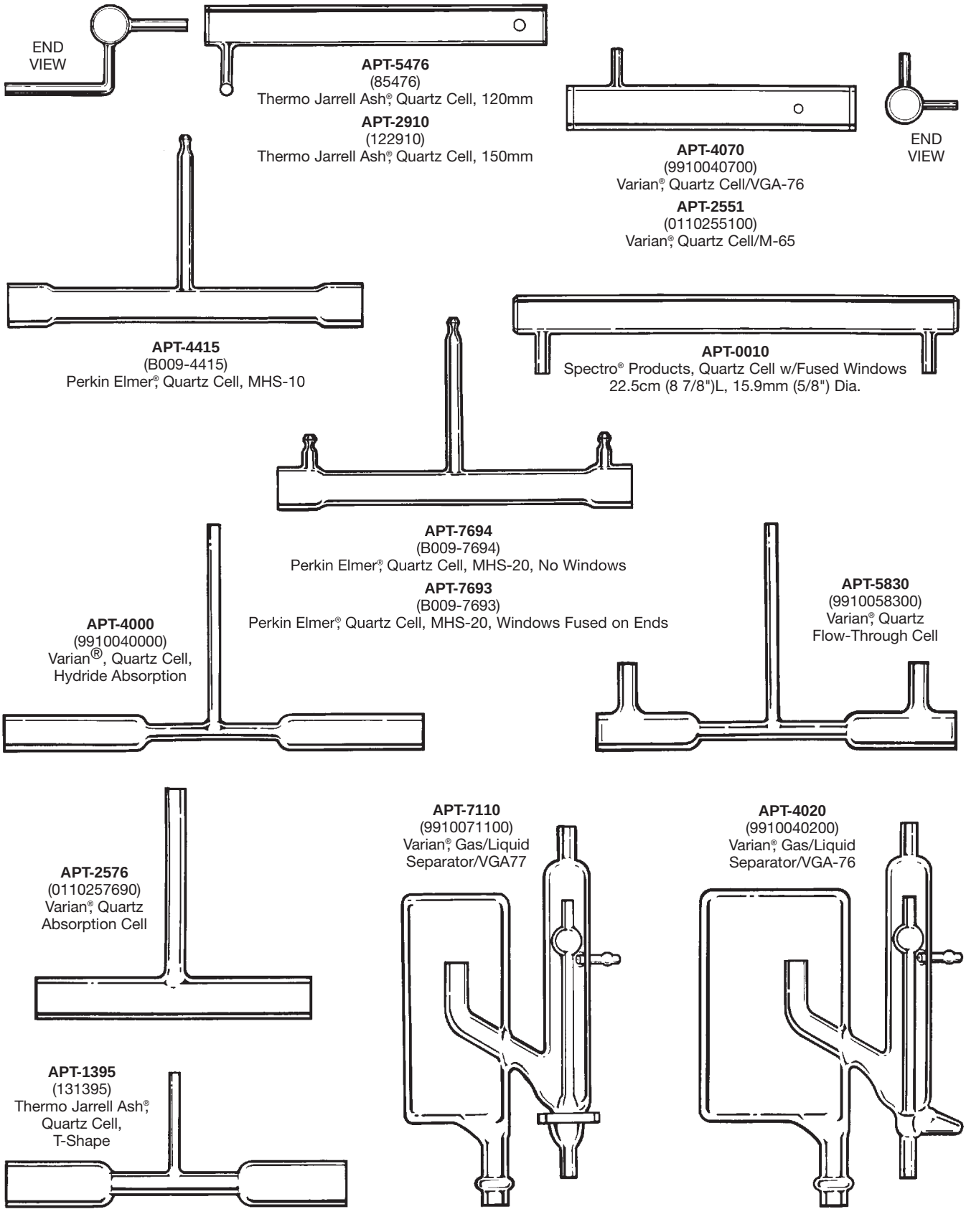
APT-8514
Teflon Injector Holder



APT-8512
Spray Chamber, Borosilicate

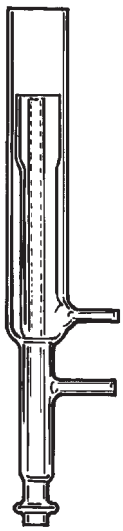
APT-8513
Spray Chamber, Quartz

QUARTZ CELLS

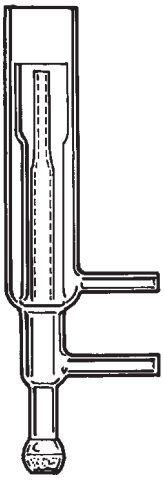


ICP GLASSWARE FROM ALPHA SCIENTIFIC GLASS

LECO®



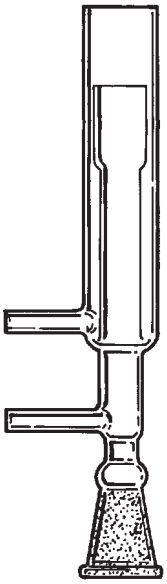
APT-1030
(701-030)
HF Assembly
with Injector



APT-1760
(701-760)
Standard
Quartz Torch

APT-1761
Standard
Low Flow

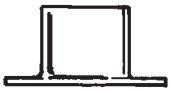
AR-1762
High Solids
Torch



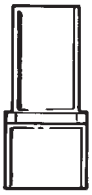
APT-1763
HF/CR
Demountable
Torch

APT-1764
Alumina
Injector

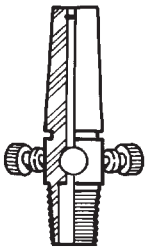
APT-1765
Adapter
Torch to
Spray
Chamber



APT-1768
Bonnet

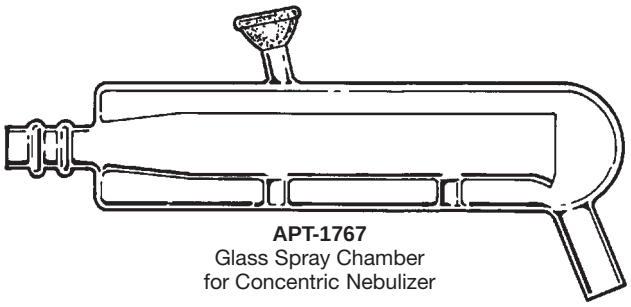


APT-1769
Extension

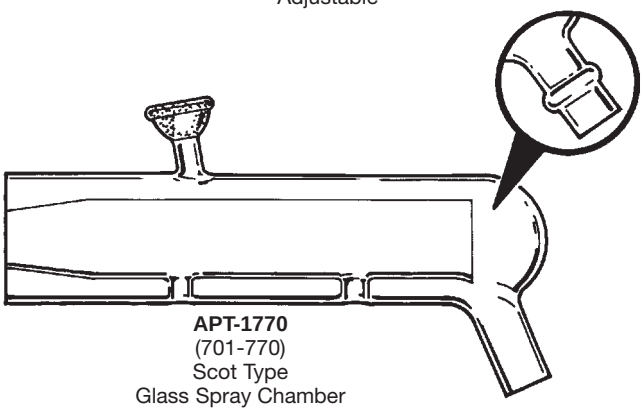


APT-1766
Adapter
Adjustable

APT-1771
Modified
Spray
Chamber

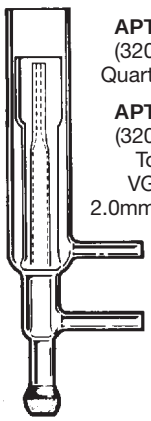


APT-1767
Glass Spray Chamber
for Concentric Nebulizer



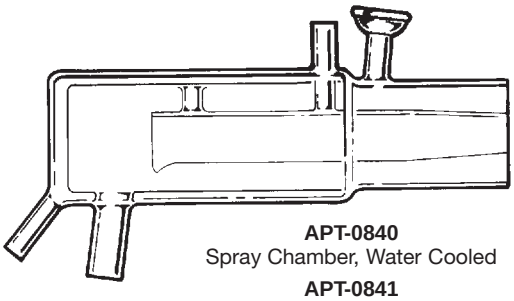
APT-1770
(701-770)
Scot Type
Glass Spray Chamber

VG INSTRUMENTS®



APT-1192
(3201192)
Quartz Torch

APT-1732
(3201732)
Torch
VG MS
2.0mm Injector



APT-0840
Spray Chamber, Water Cooled

APT-0841
(3200841)
Quartz Spray Chamber, Water Cooled

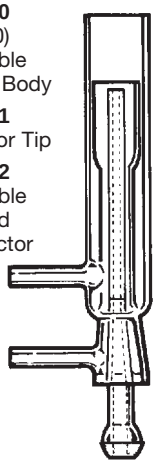
APT-0726
Elbow, Ball
and Socket

APT-0727
(3200727)
Elbow, Ball and
Socket Quartz

APT-1200
(1200080)
Demountable
Quartz Torch Body

APT-1201
Quartz Injector Tip

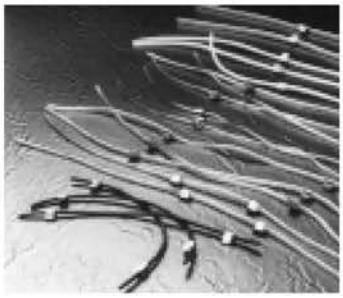
APT-1202
Demountable
Torch and
Quartz Injector



LECO® is a registered trademark of Leco Corporation

LECO® part numbers appear in (parentheses)

ICP/AA PUMP TUBING



Alpha Resources now carries high quality pump tubing!!! Now you can save money. Select from the various tubing formulations, sizes, and tab colors provided to the right. Each item is sold in a package of twelve.

This affordable pump tubing is offered in the 2 or 3-stop configurations. The 2-stop configuration can be ordered directly from the chart. The 3-stop configuration is ordered by placing a "3" in front of the numerical sequence. For example, AR-4300 is 2-stop tubing orange/ black and AR-34300 is 3-stop tubing orange/black.

All 2-stop tubing is 16 inches in length with a 6 inch bridge interval.

All 3-stop tubing is 15 inches in length with 3 inch bridge intervals.

All Fluran/Viton® tubing is 7 inches in length with a 5 inch bridge interval.

ID INCHES/MM	TAB COLOR CODE	PVC/TYGON® TUBING	SOLVENT RESISTANT TUBING	FLURAN / VITON® TUBING	SILICONE TUBING Pkg. of 6 only	AVAILABLE IN RUNNING FT. TUBING
0.005 / 0.13	Orange/Black	AR-4300	AR-4300Y		AR-4300S	YES
0.008 / 0.19	Orange/Red	AR-4301	AR-4301Y			YES
0.010 / 0.25	Orange/Blue	AR-4302	AR-4302Y		AR-4302S	YES
0.015 / 0.38	Orange/Green	AR-4303	AR-4303Y			YES
0.020 / 0.51	Orange/Yellow	AR-4305	AR-4305Y	AR-4305B		YES
0.025 / 0.64	Orange/White	AR-4307	AR-4307Y	AR-4307B	AR-4307S	YES
0.030 / 0.76	Black/Black	AR-4308	AR-4308Y	AR-4308B	AR-4308S	YES
0.035 / 0.89	Orange/Orange *	AR-4309	AR-4309Y	AR-4309B	AR-4309S	YES
0.040 / 1.02	White/White	AR-4311	AR-4311Y	AR-4311B	AR-4311S	YES
0.045 / 1.14	Red/Red *	AR-4313	AR-4313Y	AR-4313B	AR-4313S	YES
0.051 / 1.30	Gray/Gray	AR-4315	AR-4315Y	AR-4315B	AR-4315S	YES
0.056 / 1.42	Yellow/Yellow	AR-4316	AR-4316Y	AR-4316B	AR-4316S	YES
0.060 / 1.52	Yellow/Blue	AR-4317	AR-4317Y	AR-4317B	AR-4317S	NO
0.065 / 1.65	Blue/Blue	AR-4318	AR-4318Y	AR-4318B	AR-4318S	YES
0.073 / 1.85	Green/Green	AR-4320	AR-4320Y	AR-4320B	AR-4320S	YES
0.081 / 2.06	Purple/Purple	AR-4321	AR-4321Y	AR-4321B	AR-4321S	YES
0.090 / 2.29	Purple/Black	AR-4322	AR-4322Y	AR-4322B	AR-4322S	YES
0.100 / 2.54	Purple/Orange	AR-4323	AR-4323Y	AR-4323B	AR-4323S	YES
0.110 / 2.79	Purple/White	AR-4324	AR-4324Y	AR-4324B	AR-4324S	YES
0.125 / 3.17	Black/White	AR-4325				YES

* AR-3536 – Single Red Tabs, 40" L, Solvent Resistant
* AR-3538 – Single Red Tabs, 40" L, PVC/TYGON®
* AR-3550 – Single Orange Tabs, 40" L, Solvent Resistant
* AR-3551 – Single Orange Tabs, 40" L, PVC/TYGON®

*Registered Trademark of Norton Performance Products

If you do not see what you need or have technical questions, please *call us* at 1-888-742-9068

Alpha offers its customers a **wide range of tubing supplies** for their LECO® instruments as well as their other **analytical and laboratory needs**. Please check below to find the correct tubing for your application. If you do not see the part number you need, please **call us at 1-800-833-3083** and a friendly Alpha sales agent will be **happy to assist you.**

ALPHA NO.	LECO® NO.	DESCRIPTION	UNIT
AR-084		Tygon® Tubing, 1/4" ID	FT
AR-086		Tygon® Tubing, 5/16" ID	FT
AR-087		Tygon® Tubing, 3/16" ID	FT
AR-110	501-110	Silicone Tubing, 3/8" ID	FT
AR-111		Silicone Tubing, 3/16" ID	FT
AR-112	501-112	Neoprene Tubing, 3/8" ID	FT
AR-114	501-112	Silicone Tubine, 1/4" ID	4"
AR-866	608-866	CFlex .1875 ID, 3/16" x 1/8" w	FT
AR-1691	601-691	CFlex Tubing, .125	FT
AR-1691-30	601-691-030	CFlex Tubing, .125	30"
AR-1691-36	601-691-036	CFlex Tubing, .125	36"
AR-2505	172-505	Teflon Tubing, 1/4" OD, 3/16" ID	FT
AR-2506		1/8" Tubing for TC-136	FT
AR-3662	773-662	Polyflo Flex Tubing, 1/16" ID	FT
AR-4496	604-496	Teflon Tubing, 1/8" OD, 1/16" ID	FT
AR-63047	603-047	Ureth Tubing, .061 x .12 OD, Red	FT
AR-63048	603-048	Ureth Tubing, .061 x .12 OD, Bue	FT
AR-63049	603-049	Ureth Tubing, .061 x .12 OD, Green	FT
AR-63050	603-050	Ureth Tubing, .031 x .12 OD, Black	FT
AR-63051	603-051	Ureth. Tubing, .061 x .12 OD, White	FT
AR-63052	603-052	Ureth. Tubing, .061 x .12 OD, Orange	FT

AR-110 (501-110)
SILICONE TUBING

AR-111
SILICONE TUBING

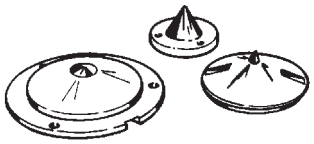
AR-112 (501-112)
NEOPRENE TUBING

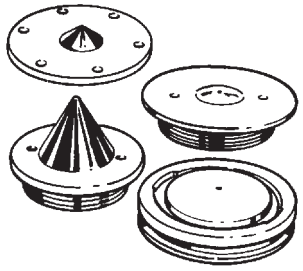
LECO® is a registered trademark of Leco Corporation

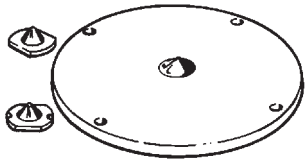
LECO® part numbers appear in (parentheses)

ICP SKIMMERS AND SAMPLER CONES

Alpha Resources is now offering high quality ICP mass spectrometer cones and skimmers. These items are supplied at a significant discount from the OEM supplied parts and are guaranteed to perform and last as good or better. The cones and skimmers are CNC machined with high quality alloys and acute precision for quality performance. Consult the chart below for material selection, OEM part number cross reference, and pricing.







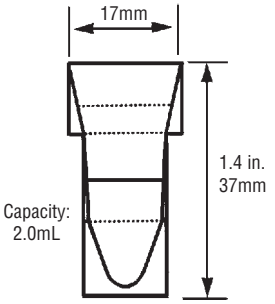
VG PLASMAQUAD/PLASMATRACE®

ALPHA NO.	DESCRIPTION	MFR. PART NO.
APT-9001	Nickel Sampler	3004661/4001690
APT-9002	Nickel Mini-Skimmer	3004866/4001689
APT-9003	Nickel Micro-Skimmer (EI)	3200860/4200846
APT-9004	Platinum Sampler 18mm	3200262
APT-9005	Platinum Mini-Skimmer	N/A
APT-9006	Platinum Micro-Skimmer (EI)	3201101
APT-9007	Platinum Plasmatrace® Skimmer	3202005
APT-9008	Nickel Plasmatrace® Skimmer	3200456
APT-9007B	Platinum Plasmatrace® II Micro-Skimmer	3201941
APT-9008B	Nickel Plasmatrace® II Micro-Skimmer	3201457

SCIEX ELAN®

ALPHA NO.	DESCRIPTION	MFR. PART NO.
APT-9009	Nickel Sampler 250/500	N810-2101
APT-9010	Nickel Skimmer 250/500	N810-2111
APT-9011	Nickel Sampler 5000	WE01-3087
APT-9012	Nickel Skimmer 5000	N812-2000
APT-9013	Platinum Sampler 250/500	N810-2131
APT-9014	Platinum Skimmer 250/500	N810-2141
APT-9015	Platinum Sampler 5000	WE01-3088
APT-9016	Platinum Skimmer 5000	N812-2035
APT-9017	Nickel Sampler 6000	WE02-1140
APT-9018	Nickel Skimmer 6000	WE02-1137
APT-9019	Platinum Sampler 6000	WE01-4815
APT-9020	Platinum Skimmer 6000	WE01-4816

GRAPHITE FURNACE SAMPLE CUPS



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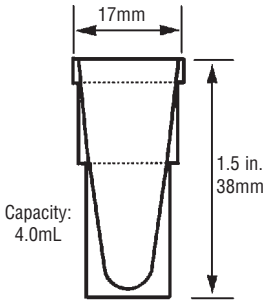
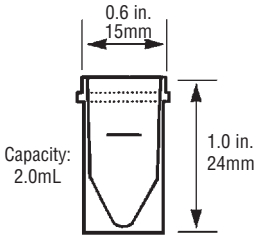
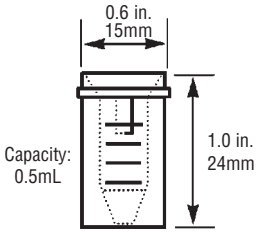


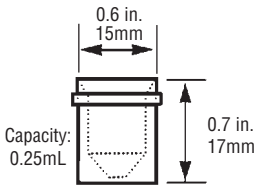
AAA-4001



AAA-1001
AAA-2001



AAA-1003

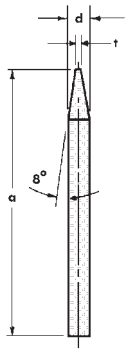


AAA-1002

ALPHA NO.	TECHNICON NO.	DESCRIPTION	CASE QTY.
AAA-1002	127-0500	0.25ml Polystrene Clear	1000
AAA-1003	127-0093-000	0.5ml Polystrene Clear	1000
AAA-1004	127-0093	0.5ml Polystyrene Clear	10,000
AAA-1001	127-0090-000	2.0ml Polystyrene Clear	1000
AAA-1010	127-0090	2.0ml Polystyrene Clear	10,000
AAA-2001	127-0090-100	2.0ml Polyethylene Cloudy	1000
AAA-2010	127-0090	2.0ml Polyethylene Cloudy	10,000
AAA-4001	127-0018-000	4.0ml Polystyrene Clear	1000
AAA-1005	127-0016-HIT	2.0ml Hitachi®, Nova®, and IL®	1000

SUPPLIES FOR SPECTROGRAPHIC ANALYSIS

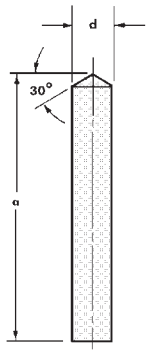
ELECTRODES



AR-8728

	mm	inch
a	38.1	1.500
d	3.05	.120
t	—	—

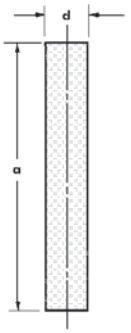
ASTM C-1
(RW0047)
(0001281)



AR-8731

	mm	inch
a	38.1	1.500
d	6.15	.242

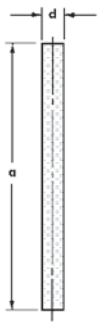
ASTM C-2
(RW0029)
(0001286)



AR-8732

	mm	inch
a	38.1	1.500
d	6.15	.242

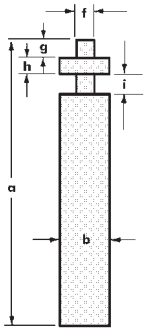
ASTM C-3
(RW0011)



AR-8734

	mm	inch
a	38.1	1.500
d	3.05	.120

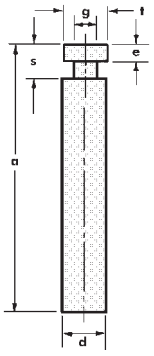
ASTM C-6
(RW0012)
(000899)



AR-8735

	mm	inch
a	38.1	1.500
b	6.15	.242
f	2.38	0.094
g	2.38	0.094
h	2.38	0.094
i	2.38	0.094

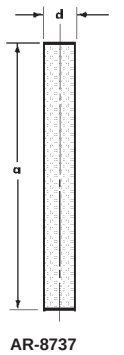
ASTM C-7
(001452)



AR-8736

	mm	inch		mm	inch
a	38.1	1.500	e	—	—
d	6.15	.242	m	—	—
e	2.38	.094	s	4.76	.187
g	3.18	.125	t	6.15	.242

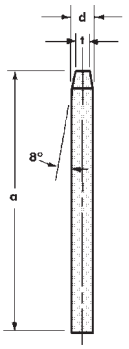
ASTM C-8
(RW 0027)



AR-8737

	mm	inch
a	38.1	1.500
d	4.57	.180

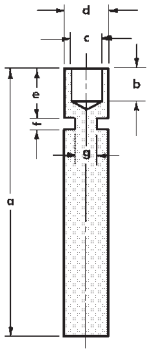
ASTM C-9
(RW0013)



AR-8742

	mm	inch
a	38.1	1.500
d	3.05	.120
t	—	—

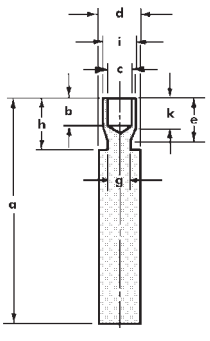
ASTM S-1
(RW0010)
(001334)



AR-8743

	mm	inch		mm	inch
a	38.1	1.500	e	6.35	.250
b	3.97	.156	f	1.59	.063
c	4.57	.180	g	3.05	.120
d	6.15	.242	v	0.079cm	

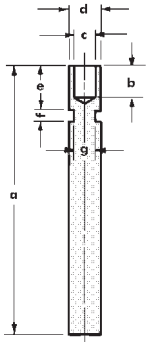
ASTM S-12
(RW0006)
(001225)



AR-8744

	mm	inch		mm	inch
a	31.75	1.250	g	3.18	.125
b	3.97	.156	h	7.14	.281
c	3.45	.136	i	4.57	.180
d	6.15	.242	k	4.76	.187
e	6.35	.250	v	0.034cm	

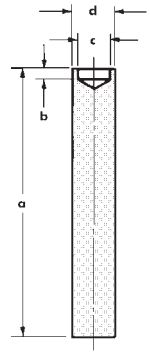
ASTM S-13
(RW0002)
(001293)



AR-8745

	mm	inch		mm	inch
a	38.1	1.500	e	6.35	.250
b	4.76	.187	f	1.59	.063
c	3.05	.120	g	3.05	.120
d	4.57	.180	v	0.037cm³	

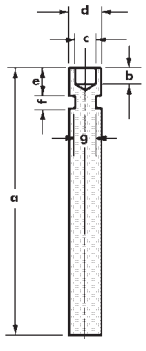
ASTM S-14
(RW0005)
(001270)



AR-8750

	mm	inch
a	38.1	1.500
b	1.58	.062
c	4.57	.180
d	6.15	.242
v	0.033cm³	

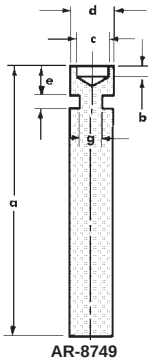
ASTM S-5
(RW0035)
(001571)



AR-8746

	mm	inch		mm	inch
a	38.1	1.500	e	3.97	.156
b	2.38	.094	f	1.59	.063
c	3.05	.120	g	3.18	.125
d	4.57	.180	v	0.020cm³	

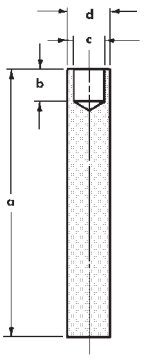
ASTM S-15
(RW0004)
(000693)



AR-8749

	mm	inch		mm	inch
a	38.1	1.500	e	3.97	.156
b	1.59	.063	f	1.59	.063
c	4.57	.180	g	3.05	.120
d	6.15	.242	v	0.036cm³	

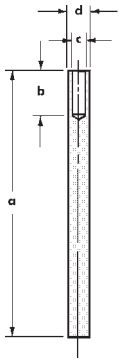
ASTM S-4
(RW0042)
(001332)



AR-8751

	mm	inch
a	38.1	1.500
b	4.8	.187
c	4.57	.180
d	6.15	.242
v	0.085cm³	

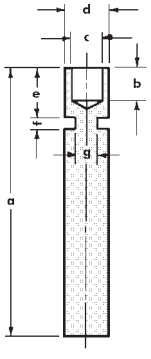
ASTM S-8
(RW0001)
(001327)



AR-8752

	mm	inch
a	38.1	1.500
b	6.35	.250
c	2.44	.096
d	3.05	.120
v	0.032cm³	

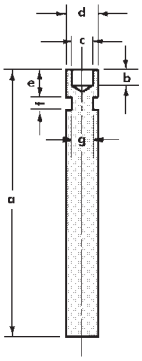
(RW0034)
(001394)



AR-8753

	mm	inch		mm	inch
a	38.1	1.500	e	7.14	2.81
b	4.76	.187	f	1.59	.063
c	4.57	.180	g	3.18	.125
d	6.15	.242	v	0.093cm³	

(RW0043)
(001395)



AR-8754

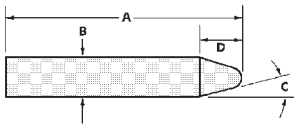
	mm	inch		mm	inch
a	38.1	1.500	e	4.76	.187
b	2.38	.094	f	1.59	.063
c	3.18	.125	g	2.36	.093
d	4.57	.180	v	0.021cm³	

(RW0041)
(002052)

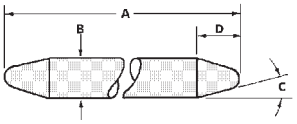
SUPPLIES FOR SPECTROGRAPHIC ANALYSIS

ELECTRODES

ROUNDED END



DOUBLE END



REF NO.	CARBONE®	RINGSDORFF®	TYPE	A	B	C	D
AR-8733	001235	N/A	Rounded	1.500"	0.242"	15°	N/A
AR-8729	001686	N/A	Rounded	1.500"	0.120"	15°	N/A
AR-8730	001480	N/A	Rounded	1.500"	0.180"	15°	0.156"
AR-8755	001706	N/A	Rounded	2.000"	0.180"	15°	0.156"
*AR-8756	003321	N/A	Rounded	2.000"	0.180"	15°	0.156"
*AR-8757	002210	N/A	Rounded	2.000"	0.242"	15°	N/A

*Double End

DCP ELECTRODE

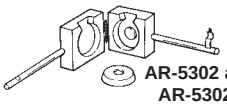
AR-8726 (GRAPHITE ELECTRODE)

MAGNETIC HOLDER

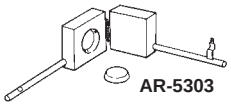
AR-5510
MAGNETIC HOLDER

This holder was developed to save fingers from grinding and burning, when surfacing samples on a grinding wheel or belt sander. The 40 lb. pull of the magnet, holds the sample. The retaining shield keeps the sample from sliding. A screw is used to break the magnetic field which allows removal of the sample from the powerful magnet. The two inch diameter is a convenient size for holding in the hand.

SAMPLE DISC/PIN MOLDS FOR ANALYSIS



AR-5302 and AR-5302b

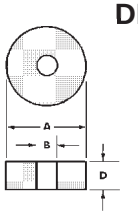


AR-5303

AR-5304 and AR-5304b

REF. NO.	TYPE/SHAPE	DIMENSIONS	USE
AR-5302	Vertical Pour (steel) Disc/Recess	0.25"H x 2.5"D Recess .062" Deep 1"D	Aluminum, Lead, Magnesium Zinc Alloys
AR-5302b	Vertical Pour (steel) Disc (No Recess)	0.25"H x 2.5"D	Same as AR-5302
AR-5303	Horizontal Pour (steel) Disc/Recess	0.375"H x 1.2"D	Same as AR-5302
AR-5304	Vertical Pour (copper) Air/Water Cooled Pin and Disc	Pin: 1.75"L x 0.187"D Disc: 0.25"H x 1.25"D	Pin Suitable for C,S,H,O,N Rapid Chill Disc for Ferrous Base Analysis
AR-5304b	Vertical Pour (copper) Air/Water Cooled Pin and Disc	Pin: 1.75"L x 0.187"D Disc: 0.375" H x 1.5"D	Same as AR-5304

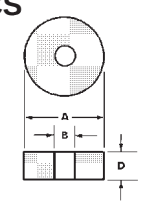
ROTRODE ROTATING DISCS



AR-8738

	mm	inch
A	12.5	0.492
B	3.18	0.125
D	3.18	0.125

ASTM D-1
(RW0058)
(006806-5)

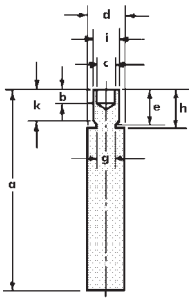


AR-8739

	mm	inch
A	12.5	0.492
B	3.18	0.125
D	5.08	0.200

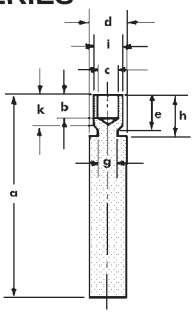
ASTM D-2
(RW0057)
(006806)

HARVEY SERIES



AR-8740

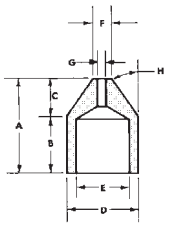
	mm	inch		mm	inch
a	31.75	1.250	g	3.18	.125
b	2.31	.091	h	6.35	.250
c	3.0	.118	f	3.91	.154
d	6.15	.242	k	5.13	.202
e	5.54	.218	v	0.014 cm³	



AR-8741

	mm	inch		mm	inch
a	31.75	1.250	g	3.18	.125
b	3.75	.048	h	6.35	.250
c	3.45	.136	f	4.57	.180
d	6.15	.242	k	4.84	.191
e	5.54	.218	v	0.038 cm³	

BOILER CAP

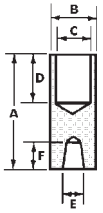


AR-8727

	mm	inch		mm	inch
A	11.11	0.437	E	4.58	0.1805
B	7.14	0.281	F	1.68	0.066
C	2.36	0.093	G	1.02	0.040
D	6.15	0.242	H	—	42°

(001304)

ANODE CUPS

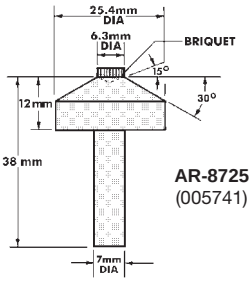


REF NO.	CARBONE®	RINGSDORFF®
AR-8747	001319	RW0044
AR-8748	001115	RW0009
AR-8758	N/A	N/A

A	B	C	D	E	F
0.620	0.242	0.160	0.280	0.125	0.160
0.620	0.242	0.187	0.280	0.125	0.160
0.620	0.242	0.187	0.031	0.125	0.160

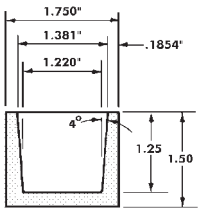
PELLET HOLDER

ANALYSIS OF REFINED COPPER BY BRIQUET TECHNIQUE



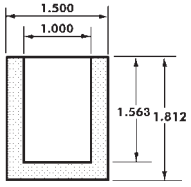
AR-8725
(005741)

GRAPHITE CRUCIBLES, RODS, POWDER



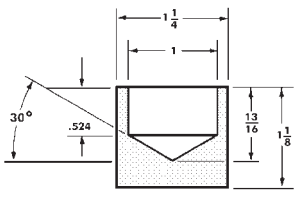
AR-8715 (HIGH PURITY)

AR-8715 (LOW PURITY)



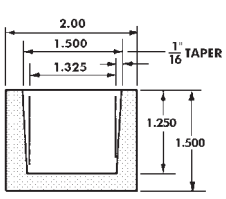
AR-8717 (HIGH PURITY)

AR-8718 (LOW PURITY)



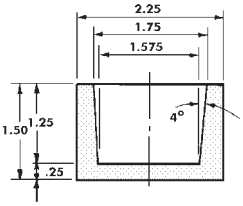
AR-8719 (HIGH PURITY)

AR-8720 (LOW PURITY)



AR-8721 (HIGH PURITY)

AR-8722 (LOW PURITY)



AR-8723 (HIGH PURITY)

AR-8724 (LOW PURITY)

HIGH PURITY GRAPHITE RODS

REF. NO.	GRAPHITE ROD SIZE	CARBONE® P/N
AR-8701	0.120" x 12" (3.05mm x 305mm)	014144-100
AR-8702	0.180" x 12" (4.57mm x 305mm)	014144-102
AR-8703	0.242" x 4" (6.15mm x 101.6mm)	014144-52
AR-8704	0.242" x 6" (6.15mm x 152.4mm)	014144-54
AR-8705	0.242" x 12" (6.15mm x 305mm)	014144-56
AR-8759	0.500" X 12" (12.7mm X 305mm)	—

SEMI-PURE GRAPHITE RODS

REF. NO.	GRAPHITE ROD SIZE	CARBONE® P/N
AR-8706	0.120" x 12" (3.05mm x 305mm)	014144-101
AR-8707	0.180" x 12" (4.57mm x 305mm)	014144-102
AR-8708	0.242" x 12" (6.15mm x 305mm)	014144-59

GRAPHITE POWDER

REF. NO.	MESH SIZE	GRADE	CARBONE® P/N
AR-8709	100	Graphite Pelletizing	014145-03
AR-8710	200	Graphite Pelletizing	014145-04
AR-8711	325	Graphite Pelletizing	—
AR-8712	100	Graphite Mixing	014145-07
AR-8713	200	Graphite Mixing	014145-08
AR-8714	325	Graphite Mixing	014145-09

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