

# costech

analytical technologies, inc.

• INSTRUMENTS



• CONSUMABLES



• SOFTWARE



# Costech

**ANALYTICAL TECHNOLOGIES, INC.**

26074 Ave. Hall, Suite14, Valencia, CA 91355  
Phone: 661-297-2395 Fax: 661-297-5492

## Table of Contents

Ordering Information

Terms and conditions

ECS 4010 Elemental Combustion System

EAS - Elemental Analysis Software

Catalysts, Reagents and Sample Capsules for elemental analyzers pg. 1-2

Analytical standards pg. 3

Consumables and Quartz reactors for the Costech ECS 4010 Analyzer pg. 4-5

Consumables and Quartz reactors for the Flash EA 1112 pg. 6

Consumables and Quartz reactors for the NA 1500 Series 2, EA 1108,  
NA 2500 and EA 1110 Analyzers pg. 7-8

Consumables and Quartz reactors for the NA 1500 (Series 1) Analyzer pg. 9-10

Consumables and Quartz reactors for the NA 2000, NA 2100  
Nitrogen/Protein Analyzer pg. 11

Consumables and Quartz reactors for the EA 1106 Analyzer pg. 12-13

Consumables and Quartz reactors for the Perkin Elmer® 2400 Analyzer pg. 14

Consumables and Quartz reactors for the Europa ANCA N/C Analyzer pg. 15

Perkin Elmer® is a registered trademark of the Perkin Elmer Corporation

The use of Perkin-Elmer Corp. part numbers is for your convenience only and is not intended to indicate the products are manufactured by Perkin-Elmer Corp.. Costech Analytical Technologies manufactures the highest quality products for use in the instruments listed in this catalog. Perkin-Elmer Corp. is located at 761 Main Avenue, Norwalk, CT 06859.

The use of CE Instruments part numbers is for your convenience only and is not intended to indicate the products are manufactured by CE Instruments. Costech Analytical Technologies manufactures the highest quality products for use in the instruments listed in this catalog. CE Instruments is located at Strada Rivoltana, 20090 Rodano, Milan, Italy.

## **Ordering Information**

**To place an order, please contact us by mail, phone or fax at:**

**Costech Analytical Technologies, Inc.  
26074 Ave. Hall, Suite 14  
Valencia, CA 91355**

**Phone : 1-800-524-7219**

**Fax : 661-297-5492**

We are committed to providing our customers with consumables for elemental analysis of the highest possible quality and the lowest cost. We will assist you in ordering the correct items and shipping them quickly and correctly.

All orders will be processed and shipped within 24 hours. If you require overnight delivery, please tell us when placing the order.

If you have any questions regarding pricing or products, please call our staff at the number listed above.

All of our consumable items are prepared to the exacting specifications required to provide you with consistent, reliable results. They are continuously checked in our laboratory to ensure that they meet our quality specifications. We fully warranty our products and are sure they will give the best results possible from your elemental analyzer.

## **Technical Assistance**

To ensure that our customers are getting the best results from our consumables and their elemental analyzer, we will provide technical assistance in choosing the correct reagents and chemicals for their application. Application and new method development support will also be provided to our customers by calling us at 661-297-2395, Monday - Friday, 8:30 AM to 5:00 PM Pacific Time.

## **Terms and Conditions**

Prices for items listed in this catalog are effective January 2002. Prices do not include shipping and insurance. All applicable state, federal and local taxes are added to the invoice unless tax exempt status is shown. Prices are subject to change without notice.

Shipments will normally be sent UPS, FOB Valencia, CA. If express delivery is required please indicate when ordering. Freight charges are prepaid and added to the invoice. Some hazardous materials require special packaging requirements. Any additional charges for special packaging will be added to the invoice.

Payment terms are 100%, net 30 days.

A damaged shipping carton should be refused and the carrier notified. If the carton is undamaged but the products inside are damaged, notify our office.

Products are warranted for 90 days to be free from defects in quality and workmanship. If during the warranty period a defect is detected, Costech Analytical Technologies will, at its discretion provide a replacement or credit.

Costech Analytical Technologies products are intended for use by laboratory personnel trained in the handling and use of these materials, and only in laboratory applications. Users should exercise special care in handling glassware and chemicals. The buyer and / or user is responsible for the safe handling, storage and disposal of all products ordered from this catalog. Costech Analytical Technologies responsibility is limited to the supply of products, all other liability is expressly excluded.

The use of CE Instruments tradenames and part numbers in this catalog are for customer convenience only and does not imply that products are of CE Instruments origin. All products are of the highest quality and will give consistent, reliable results. CE Instruments models EA 1106, NA 1500, NA 1500 Series 2, EA 1108, NA 2000, NA 2500 and EA 1110, are trademarks of CE Instruments, Strada Rivoltana, 20090 Rodano, Milan, Italy.

# ECS 4010

## CHNS-O Elemental Analyzer

### Innovation in elemental analysis

The **Elemental Combustion System 4010** was designed as an advanced analytical platform for CHNS-O elemental analysis and Nitrogen/Protein determination. It is based on an automatic analytical unit whose operation - from sampling to signal detection - is microprocessor controlled. It represents an evolution in the technique of elemental analysis by "flash combustion/chromatographic separation and multi-detector techniques".



### The ECS 4010 consists of three modules;

The first module is the combustion system, the second is the detector system, and the third is the data handling system.

**The first module** consists of sampling, combustion and pneumatics. The autosamplers available are a sealed, "Zero Blank" sampler, and an open carousel sampler, where samples can be added continuously. The movement of the "Zero Blank" autosampler is controlled by a microstepping motor. You can choose either 32 or 50 position carousel through the instrument software, and since it is completely sealed to atmosphere there is no contamination of the samples from nitrogen or oxygen. This is especially useful for stable isotope analysis. The second choice of sampler has three carousels which are open to the atmosphere, but, samples can be added continuously and the number of sample positions is 147.

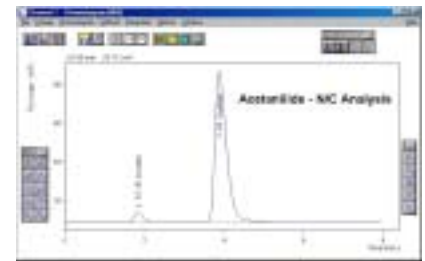
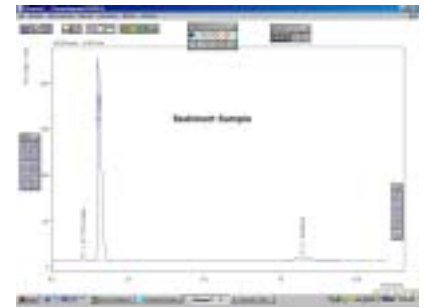
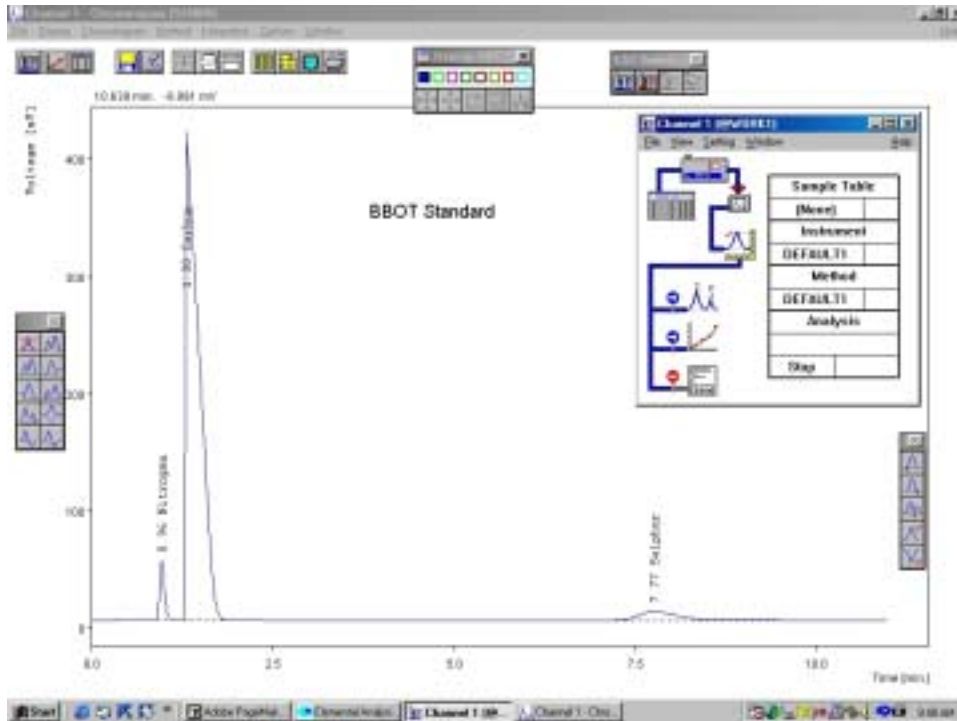


Zero Blank  
Autosampler

**The second module** is the detector system for measuring the combustion (or pyrolysis) products. These combustion gases can be separated by gas chromatography for CHNS-O analysis, sent directly to the detector system for N/ Protein determination, or mass spectrometer for isotopic analysis.

**The third module is EAS, our Windows™ based software package**, for instrument control, data acquisition and report generation. A multichannel 24 bit A/D interface connects the ECS to a PC for data acquisition and instrument control. Sample information is entered, the software collects raw data from the TCD, creates the calibration, and generates reports including statistical information. Data can be easily exported to EXCEL™ in ASCII format for post-run calculations or exporting to LIMS. A reprocessing software option is available for setting up methods and transferring data from a remote computer, or working with data out of the laboratory. Interface boards can be ordered for 1,2, or 4 channels.

# EAS Software for Elemental Analysis



**EAS** is a data station developed for acquiring and evaluating data from the TCD (Thermal Conductivity Detector) in the ECS 4010, or a Carlo Erba/Fisons/CE Instruments elemental analyzer, and reporting the elemental concentrations. A Sample Table and Calibration File are created containing information on standard reference materials (used for calibration) and unknown samples. After the calibration samples are analyzed and a calibration curve established, concentration results for unknown samples will be reported.

The **EAS** station consists of an interface board which is installed in a PC computer and the corresponding software package for Windows<sup>TM</sup>. The board contains one, two or four independent integrating A/D converters and controlling inputs and outputs. The station allows for simultaneous data acquisition from up to four detectors independently "in the background." The program performs data analysis, baseline correction and calibrated or non-calibrated data processing. Results may be printed on any printer with a wide range of options. Tables, data, and chromatograms may be exported to a file for work in other programs running under Windows<sup>TM</sup>.

## Computer and operating system requirements

The **EAS** station may be run under any of the following systems: Windows 95/98/ME and Windows NT/2000.

For Windows 95/98/ME we recommend at least 486/100 computer with 16 MB memory, and for Windows NT/2000 a Pentium/90 computer with 32 MB.



### Catalysts and Reagents for Elemental Analyzers

Part no.	Reference part no.	Description	Qty.
011001	338-229-00	Chromium oxide catalyst	50 g.
011002	338-228-00	Cobaltous/Cobaltic oxide	25 g.
011003	338-217-10	Copper oxide wires	50 g.
011004		Copper wires, reduced	50 g.
011005	338-353-10	Copper wires, pure (for Sulfur determination)	50 g.
011007	338-245-00	Silvered Cobaltous/Cobaltic oxide	25 g.
011008	338-246-00	Tungstic Anhydride	25 g.
011009	338-354-20	Tungstic Anhydride on pure alumina	25 g.
011010	338-400-00	Oxidation catalyst - NA 2000 (Must be combined with 50g copper oxide wires, 011003, makes 2 reactor fillings)	30 g.
011012		Copper wires, reduced 0.7 mm	150 g.
011013		Copper wires, reduced 0.7 mm	200 g.
011014		Copper wires, reduced 0.7 mm	100 g.
011016		Chromium oxide on alumina	50 g.
011017		Copper wires, pure (for Sulfur determination)	100 g.
011018	338-238-00	Nickelized Carbon Wool catalyst	5 g.
011022		Copper wires, reduced 0.5 mm	100 g.
011030		Copper wires, reduced 0.3 mm	250 g.
011039		Niobium Pentoxide catalyst	25 g.
011042		Copper wires, reduced 0.5 mm	200 g.
021020	338-220-00	Carbon dioxide absorbent	100 g.
021021	338-375-40	Lead oxide, red	5 g.
021022	338-219-00	Magnesium perchlorate, (Absorbent for H <sub>2</sub> O)	100 g.
021023	338-018-01	Molecular sieves 3A , 1/16"	100 g.
021024	338-250-00	Nickel wool	2 g.
021025	338-223-00	Quartz turnings (chips)	100 g.
021026	338-222-00	Quartz wool	5 g.
021027	338-375-10	Vanadium pentoxide	5 g.
021028	338-375-30	Chromosorb W, acid washed	25 g.
021030	338-352-35	Soda Lime, (Absorbent for CO <sub>2</sub> )	100 g.
021035		Quartz wool	10 g.
021036		Quartz wool	20 g.
021037		Soda Lime, (Absorbent for CO <sub>2</sub> )	200 g.

## Sample Capsules

Part no.	Reference part no.	Description	Qty.
<b><u>Capsules for solid samples</u></b>			
041060	240-053-00	Tin capsules for solid samples, 3.5x5 mm	100
041074		Tin capsules for solid samples, 3.5x5 mm	250
041061	240-064-00	Tin capsules for solid samples, 5x9 mm	100
041077		Tin capsules for solid samples, 5x9 mm	250
041070		Tin capsules for solid samples, 4x6 mm	250
041073	252-080-00	Tin capsules for large solid samples, 9x10 mm	100
041071		Tin Foils for large samples	100
041066	240-054-00	Silver capsules for solid samples, 3.5x5 mm	100
041067	240-054-05	Silver capsules for solid samples, 5x9 mm	100
<b><u>Capsules for liquid samples</u></b>			
041062	240-088-10	Tin capsules for liquid samples, 2.9x6 mm	100
041063	240-088-20	Tin capsules for liquid samples, 2x5 mm	100
041064	240-070-00	Tin capsules (capillaries) for liquid samples, 1x5.5 mm	50
041065	240-072-00	Tin capsules for liquid samples, 3.5x9 mm	50
<b><u>Sample Preparation Tools</u></b>			
080004		Solid sample sealing device	1
080005		Spatula for capsule filling	1
080005L		Spatula for capsule filling, left handed	1
080007		Sample preparation plate	1
080003		Liquid sealing device	1
080006		Forceps	1
080016		Sample tray and lid, 96 positions	1



**Organic Analytical Standards**

<b>Part no.</b>	<b>Reference part no.</b>	<b>Description</b>	<b>Qty.</b>
031040	338-367-00	Acetanilide C=71.09% H=6.71% N=10.36% O=11.84%	2 g.
031042	338-244-00	Atropine C=70.56% H=8.01% N=4.84% O=16.59%	2 g.
031043	338-225-00	Benzoic Acid C=68.85% H=4.95% O=26.20%	2 g.
031044	338-224-00	Cyclohexanone 2-4 dinitrophenyl hydrazone C=51.79% H=5.07% N=20.14% O=23.00%	1 g.
031046	338-251-00	Sulfanilamide C=41.84% H=4.68% N=16.27% O=18.58% S=18.62%	2 g.
031047	338-352-10	BBOT 2,5-Bis (5-tert-butyl-benzoxazol-2yl) thiophene C=72.53% H=6.09% N=6.51% O=7.43% S=7.44%	2 g.
031048	338-352-20	Methionine N=9.39% C=40.25%	10 g.

## Consumables for the ECS 4010 Elemental Combustion System

### Catalysts and Reagents for N, N/C and CHN

Part no.	Description	Qty.
061112	Pre-packed reactor for N, N/C, C/H/N	1
011001	Chromium oxide catalyst	50 g.
011016	Chromium oxide on alumina	50 g.
011007	Silvered Cobaltous/ Cobaltic oxide	25 g.
021032	Silvered copper wool	10 g.
011002	Cobaltous/Cobaltic oxide	25 g.
011012	Copper wires, reduced 0.6	150 g.
011013	Copper wires, reduced 0.6	200 g.
011014	Copper wires, reduced 0.6	100 g.
011022	Copper wires, reduced 0.5	100 g.
011042	Copper wires, reduced 0.5	200 g.
021026	Quartz wool	5 g.
021035	Quartz wool	10 g.
021036	Quartz wool	20 g.
021025	Quartz turnings (chips)	100 g.
021020	Carbon dioxide absorbent	100 g.
021030	Soda Lime, CO <sub>2</sub> absorbent	100 g.
021022	Magnesium perchlorate, H <sub>2</sub> O absorbent	100 g.

### Catalysts and Reagents for NCS and CHNS

061110	Pre-packed reactor for Sulfur NCS or CHNS (WO <sub>3</sub> )	1
061114	Pre-packed reactor for Sulfur NCS or CHNS (Nb <sub>2</sub> O <sub>5</sub> )	1
011008	Tungstic Anhydride	25 g.
011039	Niobium Pentoxide catalyst	25 g.
011009	Tungstic Anhydride on pure alumina	25 g.
011005	Copper wires, pure (for Sulfur determination)	50 g.
011017	Copper wires, pure (for Sulfur determination)	100 g.
021022	Magnesium perchlorate	100 g.
021026	Quartz wool	5 g.

### Catalysts and Reagents for Oxygen Analysis

011018	Nickelized Carbon Wool	5 g.
021024	Nickel wool	2 g.
021025	Quartz turnings (chips)	100 g.
021026	Quartz wool	5 g.
021020	Carbon dioxide absorbent (acidic gases absorbent)	100 g.
021022	Magnesium perchlorate	100 g.

### Sample Preparation Tools

080004	Solid sample sealing device	1
080005	Spatula, right handed	1
080005L	Spatula, left handed	1
080007	Sample preparation plate	1
080003	Liquid sealing device	1
080006	Forceps	1

### Capsules for solid samples

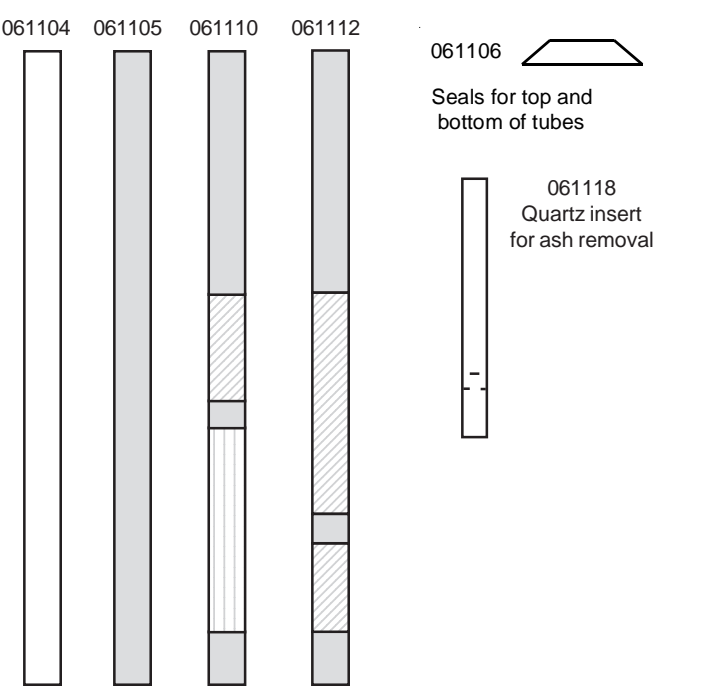
Part no.	Reference part no.	Description	Qty.
041060		Tin capsules, 3.5x5 mm	100
041061		Tin capsules, 5x9 mm	100
041074		Tin capsules, 3.5x5 mm	250
041077		Tin capsules, 5x9 mm	250
041070		Tin capsules, 4x6 mm	250
041073		Tin capsules for large samples, 9x10 mm	100
041066		Silver capsules, 3.5x5 mm	100
041072		Silver capsules, 4x6 mm	250
041067		Silver capsules, 5x9 mm	100

### Capsules for liquid samples

041062		Tin capsules, 2.9x6 mm	100
041063		Tin capsules, 2x5 mm	100
041064		Tin capsules, 1x5.5 mm	50
041065		Tin capsules, 3.5x9 mm	50

### Combustion and Reduction Tubes

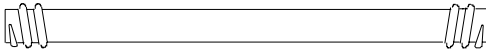
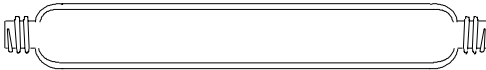
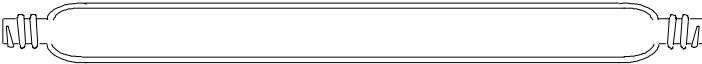
061110	Pre-packed reactor for Sulfur NCS or CHNS (WO <sub>3</sub> )	1
061112	Pre-packed reactor for N, N/C, C/H/N	1
061104	Transparent quartz tube	2
061105	Opaque quartz tube	2
061106	Seals for top and bottom of tubes	10
061118	Inserts, quartz (disposable) for combustion tubes	5



### Organic Analytical Standards

Part no.	Description	Qty.
031040	Acetanilide C=71.09% H=6.71% N=10.36% O=11.84%	2 g.
031042	Atropine C=70.56% H=8.01% N=4.84% O=16.59%	2 g.
031043	Benzoic Acid C=68.85% H=4.95% O=26.20%	2 g.
031044	Cyclohexanone 2-4 dinitrophenyl hydrazone C=51.79% H=5.07% N=20.14% O=23.00%	1 g.
031046	Sulfanilamide C=41.84% H=4.68% N=16.27% O=18.58% S=18.62%	2 g.
031047	BBOT 2,5-Bis (5-tert-butyl-benzoxazol-2yl) thiophene C=72.53% H=6.09% N=6.51% O=7.43% S=7.44%	2 g.
031048	Methionine N=9.39% C=40.25%	10 g.

### Traps for H<sub>2</sub>O and CO<sub>2</sub>

Part no.	Description	Qty.
071120	Small trap for H <sub>2</sub> O absorption Complete with glass trap, and end caps.	1 ea.
		
071124	Large trap for H <sub>2</sub> O absorption (glass trap only)	1 ea.
		
071126	Long trap for H <sub>2</sub> O absorption (glass trap only)	1 ea.
071121	Large trap for CO <sub>2</sub> absorption. Complete with glass trap, seals and end caps.	1 ea.
		
071122	Teflon faced seals for H <sub>2</sub> O, CO <sub>2</sub> traps.	2 ea.
071123	Threaded end caps (red) for H <sub>2</sub> O, CO <sub>2</sub> traps	2 ea.

### G.C. Separation Columns

Part no.	Description	Qty.
051080	Packed column for N <sub>2</sub> , CO <sub>2</sub> , H <sub>2</sub> O, SO <sub>2</sub> , 2 m	1 ea.
051081	Packed column for N <sub>2</sub> , CO <sub>2</sub> , H <sub>2</sub> O, 2 m	1 ea.
051082	Packed column for N <sub>2</sub> , CO <sub>2</sub> , 3 m	1 ea.
051083	Packed column for Sulfur 0.8 m	1 ea.
051084	Packed column for Oxygen (molecular sieve), 1 m	1 ea.
051085	Packed column for N <sub>2</sub> , CO <sub>2</sub> , 4 m	1 ea.
051088	Packed column for Oxygen (molecular sieve), 2 m	1 ea.
091107	End fittings for GC columns, 6x2 mm	1 ea.

### Spare Parts

Part no.	Description	Qty.
080001	6MB Nuts for 2 mm tubing	10 ea.
080002	Ferrules for 2 mm tubing	10 ea.
080005	Spatula, right handed	1 ea.
080005-L	Spatula, left handed	1 ea.
080006	Forceps	1 ea.
080007	Sample preparation plate	1 ea.
080011	SS tubing, 2 mm OD, 3 m	1 ea.
080012	Polyethylene (Blue) tubing, 5x3 mm, 5 m	1 ea.
080013	Blanking nut, brass	10 ea.
080014	Connection, 5 mm poly. tube to autosampler or electrovalves	2 ea.
080015	T-connector, 5 mm poly. tube	1 ea.
080016	Sample tray with top (plastic)	1 ea.
080017	Unions 6MB x 6 MB	10 ea.
080020	Connector, 6 MB x poly. tube	2 ea.
080022	Caps for air lines	2 ea.
091107	End fittings for GC columns, 6x2 mm	1 ea.
096033	Single reactor fitting	1 ea.

## Consumables for the NA 1500 Series 2, EA 1108, NA 2500 and EA 1110 Analyzers

### Catalysts and Reagents for N, N/C and CHN

Part no.	Reference part no.	Description	Qty.
061112		Pre-packed reactor for N, N/C, C/H/N	1
011001	338-229-00	Chromium oxide catalyst	50 g.
011016		Chromium oxide on alumina	50 g.
011007	338-245-00	Silvered Cobaltous/Cobaltic oxide	25 g.
021032		Silvered copper wool	10 g.
011002	338-228-00	Cobaltous/Cobaltic oxide	25 g.
011012		Copper wires, reduced 0.6	150 g.
011013		Copper wires, reduced 0.6	200 g.
011014		Copper wires, reduced 0.6	100 g.
011022		Copper wires, reduced 0.5	100 g.
011042		Copper wires, reduced 0.5	200 g.
021026	338-222-00	Quartz wool	5 g.
021035		Quartz wool	10 g.
021036		Quartz wool	20 g.
021025	338-223-00	Quartz turnings (chips)	100 g.
021020		Carbon dioxide absorbent	100 g.
021030	338-352-35	Soda Lime, CO <sub>2</sub> absorbent	100 g.
021022	338-219-00	Magnesium perchlorate, H <sub>2</sub> O absorbent	100 g.

### Catalysts and Reagents for NCS and CHNS

061110	468-020-05	Pre-packed reactor for Sulfur NCS or CHNS (WO <sub>3</sub> )	1
061114		Pre-packed reactor for Sulfur NCS or CHNS (Nb <sub>2</sub> O <sub>5</sub> )	1
011008	338-246-00	Tungstic Anhydride	25 g.
011039		Niobium Pentoxide catalyst	25 g.
011009	338-354-20	Tungstic Anhydride on pure alumina	25 g.
011005	338-353-10	Copper wires, pure (for Sulfur determination)	50 g.
011017		Copper wires, pure (for Sulfur determination)	100 g.
021022	338-219-00	Magnesium perchlorate	100 g.
021026	338-222-00	Quartz wool	5 g.

### Catalysts and Reagents for Oxygen Analysis

011018		Nickelized Carbon Wool	5 g.
021024	338-250-00	Nickel wool	2 g.
021025	338-223-00	Quartz turnings (chips)	100 g.
021026	338-222-00	Quartz wool	5 g.
021020		Carbon dioxide absorbent (acidic gases absorbent)	100 g.
021022	338-219-00	Magnesium perchlorate	100 g.

### Sample Preparation Tools

080004		Solid sample sealing device	1
080005		Spatula, right handed	1
080005L		Spatula, left handed	1
080007		Sample preparation plate	1
080003		Liquid sealing device	1
080006		Forceps	1

### Capsules for solid samples

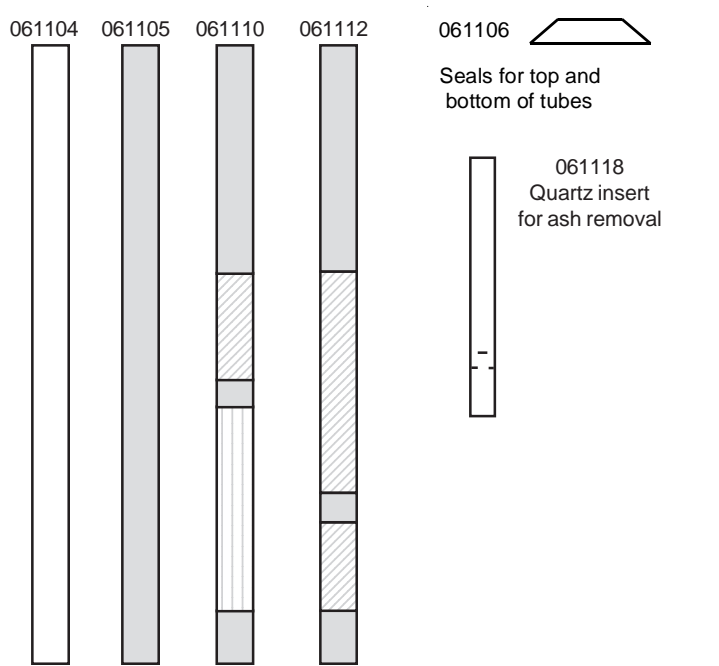
Part no.	Reference part no.	Description	Qty.
041060	240-053-00	Tin capsules, 3.5x5 mm	100
041061	240-064-00	Tin capsules, 5x9 mm	100
041074		Tin capsules, 3.5x5 mm	250
041077		Tin capsules, 5x9 mm	250
041070		Tin capsules, 4x6 mm	250
041073	252-080-00	Tin capsules for large samples, 9x10 mm	100
041066	240-054-00	Silver capsules, 3.5x5 mm	100
041072		Silver capsules, 4x6 mm	250
041067	240-054-05	Silver capsules, 5x9 mm	100

### Capsules for liquid samples

041062	240-088-10	Tin capsules, 2.9x6 mm	100
041063	240-088-20	Tin capsules, 2x5 mm	100
041064	240-070-00	Tin capsules, 1x5.5 mm	50
041065	240-072-00	Tin capsules, 3.5x9 mm	50

### Combustion and Reduction Tubes

061110	468-020-05	Pre-packed reactor for Sulfur NCS or CHNS (WO <sub>3</sub> )	1
061112		Pre-packed reactor for N, N/C, C/H/N	1
061104		Transparent quartz tube	2
061105	468-200-00	Opaque quartz tube	2
061106	290-329-10	Seals for top and bottom of tubes	10
061118		Inserts, quartz (disposable) for combustion tubes	5



### Organic Analytical Standards

Part no.	Reference part no.	Description	Qty.
031040	338-367-00	Acetanilide C=71.09% H=6.71% N=10.36% O=11.84%	2 g.
031042	338-244-00	Atropine C=70.56% H=8.01% N=4.84% O=16.59%	2 g.
031043	338-225-00	Benzoic Acid C=68.85% H=4.95% O=26.20%	2 g.
031044	338-224-00	Cyclohexanone 2-4 dinitrophenyl hydrazone C=51.79% H=5.07% N=20.14% O=23.00%	1 g.
031046	338-251-00	Sulfanilamide C=41.84% H=4.68% N=16.27% O=18.58% S=18.62%	2 g.
031047	338-352-10	BBOT 2,5-Bis (5-tert-butyl-benzoxazol-2yl) thiophene C=72.53% H=6.09% N=6.51% O=7.43% S=7.44%	2 g.
031048	338-352-20	Methionine N=9.39% C=40.25%	10 g.

### Traps for H<sub>2</sub>O and CO<sub>2</sub>

Part no.	Reference part no.	Description	Qty.
071120	281-131-00	Small trap for H <sub>2</sub> O absorption Complete with glass trap, and end caps.	1 ea.
071124		Large trap for H <sub>2</sub> O absorption (glass trap only)	1 ea.
071121	281-130-90	Large trap for CO <sub>2</sub> absorption. Complete with glass trap, seals and end caps.	1 ea.
071122	290-036-03	Teflon faced seals for H <sub>2</sub> O, CO <sub>2</sub> traps.	2 ea.
071123	350-036-04	Threaded end caps (red) for H <sub>2</sub> O, CO <sub>2</sub> traps	2 ea.

### G.C. Separation Columns

Part no.	Reference part no.	Description	Qty.
051080	260-082-06	Packed column for N <sub>2</sub> , CO <sub>2</sub> , H <sub>2</sub> O, SO <sub>2</sub> , 2 m	1 ea.
051081	260-082-00	Packed column for N <sub>2</sub> , CO <sub>2</sub> , H <sub>2</sub> O, 2 m	1 ea.
051082	260-082-05	Packed column for N <sub>2</sub> , CO <sub>2</sub> , 3 m	1 ea.
051083	260-078-00	Packed column for Sulfur 0.8 m	1 ea.
051084	260-079-00	Packed column for Oxygen (molecular sieve), 1 m	1 ea.
051085		Packed column for N <sub>2</sub> , CO <sub>2</sub> , 4 m	1 ea.
051088		Packed column for Oxygen (molecular sieve), 2 m	1 ea.
091107		End fittings for GC columns, 6x2 mm	1 ea.

### Spare Parts

Part no.	Reference part no.	Description	Qty.
080001		6MB Nuts for 2 mm tubing	10 ea.
080002		Ferrules for 2 mm tubing	10 ea.
080009		Diaphragms for bi-matic valve	10 ea.
080011		SS tubing, 2 mm OD, 3 m	1 ea.
080012		Polyethylene (Blue) tubing, 5x3 mm, 5 m	1 ea.
080013		Blanking nut, brass	10 ea.
080014		Connection, 5 mm poly. tube to autosampler or electrovalves	2 ea.
080015		T-connector, 5 mm poly. tube	1 ea.
080020		Connector, 6 MB x poly. tube	2 ea.
080022		Caps for air lines	2 ea.
091101		Teflon slide for autosampler	1 ea.
091103		Furnace candle heater	1 ea.
091105		Seal for electrovalves	1 ea.
091107		End fittings for GC columns, 6x2 mm	1 ea.
099005		Cooling fan	1 ea.
096033		Single reactor fitting	1 ea.

## Consumables for the Flash EA 1112

### Catalysts and Reagents for N, N/C and CHN

Part no.	Reference part no.	Description	Qty.
011010	338-400-00	Oxidation catalyst (Must be combined with 50g, copper oxide wires, 011003)	30 g.
011003	338-217-10	Copper oxide wires	50 g.
011001	338-229-00	Chromium oxide catalyst	50 g.
011016		Chromium oxide on alumina	50 g.
011007	338-245-00	Silvered Cobaltous/ Cobaltic oxide	25 g.
021032		Silvered copper wool	10 g.
011002	338-228-00	Cobaltous/Cobaltic oxide	25 g.
011013		Copper wires, reduced 0.7	200 g.
011014		Copper wires, reduced 0.7	100 g.
011022		Copper wires, reduced 0.5	100 g.
011042		Copper wires, reduced 0.5	200 g.
021026	338-222-00	Quartz wool	5 g.
021035		Quartz wool	10 g.
021036		Quartz wool	20 g.
021025	338-223-00	Quartz turnings (chips)	100 g.
021037	338-352-35	Soda Lime, CO <sub>2</sub> absorbent	200 g.
021022	338-219-00	Magnesium perchlorate, H <sub>2</sub> O absorbent	100 g.

### Catalysts and Reagents for NCS and CHNS

061110	468-020-05	Pre-packed reactor for Sulfur NCS or CHNS (WO <sub>3</sub> )	1
011008	338-246-00	Tungstic Anhydride	25 g.
011009	338-354-20	Tungstic Anhydride on pure alumina	25 g.
011005	338-353-10	Copper wires, pure (for Sulfur determination)	50 g.
011017		Copper wires, pure (for Sulfur determination)	100 g.
021022	338-219-00	Magnesium perchlorate	100 g.
021026	338-222-00	Quartz wool	5 g.

### Catalysts and Reagents for Oxygen Analysis

011018		Nickelized Carbon Wool	5 g.
021024	338-250-00	Nickel wool	2 g.
021025	338-223-00	Quartz turnings (chips)	100 g.
021026	338-222-00	Quartz wool	5 g.
021020		Carbon dioxide absorbent (acidic gases absorbent)	100 g.
021022	338-219-00	Magnesium perchlorate	100 g.

### Sample Preparation Tools

080004	Solid sample sealing device	1
080005	Spatula, right handed	1
080005L	Spatula, left handed	1
080007	Sample preparation plate	1
080003	Liquid sealing device	1
080006	Forceps	1

### Capsules for solid samples

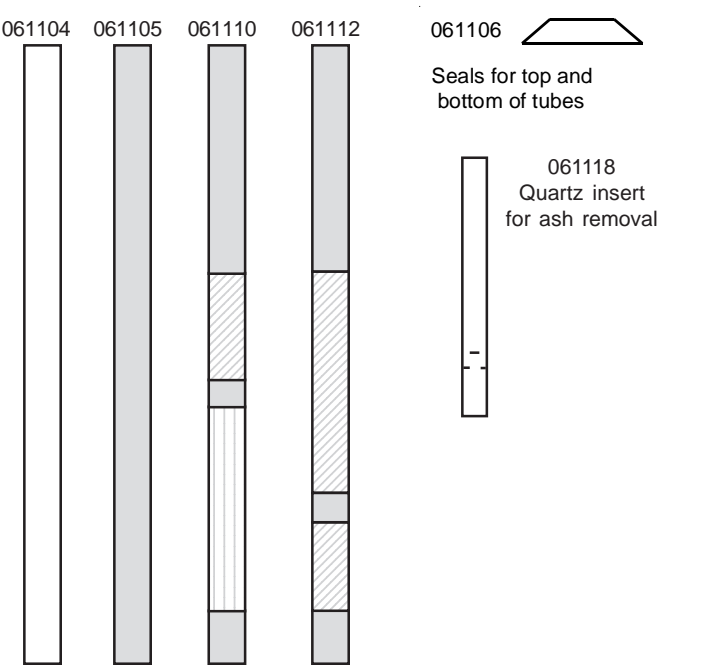
Part no.	Reference part no.	Description	Qty.
041071		Tin foils	100
041073	252-080-00	Tin capsules for large samples, 9x10 mm	100
041061	240-064-00	Tin capsules, 5x9 mm	100
041074		Tin capsules, 3.5x5 mm	250
041077		Tin capsules, 5x9 mm	250
041070		Tin capsules, 4x6 mm	250
041066	240-054-00	Silver capsules, 3.5x5 mm	100
041072		Silver capsules, 4x6 mm	250
041067	240-054-05	Silver capsules, 5x9 mm	100

### Capsules for liquid samples

041062	240-088-10	Tin capsules, 2.9x6 mm	100
041063	240-088-20	Tin capsules, 2x5 mm	100
041064	240-070-00	Tin capsules, 1x5.5 mm	50
041065	240-072-00	Tin capsules, 3.5x9 mm	50

### Combustion and Reduction Tubes

061110	468-020-05	Pre-packed reactor, 18 mm, for Sulfur, NCS or CHNS (WO <sub>3</sub> )	1
061112		Pre-packed reactor, 18 mm for N, N/C, C/H/N	1
061104		Transparent quartz tube	2
061105	468-200-00	Opaque quartz tube	2
061106	290-329-10	Seals for top and bottom of tubes, 18 mm OD	10
061118		Inserts, quartz (disposable) for 18 mm combustion tubes	5





## Consumables for the NA 1500 Series 1 Analyzer

### Catalysts and Reagents for N, N/C and CHN

Part no.	Reference part no.	Description	Qty.
061113		Pre-packed reactor for N, N/C	1
011001	338-229-00	Chromium oxide catalyst	50 g.
011016		Chromium oxide on alumina	50 g.
011007	338-245-00	Silvered Cobaltous/ Cobaltic oxide	25 g.
021032		Silvered copper wool	10 g.
011002	338-228-00	Cobaltous/Cobaltic oxide	25 g.
011012		Copper wires, reduced	150 g.
011013		Copper wires, reduced	200 g.
011014		Copper wires, reduced	100 g.
011022		Copper wires, reduced 0.5	100 g.
011042		Copper wires, reduced 0.5	200 g.
021026	338-222-00	Quartz wool	5 g.
021035		Quartz wool	10 g.
021036		Quartz wool	20 g.
021025	338-223-00	Quartz turnings (chips)	100 g.
021020		Carbon dioxide absorbent	100 g.
021030	338-352-35	Soda Lime, CO <sub>2</sub> absorbent	100 g.
021022	338-219-00	Magnesium perchlorate, H <sub>2</sub> O absorbent	100 g.

### Catalysts and Reagents for NCS and CHNS

061110	468-020-05	Pre-packed reactor for Sulfur NCS or CHNS (WO <sub>3</sub> )	1
061114		Pre-packed reactor for Sulfur NCS or CHNS (Nb <sub>2</sub> O <sub>5</sub> )	1
011008	338-246-00	Tungstic Anhydride	25 g.
011039		Niobium Pentoxide catalyst	25 g.
011009	338-354-20	Tungstic Anhydride on pure alumina	25 g.
011005	338-353-10	Copper wires, pure (for Sulfur determination)	50 g.
011017		Copper wires, pure (for Sulfur determination)	100 g.
021022	338-219-00	Magnesium perchlorate	100 g.
021026	338-222-00	Quartz wool	5 g.

### Catalysts and Reagents for Oxygen Analysis

011018		Nickelized Carbon Wool	5 g.
021024	338-250-00	Nickel wool	2 g.
021025	338-223-00	Quartz turnings (chips)	100 g.
021026	338-222-00	Quartz wool	5 g.
021020		Carbon dioxide absorbent (acidic gases absorbent)	100 g.
021022	338-219-00	Magnesium perchlorate	100 g.

### Sample Preparation Tools

080004		Solid sample sealing device	1
080005		Spatula, right handed	1
080005L		Spatula, left handed	1
080007		Sample preparation plate	1
080003		Liquid sealing device	1
080006		Forceps	1

### Capsules for solid samples

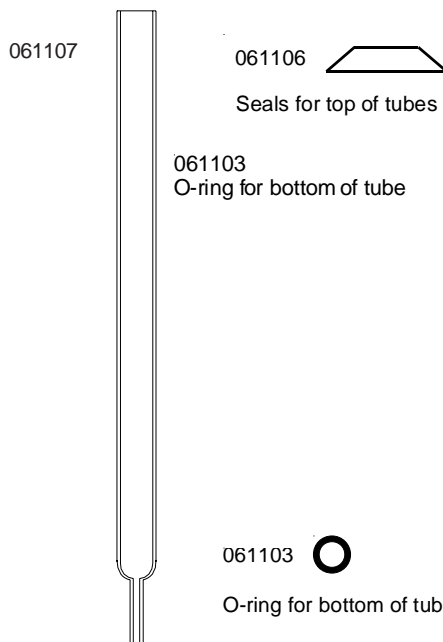
Part no.	Reference part no.	Description	Qty.
041060	240-053-00	Tin capsules, 3.5x5 mm	100
041061	240-064-00	Tin capsules, 5x9 mm	100
041074		Tin capsules, 3.5x5 mm	250
041077		Tin capsules, 5x9 mm	250
041070		Tin capsules, 4x6 mm	250
041073	252-080-00	Tin capsules for large samples, 9x10 mm	100
041066	240-054-00	Silver capsules, 3.5x5 mm	100
041072		Silver capsules, 4x6 mm	250
041067	240-054-05	Silver capsules, 5x9 mm	100

### Capsules for liquid samples

041062	240-088-10	Tin capsules, 2.9x6 mm	100
041063	240-088-20	Tin capsules, 2x5 mm	100
041064	240-070-00	Tin capsules, 1x5.5 mm	50
041065	240-072-00	Tin capsules, 3.5x9 mm	50

### Combustion and Reduction Tubes

Part no.	Reference part no.	Description	Qty.
061113		Pre-packed reactor for N, N/C	1
061107		Transparent quartz tube	2
061106	290-329-10	Seals for top of tubes	10
061103	290-505-67	O-rings for the bottom of the tube.	10
061109		Opaque inserts (disposable) for combustion tubes	5
061111		Transparent inserts (disposable) for combustion tubes	5



### Organic Analytical Standards

Part no.	Reference part no.	Description	Qty.
031040	338-367-00	Acetanilide C=71.09% H=6.71% N=10.36% O=11.84%	2 g.
031042	338-244-00	Atropine C=70.56% H=8.01% N=4.84% O=16.59%	2 g.
031043	338-225-00	Benzoic Acid C=68.85% H=4.95% O=26.20%	2 g.
031044	338-224-00	Cyclohexanone 2-4 dinitrophenyl hydrazone C=51.79% H=5.07% N=20.14% O=23.00%	1 g.
031046	338-251-00	Sulfanilamide C=41.84% H=4.68% N=16.27% O=18.58% S=18.62%	2 g.
031047	338-352-10	BBOT 2,5-Bis (5-tert-butyl-benzoxazol-2yl) thiophene C=72.53% H=6.09% N=6.51% O=7.43% S=7.44%	2 g.
031048	338-352-20	Methionine N=9.39% C=40.25%	10 g.

### Traps for H<sub>2</sub>O and CO<sub>2</sub>

Part no.	Reference part no.	Description	Qty.
071120	281-131-00	Small trap for H <sub>2</sub> O absorption Complete with glass trap, and end caps.	1 ea.
071124		Large trap for H <sub>2</sub> O absorption (glass trap only)	1 ea.
071121	281-130-90	Large trap for CO <sub>2</sub> absorption. Complete with glass trap, seals and end caps.	1 ea.
071122	290-036-03	Teflon faced seals for H <sub>2</sub> O, CO <sub>2</sub> traps.	2 ea.
071123	350-036-04	Threaded end caps (red) for H <sub>2</sub> O, CO <sub>2</sub> traps	2 ea.

### G.C. Separation Columns

Part no.	Reference part no.	Description	Qty.
051080	260-082-06	Packed column for N <sub>2</sub> , CO <sub>2</sub> , H <sub>2</sub> O, SO <sub>2</sub> , 2 m	1 ea.
051081	260-082-00	Packed column for N <sub>2</sub> , CO <sub>2</sub> , H <sub>2</sub> O, 2 m	1 ea.
051082	260-082-05	Packed column for N <sub>2</sub> , CO <sub>2</sub> , 3 m	1 ea.
051083	260-078-00	Packed column for Sulfur 0.8 m	1 ea.
051084	260-079-00	Packed column for Oxygen (molecular sieve), 1 m	1 ea.
051085		Packed column for N <sub>2</sub> , CO <sub>2</sub> , 4 m	1 ea.
051088		Packed column for Oxygen (molecular sieve), 2 m	1 ea.
091107		End fittings for GC columns, 6x2 mm	1 ea.

### Spare Parts

Part no.	Reference part no.	Description	Qty.
080001		6MB Nuts for 2 mm tubing	10 ea.
080002		Ferrules for 2 mm tubing	10 ea.
080009		Diaphragms for bi-matic valve	10 ea.
080011		SS tubing, 2 mm OD, 3 m	1 ea.
080012		Polyethylene (Blue) tubing, 5x3 mm, 5 m	1 ea.
080013		Blanking nut, brass	10 ea.
080014		Connection, 5 mm poly. tube to autosampler or electrovalves	2 ea.
080015		T-connector, 5 mm poly. tube	1 ea.
080020		Connector, 6 MB x poly. tube	2 ea.
080022		Caps for air lines	2 ea.
091101		Teflon slide for autosampler	1 ea.
091103		Furnace candle heater	1 ea.
091105		Seal for electrovalves	1 ea.
091107		End fittings for GC columns, 6x2 mm	1 ea.
099005		Cooling fan	1 ea.
096033		Single reactor fitting	1 ea.

# Consumables for the NA 2000 Nitrogen/Protein Analyzer

## Catalysts and Reagents for Nitrogen/Protein Analysis

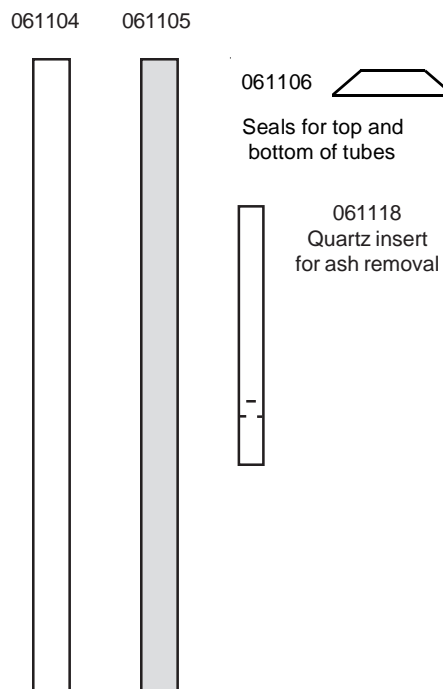
Part no.	Reference part no.	Description	Qty.
011010	338-400-00	Oxidation catalyst - NA 2000 (Must be combined with 50g copper oxide wires, 011003, makes 2 reactor fillings)	30 g.
011003	338-217-10	Copper oxide wires	50 g.
011014		Copper wires, 0.6	100 g.
011012	338-353-00	Copper wires, 0.6	150 g.
011013		Copper wires, 0.6	200 g.
011022		Copper wires, 0.5	100 g.
011042		Copper wires, 0.5	290 g.
021026	338-222-00	Quartz wool	5 g.
021035		Quartz wool	10 g.
021036		Quartz wool	20 g.
021025	338-223-00	Quartz turnings (chips)	100 g.
021022	338-219-00	Magnesium perchlorate (Absorbent for H <sub>2</sub> O)	100 g.
021030	338-352-35	Soda lime (Absorbent for CO <sub>2</sub> )	100 g.
021037	338-352-35	Soda lime (Absorbent for CO <sub>2</sub> )	200 g.
031048	338-352-20	Methionine standard	10 g.

## Sample Capsules

041073	252-080-00	Tin capsules for NA 2000	100/pak
041071		Tin foils	100/pak

## Combustion and Reduction Tubes - NA 2000

061104		Transparent quartz reactor tube for the NA 2000	2
061105	468-200-00	Opaque quartz reactor tube for the NA 2000	2
061106	290-329-10	Seals for top and bottom of tubes, NA 2000	10



## Spare Parts

Part no.	Reference part no.	Description	Qty.
080001		6MB Nuts for 2 mm tubing	10 ea.
080002		Ferrules for 2 mm tubing	10 ea.
080009		Diaphragms for bi-matic valve	10 ea.
080011		SS tubing, 2 mm OD, 3 m	1 ea.
080012		Polyethylene (Blue) tubing, 5x3 mm, 5 m	1 ea.
080013		Blanking nut, brass	10 ea.
080014		Connection, 5 mm poly. tube to autosampler or electrovalves	2 ea.
080015		T-connector, 5 mm poly. tube	1 ea.
080020		Connector, 6 MB x poly. tube	2 ea.
080022		Caps for air lines	2 ea.
091103		Furnace candle heater	1 ea.
091105		Seal for electrovalves	1 ea.
099005		Cooling fan	1 ea.

## Consumables for the EA 1106 Analyzer

### Catalysts and Reagents for N, N/C and CHN

Part no.	Reference part no.	Description	Qty.
061112		Pre-packed reactor for N, N/C, C/H/N	1
011001	338-229-00	Chromium oxide catalyst	50 g.
011016		Chromium oxide on alumina	50 g.
011007	338-245-00	Silvered Cobaltous/ Cobaltic oxide	25 g.
021032		Silvered copper wool	10 g.
011002	338-228-00	Cobaltous/Cobaltic oxide	25 g.
011012		Copper wires, reduced 0.6	150 g.
011013		Copper wires, reduced 0.6	200 g.
011014		Copper wires, reduced 0.6	100 g.
011022		Copper wires, reduced 0.5	100 g.
011042		Copper wires, reduced 0.5	200 g.
021026	338-222-00	Quartz wool	5 g.
021035		Quartz wool	10 g.
021036		Quartz wool	20 g.
021025	338-223-00	Quartz turnings (chips)	100 g.
021020		Carbon dioxide absorbent	100 g.
021030	338-352-35	Soda Lime, CO <sub>2</sub> absorbent	100 g.
021022	338-219-00	Magnesium perchlorate, H <sub>2</sub> O absorbent	100 g.

### Catalysts and Reagents for NCS and CHNS

061110	468-020-05	Pre-packed reactor for Sulfur NCS or CHNS (WO <sub>3</sub> )	1
061114		Pre-packed reactor for Sulfur NCS or CHNS (Nb <sub>2</sub> O <sub>5</sub> )	1
011008	338-246-00	Tungstic Anhydride	25 g.
011039		Niobium Pentoxide catalyst	25 g.
011009	338-354-20	Tungstic Anhydride on pure alumina	25 g.
011005	338-353-10	Copper wires, pure (for Sulfur determination)	50 g.
011017		Copper wires, pure (for Sulfur determination)	100 g.
021022	338-219-00	Magnesium perchlorate	100 g.
021026	338-222-00	Quartz wool	5 g.

### Catalysts and Reagents for Oxygen Analysis

011018		Nickelized Carbon Wool	5 g.
021024	338-250-00	Nickel wool	2 g.
021025	338-223-00	Quartz turnings (chips)	100 g.
021026	338-222-00	Quartz wool	5 g.
021020		Carbon dioxide absorbent (acidic gases absorbent)	100 g.
021022	338-219-00	Magnesium perchlorate	100 g.

### Capsules for solid samples

Part no.	Reference part no.	Description	Qty.
041060	240-053-00	Tin capsules, 3.5x5 mm	100
041061	240-064-00	Tin capsules, 5x9 mm	100
041070		Tin capsules, 4x6 mm	250
041073	252-080-00	Tin capsules for large samples, 9x10 mm	100
041066	240-054-00	Silver capsules, 3.5x5 mm	100
041072		Silver capsules, 4x6 mm	250
041067	240-054-05	Silver capsules, 5x9 mm	100

### Capsules for liquid samples

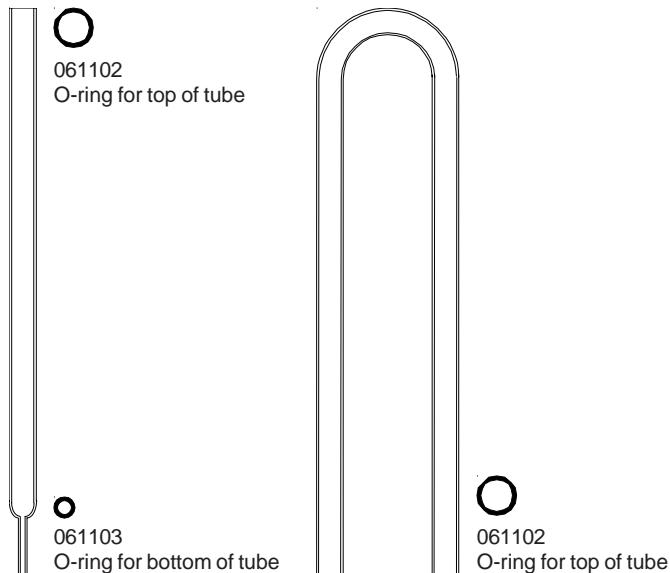
041062	240-088-10	Tin capsules, 2.9x6 mm	100
041063	240-088-20	Tin capsules, 2x5 mm	100
041064	240-070-00	Tin capsules, 1x5.5 mm	50
041065	240-072-00	Tin capsules, 3.5x9 mm	50

### Sample Preparation Tools

080004		Solid sample sealing device	1
080005		Spatula, right handed	1
080005L		Spatula, left handed	1
080007		Sample preparation plate	1
080003		Liquid sealing device	1
080006		Forceps	1

### Combustion and Reduction Tubes

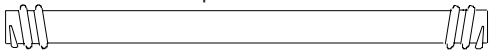
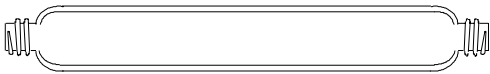
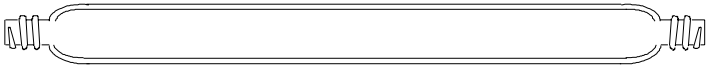
061100	468-009-00	Transparent quartz tube	5
061101	468-010-00	Opaque quartz tube	2
061102	290-303-31	O-ring for top of tube	10
061103	290-505-67	O-ring for bottom of tube	10



### Organic Analytical Standards

Part no.	Reference part no.	Description	Qty.
031040	338-367-00	Acetanilide C=71.09% H=6.71% N=10.36% O=11.84%	2 g.
031042	338-244-00	Atropine C=70.56% H=8.01% N=4.84% O=16.59%	2 g.
031043	338-225-00	Benzoic Acid C=68.85% H=4.95% O=26.20%	2 g.
031044	338-224-00	Cyclohexanone 2-4 dinitrophenyl hydrazone C=51.79% H=5.07% N=20.14% O=23.00%	1 g.
031046	338-251-00	Sulfanilamide C=41.84% H=4.68% N=16.27% O=18.58% S=18.62%	2 g.
031047	338-352-10	BBOT 2,5-Bis (5-tert-butyl-benzoxazol-2yl) thiophene C=72.53% H=6.09% N=6.51% O=7.43% S=7.44%	2 g.
031048	338-352-20	Methionine N=9.39% C=40.25%	10 g.

### Traps for H<sub>2</sub>O and CO<sub>2</sub>

Part no.	Reference part no.	Description	Qty.	Price
071120	281-131-00	Small trap for H <sub>2</sub> O absorption Complete with glass trap, and end caps.	1 ea.	\$39.00
				
071124		Large trap for H <sub>2</sub> O absorption (glass trap only)	1 ea.	\$39.00
				
071121	281-130-90	Large trap for CO <sub>2</sub> absorption. Complete with glass trap, seals and end caps.	1 ea.	\$55.00
				
071122	290-036-03	Teflon faced seals for H <sub>2</sub> O, CO <sub>2</sub> traps.	2 ea.	\$7.00
071123	350-036-04	Threaded end caps (red) for H <sub>2</sub> O, CO <sub>2</sub> traps	2 ea.	\$5.00

### G.C. Separation Columns

Part no.	Reference part no.	Description	Qty.
051080	260-082-06	Packed column for N <sub>2</sub> , CO <sub>2</sub> , H <sub>2</sub> O, SO <sub>2</sub> , 2 m	1 ea.
051081	260-082-00	Packed column for N <sub>2</sub> , CO <sub>2</sub> , H <sub>2</sub> O, 2 m	1 ea.
051082	260-082-05	Packed column for N <sub>2</sub> , CO <sub>2</sub> , 3 m	1 ea.
051083	260-078-00	Packed column for Sulfur 0.8 m	1 ea.
051084	260-079-00	Packed column for Oxygen (molecular sieve), 1 m	1 ea.
051085		Packed column for N <sub>2</sub> , CO <sub>2</sub> , 4 m	1 ea.
051088		Packed column for Oxygen (molecular sieve), 2 m	1 ea.
091107		End fittings for GC columns, 6x2 mm	1 ea.

### Spare Parts

Part no.	Reference part no.	Description	Qty.
080001		6MB Nuts for 2 mm tubing	10 ea.
080002		Ferrules for 2 mm tubing	10 ea.
080009		Diaphragms for bi-matic valve	10 ea.
080011		SS tubing, 2 mm OD, 3 m	1 ea.
080012		Polyethylene (Blue) tubing, 5x3 mm, 5 m	1 ea.
080013		Blanking nut, brass	10 ea.
080014		Connection, 5 mm poly. tube to autosampler or electrovalves	2 ea.
080015		T-connector, 5 mm poly. tube	1 ea.
080020		Connector, 6 MB x poly. tube	2 ea.
080022		Caps for air lines	2 ea.
091101		Teflon slide for autosampler	1 ea.
091107		End fittings for GC columns, 6x2 mm	1 ea.
099005		Cooling fan	1 ea.

# Perkin Elmer® 2400 Series Analyzer

## Catalysts, Reagents and Additives

Part no.	Reference part no.	Description	Qty.
013001	N241-0092	Nickel/Chromium oxide catalyst	25 g.
013002	0240-1117	Silver vanadate	25 g.
013003	0240-1344	Silver tungstate/Magnesium oxide	50 g.
011008		Tungstic oxide, CHNS catalyst	25 g.
011009		Tungstic oxide on pure alumina, CHNS catalyst	25 g.
013006	N241-0145	Silver gauze, 0.5 x 6.0 inches	
021026		Quartz wool	5 g.
021035		Quartz wool	10 g.
021036	0240-1118	Quartz wool	20 g.
013004	0240-0117	Copper, spherical	454 g.
011022		Copper wires, reduced (0.5 mm diameter)	100 g.
011042		Copper wires, reduced (0.5 mm diameter)	200 g.
011003	0240-1092	Copper oxide, wires	50 g.
021022	0240-1119	Magnesium perchlorate	100 g.
023002	0240-0118	Tin powder	100 g.
013009	0240-1238	Tungstic oxide (powder)	25 g.
013010	0240-1230	Cobalt oxide (powder)	25 g.
013040	0240-0132	Silver oxide	1 g.

## Tin and Silver Sample Capsules

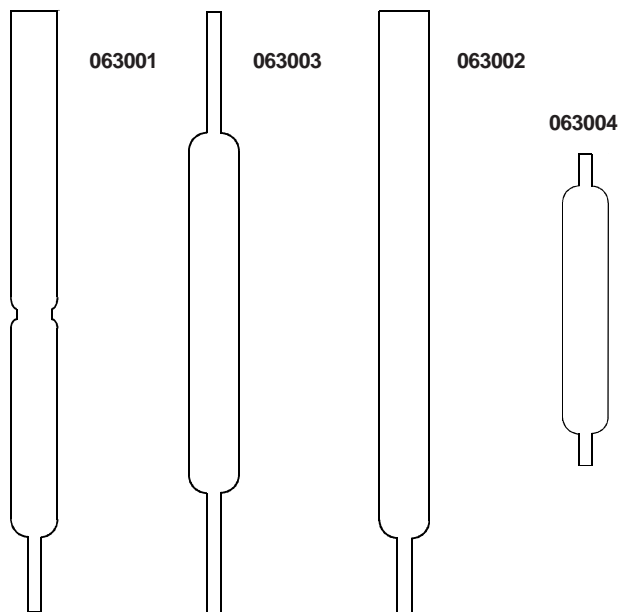
Part no.	Reference part no.	Description	Qty.
041060		Tin capsules for solid samples, 3.5x5 mm	100
041061		Tin capsules for solid samples, 5x9 mm	100
041070		Tin capsules for solid samples, 4x6 mm	250
041062		Tin capsules for liquid samples, 2.9x6 mm	100
041063		Tin capsules for liquid samples, 2x5 mm	100
041064		Tin capsules (capillaries) for liquid samples, 1x5.5 mm	50
041065		Tin capsules for liquid samples, 3.5x9 mm	50
041066		Silver capsules for solid samples, 3.5x5 mm	100
041067		Silver capsules for solid samples, 5x9 mm	100

## Standards

Part no.	Reference part	Description	Qty.
031040	0240-1121	Acetanilide C=71.09% H=6.71% N=10.36% O=11.84%	2 g.
031042		Atropine C=70.56% H=8.01% N=4.84% O=16.59%	2 g.
031043	0240-1120	Benzoic Acid C=68.85% H=4.95% O=26.20%	2 g.
031044	0240-1347	Cyclohexanone 2-4 dinitrophenyl hydrazone C=51.79% H=5.07% N=20.14% O=23.00%	1 g.
031046		Sulfanilamide C=41.84% H=4.68% N=16.27% O=18.58% S=18.62%	2 g.
031047		BBOT 5-Bis (5-tert-butyl-benzoxazol-2yl) thiophene C=72.53% H=6.09% N=6.51% O=7.43% S=7.44%	2 g.
031048		Methionine N=9.39% C=40.25%	10 g.

## Combustion and Reduction Tubes

Part no.	Reference part no.	Description	Qty.
063001	N241-1264	Combustion tube, CHN	1 ea.
063003	N241-1291	Reduction tube, CHN	1 ea.
063002		Combustion tube, Sulfur	1 ea.
063004	N241-1359	Scrubber tube	1 ea.
063005	09902188	O-ring, 25 mm	10 ea.
063006	02401583	O-ring, 11 mm	10 ea.





# Europa ANCA N/C Analyzer

## Catalysts, Reagents and Additives

Part no.	Reference part no.	Description	Qty.
011001		Chromium oxide catalyst	25 g.
021032		Silvered copper wool	10 g.
011007		Silvered cobaltous/ic oxide	25 g.
011003		Copper oxide wires	50 g.
011022		Copper wires, reduced (0.5 mm diameter)	100 g.
011042		Copper wires, reduced (0.5 mm diameter)	200 g.
011030		Copper wires, reduced (0.3 mm diameter)	250 g.
021022		Magnesium perchlorate	100 g.
021020		Carbon dioxide absorbent (8-14 mesh)	100 g.
021038		Carbon dioxide absorbent (14-30 mesh)	100 g.
021026		Quartz wool	5 g.
021035		Quartz wool	10 g.
021036		Quartz wool	20 g.

## Tin and Silver Sample Capsules

Part no.	Reference part no.	Description	Qty.
041060		Tin capsules for solid samples, 3.5x5 mm	100
041061		Tin capsules for solid samples, 5x9 mm	100
041070		Tin capsules for solid samples, 4x6 mm	250
041068		Tin capsules for large samples, 10x10 mm	80
041062		Tin capsules for liquid samples, 2.9x6 mm	100
041063		Tin capsules for liquid samples, 2x5 mm	100
041064		Tin capsules (capillaries) for liquid samples, 1x5.5 mm	50
041065		Tin capsules for liquid samples, 3.5x9 mm	50
041066		Silver capsules for solid samples, 3.5x5 mm	100
041067		Silver capsules for solid samples, 5x9 mm	100

## Standards

Part no.	Reference part	Description	Qty.
031040		Acetanilide C=71.09% H=6.71% N=10.36% O=11.84%	2 g.
031042		Atropine C=70.56% H=8.01% N=4.84% O=16.59%	2 g.
031043		Benzoic Acid C=68.85% H=4.95% O=26.20%	2 g.
031044		Cyclohexanone 2-4 dinitrophenyl hydrazone C=51.79% H=5.07% N=20.14% O=23.00%	1 g.
031046		Sulfanilamide C=41.84% H=4.68% N=16.27% O=18.58% S=18.62%	2 g.
031047		BBOT 5-Bis (5-tert-butyl-benzoxazol-2yl) thiophene C=72.53% H=6.09% N=6.51% O=7.43% S=7.44%	2 g.
031048		Methionine N=9.39%	10 g.

## Combustion/Reduction Tubes and Traps

Part no.	Reference part no.	Description	Qty.	Price
064001		ANCA Combustion/Reduction tubes	2 ea.	
064002		Roboprep Reduction tube	1 ea.	
064003		Inserts for Combustion tube	5 ea.	
064004		H2O / CO2 Trap	1 ea.	
061106		Seals for top of tubes	10 ea.	
061103		O-ring for bottom of tubes	10 ea.	

