

# Consumables for Elemental Analysis

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Ce Instruments, a worldwide leader in analytical instrumentation, has been supplying organic elemental analyzers for over 25 years. Recognized for precision and reliability and strengthened by continuous innovation, these analyzers, previously traded under Carlo Erba Instruments label, position CE Instruments as a leader in all fields of automated elemental analysis.

In continuance of our commitment to excellence and resulting from years of research and development, we proudly offer the highest quality of consumables needed for our elemental analyzers. These premium chemicals perform to our highest expectations and guarantee the most reliable results from our elemental analyzers, maximizing analytical performance.

This catalogue will give you finger-tip access to properly identifying and determining which consumables you actually need. In order to simplify order entry and avoid any confusion, each part is labelled with a specific identification number. Pictures are also available for easy identification.

A world-wide networking system allows us to keep a complete stock of consumables, guaranteeing their constant availability and prompt delivery to you.

If you have any questions regarding a specific part or an application, our Elemental Analysis Specialists are available to give you the correct answer. A complete list of sales and service network can be found on the back cover.

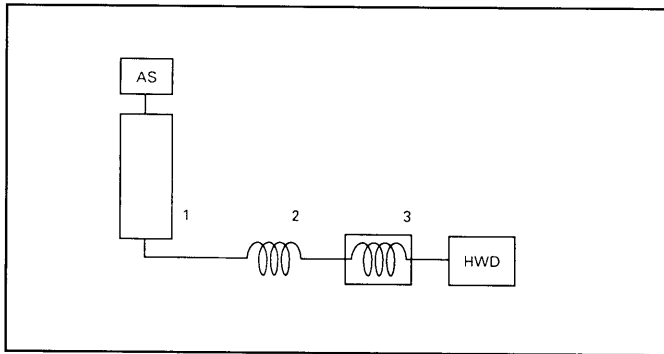
CE Instruments has always been and remains committed to providing only the highest quality consumables to guarantee unmatched performance of your elemental analyzer.

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## EA 1110 - CHNS DETERMINATION



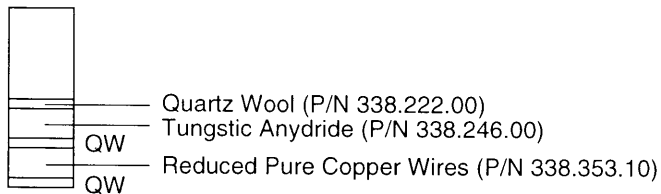
### 2: PTFE tubing

2.5 m length, diameter 2 x 1 mm (P/N 420.015.01)

### 3: Packed column for CHNS determination

2 m length, 4 mm ID (P/N 260.082.08)

### 1: Combustion/Reduction reactor

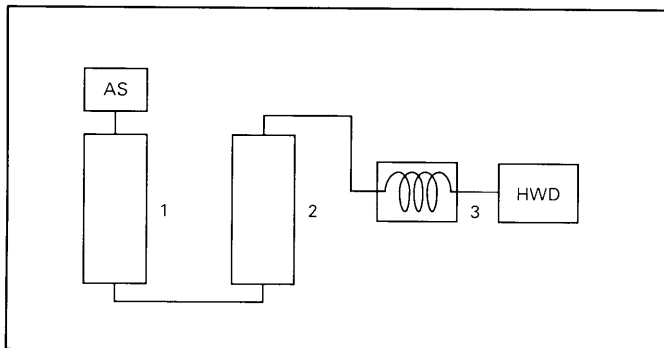


Combustion/Reduction reactor (set of 2) (P/N 468.200.00)

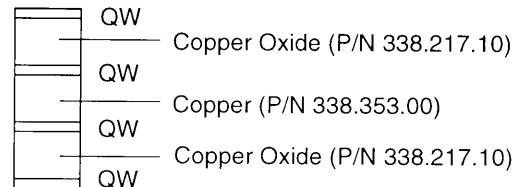
Combustion/Reduction o-ring (set of 10) (P/N 290.329.10)

Pre-packed reactor for CHNS determination: P/N 468.020.05

## EA 1110 - CHN DETERMINATION



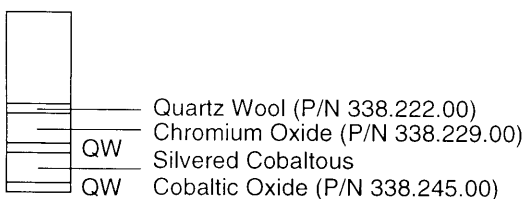
### 2: Reduction reactor



Combustion/Reduction reactor (set of 2) (P/N 468.200.00)

Combustion/Reduction o-ring (set of 10) (P/N 290.329.10)

### 1: Combustion reactor

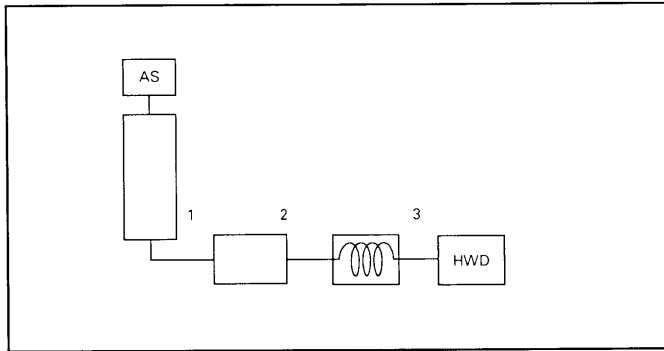


### 3 : Packed column for CHN determination

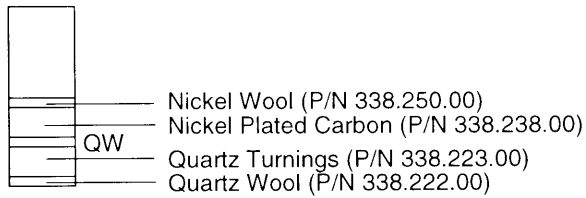
2 m length, 4 mm ID (P/N 260.082.07)

Pre-packed single combustion/reduction reactor for CHN determination: P/N 468.200.06

# EA 1110 - OXYGEN DETERMINATION

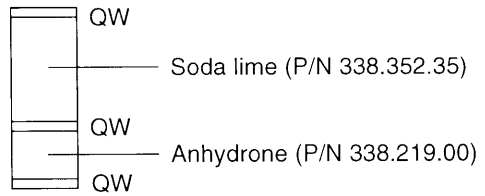


## 1: Pyrolysis reactor



Pyrolysis reactor (set of 2) (P/N 468.200.00)  
 Pyrolysis o-ring (set of 10) (P/N 290.329.10)

## 2: Adsorption trap

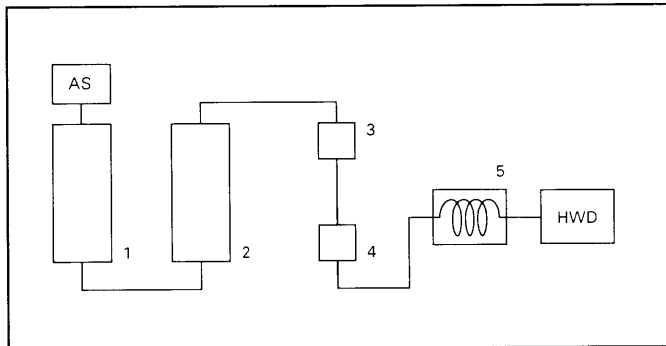


Adsorption trap (P/N 281.131.00)  
 Adsorption trap o-ring (P/N 290.136.03)

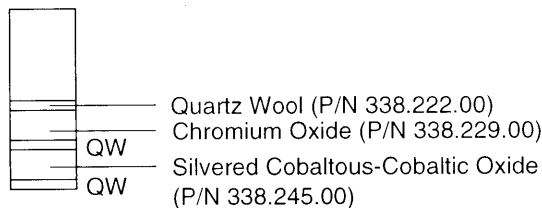
## 3: Packed column for Oxygen determination

1.5 m length, 5 mm ID (P/N 260.079.00)

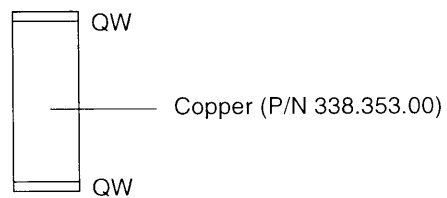
# NA 2500 - N DETERMINATION



## 1: Combustion reactor

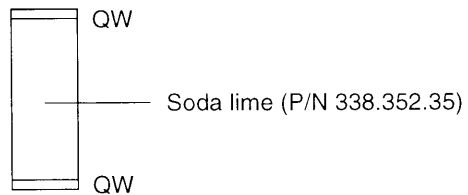


## 2: Reduction reactor



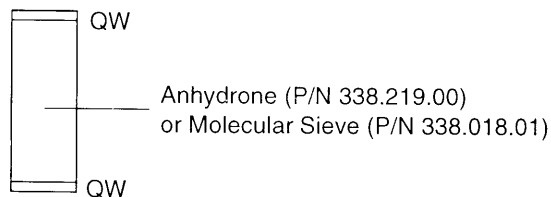
Combustion/Reduction reactor (set of 2) (P/N 468.200.00)  
 Combustion/Reduction o-ring (set of 10) (P/N 290.329.10)

## 3: Adsorption trap for CO<sub>2</sub>



Adsorption trap for CO<sub>2</sub> (P/N 281.130.90)

#### 4: Adsorption trap for H<sub>2</sub>O



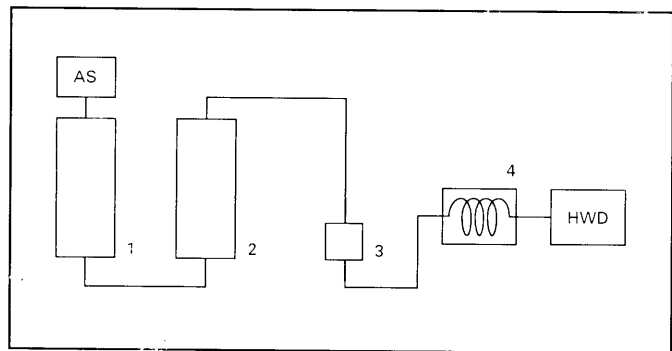
Adsorption trap for H<sub>2</sub>O (P/N 281.131.00)

Adsorption trap o-ring (set of 2) (P/N 290.136.03)

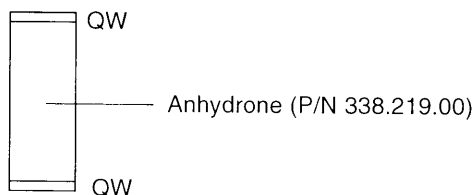
#### 5: Packed column for N determination

2 m length, 4 mm ID (P/N 260.082.07)

### NC 2500 - NC DETERMINATION



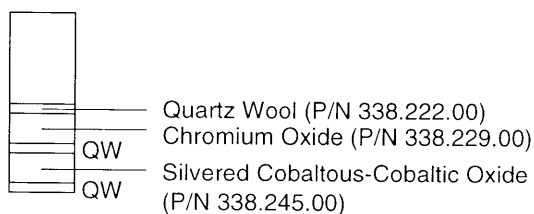
#### 3: Adsorption trap for H<sub>2</sub>O



Adsorption trap for H<sub>2</sub>O (P/N 281.131.00)

Adsorption trap o-ring (P/N 290.136.03)

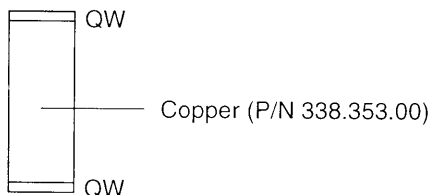
#### 1: Combustion reactor



#### 4: Packed column for NC determination

2 m length, 4 mm ID (P/N 260.082.07)

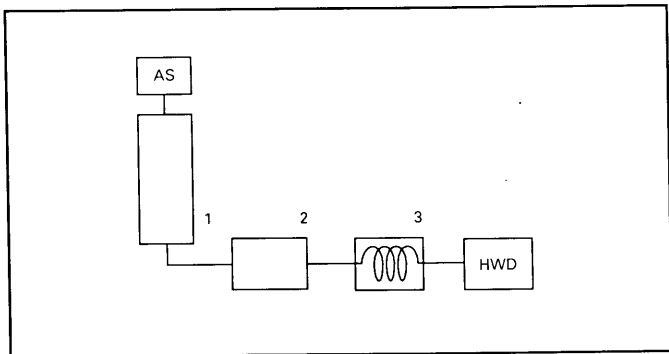
#### 2: Reduction reactor



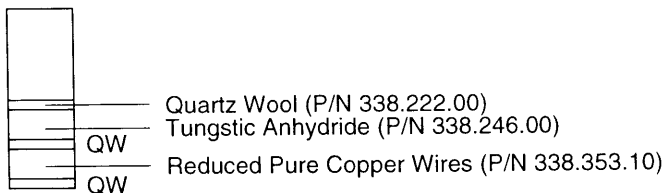
Combustion/Reduction reactor (set of 2) (P/N 468.200.00)

Combustion/Reduction o-ring (set of 10) (P/N 290.329.10)

# NCS 2500 - NCS DETERMINATION



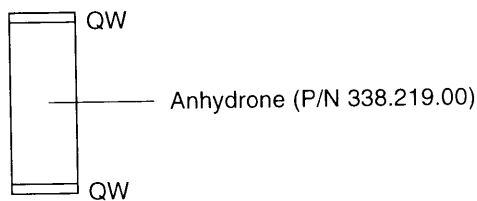
## 1: Combustion/Reduction reactor



Combustion/Reduction reactor (set of 2) (P/N 468.200.00)  
 Combustion/Reduction o-ring (set of 10) (P/N 290.329.10)

Pre-packed reactor for NCS determination: P/N 468.020.05

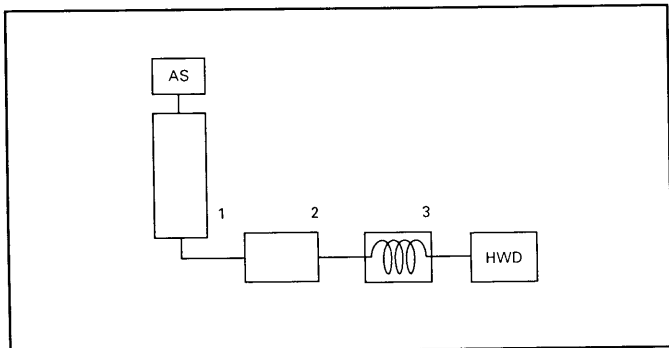
## 2: Adsorption trap for H<sub>2</sub>O



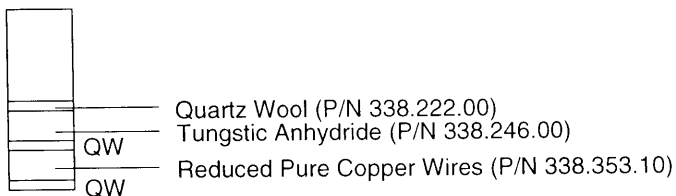
Adsorption trap (P/N 281.131.00)  
 Adsorption trap o-ring (set of 2) (P/N 290.136.03)

## 3: Packed column for NCS determination 2 m length, 4 mm ID (P/N 260.082.08)

# SULPHUR DETERMINATION



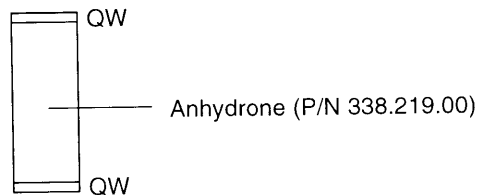
## 1 : Combustion/Reduction reactor



Combustion/Reduction reactor (set of 2) R (P/N 468.200.00)  
 Combustion/Reduction o-ring (set of 10) (P/N 290.329.10)

Pre-packed reactor for S determination: P/N 468.020.05

## 2: Adsorption trap for H<sub>2</sub>O

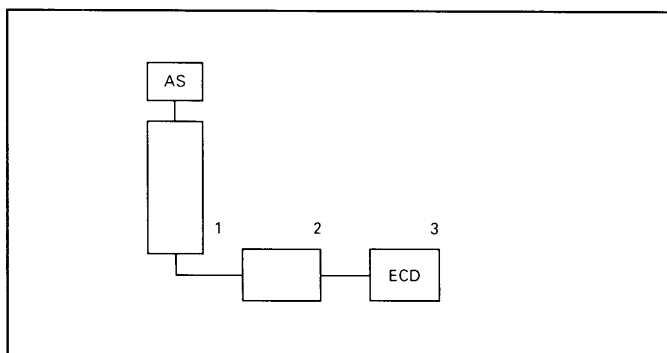


Adsorption trap (P/N 281.131.00)  
 Adsorption trap o-ring (P/N 290.136.03)

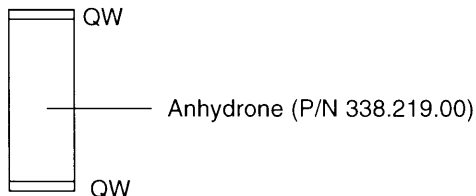
## 3: Packed column for S determination 0.80 m length, diameter 6 x 4 mm (P/N 260.078.00)



# SULPHUR TRACE DETERMINATION

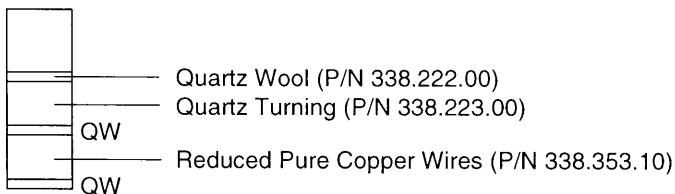


## 2: Adsorption trap for H<sub>2</sub>O



Adsorption trap (P/N 281.131.00)  
 Adsorption trap o-ring (set of 2) (P/N 290.136.03)

## 1: Combustion/Reduction reactor

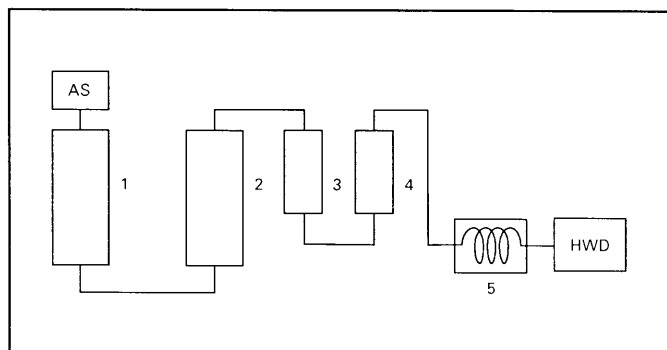


Combustion/Reduction reactor (set of 2) (P/N 468.200.00)  
 Combustion/Reduction o-ring (set of 10) (P/N 290.329.10)

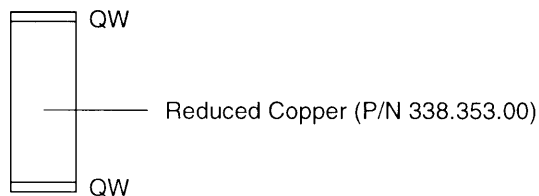
Pre-packed reactors for S determination: P/N 468.020.05

**3: ECD Detector (P/N 419.075.30)** It includes a packed column for sulphur trace analysis (P/N 260.185.05)  
**ECD Control Module (P/N 432.097.65)**

# NA 2100/NA 1110-NITROGEN AND PROTEIN DETERMINATION



## 2: Reduction reactor



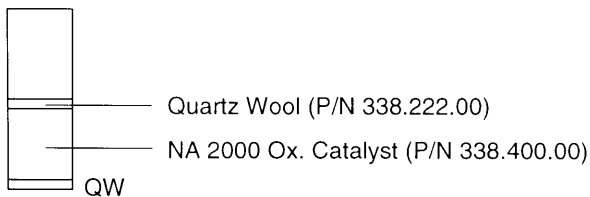
Combustion/Reduction reactor (empty) (set of 2)  
 (P/N 468.200.00)  
 Combustion/Reduction o-ring (set of 10) (P/N 290.329.10)

Pre-packed quartz combustion reactor: P/N 468.006.60

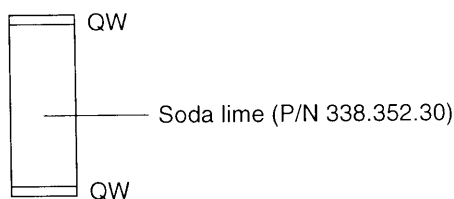
Pre-packed quartz reduction reactor:  
 P/N 468.006.50

Pre-packed stainless-steel combustion tube  
 P/N 468.200.51  
 Crucible for SS pre-packed tube: P/N 252.050.00

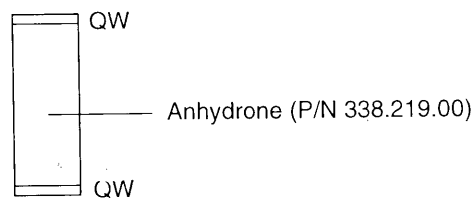
## 1: Combustion reactor



### 3: Adsorption trap for CO<sub>2</sub> and H<sub>2</sub>O



### 4: Adsorption trap for H<sub>2</sub>O



### 5: Packed column for N/Protein

1 m length, diameter 6 x 4 mm (P/N 260.700.04)

Adsorption trap (empty) (P/N 281.130.60)

O-ring for adsorption trap (set of 2) (P/N 290.100.82)

## KITS OF CONSUMABLES AND SPARE PARTS FOR 1000 ANALYSES

These kits allow the users to program their analytical workload at a lower price instead of placing orders for individual consumables.

### EA 1110

- A 190.012.03 KIT FOR 1000 CHN ANALYSES
- B 190.012.01 KIT FOR 1000 CHN AND 1000 O ANALYSES
- C 190.012.04 KIT FOR 1000 CHNS ANALYSES
- D 190.012.02 KIT FOR 1000 CHNS AND 1000 O ANALYSES
- E 190.013.01 KIT FOR 1000 O ANALYSES

THE KITS A, B, C, D, AND E CONTAIN THE PARTS LISTED BELOW:

	A	B	C	D	E
240.064.00 TIN SAMPLE CONTAINER (SET OF 100)	10	10	10	10	-
468.200.00 COMBUSTION/REDUCTION REACTOR (SET OF 2)	3	5	2	4	2
338.219.00 ANHYDRONE (FLASK OF 100 g)	-	1	-	1	1
338.222.00 QUARTZ WOOL (FLASK OF 5 g)	2	2	2	2	1
338.223.00 QUARTZ TURNINGS (FLASK OF 50 g)	2	3	-	3	3
338.353.00 REDUCED COPPER (FLASK OF 100 g)	4	4	-	-	-
338.353.10 REDUCED PURE COPPER WIRES (AMPOULE OF 40 g)	-	-	4	4	-
338.352.35 SODA LIME (FLASK OF 100 g)	-	1	-	1	1
338.229.00 CHROMIUM OXIDE (FLASK OF 25 g)	4	4	-	-	-
338.245.00 SILVERED COBALTOUS COBALTIC OXIDE (25 g)	4	4	-	-	-
338.217.10 COPPER OXIDE (FLASK OF 50 g)	2	2	-	-	-
290.136.03 SEALING O-RING FOR ADSORPTION TRAP (SET OF 2)	-	1	-	1	1
290.329.10 O-RING FOR COMBUSTION TUBES (SET OF 10)	1	1	1	1	1
338.224.00 CYCLOHEXANONE 2,4 DNPH (1 g)	1	1	-	-	1
338.244.00 ATROPINE (FLASK OF 2 g)	1	1	-	-	-
338.246.00 TUNGSTIC ANHYDRIDE (25 g)	-	-	4	4	-
338.352.10 BBOT STANDARD (2 g)	-	-	1	1	-
338.367.00 ACETANILIDE (FLASK OF 2 g)	1	1	-	1	-
240.054.00 SILVER SAMPLE CONTAINERS (SET OF 100)	-	10	-	10	10
338.225.00 BENZOIC ACID (FLASK OF 2 g)	-	1	-	1	1
338.238.00 NICKELIZED CARBON	-	4	-	4	4
338.250.00 NICKEL WOOL (2 g)	-	2	-	2	2
338.251.00 SULPHANILAMIDE (FLASK OF 2 g)	-	-	1	1	-
338.375.10 VANADIUM PENTOXIDE	-	-	1	1	-
420.015.01 TEFLON TUBE	-	-	1	1	-

## NA 2500 SERIES

- F 190.024.00 KIT FOR 1000 N ANALYSES  
 G 190.024.01 KIT FOR 1000 NC ANALYSES  
 H 190.024.02 KIT FOR 1000 NCS ANALYSES

THE KITS F, G AND H CONTAIN THE PARTS LISTED BELOW:

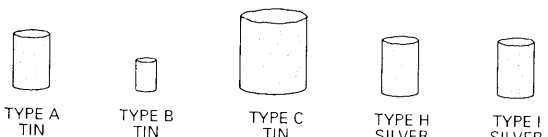
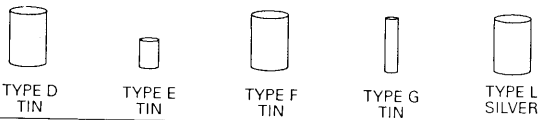
	F	G	H
240.064.00 TIN SAMPLE CONTAINER (SET OF 100)	10	10	10
468.200.00 COMBUSTION/REDUCTION REACTOR (SET OF 2)	3	3	2
338.219.00 ANHYDRONE (FLASK OF 100 g)	1	1	1
338.222.00 QUARTZ WOOL (FLASK OF 5 g)	2	2	2
338.353.00 REDUCED COPPER (FLASK OF 100 g)	4	4	-
338.353.10 REDUCED PURE COPPER WIRES (40 g)	-	-	4
338.352.35 SODA LIME (FLASK OF 100 g)	1	-	-
338.229.00 CHROMIUM OXIDE (FLASK OF 25 g)	4	4	-
338.245.00 SILVERED COBALTOUS COBALTIC OXIDE (25 g)	4	4	-
338.217.10 COPPER OXIDE (FLASK OF 50 g)	-	2	-
290.136.03 SEALING O-RING FOR ADSORPTION TRAP (SET OF 2)	2	2	1
290.329.10 O-RING FOR COMBUSTION TUBES (SET OF 10)	1	1	1
338.224.00 CYCLOHEXANONE 2,4 DNPH (FLASK OF 1 g)	1	1	-
338.244.00 ATROPINE (FLASK OF 2 g)	1	1	-
338.246.00 TUNGSTIC ANHYDRIDE (FLASK OF 25 g)	-	-	4
338.352.10 BBOT STANDARD (2 g)	-	-	1
338.251.00 SULPHANILAMIDE (FLASK OF 2 g)	-	-	1
338.375.10 VANADIUM PENTOXIDE (FLASK OF 1 g)	-	-	1
338.375.40 LEAD OXIDE (FLASK OF 1 g)	1	1	-

## NA 2100

- L 190.041.43 KIT FOR 1000 N/PROTEIN ANALYSES USING QUARTZ COMBUSTION TUBE  
 M 190.041.51 KIT FOR 1000 N/PROTEIN ANALYSES USING SS COMBUSTION TUBE

THE KITS L AND M CONTAIN THE PART LISTED BELOW:

	L	M
252.080.00 NA 2100 TIN CONTAINER (SET OF 100)	10	10
338.219.00 ANHYDRONE (FLASK OF 100 g)	2	2
338.222.00 QUARTZ WOOL (FLASK OF 5 g)	2	1
338.400.00 NA 2100 OXIDATION CATALYST (quantity for 1 oxidation reactor)	2	-
338.353.00 REDUCED COPPER (FLASK OF 100 g)	4	4
338.352.30 SODA LIME (FLASK OF 200 g)	3	3
338.352.20 METHIONINE (FLASK OF 25 g)	1	1
468.200.00 COMBUSTION/REDUCTION REACTOR (SET OF 2)	2	1
252.050.00 CRUCIBLE	-	4
468.200.51 PRE-PACKED SS COMBUSTION TUBE	-	1

<p>"SOFT" (pressed tin/silver container)</p>	<p>"Soft" containers are obtained by pressing light metal foil.</p>  <p>TYPE A TIN    TYPE B TIN    TYPE C TIN    TYPE H SILVER    TYPE I SILVER</p>
<p>"HARD" (flat smooth bottom tin/silver container)</p>	<p>"Hard" tin containers are heavier than the "soft" ones and allow hermetic sealing. For this reason the "hard" ones are suitable for liquid samples. The "hard" tin containers are obtained by moulding ultrapure tin sheets.</p>  <p>TYPE D TIN    TYPE E TIN    TYPE F TIN    TYPE G TIN    TYPE L SILVER</p>

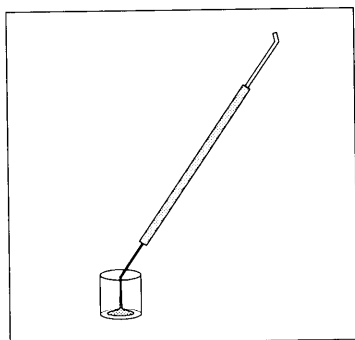
## SAMPLE CONTAINERS

You will find here an optimized guide for the best choice of containers tailored to your specific analytical needs, through a detailed specification both for tin and silver containers to be used according to the different applications. To avoid deformation problems and to guarantee a complete use of all the sample containers, these are conveniently supplied and protected in adequate plastic boxes in package of 100.

## TIN CONTAINERS

<b>TYPE A</b>	240.064.00	Universal "soft" tin containers Set of 100 Recommended for SOLID samples (organics, soils, sediments, food, plastics, coal, etc.) or LIQUIDS samples adsorbed on inert solid materials Chromosorb™ P/N 338.375.30
<b>TYPE B</b>	240.053.00	Small "soft" tin containers for solid samples Set of 100 Recommended for solid samples using the Elemental Analyzer EA 1106
<b>TYPE C</b>	252.080.00	NA 2000 tin containers Set of 100
<b>TYPE D</b>	240.088.10	"Hard" tin containers Set of 100 Recommended for the analysis of any viscous sample.
<b>TYPE E</b>	240.088.20	"Hard" tin container Set of 100 Recommended for the analysis of any liquids (for volatile liquids we recommend the use of liquid sealing device P/N 205.030.00).
<b>TYPE F</b>	240.072.00	"Hard" tin containers Set of 100 Suggested for the analysis of trace elements (N, C, S) in liquids such as water, wine, beer, milk, urine etc.
<b>TYPE G</b>	240.070.00	"Hard" tin capillary Set of 50 Suggested for the analysis of liquid samples when the material is available in very small amounts. Useful for volatile samples. Use of sealing device P/N 205.030.00 is highly recommended.

### VISCOUS SAMPLING TECHNIQUE






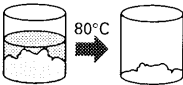
### LIQUID SAMPLING TECHNIQUE

	 Add Chromosorb™ 1 spatula	WEIGH
Add the liquid sample on the Chromosorb™ surface		 Close and weigh

## SILVER CONTAINERS

<b>TYPE H</b>	240.054.00	Universal "soft" silver container Set of 100 Recommended for oxygen determination for solid samples.
<b>TYPE I</b>	240.054.05	"Soft" silver containers Set of 100 Recommended for Total Organic Carbon (T.O.C.) determination according to the Fisons Instruments method (patent n. 90110186.5)

## SAMPLING TECHNIQUE FOR T.O.C. DETERMINATION

<p>1</p>  <p>Ag capsules</p>	<p>2</p>  <p>Add 5 - 20 mg of sample</p>	<p>3</p> <p>WEIGH</p>
<p>4</p>  <p>Add 1 drop of HCl 1:1</p>	<p>5</p>  <p>Leave at 80°C until dry</p>	<p>6</p> <p>ANALYSE</p>

**TYPE L**      240.051.00      "Hard" silver container  
 Set of 50  
 Recommended for oxygen analysis of liquid samples (e.g.: gasoline).  
 The Sealing Device, P/N 205.030.00, is highly suggested for these liquid samples.

***SAMPLE CONTAINERS MANUFACTURED BY CE INSTRUMENTS DO NOT REQUIRE CLEANING. THEY CAN BE USED WITHOUT ANY PRE-TREATMENT DIRECTLY FROM THE PACKAGE.***

## REACTOR TUBES

*THE REACTOR TUBES HAVE BEEN MANUFACTURED IN HIGH QUALITY QUARTZ TO GUARANTEE EXCELLENCE OF RESULTS AND DURABILITY.*

*TO INCREASE THE REACTORS LIFETIME PLEASE REFER TO THE REACTOR PACKING SECTION OF THE INSTRUCTION MANUALS.*

- 468.200.00 EMPTY QUARTZ REACTOR TUBE ( SET OF 2 )
- 468.200.50 EMPTY STAINLESS STEEL TUBE
- 468.020.06 PRE-PACKED QUARTZ REACTOR FOR CHN
- 468.020.05 PRE-PACKED COMBUSTION/REDUCTION REACTOR FOR CHNS, NCS AND S DETERMINATIONS
- 468.006.60 PRE-PACKED QUARTZ COMBUSTION REACTOR FOR NA 2100/NA 1100
- 468.006.50 PRE-PACKED QUARTZ REDUCTION REACTOR FOR NA 2100/NA 1100
- 468.200.51 PRE-PACKED STAINLESS STEEL COMBUSTION REACTOR FOR NA 2100/NA 1100

Users may benefit from these pre-packed reactors in many ways:

No more tubes, catalysts or packing manipulation.

A few minutes to replace the reactor and the analyzer is back to work again.

**Note:**      ***THE TRANSPARENT QUARTZ REACTOR (P/N 468.016.00) AND THE OPAQUE QUARTZ REACTOR (P/N 468.017.00) HAVE BEEN REPLACED BY THE NEW AND ONLY ONE AVAILABLE : THE CYLINDRICAL QUARTZ REACTOR (P/N 468.200.00)***

## COUPLING JOINTS

### CHN AND N/NC VERSIONS

To connect the oxidation reactor to the reduction reactor on the EA 1110 and NA 2500 the COUPLING JOINT P/N 347.095.12 is required. To connect the oxidation reactor to the reduction reactor on the NA 2100 and NA 1100 the COUPLING JOINT P/N 347.095.30 is required.

### CHNS, CHNS/O, AND NCS VERSIONS

To connect the oxidation reactor to the chromatographic column on the EA 1110 and NA 2500 the COUPLING JOINT P/N 347.095.18 is required.

## ADSORPTION TRAPS

- 281.131.00 ADSORPTION TRAP FOR H<sub>2</sub>O
- 281.130.90 ADSORPTION TRAP FOR CO<sub>2</sub>
- 281.130.60 ADSORPTION TRAP FOR NA 2100/NA 1100

## CHROMATOGRAPHIC COLUMNS

A large choice of columns for any type of application is available. If properly sealed with the original blind end fittings the column can be stocked for long periods.

- 260.082.08 PACKED COLUMN FOR CHNS AND NCS DETERMINATION
- 260.082.07 PACKED COLUMN FOR CHN, NC, N DETERMINATION
- 260.079.00 PACKED COLUMN FOR O DETERMINATION
- 260.078.00 PACKED COLUMN FOR S DETERMINATION
- 260.700.04 PACKED COLUMN FOR N PROTEIN DETERMINATION

## FITTINGS & TUBES

- 290.340.45 TUBING OLIVE, ALUMINIUM, 2 mm (SET OF 10)
- 350.404.03 TUBING NUT, STAINLESS STEEL, 2 mm (SET OF 10)
- 350.341.08 CONNECTOR, TUBE, PUSH FIT (SET OF 5)
- 347.154.01 COLUMN FITTING, 6 mm to 2 mm
- 350.454.00 BLANKING NUT, STAINLESS STEEL (SET OF 10)
- 350.451.00 BLANKING NUT, BRASS (SET OF 10)
- 420.015.01 TUBE PTFE 2 x 1 mm (LENGTH 3 m)
- 391.025.00 TUBE, STAINLESS STEEL, 2 x 1 mm, (LENGTH 3 m)
- 420.100.00 FLEXIBLE POLYETHYLENE TUBE 5 x 3 mm, (LENGTH 3 m)

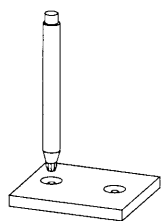
## O-RINGS

- 290.303.04 O-RING (VITON) FOR GAS CONNECTIONS (SET OF 10)
- 290.303.01 O-RING (VITON) FOR TUBE CONNECTIONS DIAM. 2 mm (SET OF 10)
- 290.136.03 SEALING O-RING FOR ADSORPTION TRAPS
- 290.050.46 SEALING O-RING FOR AUTOSAMPLER (P/N 251.050.45)
- 290.329.10 O-RING (VITON) FOR REACTION TUBES (SET OF 10)
- 290.000.82 O-RING FOR NA 2100 TRAPS (SET OF 2)

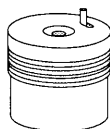
## OXYGEN LOOPS

- 245.010.00 OXYGEN DOSING LOOP 25 ml
- 245.004.00 OXYGEN DOSING LOOP 10 ml
- 245.003.00 OXYGEN DOSING LOOP 5 ml
- 231.014.10 OXYGEN DOSING LOOP 50 ml
- 245.008.00 OXYGEN DOSING LOOP 3 ml
- 245.006.00 OXYGEN DOSING LOOP 1.5 ml

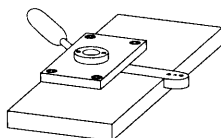
## SAMPLE PREPARATION ACCESSORIES



205.003.10 SEALING DEVICE FOR SOLID CONTAINERS FOR NA 2500 SERIES AND EA 1110



252.090.10 SEALING DEVICE FOR LARGE TIN CONTAINERS (P/N 252.080.00)



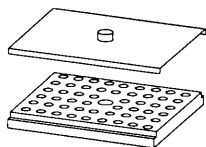
205.030.02 SEALING DEVICE FOR LIQUID CONTAINERS  
 This device allows the analysis of hygroscopic solid compounds and volatile liquid substances without variation of weight. The samples are introduced in the container using a spatula, syringes or generic needles.  
 We suggest the use of liquid tin containers or capillaries according to the viscosity of the liquid sample.  
 The container is then placed in the sealing device slide.  
 The container is to be purged with a flow of oxygen or helium before closing.  
 The container is tightly closed and the constancy of weight is monitored by an electronic balance.  
 For liquids with high vapour pressure use tin capillaries: the treatment with inert gas is not necessary because the vapour pressure generated by the liquid sample is sufficient to flush the atmospheric gases from the container.

205.005.00 FORCEPS

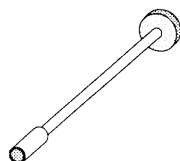
205.006.00 SMALL SPATULA FOR CONTAINER FILLING

205.006.20 LARGE SPATULA FOR CONTAINER FILLING

365.020.01 FIXED NEEDLE SYRINGE 10  $\mu$ l



240.100.24 POCKET SAMPLE HOLDER FOR SMALL CONTAINERS  
 This device is used to carry up to 52 weighed and sealed containers from the balance to the autosampler mounted on the instrument.



276.060.10 TUBE CLEANING DEVICE  
 205.006.25 TUBE CLEANING DEVICE FOR STAINLESS STEEL TUBE  
 Recommended tools to clean the reactor when replacing the catalyst.

## ACCESSORIES FOR INJECTION OF LIQUID SAMPLES

190.041.38	MANUAL INJECTION DEVICE FOR LIQUID SAMPLING
251.052.10	AUTOSAMPLER AS 800 FOR EA 1110 AND NA 2500
251.052.20	AUTOSAMPLER AS 800 FOR NA 2100
240.700.05	CRIMP-TOP VIAL 2.5 cc (SET OF 100)
386.060.40	ALUMINIUM SEAL - 1 mm - WITH TEFLON FACED SEPTUM (SET OF 100)
205.110.00	HAND CRIMPER 11 mm
365.020.19	SYRINGE 10 µl
365.002.04	SYRINGE 100 µl
365.006.32	SYRINGE 100 µl WITH TEFLON PLUNGER
365.005.30	SYRINGE FOR GAS INJECTION 500 µl
313.032.09	INJECTION PORT SEPTUM (SET OF 50)
240.300.00	CRIMP-TOP VIAL 10 cc (SET OF 5)
386.060.35	CAP FOR VIAL 10 cc (SET OF 100)
365.005.70	SYRINGE 10 µl

## ACCESSORIES FOR GAS SAMPLING

190.041.14	AUTOMATIC GAS SAMPLING DEVICE
	This device is recommended for the automatic and unattended sampling of any gas from a cylinder or a pipeline by means of a gas loop injection through a Bimatic valve.
	It can be operated by any data handling system (DP 200, Eager 200).

## REAGENTS/CHEMICALS FOR EA 1110

### CHNS DETERMINATION

338.246.00	TUNGSTIC ANHYDRIDE (FLASK OF 25 g)
338.222.00	QUARTZ WOOL (FLASK OF 5 g)
338.221.00	COPPER SULPHATE, hydrated (FLASK OF 200 g) for doping helium with water
338.375.10	VANADIUM PENTOXIDE (FLASK OF 1 g) additive for S analysis in inorganic samples
338.353.10	PURE COPPER WIRES (AMPOULE 40 g)
338.375.30	CHROMOSORB W (FLASK OF 25 g) for liquid samples adsorption

### CHN DETERMINATION

338.229.00	CHROMIUM OXIDE (FLASK OF 25 g)
338.228.00	COBALTOUS-COBALTIC OXIDE (FLASK OF 25 g)
338.245.00	SILVERED COBALTOUS-COBALTIC OXIDE (FLASK OF 25 g)
338.217.10	COPPER OXIDE (FLASK OF 50 g)
338.354.00	KOERBL CATALYST ADSORBENT FOR HALOGENS (10 g)
338.353.00	COPPER GRAINS (2 AMPOULES 50 g)
338.222.00	QUARTZ WOOL (FLASK OF 5 g)
338.221.00	COPPER SULPHATE, hydrated (FLASK 200 g) for doping helium carrier gas with water
338.375.40	LEAD OXIDE (Pb <sub>3</sub> O <sub>4</sub> ) (FLASK OF 1 g) additive for refractory substances for sulphur determination
338.375.30	CHROMOSORB W (FLASK OF 25 g) for liquid samples adsorption

### O DETERMINATION

338.238.00	NICKEL PLATED CARBON (FLASK OF 5 g)
338.222.00	QUARTZ WOOL (FLASK OF 5 g)
338.250.00	NICKEL WOOL (FLASK OF 2 g)
338.223.00	QUARTZ TURNINGS (FLASK OF 50 g)
338.219.00	ANHYDRONE (FLASK OF 100 g)
338.352.35	SODA LIME (FLASK OF 100 g)
338.018.01	MOLECULAR SIEVE 3A 1/16 (FLASK OF 100 g)



## REAGENTS/CHEMICALS FOR NA 2500 SERIES

### N DETERMINATION

338.229.00	CHROMIUM OXIDE (FLASK OF 25 g)
338.217.10	COPPER OXIDE (FLASK OF 50 g)
338.245.00	SILVERED COBALTOUS-COBALTIC OXIDE (FLASK OF 10 g) absorption of halogens and SO <sub>2</sub>
338.354.00	KOERBL CATALYST (FLASK OF 10 g) absorption of halogens and SO <sub>2</sub>
338.228.00	COBALTOUS-COBALTIC OXIDE (FLASK OF 25 g)
338.353.00	COPPER GRAINS (FLASK OF 100 g)
338.018.01	MOLECULAR SIEVE 3A FOR H <sub>2</sub> O TRAP (FLASK OF 100 g)
338.219.00	ANHYDRONE FOR H <sub>2</sub> O TRAP (FLASK OF 100 g)
338.352.35	SODA LIME FOR CO TRAP (FLASK OF 100 g)
338.222.00	QUARTZ WOOL (FLASK OF 5 g)
338.375.30	CHROMOSORB W (FLASK OF 25 g) for liquid samples adsorption
338.375.40	LEAD OXIDE (FLASK OF 1 g) additive for refractory substances

### NC DETERMINATION

338.229.00	CHROMIUM OXIDE (FLASK OF 25 g)
338.217.10	COPPER OXIDE (FLASK OF 50 g)
338.245.00	SILVERED COBALTOUS-COBALTIC OXIDE (FLASK OF 10 g) absorption of halogens and SO <sub>2</sub>
338.354.00	KOERBL CATALYST (FLASK OF 10 g) absorption of halogens and SO <sub>2</sub>
338.228.00	COBALTOUS-COBALTIC OXIDE (FLASK OF 25 g)
338.353.00	COPPER GRAIN (FLASK OF 100 g)
338.018.01	MOLECULAR SIEVE 3A FOR H <sub>2</sub> O TRAP (FLASK OF 100 g)
338.219.00	ANHYDRONE FOR H <sub>2</sub> O TRAP (FLASK OF 100 g)
338.222.00	QUARTZ WOOL (FLASK OF 5 g)
338.375.30	CHROMOSORB W (FLASK OF 25 g) for liquid samples adsorption
338.375.40	LEAD OXIDE (FLASK OF 1 g) additive for refractory substances

### NCS DETERMINATION

338.246.00	TUNGSTIC ANHYDRIDE (FLASK OF 25 g)
338.353.10	REDUCED PURE COPPER WIRES (AMPOULE OF 40 g)
338.219.00	ANHYDRONE FOR H <sub>2</sub> O TRAP (FLASK OF 100 g)
338.018.01	MOLECULAR SIEVE 3A FOR H <sub>2</sub> O TRAP (FLASK OF 100 g)
338.222.00	QUARTZ WOOL (FLASK OF 5 g)
338.375.30	CHROMOSORB W (FLASK OF 25 g) for liquid samples adsorption
338.375.10	VANADIUM PENTOXIDE (FLASK OF 1 g) additive for S analysis in organic samples

## REAGENTS/CHEMICALS FOR NA 2100/NA 1100

### N/PROTEIN DETERMINATION

338.219.00	ANHYDRONE (FLASK OF 100 g)
338.222.00	QUARTZ WOOL (FLASK OF 5 g)
338.400.00	NA 2000 OXIDATION CATALYST (DOSE FOR 1 OXIDATION REACTOR)
338.353.00	REDUCED COPPER (FLASK OF 100 g)
338.352.30	NA 2000 SODA LIME (FLASK OF 200 g)
338.018.01	MOLECULAR SIEVE 3A (FLASK OF 100 g)
338.375.30	CHROMOSORB W WASHED (FLASK OF 25 g)
338.229.00	CHROMIUM OXIDE (FLASK OF 25 g)
338.228.00	COBALTOUS-COBALTIC OXIDE (FLASK OF 25 g)
338.217.10	COPPER OXIDE (FLASK OF 50 g)

## ANALYTICAL STANDARDS

CE Instruments offers a comprehensive range of high-purity standards to meet the stringent demands of users. The nominal concentration value indicated on each standard is fully guaranteed.

		N %	C %	H %	O %	S %
338.367.00	ACETANILIDE (FLASK OF 2 g)	10.36	71.09	6.71	11.84	-
338.244.00	ATROPINE (FLASK OF 2 g)	4.84	70.56	8.01	-	-
338.352.10	BBOT STANDARD (FLASK OF 2 g) <sup>1</sup>	6.51	72.53	6.09	7.43	7.44
338.224.00	CYCLOHEXANONE 2-4 DNPH (FLASK OF 1 g) <sup>2</sup>	20.14	51.79	5.07	23.00	-
338.234.00	DIPHENYL (FLASK OF 2 g)	-	93.46	6.54	-	-
338.354.30	IMIDAZOLE (FLASK OF 2 g)	41.15	52.92	5.92	-	-
338.251.00	SULPHANILAMIDE (FLASK OF 2 g)	16.27	41.84	4.68	18.58	18.62
338.352.40	LUBRICANT STANDARD (FLASK OF 2 g)	0.9	72.2	11.3	-	3.1
338.352.20	dl-METHIONINE (FLASK OF 25 g)	9.39	-	-	-	-
338.225.00	BENZOIC ACID (FLASK OF 2 g)	-	68.85	4.95	26.20	-
338.400.19	NICOTINAMIDE (FLASK OF 2 g)	22.94	59.01	4.95	13.10	-
338.400.18	L-CYSTINE (FLASK OF 2 g)	11.66	29.99	5.03	26.63	26.69
338.400.01	UREA (FLASK OF 2 g)	46.65	20.00	6.71	26.64	-
338.400.02	UREA (FLASK OF 10 g)	46.65	20.00	6.71	26.64	-

<sup>1</sup> 2,5-Bis (5-tert-butyl-benzoxazol-2-yl) thiophene

<sup>2</sup> 2,4-dinitrophenylhydrazone

## CONVERSION KITS

The versatility of your equipment allows you to customize your configuration based on your analysis requirements by suitable conversion kits:

### EA 1110

190.041.16	CONVERSION KIT FROM CHN TO CHNS DETERMINATION
190.041.17	CONVERSION KIT FROM CHN TO CHN/O DETERMINATION
190.041.18	CONVERSION KIT FROM CHN TO CHNS/O DETERMINATION
190.041.19	CONVERSION KIT FROM CHN/O TO CHNS/O DETERMINATION

### NA 2500 SERIES

190.041.29	CONVERSION KIT FROM N TO NC DETERMINATION
190.041.30	CONVERSION KIT FROM N OR NC TO NCS DETERMINATION

### EA 1110 & NA 2500 SERIES

190.041.28	KIT FOR ORGANIC CARBON (TOC) IN SOLID SAMPLES (SOILS, SEDIMENTS, ETC.)
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THE KIT CONSISTS OF:

240.054.05	SILVER SAMPLE CONTAINER FOR SOLIDS (SET OF 100)
334.130.36	SAMPLE HOLDER PLATE
365.005.30	SYRINGE
354.600.17	ELECTRIC HEATER