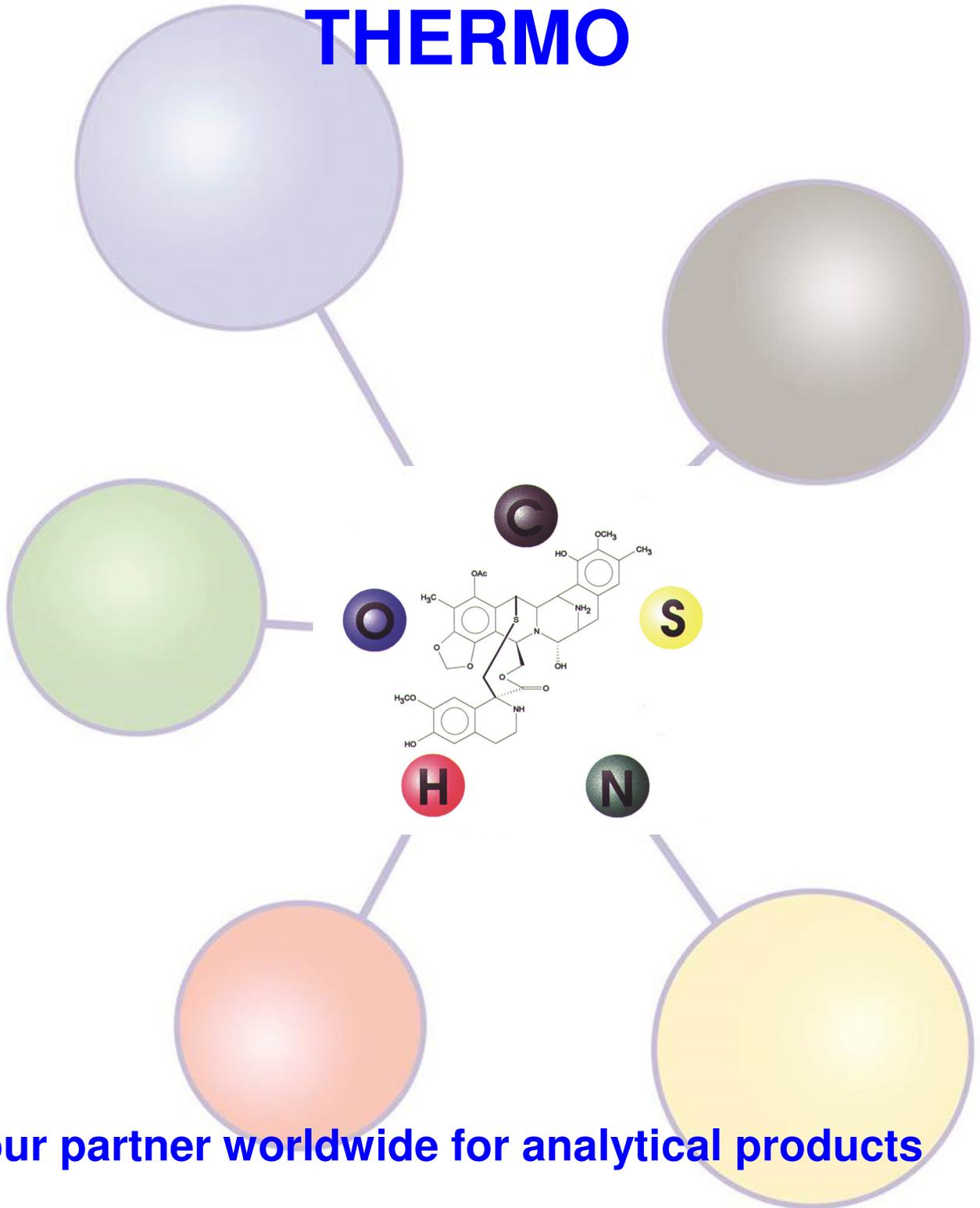


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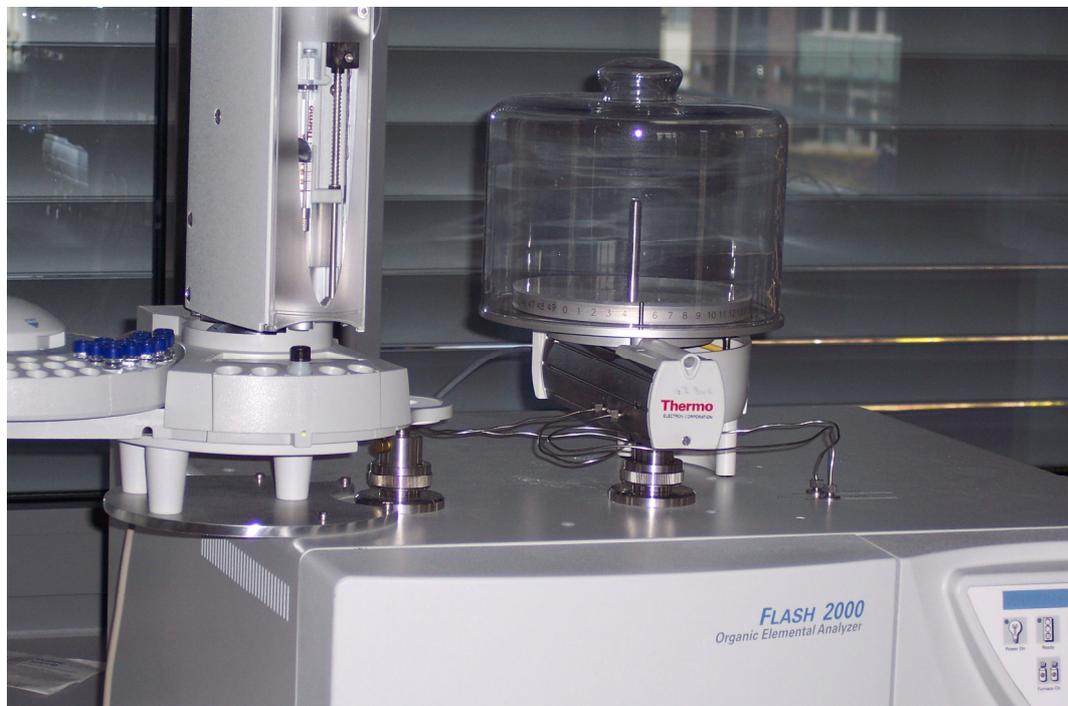
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ZEROBLANK-Autosampler

The new Zero-Blank Revolver from Blisotec is the most innovative solution for sample introduction in EA and EA-MS measurement systems.

The autosampler can be integrated in Thermo Flash EA and offers a wide range of sample carousels.

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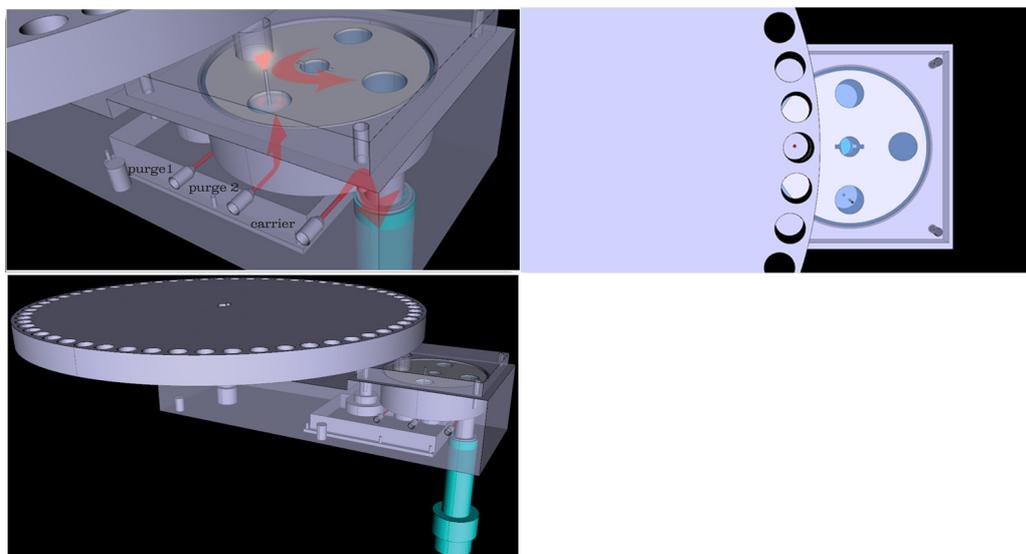
The integrated stepper motor makes switching between different carousels possible and offers the user a great deal of flexibility.

The two stage purging system allows a “zero-blank” sample introduction without any additional time loss. The duration of the purge cycle is defined by the length of a single sample acquisition multiplied by two.

In the first stage the sample is roughly purged for one acquisition period. In the second stage the sample is enclosed in a low volume chamber and purged for another acquisition period, freeing the sample from the last traces of atmospheric nitrogen.

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A single measurement of N and C can be usually done in 6-7 minutes, which means that the next sample will be purged with helium for about 12-14 minutes, and then introduced to the reactor. This solution gives the user an easy control mechanism over the whole process.



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NEW CHROMIUM OXIDE

Physical Characteristics and Performance of new Chromium Oxide

Chromium oxide (Cr_2O_3) is a powerful catalyst used for the oxidation of organic compounds in elemental analysis in order to convert the samples' components completely into the oxidized states such as carbon dioxide (CO_2), nitrous oxides (NO_x) and water.

The best performance of this catalyst is obtained at temperatures of about 1000°C in quartz tubes. At this temperature no other devices or materials are stable and constant over the time.

At such high temperatures, impurities in the chromium oxide such as alkaline compounds may interact with the silicon in quartz tube after over time forming a complex with causes cracks and holes. This can eventually result in breaking of the tube when cooling. Figure 1 shows a Scanning Electron Microscopy (SEM) photo of a quartz tube with silicate deposit. Holes and cracks on the glass surface, which reduce the thickness of the glass walls, are detected.

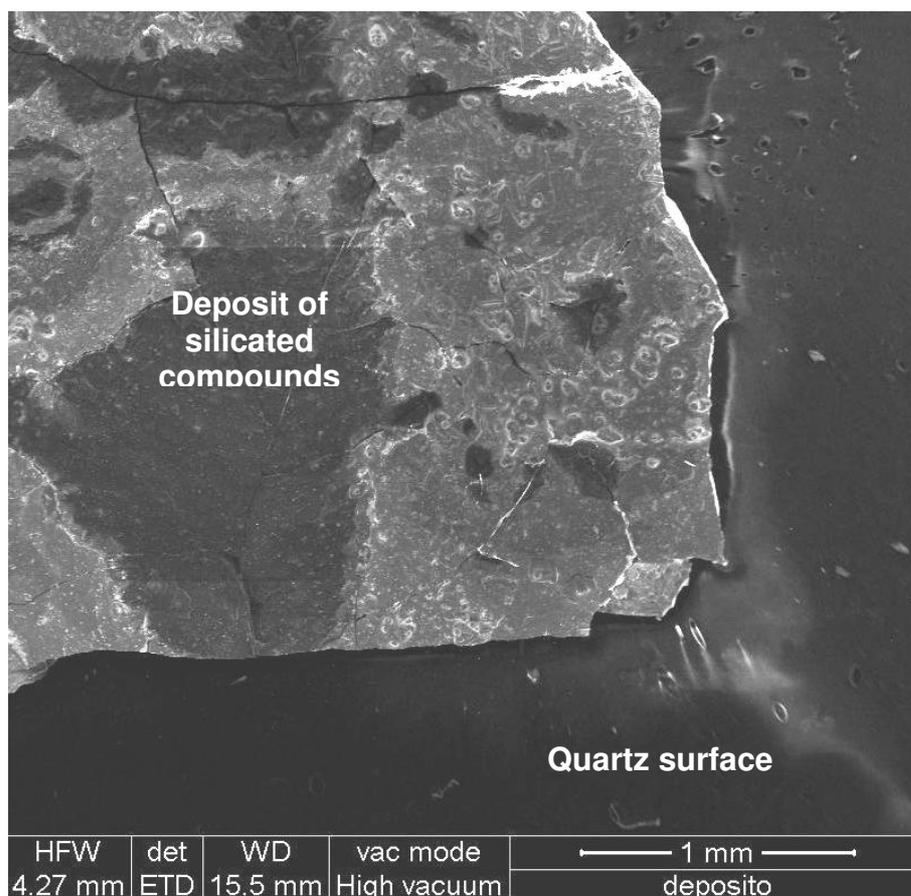


Fig. 1: Scanning Electron Microscopy (SEM) of the deposit created on the internal surface of the quartz tube after 250 runs.

This quartz degradation is accelerated by alkaline impurities present in the catalyst. Even very low amounts of these impurities reduce the live-time of the tube drastically. This adverse reaction was not detected during the analytical runs of the new product.

The good quality of the catalyst was evaluated with a large number of analyses. The chrome oxide region of the quartz tube was carefully observed and compared to the degradation and the internal thickness of the silicate deposits with different catalysts present on the consumable market.

The tests were performed on the New Chrome Oxide after analyses of acetanilide samples. After 40, 150 and 250 runs the quartz tube was removed from the furnace. Visual aspects and glass porosity were observed and documented. In the following figures photos of the same quartz tube, after 40, 150 and 250 tests, are reported.



Fig. 2: Quartz tube with new Cr_2O_3 after 40 runs

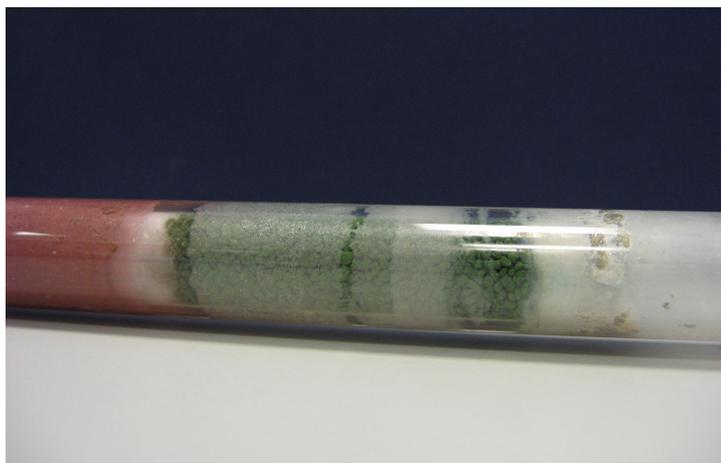


Fig. 3: Quartz tube with new Cr_2O_3 after 150 runs



Fig. 4: Quartz tube with new Cr_2O_3 after 250 runs

The glass wall shows normal degradation. Even after 250 runs the tube remains re-usable. No fissures, cracks or holes are observed. Figure 5 shows a tube filled with the new Cr_2O_3 compared to a tube containing the normal Cr_2O_3 catalyst after 250 analyses carried out under the same conditions with the same equipment. It is clearly visible that the tube with the new catalyst (top) is still re-usable while the other one presents several cracks and is likely to break when heated and cooled again.

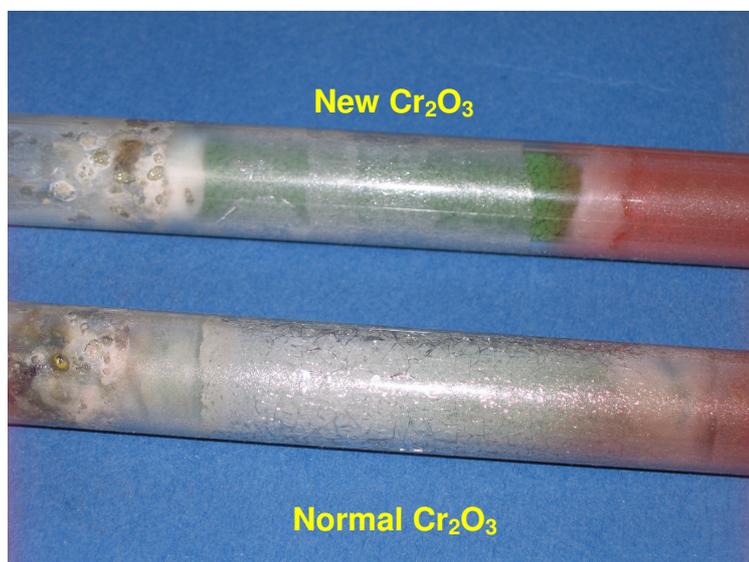


Fig. 5: Quartz tubes with new and normal Cr_2O_3 after 250 runs



Content

1	COPPER REAGENTS.....	1
2	CATALYSTS and ADDITIVES.....	2
3	GAS CHROMATOGRAPHIC COLUMNS.....	4
4	REACTORS and SEALS	5
4.1	Type EA 1106	5
4.2	Type NA 1500 Series 1	6
4.3	Type NA 1500 Series 2 / NA 2000 / NA 2500 / EA 1108 and EA 1110	7
4.4	Type Flash EA1112 / EA1112HT / 2000 / 4000	9
5	TC / EA.....	11
6	WATER / CARBON DIOXIDE TRAPS.....	13
7	SCRUBBER TUBE ASSEMBLY DETAILS.....	14
8	GAS FITTING SYSTEMS (2 mm, 1/16" etc.).....	15
9	CHART PAPER.....	16
10	CERTIFIED ORGANIC / ANORGANIC STANDARDS.....	17
11	SOIL STANDARDS / SEDIMENTS.....	21
12	ISOTOPE STANDARDS.....	22
12.1	Certified isotope standards.....	22
12.1.1	Natural reference materials	22
12.1.2	Water standards.....	23
12.2	Working isotope standards.....	23
13	SPARE PARTS.....	24
14	FERRULES and FITTINGS	32
15	PRESS FITS (desactivated)	37
16	RETENTION GAPS (Fused Silica)	38
17	Special items GCC / GCTC / Kiel / GasBench / Delta.....	39
18	GC SEPTA for LIQUID INJECTOR.....	41
19	SYRINGES	42



20	VIALS, CAPS and SEALS	43
20.1	GASBENCH: Labco Vials and caps / Exetainer®	43
20.2	Autosampler CTC / AS 2000 / AS3000 / TriPlus	50
21	CRIMPERS and DECAPPERS	55
22	CALIBRATED MICROPIPETTES	56
23	MICRO SPATULA / FORCEPS	57
24	SEALING DEVICES	58
24.1	For solids	58
24.2	For liquids	58
25	CAPSULES	59
25.1	Pressed Capsules	59
25.1.1	Tin capsules for solids	59
25.1.2	Tin foils	60
25.1.3	Tin discs	60
25.1.4	Silver capsules for solids	61
25.1.5	Aluminium capsules for solids	62
25.1.6	Store box for capsules	62
25.2	Smooth Wall Capsules	63
25.2.1	Tin capsules for liquids	63
25.2.2	Silver capsules for liquids	64
25.3	Boats	65
25.3.1	Tin boats	65
25.3.2	Silver boats	65

1 COPPER REAGENTS

Part No.	Ref. Code	Description	Unit
SA99060100	33821710	Copper oxide Ø 0,7 mm	1 kg
SA99060101	33821710	Copper oxide Ø 0,7 mm	100 g
SA99060101B	33821710	Copper oxide Ø 0,7 mm	50 g
SA99060102	33835300	Copper wires Ø 0,7 mm, reduced, ampoule	2 x 50 g
SA99060103	33835300	Copper wires Ø 0,7 mm, reduced glass-bottle	250 g
SA99060204	33835310	Copper wires Ø 0,7 mm, reduced, „ultra pure“ for sulphur analysis, ampoule	40 g
SA99060301	---	Copper oxide, Ø 0,5 mm	100 g
SA99060302-B	---	Copper wires Ø 0,5 mm, reduced, ampoule	100 g
SA99060302	---	Copper wires Ø 0,5 mm, reduced glass-bottle	100 g
SA99060303	---	Copper wires Ø 0,5 mm, reduced glass-bottle	250 g
SA99060304	---	Copper reduced, very fine, glass bottle	100 g
SA33835311	33835311	Electrolytic copper for Flash EA 1112 and EA1108/EA1110/NA1500/NA2000 <i>(long wire)</i>	90 g
SA33835311B	33835311	Electrolytic copper for Flash EA 1112 <i>(long wire)</i>	70 g
SA33835305	33835305	High Quality Copper for Flash 4000	220 g
IVA33835312	33835312	High Quality Copper for Flash	50 g
SA33835335	33835312	High Quality Copper for Flash	250 g



Fig. 1: Copper reduced with different dimensions

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2 CATALYSTS and ADDITIVES

Part No.	Ref. Code	Description	Unit
IVA1091830	1091830	Platinum Catalyst for hydrogen determination	50 pc.
SA33800115	33800115	Glucose Anhydride	100 g
SA33835400	33835400	Koeberl Catalyst absorbent	5 g
SA990610	33822900	Chromium oxide, granular	25 g
SA990610B	33822900	Chromium oxide, granular	50 g
SA990700	33822800	Cobaltous oxide, granular	25 g
SA990630	33824500	Silvered cobaltous oxide	25 g
SA990702	33824600	Tungsten oxide	25 g
SA990620	33835420	Tungsten oxide on Alumina	25 g
SA990701	33823800	Nickel plated carbon	2 x 2,5 g
SA990708	33840000	Oxidation catalyst	40 g
SA990708C	33840000	Oxidation catalyst	60 g
SA990709	33837510	Vanadiumpentoxide	1 g
SA990710	33822000	Carbon dioxide adsorbent	100 g
SA990711	33837540	Lead oxide, red	1 g
SA990712	33821900	Magnesiumperchlorate	100 g
SA990712B	33821900	Magnesiumperchlorate with indicator	100 g
IVA100543	---	Sicapent with indicator	10 g
SA33840035	33840035	Silica Gel with indicator	100 g
IVA33822000	33822000	Ascarit	100 g
SA990713	33801801	Molecular Sieve 3A, pellets, gas purification (Mol.sieve 4A und 5A available o.r.)	100 g
SA990714	33825000	Nickel wool	2 g



Fig.2: Nickel Wool

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2. CATALYSTS and ADDITIVES

Part No.	Ref. Code	Description	Unit
SA990715	33822300	Quartz chips	100 g
SA990715B	33822300	Quartz chips	50 g
SA990716	33822200	Quartz wool, very fine (can)	5 g
SA990716-5	33822200	Quartz wool, very fine (can)	5 x 5 g
SA990716-A	33822205	Quartz wool, very fine (bag)	10 g
IVA33822200-25	33822200	Quartz wool, very fine (bag)	25 g
IVA3381250	---	Quartz pads, d=15 mm	25 pc.
IVA3382151	---	Quartz pads, d=16,5 mm	25 pc.

Things that make life easier!



Fig. 3: Quartz pads with different diameter

SA990717	33835235	Soda lime	100 g
SA990717B	33835230	Soda lime	200 g
SA33840030	33840030	Adsorber for fluorine compounds CHN, NC und N	25 g
IVA33807912	---	Adsorber (Sulfix) for halogene and sulphur compounds CN	25 g
SA990784	33837530	Chromosorb, 30-60 mesh	10 g
SA33837530	33837530	Chromosorb WAW, 30-60 mesh	25 g



Fig. 4: Silver wool 2 g and 10 g

SA33839055	33839055	Platinum supported on Alumina	100 g
SA990786B	1117430	Silver wool, fine	2 g
SA990786	1117430	Silver wool, fine	10 g
SA990786-C	1117430	Silver wool, fine	50 g
SA999931	33406200	Nickel sheet liner 130 x 130 mm	1 pc.

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3 GAS CHROMATOGRAPHIC COLUMNS

Part No.	Ref. Code	Description	Unit
SA990720	26008206	Separation column, N ₂ -CO ₂ -H ₂ O-SO ₂ stainless steel, 2 m	1 pc.
SA26008208	26008208	Separation column, N ₂ -CO ₂ -H ₂ O-SO ₂ , PTFE, 2 m	1 pc.
SA990721	26008200	Separation column, N ₂ -CO ₂ -H ₂ O, SS, 2 m	1 pc.
SA26008207	26008207	Separation column, N ₂ -CO ₂ -H ₂ O, PTFE, 2 m	1 pc.
SA990722	26008205	Separation column, N ₂ -CO ₂ , stainless steel, 3 m	1 pc.
SA990723	26007800	Separation column, SO ₂ , PTFE, 0.8 m	1 pc.
IVA990723SO	26007910	Separation column, SO ₂ , PTFE, 1 m	1 pc.
SA990724	26007900	Separation column, O ₂ , stainless steel, 1 m	1 pc.
SA26007820	26007820	Separation column, N ₂ , PTFE, for Flash EA, 0,5 m	1 pc.
IVA26007004	26007004	Separation column for Protein Determination, PTFE, 1 m	1 pc.
IVA26007920	26007920	Multiseparation CHN column stainless steel for Flash EA, 2 m	1 pc.
SA26008215	26008215	Separation column CHNS, PTFE for Flash EA, 2m, 6x5	1 pc.
SA26008245	26008245	Packed column CHN, SS, 4 m	1 pc.
IVA26070500HS	---	Packed Column CN-IRMS, 0.6 m Conditioned and tested	1 pc.
IVA0171911	017911	Column PoraPlot Q, 25 m, 0.32mm ID for Gasbench	1 pc.
IVA1121030	1121030	Packed Column for TC/EA , SS4 mm ID, ¼" AD, 2 feet Filling: Molecular sieve 5 A, 80 – 100 mesh, Length 2 feet (0.6 m)	1 pc.

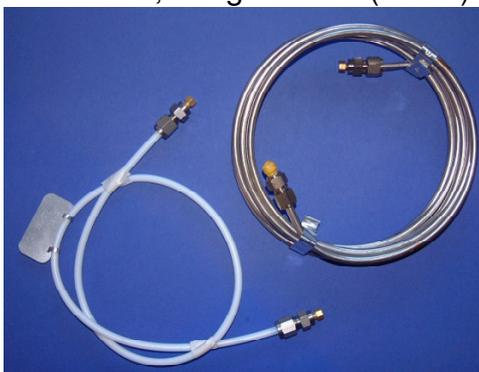


Fig. 5: Column, PTFE and stainless steel

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4 REACTORS and SEALS

4.1 Type EA 1106

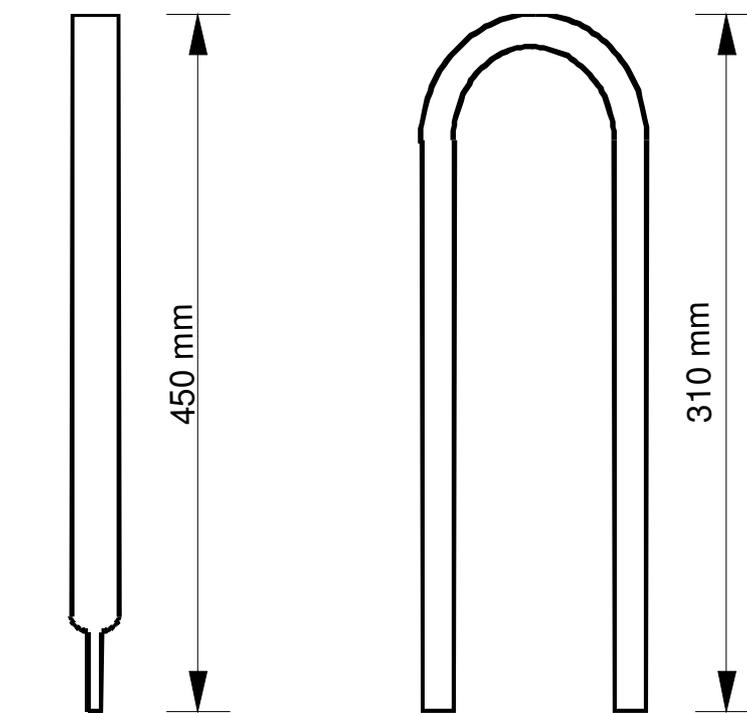


Fig. 6: SA990725

Fig. 7: SA990726

Part No.	Ref. Code	Description	Unit
SA990725	46800900	Empty quartz reactor with taper transparent, length 450 mm (figure 6)	5 pc.
SA990726	46801000	U-Quartz reactor, transparent (figure 7)	2 pc.
IVA46801000SS	---	U-Tube, Stainless Steel	1 pc.
SA990727	29030331	Viton O-ring, 11 mm, top	5 pc.
SA990728	29050567	Viton O-ring, 6 mm, bottom	10 pc.
SA999934	46802001	Prepacked reactor, for CHN - determination (Cr ₂ O ₃ /Co ₃ O ₄ silvered)	1 pc.

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4. REACTORS and SEALS

4.2 Type NA 1500 Series 1

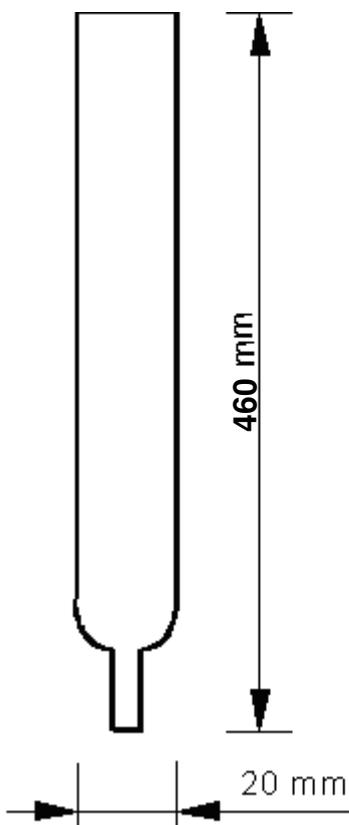


Fig. 8: SA990735

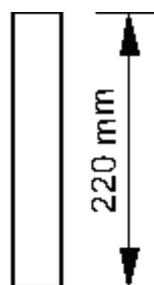


Fig. 9: SA990736

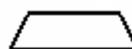


Fig.10: SA990732

Part No.	Ref. Code	Description	Unit
SA990735	46801600	Empty quartz reactor with taper transparent, length 460 mm (figure 8)	2 pc.
SA990736	46801700	Quartz insert, translucent length 220 mm (figure 9)	5 pc.
SA990728	29050567	Viton O-ring, 6 mm, bottom	10 pc.
SA990732	29032910	Viton O-ring, 18-20 mm chamfered square profile, top (figure 10)	10 pc.
SA999928	---	Prepacked reactor, transparent for CHN - determination (Cr ₂ O ₃ /Co ₃ O ₄ silvered)	1 pc.

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4. REACTORS and SEALS

4.3 Type NA 1500 Series 2 / NA 2000 / NA 2500 / EA 1108 and EA 1110

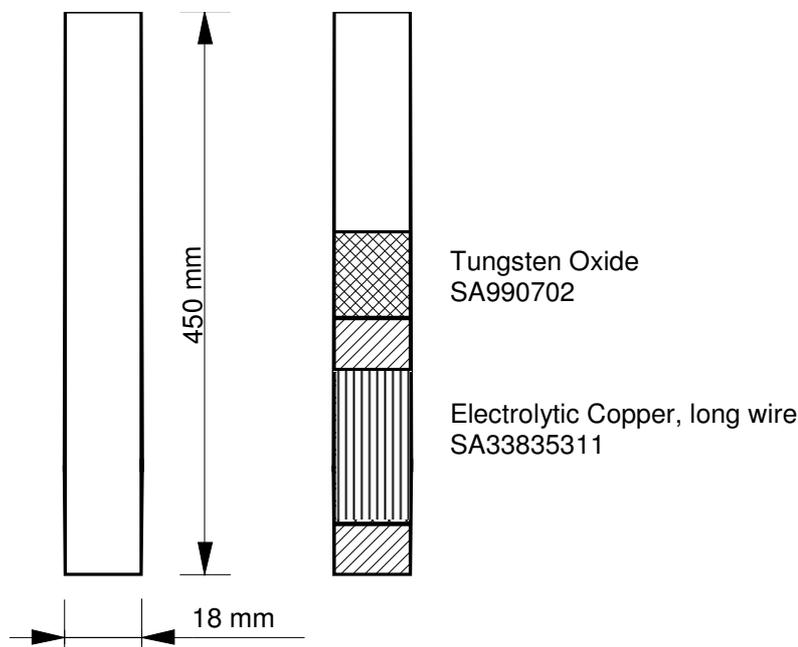


Fig. 11: SA990729

Fig.12: SA990733

Part No.	Ref. Code	Description	Unit
SA990729	46820000	Empty quartz reactor, transparent length 450 mm, OD 18 mm (figure 11)	2 pc.
IVA12-180	---	Quartz insert with slots length 215 mm, OD 12 mm	1 pc.
IVA46820006	46820006	Empty quartz reactor with taper transparent, OD 18 mm, ID 15 mm	2 pc.
SA990730-T	---	Quartz insert, transparent length 215 mm, OD 12 mm	5 pc.
SA990731	46820010	Quartz reactor, translucent, OD 18 mm	2 pc.
SA990732	29032910	Viton O-ring, 18-20 mm, chamfered square profile (figure 10)	10 pc.
SA990733	46802005	Prepacked reactor, transparent, for NCS - / CHNS – determination (WO ₃ /electrolytic Copper) (figure 12)	1 pc.

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4. REACTORS and SEALS

4.3 Type NA 1500 Series 2 / NA 2000 / NA 2500 / EA 1108 / EA 1110

Part No.	Ref. Code	Description	Unit
SA999927	46820012	Prepacked reactor, translucent for NC - / CHN – determination (Cr ₂ O ₃ /Co ₃ O ₄ silvered) – only on request	1 pc.
SA999939	46820012	Prepacked reactor, transparent for NC - / CHN – determination (Cr ₂ O ₃ /Co ₃ O ₄ silvered)	1 pc.
SA999932	---	Prepacked reactor for NC - / CHN – determination (CuO/Co ₃ O ₄ silvered)	1 pc.
IVA46820060	---	Prepacked Reduction tube (Cu red.)	1 pc.
IVA46820050	46820050	Stainless steel reactor, special alloyed OD 18 mm (figure 13)	1 pc.
IVA25205000	25205000	Stainless steel insert, special alloyed OD 13 mm for stainless steel reactor IVA46820050 (figure 13)	1 pc.
IVA25205000R	---	Stainless steel insert, special alloyed, for stainless steel reactor IVA46820050, reusable (figure 13)	1 pc.
IVA25205000R-AI	---	Stainless steel insert, special alloyed for quartz reactor with ID 15 mm, reusable (not usable for isotopes)	1 pc.
IVA46820051	46820051	Prepacked stainless steel reactor for NA 2000 and NA 2500 (Proteincatalyst)	1 pc.
SA990730-T-MOD	---	Quartz-Insert, transparent, L = 215 OD 13,0 mm, ID 11 mm	1 pc.



Fig. 13: Stainless steel tube (IVA46820050) and insert (IVA25205000)

4. REACTORS and SEALS

4.4 Type Flash EA1112 / EA1112HT / 2000 / 4000



Fig. 14: Prepacked reactors and quartz inserts

Part No.	Ref. Code	Description	Unit
IVA46820070	46820070	Empty quartz reactor, one side conical L 450 mm, OD 18 mm (EA1112)	2 pc.
IVA4681210 MOD215/4	---	Quartz insert, 4 slots top, 4 slots bottom length 215 mm, OD 12,5 mm	1 pc.
IVA4681210 MOD227/4	---	Quartz insert, 4 slots top, 4 slots bottom L 227 mm, OD 12,5 mm	1 pc.
IVA468120 MOD210/11	25204510	Quartz insert 11 slots, L 210 mm, OD 13 mm	1 pc.
IVA4681210	4681210	Quartz insert 11 slots, L 227 mm, OD 12 mm	1 pc.
IVA4681210 MOD230/11	---	Quartz insert 11 slots, L 230 mm, OD 13 mm	1 pc.
SA25205001	25205001	Inconel Crucible 13 mm with slots	1 pc.
IVA29020640	29020640	Viton O-ring, bottom for reactor with OD 18 mm	5 pc.
IVA29022910	29022910	Viton O-ring, top, 18-20 mm, chamfered square profile, for reactor with OD 18 mm (fig. 10)	5 pc.
SA29000051	29000051	O-Ring lubricant for Flash 4000	1 pc.
SA999939-B	---	Prepacked reactor CHN - determination (EA1112), (Cr ₂ O ₃ /Co ₃ O ₄ silvered), transparent	1 pc.
SA999939-C	---	Prepacked reactor CHN - determination (EA1112), (CuO/Co ₃ O ₄ silvered)	1 pc.
SA999939-D	46802015	Prepacked reactor CHNS - determination (EA1112), (CuO/electrolytic copper)	1 pc.
IVA46802007	46802007	Prepacked reactor CHNS – determination (EA1112), (WO ₃ /electrolytic copper)	1 pc.

*This is a protected name and only for identification.

4. REACTORS and SEALS

4.4 Type Flash EA1112 / EA1112HT / 2000 / 4000

Part No.	Ref. Code	Description	Unit
SA999977	---	Prepacked tube (Flash EA1112), Chromium-oxide/high purity reduced copper /Silvered cobaltous oxide	1 pc.
IVA46820050	46820050	Stainless steel reactor, special alloyed OD 18 mm (figure 13)	1 pc.
IVA25205000	25205000	Stainless steel insert special alloyed OD 13 mm for stainless steel reactor IVA46820050 (figure 13)	1 pc.
IVA25205000R	---	Stainless steel insert with slots, special alloyed, for stainless steel reactor IVA46820050, reusable	1 pc.
IVA46820075	46820075	HPAR reactor, special alloyed OD 25 mm for NC - filter / soils / sediments - determination	1 pc.
IVA25205010	25205011	HPAR crucible for HPAR reactor IVA46820075, reusable (figure 15), slits	1 pc.
IVA25205011B	25205011	HPAR crucible for HPAR reactor 25 mm, less slits	1 pc.
IVA29020649	29020649	O-ring, bottom, for reactor with OD 25 mm	5 pc.
IVA29020682	29020682	O-ring, top, for reactor with OD 25 mm	5 pc.
IVA46802008	46802008	Prepacked HPAR reactor, OD 18 mm (with Proteincatalyst)	1 pc.



Fig. 15: HPAR crucible

**This is a protected name and only for identification.*



5 TC / EA

Incl. FlashEA1112 HT parts for O and H configurations:

Part No.	Ref. Code	Description	Unit
IVA127356	1121310	Glassy carbon reactor, OD 12 mm, ID 7 mm, L= 356 mm	1 pc.
IVA12786355	---	Glassy carbon reactor, OD 12 mm, ID 7 mm, L= 355 mm, suitable for BFA,	1 pc.
IVA1121310A	---	Glassy carbon reactor, modified, L 450 mm, OD 12 mm, ID 7 mm	1 pc.
IVA1286420	1286420	Glassy carbon reactor, one side open, one side closed with a 2 mm centric hole, L 420 mm, OD 12 mm, ID 8,6 mm	1 pc.
IVA127453	---	Glassy carbon reactor, OD 12 mm, ID 7 mm (alternative with ID 8,6 mm), L= 453 mm Suitable for IVA Bottom-Feed-Adapter (one side drilled to ID 8.6 mm)	1 pc.
IVA127453MOD	---	Glassy Carbon Tube, L: 453 mm, OD 12 mm, ID 7mm (alternative with 8,6 mm), one side closed, 2mm centric hole. Suitable for IVA Bottom Feed Adapter (one side drilled to ID 8.6 mm)	1 pc.
IVA122999	---	Graphite cover with 2 mm hole for glassy carbon tube with 7 or 8.6 mm ID, for liquids	1 pc.
IVA35010100BFA	---	Bottom-Feed-Adapter for TC/EA (Fig. 17) with 1/16" tube	1 pc.
IVA35010100BFA-FLASH	---	Bottom-Feed-Adapter for Flash HT, (Fig. 17) with 1/16" tube	1 pc.
IVA1121470	1121470	Thermocouple for TC/EA	1 pc.
IVA29000063	---	O-Rings for Bottom Feed Adapter / 2 pc.	1 set
IVA1121120	1121120	O-Ring for TC/EA chamfer square profile	1 pc.
IVA9917400	1117400	Glassy carbon granulate, shatterproof particle size 3150 – 4000 µm	50 g
IVA1121351	1121351	Graphite reactor for solids	1 pc.
IVA1132080	---	Graphite reactor for liquids	1 pc.
IVA1196250	1196250	Stainless Steel tube for liquids	1 pc.
IVA12365	---	Glassy Carbon Adapter f. liquids (Fig. 18) (alternative to P/N IVA1196250)	1 pc.
IVA1121341	1121341	Graphite rod (ash remover)	1 pc.
IVA1117332	1117332	Graphite crucible (Fig. 16)	1 pc.
IVA46820090	1121320	Ceramic reactor, L 470 mm, OD 17 mm, ID 13 mm	1 pc.
IVA46820090MOD	---	Ceramic reactor, L 450 mm, OD 17 mm, ID 13 mm	1 pc.
IVA468200900-1	---	Ceramic reactor, L 470 mm, OD 18 mm, ID 14 mm	1 pc.

**This is a protected name and only for identification.*

5. TC / EA

Part No.	Ref. Code	Description	Unit
IVA0703043	---	Electric cooling fan for TC / EA	1 pc.
SA990786B	1117430	Silver wool, fine	2 g
SA990786	1117430	Silver wool, fine	10 g
SA990786-C	1117430	Silver wool, fine	50 g
IVA35429300	---	Heating Element (Fig. 19)	1 pc.
IVA-5067377	---	Activated coal	10 g
IVA33822000		Ascarite	100 g
IVA1121030	1121030	Packed Column for TC/EA, SS 4 mm ID, 1/4" AD, 2 feet, Filling: Molecular sieve 5 A, 80 – 100 mesh	1 pc.

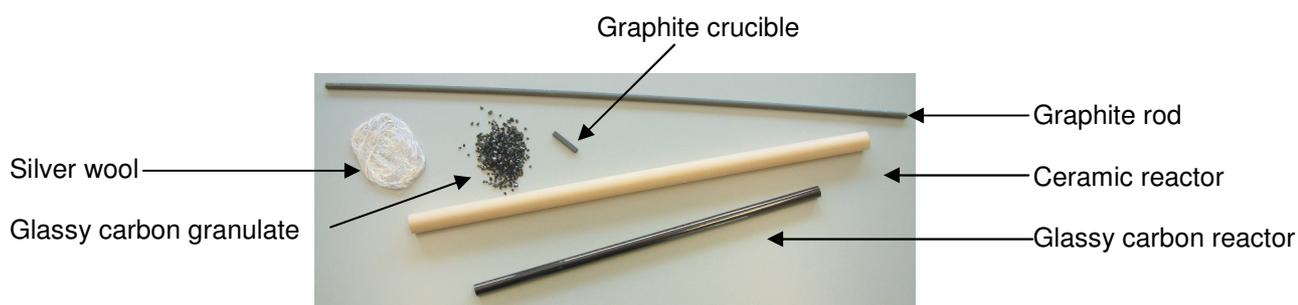


Fig. 16: TC / EA accessories



Fig. 17: Bottom-Feed-Adapter for TC/EA (left) and Flash HT (right)



Fig. 18: Glassy Carbon Adapter



Fig. 19: Heating Element

**This is a protected name and only for identification.*

6 WATER / CARBON DIOXIDE TRAPS

Part No.	Ref. Code	Description	Unit
SA990740	28113100	Water-trap (small size), complete with filter tube, seals and screw caps	1 pc.
SA990741	28113090	Carbon dioxide-trap (large size), complete with filter tube, seals and screw caps	1 pc.
IVA23103008	---	Water-trap (small size) w/o caps	1 pc.
IVA28113008	---	CO ₂ -Trap (large size) w/o caps	1 pc.
IVA28113060	28113060	Trap for NA2000/NA2500/Flash EA (fig. 20)	1 pc.



Fig. 20: Trap

SA29000051	29000051	O-Ring lubricant	1 pc.
IVA29013603	29013603	Seals for filter tube, thick 3,5 mm, silicone/PTFE coated	2 pc.
IVA29013603-10	29013603	Seals for filter tube, thick 3,5 mm, silicone/PTFE coated	10 pc.
IVA29003635	29003635	Silicone seals for filter tube, thick 4 mm (modified filter coupling IVA34709135MOD)	2 pc.
IVA05000369	---	Viton O-Ring for water trap	1 pc.
IVA29010082	29010082	O-Ring for Absorption filter (IVA28113060)	2 pc.
IVA34709135	34709133	Tube coupling, stainless steel, 2 mm	1 pc.
IVA28113104	28113104	Adsorption filter (small size) without fast connectors (for Flash)	1 pc.
IVA28113064	28113064	Adsorption filter (large size) without fast connectors (for Flash)	1 pc.

Things that make life easier!

IVA34709135MOD	---	Modified filter coupling, stainless steel, 2 mm	Set of 2 pc.
----------------	-----	---	--------------



Fig. 21: Water-trap complete with modified filter coupling

**This is a protected name and only for identification.*

7 SCRUBBER TUBE ASSEMBLY DETAILS

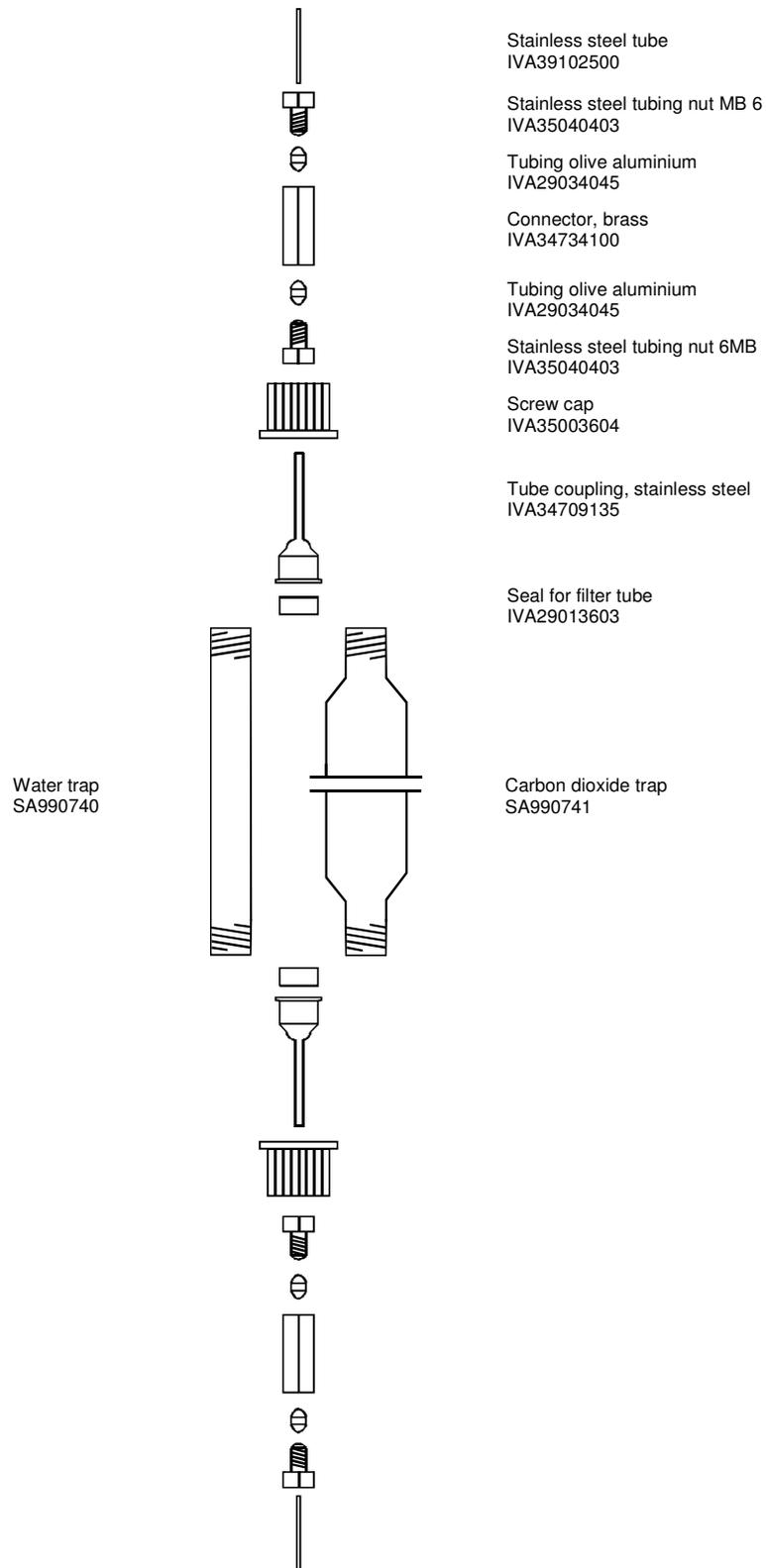


Fig. 22: Water / Carbon dioxide trap

**This is a protected name and only for identification.*

8 GAS FITTING SYSTEMS (2 mm, 1/16" etc.)

Part No.	Ref. Code	Description	Unit
IVA198001	---	Stainless steel tube, OD 1/8", ID 2 mm	1 m
IVA590133	---	Stainless steel tube, OD 1/16", ID 1 mm**	1 m
IVA39102500	39102500	Stainless steel tube, OD 2 mm, ID 1 mm	5 m
IVA42001501	42001501	PTFE tube, OD 2 mm, ID 1 mm	5 m
IVA42001601	42001600	PTFE tubing 4 x 2 mm	5 m
IVA42001701	42001700	PTFE tubing 6 x 4 mm	5 m
IVA42010000	42010000	PE tube, blue, OD 5 mm, ID 3 mm	5 m
IVA29034044	29034044	Tubing olive, aluminium, ID 1,6 mm	10 pc.
IVA29034045	29034045	Tubing olive, aluminium, ID 2 mm	10 pc.
IVA29034245	29034245	Tubing olive, stainless steel, ID 2 mm	10 pc.
IVA29034545	29034545	Tubing olive, PTFE, ID 2 mm	10 pc.
IVA35034108	35034108	Rubber Holder SST 6 MB	5 pc.
IVA35040403	35040403	Tubing nut 6MB, stainless steel, 2 mm	10 pc.
IVA35045100	35045100	Blanking nut 6MB, brass	10 pc.
IVA35045100-SS	---	Blanking nut 6MB, stainless steel	10 pc.
IVA34734100	34734100	Tubing connector, brass, ID 2 mm	5 pc.
IVA34714100	34714100	Tubing connector, brass, complete, incl. tubing olives, nuts	1 set
IVA34714400	34714400	Tubing connector, stainless steel, ID 2 mm	1 pc.
IVA34734100-SS	34734100	Tubing connector, stainless steel, incl. tubing olives, nuts	1 set
IVA34738103	34738103	Tee-connector, brass	5 pc.

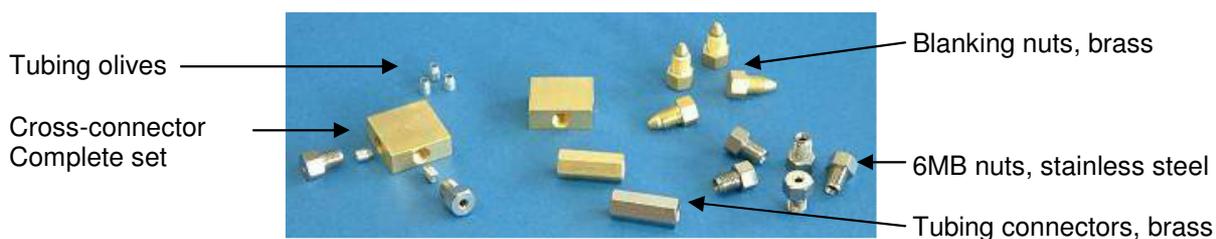


Fig. 23: Nuts, tubing olives and tubing connector

****SS-Tube OD 1/16" also available with ID 0.5 mm, 0.25 mm or 0.17.**

**This is a protected name and only for identification.*



8. GAS FITTING SYSTEMS (2 mm, 1/16" etc.)

Part No.	Ref. Code	Description	Unit
IVA34718103	34718103	Tee-connector, brass, incl. tubing olives, nuts	1 set
IVA34736100	34736100	Cross-connector, brass	5 pc.
IVA34716100B	---	Cross-connector, brass complete with tubing olives and nuts	1 set
IVA34705435	34705435	Connection reducing w/tube 	1 pc.
IVA590200	---	Cutting tool for 1/16" / 2 mm tube (Fig.24)	1 pc.
IVA-SS-100-6	---	Linear-connector, SS, 1/16"	1 pc.
IVA-SS-100-P	---	Blind nut, SS, 1/16"	1 pc.
IVA198007	---	SNOOP Liquid leak detector, 236 ml (figure 25)	1 pc.
IVA9980610/ IVA9922839	---	Helium leak detector , rechargeable, 220 VAC, Type Varian™ or Restek*	1 pc.
IVA9983610	---	Helium leak detector, rechargeable, 240 VAC, Type Varian™ for U.K.	1 pc.



Fig. 24: Cutting tool w. SS tube



Fig. 25: Snoop Liquid leak detector

9 CHART PAPER

Part No.	Ref. Code	Description	Unit
IVA00006005	00006005	Chart paper for DP 110 / 200	1 roll



Fig. 26: Chart paper

*This is a protected name and only for identification.



10 CERTIFIED ORGANIC / ANORGANIC STANDARDS

Part No.	Description	Configuration					Unit
		C %	H %	N %	O %	S %	
SA990744	Acetanilide <i>Ref. Code: 33836700</i>	71,09	6,71	10,36	11,81	---	1 g
SA990744B	Acetanilide <i>Ref. Code: 33836700</i>	71,09	6,71	10,36	11,81	---	2 g
SA990745	Anthracene <i>Ref. Code: 33842300</i>	94,34	5,66	---	---	---	1 g
IVA33840023	Aspartic Acid <i>Ref. Code: 33840023</i>	36,09	5,3	10,52	48,08	---	10 g
SA990746	Atropine <i>Ref. Code: 33824400</i>	70,56	8,01	4,84	16,59	---	1 g
SA990746B	Atropine <i>Ref. Code: 33824400</i>	70,56	8,01	4,84	16,59	---	2 g
SA990753	Atropinsulphate	58,77	7,25	4,03	25,33	4,61	1 g
SA990752	BBOT <i>Ref. Code : 33835210</i>	72,53	6,09	6,51	7,43	7,44	1 g
SA990752B	BBOT <i>Ref. Code : 33835210</i>	72,53	6,09	6,51	7,43	7,44	2 g
SA990747	Benzoic Acid <i>Ref. Code : 33822500</i>	68,85	4,95	---	26,20	---	1 g
SA990747B	Benzoic Acid <i>Ref. Code : 33822500</i>	68,85	4,95	---	26,20	---	2 g
IVA33820080	Bromobenzoic Acid	41,82	2,51	---	(15,92)	---	1 g
IVA33820090	Chlorobenzoic Acid	53,70	3,22	---	20,44	---	1 g
SA990748	Cyclohexanone- 2,4-Dinitrophenyl- hydrazone <i>Ref. Code: 33822400</i>	51,79	5,07	20,14	23,00	---	1 g
SA990749	1-Chloro-2,4- Dinitrobenzene <i>Ref. Code: 33822401</i>	35,58	1,49	13,83	31,60	---	1 g
SA990812	Phenanthrene <i>Ref. Code: 33837520</i>	93,55	5,62	0,18	---	0,46	1 g
IVA33856680	3,5-Dinitrobenzoic Acid	39,64	1,9	13,20	45,25	---	1 g
IVA33802013	Fluorobenzoic Acid	60,01	3,59	---	(22,84)	---	1 g

**This is a protected name and only for identification.*



10. CERTIFIED ORGANIC / ANORGANIC STANDARDS

Part No.	Description	configuration					Unit
		C %	H %	N %	O %	S %	
IVA33820400	Imidazol <i>Ref. Code: 33835430</i>	52,93	5,92	41,15	---	---	1 g
SA33835430	Imidazol <i>Ref. Code: 33835430</i>	52,93	5,92	41,15	---	---	2 g
SA33800110	EDTA Standard <i>Ref. Code: 33800110</i>	---	---	---	---	---	100 g
IVA99992-Z	Caffeine	49,48	5,19	28,85	16,48	---	1 g
IVA3382035	L-Cystine <i>Ref. Code: 33840018</i>	29,99	5,03	11,66	26,69	26,63	1 g
IVA33840018	L-Cystine <i>Ref. Code: 33840018</i>	29,99	5,03	11,66	26,69	26,63	1 g
SA990751	Methionine <i>Ref. Code: 33835220</i>	40,25	7,43	9,39	21,44	21,49	10 g
SA990751B	Methionine <i>Ref. Code: 33835220</i>	40,25	7,43	9,39	21,44	21,49	25 g
SA33840019	Nicotinamide <i>Ref. Code: 33840019</i>	59,01	4,95	22,94	13,10	---	2 g
IVA33802015	Nitroanillin	52,17	4,38	20,29	23,16	---	1 g
SA990750	Sulphanilamide <i>Ref. Code: 33825100</i>	41,84	4,68	16,27	18,58	18,62	1 g
SA990750B	Sulphanilamide <i>Ref. Code: 33825100</i>	41,84	4,68	16,27	18,58	18,62	2 g
IVA33802043	Sulphanilic Acid	41,61	4,07	8,09	27,71	18,51	1 g
IVA33820430	Stearic Acid	76,00	12,75	---	11,25	---	1 g
IVA3382102	Stearic Acid	76,00	12,75	---	11,25	---	5 g
IVA33820180	Trifluoroacetalide <i>Ref. Code: 33820180</i>	50,80	3,20	7,41	(8,46)	---	1 g
IVA99991	Urea <i>Ref. Code: 33840001</i>	20,00	6,71	46,65	26,64	---	2 g
SA33840002	Urea <i>Ref. Code: 33840002</i>	20,00	6,71	46,65	26,64	---	10 g

The values in brackets are not certified.

**This is a protected name and only for identification.*



10. CERTIFIED ORGANIC / ANORGANIC STANDARDS

More standards, reference materials, **included GC Isolink CN standards**

Part No.	Description	configuration					Unit
		C %	H %	N %	O %	S %	
IVA33801515	Apple leaves	---	---	2,25	---	(0,18)	5 g
IVA33840024	Pasta Ref. Material <i>Ref. Code: 33840024</i>	---	---	1,92	---	---	10 g
SA33840028	Pasta Ref. Material <i>Ref. Code: 33840028</i>	---	---	1,92	---	---	100 g
IVA33802162	Algae (Spirulina)	46,16	6,95	10,26	---	0,909	30 g
IVA33820500	Tomato leaves	---	(5,2)	3,03	---	(0,96)	10 g
IVA33802156	Wheat flour	39,50	---	1,50	---	0,10	30 g
IVA33802158	Sorghum flour	41,50	---	1,50	---	0,10	30 g
IVANCSFC 28006**	Coal Standard						50 g
IVA33835240	Lubricant Standard <i>Ref. Code: 33835240</i>	76,30	11,96	0,58	---	2,42	2 g
IVA-SMOS012	Mineral oil	---	---	---	---	0,12	100 ml
IVA-SMO040	Mineral oil	---	---	---	---	0,40	100 ml
IVA-SMOS09	Mineral oil	---	---	---	---	0,90	100 ml
IVA3387340	Alkane-Mix (C14-C16) in Isooctane 200 ng/μl						1 ml
IVA3387341 <i>Ref. Code: 1170520</i>	Alkane-Mix (C14-C16) in Isooctane 15 ng/μl for GC IsoLink CN						1 ml
IVA992002 <i>Ref. Code: 1187860</i>	Caffeine (150 μl/ml) in Aceton for GC Isolink CN						1 ml
IVA3387330	Vanillin						6 mg
IVA33822501	Benzoic Acid p.A.						10 g

** Values on request.

**This is a protected name and only for identification.*



10. CERTIFIED ORGANIC / ANORGANIC STANDARDS

More standards, reference materials, **included GC IsoLink CN standards**

Part No.	Description	configuration					Unit
		C %	H %	N %	O %	S %	
IVA33802273	Alfalfa	45,77	5,42	3,37	---	0,20	30 g
IVA33802276	Oatmeal	47,76	5,72	2,09	---	0,16	30 g
IVA33802141	Orchard Leaves	44,52	5,7-6,5	2-2,8	---	---	30 g
IVA33802277	Barley	46,17	6,33	1,86	---	0,14	30 g
IVA33802272	Corn Gluten	50,29	6,33	10,95	---	0,96	30 g
IVA33802270	Corn Meal	45,35	5,44	1,91	---	0,15	30 g
IVA33802278	Rice Flour	44,70	5,88	1,36	---	0,12	30 g
IVA33802275	Rye Flour	44,25	5,78	1,86	---	0,17	30 g
IVA33802271	Soy Bean Meal	45,18	5,69	7,98	---	0,37	30 g
IVA33802160	Chitin	45,07	6,71	6,88	37,27	---	30 g
IVA33802164	Algae (Bladderwrack)	33,86	4,87	1,27	---	---	30 g
IVA33802166	Birch Leaf	48,33	6,36	2,09	---	0,16	30 g
IVA33802168	Coconut Shell Powder	48,11	6,14	0,12	---	---	30 g
IVA33802170	Olive Stone Powder	47,46	6,26	0,18	---	---	30 g
IVA33801547	Peach Leaf	---	---	2,96	---	0,2	5 g

More standards on request.

**This is a protected name and only for identification.*



11 SOIL STANDARDS / SEDIMENTS

The C- and N-amounts of non certified samples have been tested by an international comparison of 75 laboratories. The methods of Dumas and Kjeldahl didn't have another result. The samples are very homogeneous. If you are doing analysis with very low quantities, you will realize proper and reproducible results.

Part No.	Description	configuration					Unit
		C%	H%	N%	O%	S%	
IVA99994	Standard 1	3,500	---	0,216	---	---	50 g
IVA99995	Standard 2	0,732	---	0,064	---	---	50 g
IVA99996	Standard 3	4,401	---	0,262	---	---	50 g
IVA99997	Standard 4	2,417	---	0,048	---	---	50 g
IVA99998	Standard 5	0,141	---	0,021	---	---	50 g

More soil standards

Part No.	Description	configuration					Unit
		C%	H%	N%	O%	S%	
IVA338XXX	PACS-2 (Marine sediment)	---	---	---	---	1,29	65 g
IVA4202711	Montana Soil, certified	---	---	---	---	0,042	10 g
IVA8902709	San Joaquin soil certified	---	---	---	---	0,089	10 g
IVA33802150	Sediment, certified	6,70	---	0,50	---	1,00	30 g
IVA33802152	Soil (NCS), certified	1,65	---	0,15	---	0,03	30 g
IVA12007408	Soil, certified	---	---	0,037	---	(0,0126)	10g
IVA33840025	Soil NC reference mat. <i>Ref. Code: 33840025</i>	1,998	---	0,196	---	---	5 g
IVA33840026	Soil NCS reference mat. <i>Ref. Code: 33840026</i>	1,998	---	0,196	---	0,032	2 g

**This is a protected name and only for identification.*



12 ISOTOPE STANDARDS

12.1 Certified isotope standards

12.1.1 Natural reference materials

Part No.	Description	Configuration						Unit
		δ^{13} C _{V-PDB}	RSD	U	δ^{15} N _{AIR}	RSD	U	
IVA33802151	Sediment (High Organic)	-26,00	0,04	0,13	+4,50	0,09	0,19	5 g
IVA33802153	Soil (Low Organic)	-27,50	0,02	0,11	+6,70	0,07	0,15	5 g
IVA33802155	Protein (Casein)	-27,00	0,04	0,13	+6,00	0,03	0,08	5 g
IVA33802157	Wheat flour (C3)	-27,20	0,04	0,13	+2,90	0,08	0,17	5 g
IVA33802159	Sorghum flour (C4)	-13,80	0,08	0,19	+1,60	0,07	0,15	5 g

Part No.	Description	Configuration		
		δ^{34} S _{V-CDT}	RSD	U
IVA33802151	Sediment (High Organic)	+4,00	0,24	0,8
IVA33802153	Soil (Low Organic)	+5,00	0,44	1,4
IVA33802155	Protein (Casein)	+6,00	0,20	0,8
IVA33802157	Wheat flour (C3)	-1,00	0,32	0,8
IVA33802159	Sorghum flour (C4)	+10,00	0,41	1,0

Note: Typical values shown. Actual values vary slightly from batch to batch, true values are shown on the certificate of analysis provided.



12.1. Certified Isotope Standards

12.1.2 Water standards

Water standards w. calibrated values of
Hydrogen and **Oxygen Isotope ratios**:

Part No.	Description	$\delta^2\text{H}$	S ‰	$\delta^{18}\text{O}$	S ‰	Unit
		V-SMOW		V-SMOW		
IVA33802190	High Enriched Water	+1702	5,0	+267	0,9	25 ml
IVA33802191	Medium Enriched Water	+843	2,6	+109	0,3	25 ml
IVA33802192	Zero Natural Water	+5	0,8	+1	0,2	25 ml
IVA33802193	Medium Natural Water	-62	2,1	-10	0,2	25 ml
IVA33802194	Low Natural Water	-157	1,3	-20	0,1	25 ml
IVA33802195 Set of all 5 standards						5 x 25 ml

All calibrations carried out by reference to V-SMOW2, SLAP2 and GISP as supplied by IAEA Vienna.

12.2 Working isotope standards

Part No.	Description	$\delta^{13}\text{C}$	S ‰	$\delta^{15}\text{N}$	S ‰	Unit
		$\text{C}_{\text{V-PDB}}$		N_{Air}		
IVA33802174	Urea	-45,38	±0,17	-0,85	±0,16	5 g

More standards on request.

**This is a protected name and only for identification.*

13 SPARE PARTS

Part No.	Ref. Code	Description	Unit
IVA31302100	31302100	Bi-pneumatic valve diaphragm	10 pc.
			
Fig. 27: Bi-pneumatic valve diaphragm)			
IVA24500300	24500300	Oxygen metering loop 5 ml, used	1 pc.
IVA24500400	24500400	Oxygen metering loop 10 ml, used	1 pc.
IVA24501000	24501000	Oxygen metering loop 25 ml, used	1 pc.
IVA37001101	37001101	Slider for autosampler AS 200 (PTFE)	1 pc.
IVA37001102	37001102	Slider for autosampler AS 200 (PEEK or Valflon®)	1 pc.
IVA19004200	19004200	Spare kit AS 200LS	1 set
IVA21706005	21706005	Feather/arm for AS 200S	1 pc.
IVA27205001	27205001	Drum No.1 AS200 (0-49)	1 pc.
IVA27205002	27205002	Drum No.2 AS200 (50-99)	1 pc.
IVA27205003	27205003	Drum No.3 AS200 (100-149)	1 pc.
IVA27205004	27205004	Drum No.4 AS200 (150-199)	1 pc.
IVA25105082	25105082	AS200 autosampler, used	1 pc.
IVA19004157	19004157	Cone for autosampler AS 128, complete	1 pc.
IVA29032940	29032940	O-ring for cone AS 128	1 pc.
IVA199004161	---	O-ring for window AS128	1 pc.

**This is a protected name and only for identification.*

13. SPARE SPARTS

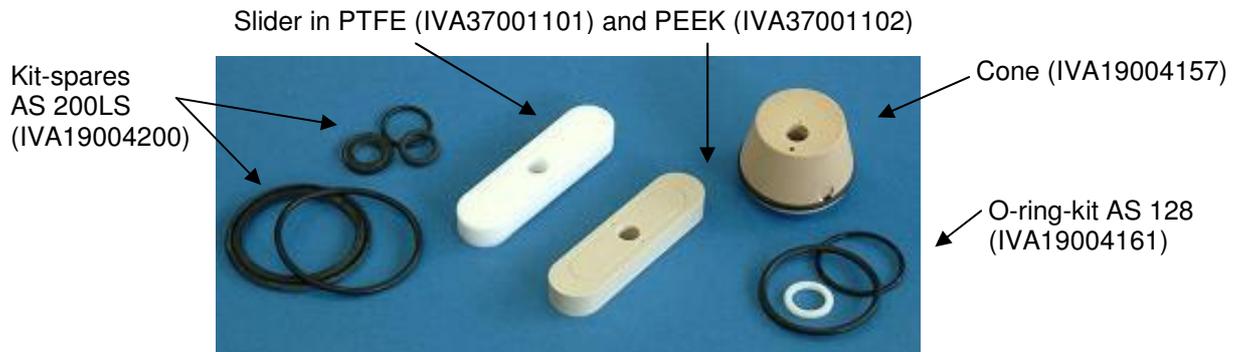


Fig. 28: O-rings, slider in PTFE and PEEK, cone

Part No.	Ref. Code	Description	Unit
IVA19004161	19004161	O-ring-kit for AS 128	1 set
IVA31505400	31505400	Cam spring for AS 128 (figure 29)	1 pc.



Fig. 29: Cam spring

IVA19001234	---	Ball bearing for AS128	1 pc.
IVA24010071	24010071	Drum No.1 AS128 (figure 30)	1 pc.
IVA24010072	24010072	Drum No.2 AS128	1 pc.
IVA24010073	24010073	Drum No.3 AS128	1 pc.
IVA24010074	24010074	Drum No.4 AS128	1 pc.



Fig. 30: Drum AS128



Fig. 31: Drum MAS200R

IVA24010135	24010135	Drum MAS200R No. 1 (0-32), (fig. 31)	1 pc.
IVA24010136	24010136	Drum MAS200R No. 2 (33-63)	1 pc.
IVA24010137	24010137	Drum MAS200R No. 3 (64-94)	1 pc.

**This is a protected name and only for identification.*



13. SPARE SPARTS

Part No.	Ref. Code	Description	Unit
IVA24010138	24010138	Drum MAS200R No. 4 (95-125)	1 pc.
IVA43217400	43217400	Autosampler MAS200R with a 32 position drum	1 pc.
IVA43210150	43210150	MAS200R Driver for upgrading TC/EA and previous OEM models (for servo air to electric signal)	1 pc.
IVA29030017	29030017	O-Ring for MAS200R	1 pc.
IVA30108020	30108020	Replacement window MAS200R	1 pc.
IVA29030014	29030014	O-Ring for window MAS200R	1 pc.
IVA21706005	21706005	Feather/arm for AS 200S / MAS200R	1 pc.

Things that make life easier!

Part No.	Description	Unit
IVA34301512H	Shaft with O-rings for autosampler MAS200 R (figure 32)	1 pc.
IVA34301512R	O-ring, green, for shaft (IVA34301512)	3 pc.
IVA03968006	Vacuum grease 10^{-6} mm Hg	50 g



Fig. 32: Shaft (IVA34301512) w. O-rings



Fig. 33: Tool (IVA34301512WZ)

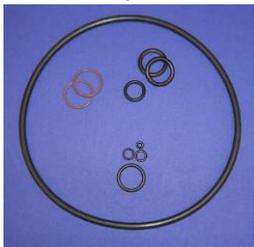
IVA34301512WZ	Tool for replacement the O-rings (figure 33)	1 set
---------------	--	-------

IVASERVICE We replace the O-rings in our business premises.

**Our Service:
Repair of autosampler AS200, AS128 and MAS200**

**This is a protected name and only for identification.*

13. SPARE SPARTS

Part No.	Ref. Code	Description	Unit
IVA41.00.161	---	O-Ring, large, Zero Blank Autosampler	1 pc.
IVA41.00.170	---	O-Ring-Set incl. o-ring for isolation valve for Zero Blank Autosampler (figure 34)	1 set
IVA41.00.140	---	Purge shut off valve for Zero Blank autosampler	1 pc.
			
<p>Fig. 34: O-Ring set complete – Zero Blank AS</p>			
IVA41.00.005	---	Autosampler Zero Blank, Type Costech, with either 32, 50 or 100 position carousel	1 pc.
IVA41.00.101	---	Control modul for Zero Blank autosampler	1 pc.
IVA41.00.110	---	Isolation valve	1 pc.

Please contact us, if you are interested in Zero Blank autosampler, type Costech*.

Part No.	Ref. Code	Description	Unit
IVA43210070	43210070	External Carrier box for pressure air for previous autosampler AS200 or AS128 using on Flash EA or Flash HT	1 pc.
IVA25105082	25105082	AS200 autosampler, used	1 pc.

**This is a protected name and only for identification.*

13. SPARE SPARTS

Part No.	Ref. Code	Description	Unit
IVA40600300	40600300	Electronic cooling fan for EA	1 pc.



Fig. 35: Electronic cooling fan for EA

IVA0703043	---	Electronic cooling fan for TC / EA	1 pc.
IVA40510100	40510100	Four way solenoid micro valve for actuation of the autosampler and bimatic switching valve	1 pc.
IVA40517080	40517080	Microvalve for oxygen and helium (EA1110 and NA2500)	1 pc.
IVA42509150	42509150	EFCt Module (complete for Flash EA1112 with S/N upper 20034906)	1 pc.
IVA34740403	34740403	Fitting M5-6MB	10 pc.

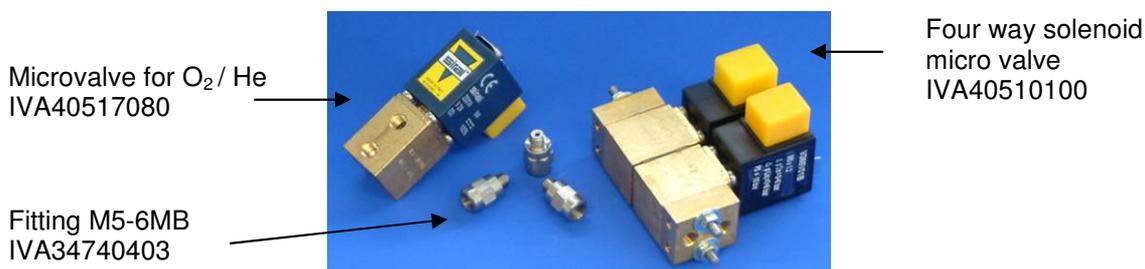


Fig. 36: Microvalve, fittings and four way solenoid micro valve

13. SPARE SPARTS

Part No.	Ref. Code	Description	Unit
IVA35400900-25	35400900	Furnace for EA 1106	1 pc.
IVA35460010	35460010	Furnace for NA 1500 Series 1	1 pc.
SA35460015B	35460015	Heating element, NA 1500 Series 2 / NA 2500 EA 1108 / EA 1110	1 pc.

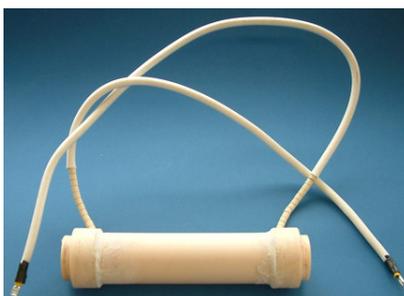


Fig. 37: Heating element (SA35460015B)

SA40320000	40320000	Thermocouple for furnace (for all types except Flash)	1 pc.
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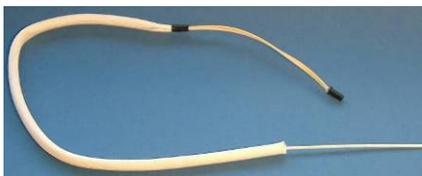


Fig. 38: Thermocouple for furnace (SA40320000)

IVA40320005	40320005	Thermocouple for furnace (only for Flash EA)	1 pc.
IVA35460021	35460021	Furnace for Flash EA (without thermocouple)	1 pc.



Fig. 38: Furnace for Flash EA

ATTENTION: More spare parts for EA1106/NA1500/NA2000/EA1108/NA2500/EA1110/EA1112 and used instruments in good conditions on request!!!

13. SPARE SPARTS

Part No.	Ref. Code	Description	Unit
IVA34715401	34715401	Reduction union, 6 mm to 2 mm	1 pc.
IVA35010100	---	Reduction union, stainless steel, 18 mm to 2 mm for quartz tube NA 1500 Series 2/NA 2000/NA 2500/EA 1108/EA 1100, incl. 1 m PFA-tube	1 pc.
IVA34709912TE	---	Joint couple incl. 2 reduction unions, O-ring, adaptor and 1 m PFA-tube with OD 1/8" stainless steel, 18 – 2 mm	1 Set



Fig. 39: Reduction union with tube (IVA35010100)



Fig. 40: Joint couple (IVA34709912TE)

IVA-PFA-T2-030	---	PFA-tube 1/8"	1 m
IVA-SS-200-1-2	---	Reduction union, stainless steel, for reduction 18 mm – 1/8"	1 pc.
IVA-SS-204-1	---	Back ferrule for 1/8"	2 pc.
IVA-SS-203-1	---	Front ferrule for 1/8"	2 pc.
IVA42001501	42001501	PTFE-tube, OD 2 mm, ID 1 mm	5 m
IVAXXXX	---	Blanking nut for leak test	1 pc.
IVA35008433	35008433	Reactor Coupling Union Flash EA	1 pc.
IVA35010200	35008427	Reactor Coupling Union Flash EA IRMS / HT Design IVA (figure 41), complete with reactor retaining nut and metal ring	1 Set
IVA35008427T	35008427 35011410 35603210	Reactor Coupling Union Flash EA IRMS / HT Design Thermo* (figure 42), complete with reactor retaining nut and metal ring	1 set
IVA29022910	29022910	Viton O-ring, top, 18-20 mm, chamfered square profile, suitable for IVA35010200 and IVA35008427T	5 pc.
IVA40311095	40311095	Temperature Sensor Pt 100 for oven	1 pc.

*This is a protected name and only for identification.

13. SPARE SPARTS



Fig. 41: Reactor Coupling Union
Flash EA (IVA35008433)



Fig. 42: Reactor Coupling Union
EA IRMS (IVA35008427T)

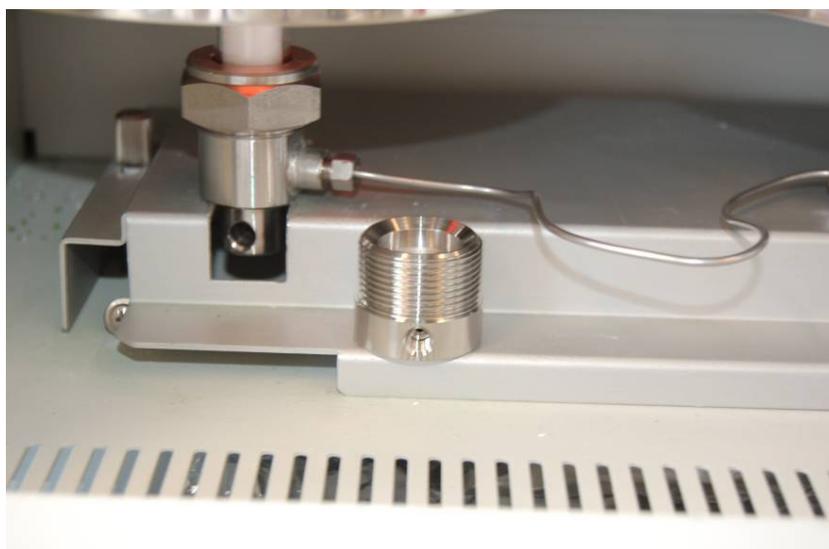


Fig 43: Left: Reactor Coupling Union EA IRMS, design Thermo*
Right: Reactor Coupling Union EA IRMS design IVA



Fig. 44: Reactor coupling union EA IRMS design IVA (IVA35010200)

**This is a protected name and only for identification.*



14 FERRULES and FITTINGS

Part No.	Ref. Code	Description	Unit
IVA103408	0674930	Nut SSNE/16	5 pc.
Straight ferrule			
IVA072657	0674800	Straight ferrule with bore ID 1/16", GVF*16-16	10 pc.
IVA072661	1121110	No-hole ferrule (blank), GVF*16-000	10 pc.
Reducing ferrules			
IVA072659	1004850	Ferrule with bore ID 0.3 mm, GVF*16-003	10 pc.
IVA072663	0674920	Ferrule with bore ID 0.4 mm, GVF*16-004	10 pc.
IVA072654	0566390	Ferrule with bore ID 0.5 mm, GVF*16-005	10 pc.
IVA072655	(1068700)	Ferrule with bore ID 0.8 mm, GFV*16-008	10 pc.
IVA29020016	1068700	Ferrule with bore ID 0.8 mm, 1/16" GVF (40% Graphit / 60 % Vespel™)	10 pc.
IVA072658	---	Ferrule with bore ID 0.9 mm, GVF*16-009	10 pc.
IVA072656	1041660	Ferrule with bore ID 1 mm, GVF*16-010	10 pc.
IVA29020038	---	Teflon ferrule 1/16" x 0.8 mm	10 pc.
IVA29020042	0674790	Teflon ferrule 1/8" x 1/16"	10 pc.
IVA29020011	1004900	Ferrule GVF 1/4" x 1/4"	10 pc.
IVA072657	0674800	Ferrule 1/16", GVF*16-16	10 pc.
IVA072610	1004760	Reducing ferrule, short, with bore ID 0.5 mm, GFF16-005	10 pc.
IVA072607	1004770	Reducing ferrule, short, with bore ID 1.0 mm, GFF16-010	10 pc.
IVA072603	1004590	Ferrule with hole 1/16", GFF16-16	10 pc.
IVA072601	1004610	Ferrule with hole 1/4", GFF4-4 for trap	10 pc.
IVA072605	---	Ferrule with hole 5.0 mm, GFF05-050	10 pc.

GVF*: 15 % Graphit / 85% Vespel™

**This is a protected name and only for identification.*

14. FERRULES and FITTINGS



Fig. 45: Reducing ferrules, short

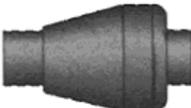
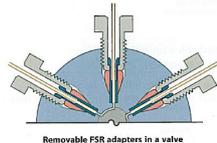
Part No.	Ref. Code	Description	Unit
5181-3323	1066810	Ferrule Vespel™/Graphite with bore 0.4 mm, for GC column	10 pc.
5080-8853	---	Ferrule Graphite with bore 0.5 mm for GC column	10 pc.
5080-8773	---	Ferrule Graphite with bore 1.0 mm for GC column	10 pc.
5181-8830	---	Nut for GC 6890, type Agilent	2 pc.
2-hole ferrules			
IVA072660	1060170	2-hole ferrule with bore ID 0.3 mm, GVF16(2)-003	10 pc.
IVA072662	1006490	2-hole ferrule with bore ID 0.4 mm GVF16(2)-004	10 pc.
IVA1229470	1229470	2-hole-ferrule 1/16" with bore ID 0.4 mm, Silver (part of GC splitter holder, IsoLink)	10 pc.
IVA072664	1004780	2-hole ferrule with bore ID 0.5 mm GVF16(2)-005	10 pc.
IVA0726641	---	2-hole ferrule with bore ID 0.4 and 0.3 mm GVF16(2)-004-003	10 pc.
IVA0726640	---	2-hole ferrule with bore ID 0.5 and 0.3 mm GVF16(2)-005-003	10 pc.
IVA0726642	1047990	2-hole ferrule with bore ID 0.5 and 0.4 mm GVF16(2)-005-004	10 pc.
3-hole ferrule			
IVA072665	1004790	3-hole ferrule with bore ID 3 x 0,4 mm GVF16(3)-004	10 pc.

**This is a protected name and only for identification.*



14. FERRULES and FITTINGS

Fused silica adapters, connectors and supplies

Part No.	Ref. Code	Description	Unit
IVAFS1.5-5	9000342	1/16" Fused Silica Adaptor, for tubing with OD 0,5 mm	5 pc.
IVAFS1.8-5	---	1/16" Fused Silica Adaptor, for tubing with OD 0,8 mm	5 pc.
IVAFS1R.5-5	1092550	Removable Fused Silica Adaptor (FSR) 1/16", removable for tubing with OD 0,5 mm, Polyimide, Valcon	5 pc.
IVAFS1R.8-5	1068580	1/16" Removable Fused Silica Adapters (FSR) for tubing with OD 0.4 – 0.5mm (6-port valve PreCon), Polyimide, Valcon	5 pc.
IVAFS1L.8-5	---	1/16" Replacement liners, Polyimide, Valcon for tubing OD 0.5 to 0.8 mm, (6-port valve PreCon)	5 pc.
IVAZF1V-5	1040490	1/16" Polymeric ferrule, Polyimide, Valcon	5 pc.
IVAZF1V-10	1040490	1/16" Polymeric ferrule, Polyimide, Valcon for GCC-tube	10 pc.
IVAZF1TF-10	0662950	1/16" Polymeric ferrule, PTFE	10 pc.
		  	
IVAFS.25-5	1040460	1/32" Fused Silica Adaptor, for tubing with OD 0,25 mm	5 pc.
IVAFS.4-5	1040470	1/32" Fused Silica Adaptor, for tubing with OD 0,4 mm	5 pc.
IVAFS.5-5	1040480	1/32" Fused Silica Adaptor, for tubing with OD 0,5 mm	5 pc.
IVAFRK1	1121090	Ferrule removal kit: designed to grip and remove FSR, if they get stuck in a fitting detail	1 pc.
IVAZCN1-10	---	Special nuts for FSR, 1/16" SS	10 pc.
IVALZCN1-10	---	Special nuts for FSR, 1/16" SS long	10 pc.

**This is a protected name and only for identification.*

14. FERRULES and FITTINGS

Part No.	Ref. Code	Description	Unit
IVAJR-800	---	ValvTool 1/4" and 5/16" wrench	1 pc.
			
IVAJR-804	0571670	Open end wrench 1/4" and 5/16", for IsoLink	1 pc.
IVA1009150	1009150	Open end wrench 3/16" – 1/4", for IsoLink	1 pc.
IVAFSR.5-5	1068590	1/32" Removable Fused Silica Adaptor, for tubing with OD 0.5 mm	5 pc.
IVAZRU1.5	1044110	Reducing union 1/16" to 1/32", stainless steel, bore 0.25 mm	1 pc.
IVAZU.5T	---	Internal union 1/32", stainless steel 1/32" bore	1 pc.
IVAZT.5	1040440	1/32" T-piece, stainless steel, bore 0.25 mm	1 pc.
IVAZX.5	1040430	1/32" Cross-connector, stainless steel, bore 0.25 mm	1 pc.



Fig. 48:T-piece (IVAZT.5)



Fig. 49: Cross-connector (IVAZX.5)

Part No.	Description	Unit
IVA-SS-400-6-1	Reducing union 1/4" to 1/16", SS, for GC column	1 pc.
IVA-SS-403-1	Front ferrule 1/4", SS	2 pc.
IVA-SS-404-1	Back ferrule 1/4", SS	2 pc.
IVA-SS-203-1	Front ferrule 1/8", SS	2 pc.
IVA-SS-204-1	Back ferrule 1/8", SS	2 pc.
IVA-SS-100	Front and back ferrule 1/16", SS	10 pc.
IVA405043S2-SS	4-way ball valve 1/8", SS	1 pc.

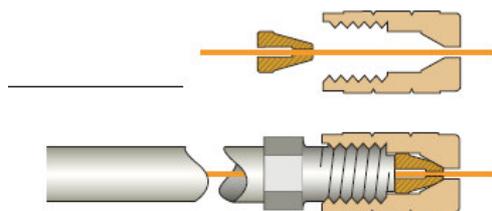
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14. FERRULES and FITTINGS

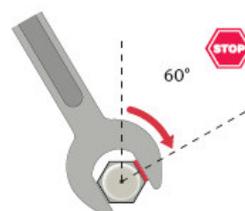
SilTite™ metal ferrules:

Part No.	Ref. Code	Description	Unit
IVA073450	---	MS Interface SilTite Kit (2 nuts & 10 ferrules) for column ID 0.25 mm	1 Kit
IVA073330	1241460	Replacement Ferrules for column ID 0.25 mm	10 pc.
IVA073451	---	MS Interface SilTite Kit (2 nuts & 10 ferrules) for column ID 0.32 mm	1 Kit
IVA073331	1226600	Replacement Ferrules for column ID 0.32 mm	10 pc.
IVA073230	1241440	Replacement Nuts	5 pc.

SGE has developed a metal ferrule specifically for use with fused silica GC columns. Combining a specially designed ferrule and nut system, the SilTite ferrules must be used in conjunction with this special nut that is supplied with the ferrules. The geometry of the ferrule and nut combination makes it possible to swage the end of the ferrule to the fused silica tubing. This creates a leak-free seal that never needs re-tightening – even after 400 temperature cycles between 70 °C and 400 °C. Constructed from identical material, the ferrule and nut expand and contract at the same rate as the oven temperature heats up and cools down.



The SilTite ferrule fits into the specifically designed SilTite nut. This allows a perfect seal every time with the MS interface.



For easy installation gradually tighten the nut until the ferrule just begins to hold the fused silica. Then tighten a further 60°; a leak tight seal is guaranteed. When using SilTite ferrules with stainless steel tubing, the ferrule should be tightened greater than 60° (between 90 - 180°) to ensure a leak free seal.

Please note that this is only a small selection of the items of **SGE, VICI Valco and Swagelok** that IVA supplies. Please contact us, if you do not find the product you are looking for.

**This is a protected name and only for identification.*



15 PRESS FITS (desactivated)

Part No.	Description	Unit
IVAPF2525	PressFit 0,25 – 0,25 mm	10 pc.
IVAPF3232	PressFit 0,32 – 0,32 mm	10 pc.
IVAPF5353	PressFit 0,53 – 0,53 mm	10 pc.
IVAPF3225	PressFit 0,25 – 0,32 mm	10 pc.
IVAPF5325	PressFit 0,25 – 0,53 mm	10 pc.
IVAPF5332	PressFit 0,32 – 0,53 mm	10 pc.
IVAPFY19	Y-PressFit 0.19 mm	1 pc.
IVAPFY252525	Y-PressFit 0,25 mm	1 pc.
IVAPFY32	Y-PressFit 0,32 mm	1 pc.
IVAPFY53	Y-PressFit 0,53 mm	1 pc.
IVAPFY322525	Y-PressFit 0,25-0,25-0,32 mm	1 pc.
IVAPFY5325	Y-PressFit 0,25-0,25-0,53 mm	1 pc.
IVAPFY5332	Y-PressFit 0,32-0,32-0,53 mm	1 pc.
IVA02170472	Universal-PressFit	10 pc.
IVA02170473	Y-Universal-PressFit for 3 columns	1 pc.

Further PressFits on request.



16 RETENTION GAPS (Fused Silica)

Our retention gaps are available with following specifications:
HMDS (non-reactive), DPTMDS (middly reactive) and Carbowax (severely reactive)
Please give us an information about the specification for the retention gap you do need.

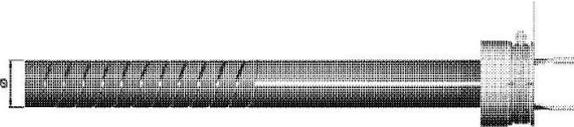
Part No.	Description	Unit	
with 0,25 mm ID			
IVA26090102	Retention Gap, ID 0,25 mm	2 m	
IVA26090105	Retention Gap, ID 0,25 mm	5 m	
IVA26090110	Retention Gap, ID 0,25 mm	10 m	
with 0,32 mm ID			
IVA26090402	Retention Gap, ID 0,32 mm	2 m	
IVA26090405	Retention Gap, ID 0,32 mm	5 m	
IVA26090410	Retention Gap, ID 0,32 mm	10 m	
with 0,53 mm ID			
IVA26090702	Retention Gap, ID 0,53 mm	2 m	
IVA26090705	Retention Gap, ID 0,53 mm	5 m	
IVA26090710	Retention Gap, ID 0,53 mm	10 m	
Part No.	Ref. Code	Description	Unit
IVA1004640	1004640	Fused Silica Capillary, 0.32 mm	1 m
IVA0624685	1048990	Non-desactivated Fused Silica Capillary, 0.1 mm ID, 0.2 mm OD	10 m
IVA0624450	1045480	Fused Silica Capillary, 0.075 mm ID, 0.190 mm AD	2 m
IVA062444	0543380	Fused Silica Capillary, 0.05 mm ID, 0.220 mm AD	2 m
IVA0624455	---	Desactivated Fused Silica Capillary, 0.1 mm ID, 0.36 mm OD	25 m
IVA062454	---	Non-desactivated Fused Silica Capillary, 0.11 mm ID, 0.17 mm OD	10 m

More retention gaps on request.

**This is a protected name and only for identification.*



17 Special items GCC / GCTC / Kiel / GasBench / Delta

Part No.	Description	Unit
IVA1091830	Platinum Catalyst for hydrogen determination Ref. Code 1091830	50 pc.
IVA3200515	Ceramic reactor for d13C and d15N length 320 mm, OD 1,5 mm, ID 0,5 mm	1 pc.
IVA3201015	Ceramic reactor for d2H length 320 mm, OD 1,5 mm, ID 1,0 mm	1 pc.
<p>The connection <i>ceramic reactor – transfer capillary</i> (with ID 0.32 mm) can be realized by the following adaptor, consisting of:</p> <ul style="list-style-type: none">- IVAZF1V-10 (1/16" Polymeric ferrule, Polyimide, Valcon)- IVAFS.5-5 (1/32" Fused Silica Adaptor for tubing with OD 0.5 mm) and- IVAZRU1.5 (Reducing union 1/16" to 1/32", stainless steel, bore 0.25 mm) <p>These and more fittings and ferrules you will find in chapter 14.</p>		
IVA1236103	Backflush valve, 1/16", for GC-C/TC III Interface Ref. Code 1041700	1 pc.
		
IVA123681	VSV-6 Valve Seat for SS on/off (valve SMOV-1)	5 pc.
IVA1113430	GC/TC heater	1 pc.
		
IVA1114450	Thermoelement for GC/TC	1 pc.
IVA99001	Kiel device glass reaction vessel (Fig. 52), length 49,5 mm, Ref. Code 0754960	1 pc.
IVA99001MOD	Kiel device glass reaction vessel (Fig. 52), l = 100 mm	1 pc.
IVA24150072	PE-Caps for Kiel vessel, translucent (Fig. 52)	100 pc.
IVA68454222060	Cryogenic solenoid valve (Kiel)	1 pc.
IVA304H22XH	Hypodermic tubing, 22 gauge, extra heavy wall (Kiel)	4 feet
IVADSN1080PS3	Vial actuator cylinders (Kiel)	1 pc.
IVALCN-1/4-PK6	LN2 swivel elbow connectors – transfer line to top of device (Kiel)	10 pc.

*This is a protected name and only for identification.



17. Special items GCC / GCTC / Kiel / GasBench / Delta

Part No.	Description	Unit
IVAA4C6WP	6 port 2-pos-W-valve, manual 1/16" x 4 mm 175 C for PreCon	1 pc.
IVASSAC6WP	Rotor seal 6 port 2-pos-W-valve 1/16" x 4 mm 175 C	1 pc.
	Further valves, rotor seals etc. on request.	



Fig. 50: Valve W Type, 1/16" fittings

Part No.	Description	Unit
IVA100-GAS	100 ml Gas mouse for PreCon device (Fig. 51)	1 pc.
IVA1127860	Chromium powder, 99.9 %, 100 mesh (<i>Ref. Code 1127860</i>)	250 g



Fig. 51: Gas mouse



Fig 52: Glass vial (Kiel) with and w/o cap

Part No.	Description	Unit	
IVA-PPTT020	0743390 Nafion tubing for water trap, GasBench II / 1 m	1 pc.	
IVA1114360	1114360 Needle for GasBench II	1 pc.	
IVA1137020	1137020 Needle for GasBench I	1 pc.	
Part No.	Ref. Code	Description	Unit
IVA0569110	0569110	Edge Sealing DN 100, aluminium	1 pc.
IVA0693220	0693220	Edge Sealing DN 63, aluminium	1 pc.
IVA1166220	1166220	Z-deflection Delta V	1 pc.
IVA1027480	1027480	Column for Delta Plus XP	1 pc.
IVA0672460	0672460	Filament MAT252	1 pc.
IVA1027920	1027920	Filament MS Delta plus / Delta V	1 pc.
IVA1203200030	1203200030	Filament Polaris Q / DSQ II	1 pc.

**This is a protected name and only for identification.*

17. Special items GCC / GCTC / Kiel / GasBench / Delta

Part No.	Ref. Code	Description	Unit
IVA201111	1121070	Syringe 1 ml without needle (canula)	100 pc.
IVA4710006025	1212080	Once-only canula 0,60x25 mm	100 pc.
IVASEP0073	---	6 mm TCSD predrilled septa	50 pc.

SGE replacement valve on IRMS (P/N IVA2005-11-18):



18 GC SEPTA for LIQUID INJECTOR

Part No.	Description	Unit
IVA041872	Auto-Septa, 11 mm, for liquid injection	25 pc.
IVA31303230	BTO-Septa, red, 11 mm	50 pc.
11180938	11 mm Universal HT Injection Port Septa, transparent	25 pc.
17180940	17 mm Universal HT Injection Port Septa, transparent	25 pc.
IVA19004138	Manual Injection Device for Liquid or Gas Sampling	1 unit
IVA19004138A	Modified Injection Device Kit for Liquid Sampling	1 unit



Injector body for Flash EA1112 (HT), previous OEA models and TC/EA, Septum holder, Septa
 Against **extra charge**: Syringe e. g. 10 µl

- low bleeding (release of siloxanes)
- good penetration and sealing properties (low fragmentation)



- universal, long life GC-Septa
- suitable for inlet temperatures of up to 340 °C

Fig. 53: Injection Port Septa

**This is a protected name and only for identification.*

19 SYRINGES



Fig. 54: Syringe and removable needles

Part No.	Description	Unit
syringes with replacement needle		
IVA036504045	0.5 µl Micro volume syringe, plunger in needle, 50 mm, Gauge 23, cone Tipp for AS3000, Ref. Code 036504045	1 pc.
IVA002050	10 µl R-syringe, gauge 26, 0.47 mm OD, needle length 50 mm, bevel	1 pc.
IVA202668	100 µl RN-syringe, gauge 22s, Pst. 5 needle length 51 mm	1 pc.
IVA778405	Replacement needle for 100 µl RN-syringe gauge 22s, Pst. 5, needle length 51 mm	6 pc.
IVA005050	100 µl R-syringe, gauge 25, OD 0.5 mm, length 50 mm	1 pc.
syringes with fixed needle		
IVA86259	0.5 µl syringe, Pst. 2, 70 mm needle length, OD 0.5 mm	1 pc.
IVA203185	1.2 µl syringe, AS, gauge 26, needle length 51 mm, series 7701.2 CTC	1 pc.
IVA06588411	2 µl syringe, 7002, Pst. 2, 70 mm needle length	1 pc.
IVA001105	5 µl syringe, cone, gauge 26, OD 0.47 mm, needle length 50 mm (<i>TriPlus</i>)	1 pc.
IVA80308	10 µl syringe, 701 SN, Gauge 26, Pst. AS needle length 70 mm	1 pc.
IVA002980	10 µl syringe, cone, OD 0,47 mm, gauge 26 needle length 50 mm (<i>TriPlus / AS3000 / AS2000 / AS200</i>)	1 pc.
IVA002986	10 µl syringe, cone, OD 0,47 mm, gauge 26 needle length 50 mm (<i>TriPlus / AS3000 / AS2000 / AS200</i>)	6 pc.
IVA019050	10 µl syringe, cone, gauge 25, OD 0.5 mm, needle length 50 mm (<i>TriPlus / AS3000 / AS2000 / AS200</i>)	1 pc.

**This is a protected name and only for identification.*



17. Syringes

Part No.	Description	Unit
IVA002981	10 µl syringe, cone, OD 0,63 mm, gauge 23 needle length 50 mm (<i>TriPlus / AS3000 / AS2000 / AS200</i>)	1 pc.
IVA002971	10 µl syringe, cone, OD 0,63 mm, gauge 23 needle length 50 mm (<i>TriPlus / AS3000 / AS2000 / AS200</i>)	6 pc.
IVA002989	10 µl syringe, cone, gauge 23, OD 0.63 mm, needle length 80 mm (<i>TriPlus and AS2000</i>)	1 pc.
IVA002992	10 µl syringe, cone, OD 0,47 mm, gauge 26, needle length 80 mm (<i>TriPlus and AS2000</i>)	1 pc.
IVA002987	10 µl gas tight syringe, cone, OD 0,63 mm, gauge 23 needle length 50 mm, Ref. Code: 36502019 (<i>TriPlus and AS2000</i>)	1 pc.
IVA002972	10 µl gas tight syringe, cone, OD 0,63 mm, gauge 23 needle length 50 mm, Ref. Code: 36502019 (<i>TriPlus and AS2000</i>)	6 pc.
IVA0318120	Replacement plunger for 10 µl gas tight syringe IVA002987 and IVA002972	2 pc.

20 VIALS, CAPS and SEALS

20.1 GASBENCH: Labco Vials and caps / Exetainer®

Part No.	Description	Unit
IVACT18	11 ml vial type CT-Borosilicate glass, crimps and stoppers separate	1.000 pc.
IVACT19	11 ml vial type CT-Borosilicate glass, crimps and stoppers separate	1.000 pc.
IVACT28	11 ml vial type CT-Borosilicate glass, crimped, evacuated	1.000 pc.
IVACT29	11 ml vial type CT-Borosilicate Glass, crimped evacuated, labelled	1.000 pc.
IVACT20	13 mm Spare crimps and stoppers for IVACT29	1000 pc. of each



Fig. 55: 11 ml Borosilicate Vial round bottom with cap
(IVACT18 and IVACT28)

*This is a protected name and only for identification.



20.1 GASBENCH: Labco Vials and caps / Exetainer®

Part No.	Description	Unit
IVA948W	4.5 ml Borosilicate vial, round bottomed, white cap, non evacuated, no label	1.000 pc.
IVA949W	4.5 ml Borosilicate vial, round bottomed white cap, labelled, non evacuated	1.000 pc.



Fig. 56: 4.5 ml Borosilicate vial round bottomed, white cap (IVA948W and IVA048W)

IVA048W	4.5 ml Borosilicate vial, round bottomed, white cap, evacuated, no label	1.000 pc.
IVA049W	4.5 ml Borosilicate vial, round bottomed, white cap, labelled, evacuated	1.000 pc.

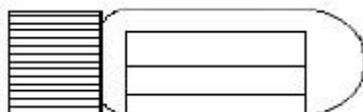


Fig. 57: 4.5 ml Borosilicate vial, round bottom with cap, labelled (IVA949W and IVA049W)

IVA938W	12 ml Borosilicate vial, round bottomed with cap, white with septum, non evacuated	1.000 pc.
IVA939W	12 ml Borosilicate vial, round bottomed with cap, white with septum, labelled, non evacuated	1.000 pc.
IVA038W	12 ml Borosilicate vial, round bottomed with cap, white with septum, evacuated	1.000 pc.
IVA039W	12 ml Borosilicate vial, round bottomed with cap, white with septum, labelled, evacuated	1.000 pc.



Fig. 58: 12 ml Borosilicate vial, round bottom with cap (IVA938W and IVA038W)

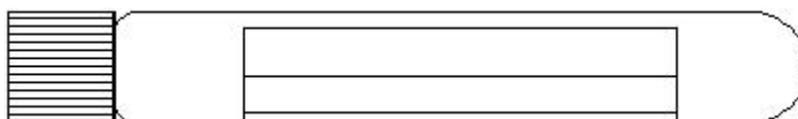


Fig. 59: 12 ml Borosilicate Vial, round bottom with cap, labelled (IVA939W and IVA039W)

**This is a protected name and only for identification.*



20.1 GASBENCH: Labco Vials and caps / Exetainer®

Part No.	Description	Unit
IVA9RK8W	12 ml vial type RK-Borosilicate glass, round bottomed, non-evacuated, white cap	1.000 pc.
IVA9RK9W	12 ml vial type RK-Borosilicate glass, round bottomed, non-evacuated, labelled, white cap	1.000 pc.
IVA0RK8W	12 ml vial type RK-Borosilicate glass, round bottomed, evacuated, white cap	1.000 pc.
IVA0RK9W	12 ml vial type RK-Borosilicate glass, round bottomed, evacuated, labelled, white cap	1.000 pc.



Fig.60: 12 ml vial, type RK-Borosilicate glass round bottom white cap (IVA738W and. IVA838W)

Part No.	Description	Unit
IVA728W	3 ml vial type 2 soda glass, flat bottomed, non-evacuated, white cap	1.000 pc.
IVA729W	3 ml vial type 2 soda glass, flat bottomed, non-evacuated, labelled, white cap	1.000 pc.
IVA828W	3 ml vial type 2 soda glass, flat bottomed, evacuated, white cap	1.000 pc.
IVA829W	3 ml vial type 2 soda glass, flat bottomed, evacuated, labelled, white cap	1.000 pc.

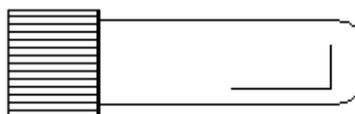


Fig.61: 3 ml vial type 2 soda glass, flat bottomed, no label, white cap (IVA728W and IVA828W)

**This is a protected name and only for identification.*



20.1 GASBENCH: Labco Vials and caps / Exetainer®

Part No.	Description	Unit
IVA778W	3.7 ml vial type 7 soda glass, flat bottomed, non-evacuated, white cap	1.000 pc.
IVA779W	3.7 ml vial type 7 soda glass, flat bottomed, non-evacuated, labelled, white cap	1.000 pc.
IVA878W	3.7 ml vial type 7 soda glass, flat bottomed, evacuated, white cap	1.000 pc.
IVA879W	3.7 ml vial type 7 soda glass, flat bottomed, evacuated, labelled, white cap	1.000 pc.

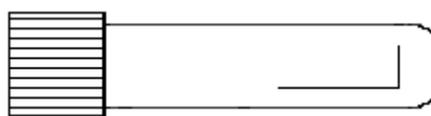


Fig.62: 3.7 ml vial type 7 soda glass, flat bottomed, no label, white cap (IVA778W and IVA878W)

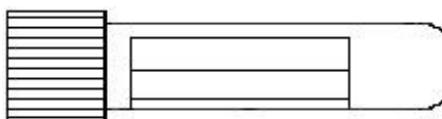


Fig.63: 3.7 ml vial type 7 soda glass, flat bottomed, labelled, white cap (IVA779W and IVA879W)

Part No.	Description	Unit
IVA718W	5.9 ml vial type 1 soda glass, flat bottomed, non-evacuated, white cap	1.000 pc.
IVA719W	5.9 ml vial type 1 soda glass, flat bottomed, non-evacuated, labelled, white cap	1.000 pc.
IVA818W	5.9 ml vial type 1 soda glass, flat bottomed, evacuated, white cap	1.000 pc.
IVA819W	5.9 ml Vial type 1 soda glass, flat bottomed, evacuated, labelled, white cap	1.000 pc.

**This is a protected name and only for identification.*



20.1 GASBENCH: Labco Vials and caps / Exetainer®

Part No.	Description	Unit
IVA738W	12 ml Exetainer® vial type 3, soda glass, flat bottomed white cap, with septum, non evacuated	1.000 pc.
IVA739W	12 ml Exetainer® vial, soda glass, flat bottomed white cap, with septum, non evacuated, labelled	1.000 pc.
IVA838W	12 ml Exetainer® vial, soda glass, flat bottomed white cap, with septum, evacuated	1.000 pc.
IVA839W	12 ml Exetainer® vial, soda glass, flat bottomed white cap, with septum, evacuated, labelled	1.000 pc.



Fig.64: 12 ml Exetainer® vial, flat bottom, white cap no label (IVA738W and IVA838W)

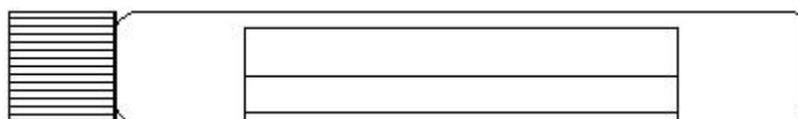


Fig. 65: 12 ml Exetainer® vial, flat bottom, white cap, labelled, with septum (IVA739W and IVA839W)

Part No.	Description	Unit
IVA-VC300	16.5 mm caps, green, with septum	1.000 pc.
IVA-VC301	16.5 mm caps, blue, with septum	1.000 pc.
IVA-VC308	16.5 mm caps, red, with septum	1.000 pc.
IVA-VC309	16.5 mm caps, white, with septum	1.000 pc.

Additional vials and caps in different colours on request. Please contact us.

**This is a protected name and only for identification.*



20.1 GASBENCH: Labco Vials and caps / Exetainer®

Part No.	Description	Unit
IVA738W/W	12 ml Exetainer® vial type 3, soda glass, flat bottomed white cap, non evacuated, wide (1 mm +)	1.000 pc.
IVA739W/W	12 ml Exetainer® vial type 3, soda glass, flat bottomed white cap, non evacuated, labelled, wide (1 mm +)	1.000 pc.
IVA838W/W	12 ml Exetainer® vial type 3, soda glass, flat bottomed white cap, evacuated, wide (1 mm +)	1.000 pc.
IVA839W/W	12 ml Exetainer® vial type 3, soda glass, flat bottomed white cap, evacuated, labelled, wide (1 mm +)	1.000 pc.



Fig. 66: 12 ml Exetainer® vial, flat bottom, white cap, no label, wide (1mm +) (IVA738W/W and IVA838W/W)

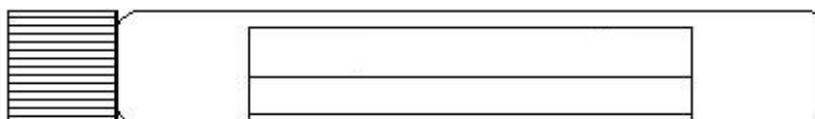


Fig. 67: 12 ml Exetainer® vial, flat bottom, white cap, labelled, wide (1mm +) (IVA739W/W and IVA839W/W)

Part No.	Description	Unit
IVA778W/R	3.7 ml vial type 7R, soda glass, round bottomed, white cap, non evacuated, no label	1.000 pc.
IVA779W/R	3.7 ml vial type 7R, soda glass, round bottomed white cap, non evacuated, labelled	1.000 pc.

**This is a protected name and only for identification.*



20.1 GASBENCH: Labco Vials and caps / Exetainer®

Part No.	Description	Unit
IVA878W/R	3.7 ml vial type 7R, soda glass, round bottomed, white cap, evacuated	1.000 pc.
IVA879W/R	3.7 ml vial type 7R, soda glass, round bottomed white cap, evacuated, labelled	1.000 pc.

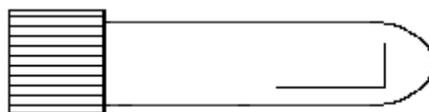


Fig. 68: 3.7 ml vial, round bottomed, white cap, no label, (IVA778W/R and IVA878W/R)

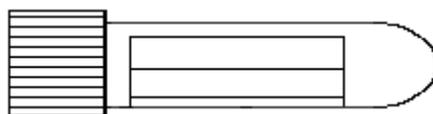


Fig. 69: 3.7 ml vial, round bottomed, white cap, labelled, (IVA779W/R and IVA879W/R)

Part No.	Description	Unit
IVA758W/R	5.9 ml Exetainer® vial type 5, soda glass, round bottomed white cap, non evacuated	1.000 pc.
IVA759W/R	5.9 ml Exetainer® vial type 5, soda glass, round bottomed white cap, non evacuated, labelled	1.000 pc.
IVA858W/R	5.9 ml Exetainer® vial type 5, soda glass, round bottomed white cap, evacuated	1.000 pc.
IVA859W/R	5.9 ml Exetainer® vial type 5, soda glass, round bottomed white cap, evacuated, labelled	1.000 pc.

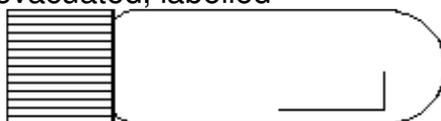


Fig. 70: 5.9 ml vial, round bottomed, white cap, no label, (IVA758W/R and IVA858W/R)

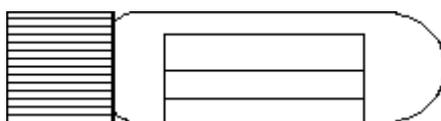


Fig. 71: 5.9 ml vial, round bottomed, white cap, labelled, (IVA759W/R and IVA859W/R)

**This is a protected name and only for identification.*

20.2 Autosampler CTC / AS 2000 / AS3000 / TriPlus

Part No.	Description	Unit
08090405	0.7 ml Crimp neck vial ND8, 40 x 7 mm, clear glass	1.000 pc.
11090831 Ref. 24070005	2.5 ml Crimp neck vial ND11, 41x11,6 mm, clear glass	1000 pc.
08090845 Ref. 24070010	1.2 ml Crimp neck vial ND8, 40 x 8,2 mm, clear glass (AS3000/AS3500)	1.000 pc.
08090305	0.7 ml Micro-vial ND8, conical 40 x 7 mm, clear glass	1.000 pc.
08030249 Ref. 38606031	Aluminium cap clear lacquered, 4 mm centre hole silicone white/PTFE red, Ultra Clean, 45° shore A thickness 1.3 mm	1.000 pc.
08030451	Aluminium cap clear lacquered, 4 mm centre hole nat. rubber red-orange/TEF transparent, 60° shore A thickness 1.0 mm	1.000 pc.
11090210 Ref. 24074041	1.5 ml Screw neck ND8, 32 x 11,6 mm, clear glass	1.000 pc.
08150886	8 mm PP Screw cap, black, silicone dark blue/PTFE white, 45° shore A, 1.3 mm, with hole (consisting of 38606074 and 31303217)	1000 pc.
08150293	8 mm PP Screw cap, black silicone white/PTFE red, Ultra Clean, 45° shore A, 1.3 mm, 5.5 mm centre hole	1.000 pc.
08150460	8 mm PP Screw cap, black, nat. rubber red-orange/TEF transparent, 60° shore A, thickness 1,3 mm	1.000 pc.
05090968	0.1 ml Mico-insert, 28 x 5 mm, clear glass with assembled plastic spring	1.000 pc.



Fig. 72:
08090845



Fig.73:
08090305



Fig. 74:
11090210



Fig. 75:
05090968

**This is a protected name and only for identification.*



20.2 Autosampler CTC / AS 2000 / AS3000 / TriPlus

The subsequent described vials and seals are suitable for liquid injection.

Part No.	Description	Unit
11090500	1.5 ml Short thread vial ND9, 32 x 11.6 mm, clear glass wide opening	1.000 pc.
11090519 Ref. Code 60180-723	1.5 ml Short thread vial ND9, 32 x 11.6 mm, clear glass wide opening with label (for TriPlus / GC PAL)	1.000 pc.
06090357	0.1 ml Micro-insert, 31 x 6 mm, clear glass, 15 mm top	1.000 pc.
06090669	0.1 ml Micro-insert, 31 x 6 mm, clear glass, 12 mm top	1.000 pc.
06090865	0.1 ml Micro-insert, 28 x 6 mm, clear glass, with assembled plastic	1.000 pc.

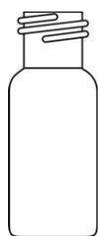


Fig. 76:
11090500



Fig. 77:
11090519



Fig. 78:
06090357

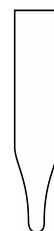


Fig.: 79:
06090669



Fig. 80:
06090865

06090866	0.2 ml Micro-insert, 31 x 6 mm, clear glass, flat bottom	1.000 pc.
11090999	Short thread vial with integrated 0.2 ml micro-insert clear glass with label and filling lines	1.000 pc.
11090620	1.1 ml Microliter short thread vial ND9, 32 x 11.6 mm clear glass	1.000 pc.
11141189	TPX Short thread vial ND9, 32 x 11.6 mm with integrated 0.2 ml glass micro-insert	1.000 pc.



Fig.:81
06090866

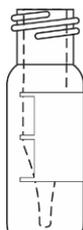


Fig. 82:
11090999



Fig. 83:
11090620



Fig.: 84
11141189

**This is a protected name and only for identification.*



20.2 Autosampler CTC / AS 2000 / AS3000 / TriPlus

The subsequent described vials and seals are suitable for liquid injection.

Part No.	Description	Unit
09150478	PP Short thread cap transparent, 6 mm centre hole nat. rubber red-orange/TEF transparent, 60°shore A thickness 1.0 mm	1.000 pc.
09150481	PP Short thread cap transparent, 6 mm centre hole silicone white/PTFE red, Ultra Clean, 55° shore A thickness 1.0 mm	1.000 pc.
09150867	PP Short thread cap blue, 6 mm centre hole nat. rubber red-orange/TEF transparent, 60°shore A thickness 1.0 mm	1.000 pc.
09150838 Ref. Code 60180-729	PP Short thread cap blue, 6 mm centre hole silicone white/PTFE red, Ultra Clean, 55° shore A thickness 1.0 mm (for TriPlus / GC PAL)	1.000 pc.
09151176	PP Short thread cap red, 6 mm centre hole nat. rubber red-orange/TEF transparent, 60°shore A thickness 1.0 mm	1.000 pc.
09151178	PP Short thread cap red, 6 mm centre hole silicone white/PTFE red, Ultra Clean, 55° shore A thickness 1.0 mm	1.000 pc.
08030884 Ref. Code 38606031	8 mm Aluminium cap clear lacquered, 4 mm centre hole silicone dark blue/PTFE white, 45° shore A thickness 1.3 mm	1000 pc.
08030599 Alt. /Ref. 38606031	Aluminium cap clear lacquered, 4 mm centre hole silicone blue transparent/PTFE white, 45° shore A thickness 1.3 mm	1000 pc.
08080027 Ref. Code 38606074	8 mm PP Screw cap, black, with hole	1000 pc.
08020881 Ref. Code 31303217	8 mm Septum, silicone dark blue/PTFE white, 45° shore A, 1.3 mm	1000 pc.

**This is a protected name and only for identification.*

20.2 Autosampler CTC / AS 2000 / AS3000 / TriPlus

The subsequent described vials and seals are suitable for liquid injection.

Part No.	Description	Unit
11090356	1,5 ml Crimp neck vial ND11, 32 x 11,6 mm, clear glass wide opening	1.000 pc.
SA5370492	Aluminium pans 5,5 x 2,5 mm	250 pc.



Fig. 85: 11090356



Fig. 86: Aluminium weighing pans 5.5 x 2.5 mm (SA5370492) suitable for short thread ND9 and crimp neck vial ND11

06090357	0.1 ml Micro-insert, 31 x 6 mm, clear glass, 15 mm top	1.000 pc.
06090669	0.1 ml Micro-insert, 31 x 6 mm, clear glass, 12 mm top	1.000 pc.
06090865	0.1 ml Micro-insert, 28 x 6 mm, clear glass, with assembled plastic	1.000 pc.
06090866	0.2 ml Micro-insert, 31 x 6 mm, clear glass, flat bottom	1.000 pc.
11090921	Crimp neck vial ND11 with integrated 0.2 ml micro-insert 32 x 11,6 mm, clear glass with labelling and filling lines	1.000 pc.
11090619	1.1 ml Microliter-vial ND11, 32 x 11.6 mm, clear glass	1.000 pc.

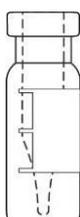


Fig. 87: 11090921

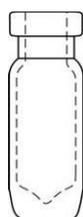


Fig. 88: 11090619



Fig. 89: 20090343

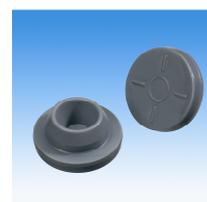


Fig. 90: 20100290

11030247	Aluminium cap clear lacquered, 5.6 mm centre hole silicon white/PTFE red, Ultra Clean, 35° shore A thickness 1.3 mm	1.000 pc.
11030209	Aluminium cap clear lacquered, 5.6 mm centre hole nat. rubber red-orange/TEF transparent, 60° shore A, thickness 1.0 mm	1.000 pc.
20010408	Aluminium crimp seals, plain with 10 mm hole	1.000 pc.
20100290	20 mm Butyl stoppers, grey (Fig. 90)	1.000 pc.
20090343	100 ml Crimp neck Vial, clear, 3 rd hydrol. Class (Fig. 89)	88 pc.

**This is a protected name and only for identification.*

20.2 Autosampler CTC / AS 2000 / AS3000 / TriPlus

Solvent bottles:

Part No.	Ref. Code	Description	Unit
20090342	---	5 ml Washing vial ND18, 38.2 x 22 mm round bottom, clear glass	100 pc.
22150712	---	22 mm Washing cap, PE-cap, transparent 22 x 8.4 mm, 4.3 mm hole, silicone blue transparent/PTFE white, 45° shore A thickness 1,3 mm for vial 20090342	100 pc.
IVA19014647	19014647	Kit Washing vials and washing caps	Kit à 5 pc.
20090795	24030000	10 ml Washing vial, 46 x 22.5 mm, clear glass DIN-crimp neck, long neck, flat bottom	100 pc.
22151334	38606035	22 mm Washing cap, PE-cap, transparent 22 x 9.2 mm, 4.3 mm hole, silicone blue transparent/PTFE white, 45° shore A thickness 1.3 mm for vial 20090795	100 pc.

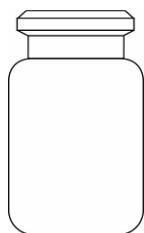


Fig. 91: 20090342
Washing vial CTC

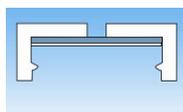


Fig. 92: 22150712
Washing cap CTC

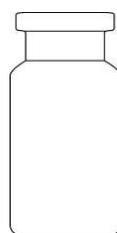


Fig. 93: 20090795
Washing vial AS 2000

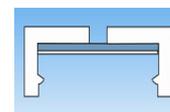


Fig. 94: 22151334
Washing cap AS 2000

Part No.	Ref. Code	Description	Unit
20091822	24014085	100 ml solvent bottle (TriPlus / GC PAL)	4 pc.



Please note that this is only a small selection of the items that IVA does supply. Please contact us, if you do not find the product you are looking for.

**This is a protected name and only for identification.*

21 CRIMPERS and DECAPPERS

Part No.	Description	Unit
08060005	Crimper for 8 mm aluminium caps	1 pc.
11060006	Crimper for 11 mm aluminium caps	1 pc.
13060007	Crimper for 13 mm aluminium caps	1 pc.
20060008	Crimper for 20 mm aluminium caps	1 pc.
08070001	Decapper for 8 mm aluminium caps	1 pc.
11070002	Decapper for 11 mm aluminium caps	1 pc.
13070003	Decapper for 13 mm aluminium caps	1 pc.
20070004	Decapper for 20 mm aluminium caps	1 pc.

- easy and convenient handling
- chemically resistant surface finish especially designed for the application in labs
- hardened crimping jaws made of a special alloy that guarantees long life
- adjustable in crimping pressure by a screw in the handle
- additionally 11 mm, 13 mm and 20 mm crimpers are adjustable in crimping height by screwing up or down the pressure block in the crimping head with a hexagon key



Fig. 95: Crimper and decapper



22 CALIBRATED MICROPIPETTES

Calibrated micropipettes are precision-bore glass capillary tubes cut to predetermined length so that fill volumes are constant and precise.

Part No.	Description	Unit
length 16 mm		
IVA1-000-0001	0,1 $\mu\text{l} \pm 1\%$, length 16 mm	100 pc.
length 32 mm		
IVA1-000-0002	0,2 $\mu\text{l} \pm 1\%$, length 32 mm	100 pc.
IVA1-000-0005	0,5 $\mu\text{l} \pm 1\%$, length 32 mm	100 pc.
IVA1-000-0010	1 $\mu\text{l} \pm 1\%$, length 32 mm	100 pc.
IVA1-000-0020	2 $\mu\text{l} \pm 1\%$, length 32 mm	100 pc.
IVA1-000-0030	3 $\mu\text{l} \pm 1\%$, length 32 mm	100 pc.
length 55 mm		
IVA1-000-0010-55	1 $\mu\text{l} \pm 1\%$, length 55 mm	100 pc.
IVA1-000-0020-55	2 $\mu\text{l} \pm 1\%$, length 55 mm	100 pc.
IVA1-000-0030-55	3 $\mu\text{l} \pm 1\%$, length 55 mm	100 pc.
IVA1-000-0040-55	4 $\mu\text{l} \pm 1\%$, length 55 mm	100 pc.
IVA1-000-0050-55	5 $\mu\text{l} \pm 1\%$, length 55 mm	100 pc.
length 64 mm		
IVA1-000-0005-64	0,5 $\mu\text{l} \pm 1\%$, length 64 mm	100 pc.

More pipettes on request.

**This is a protected name and only for identification.*

23 MICRO SPATULA / FORCEPS



Fig. 96: Micro spatula for lefties and right hander

Part No.	Ref. Code	Description	Unit
IVA205-00600-25	20500600	Micro spatula for lefties	1 pc.
IVA205-00600-25R	20500600	Micro spatula for right hander	1 pc.
IVA5760203742	---	Micro doublespatula, length 150 mm Ø 1,8 mm, spatula breadth 3 mm, spatula length 40 mm, one side like a spoon other side straight	1 pc.

More micro spatula on request.



Fig. 97: Forceps (IVAHS187-11 and IVAHS819-10)

Part No.	Ref. Code	Description	Unit
IVAHS187-11	20500500	Forceps, length 115 mm	1 pc.
IVAHS189-13	20500500	Forceps, length 130 mm	1 pc.
IVAHS191-14	20500500	Forceps, length 145 mm	1 pc.
IVAHS819-10	---	Forceps for watchmakers, curved, simply type, 105 mm	1 pc.

**This is a protected name and only for identification.*

24 SEALING DEVICES

24.1 For solids



Fig. 98: Sealing device for solids (IVA20500310)

Part No.	Ref Code	Description	Unit
IVA20500310-25	20500310 24010024	Sealing device, complete set with 4-hole plate and pocket sample holder (suitable for capsules with max. Ø 5 mm)	1 pc.
IVA25209010	25209010	Sealing device for capsules with Ø 10 mm	1 pc.

24.2 For liquids

Our sealing device is developed for closing liquid capsules with different dimensions.

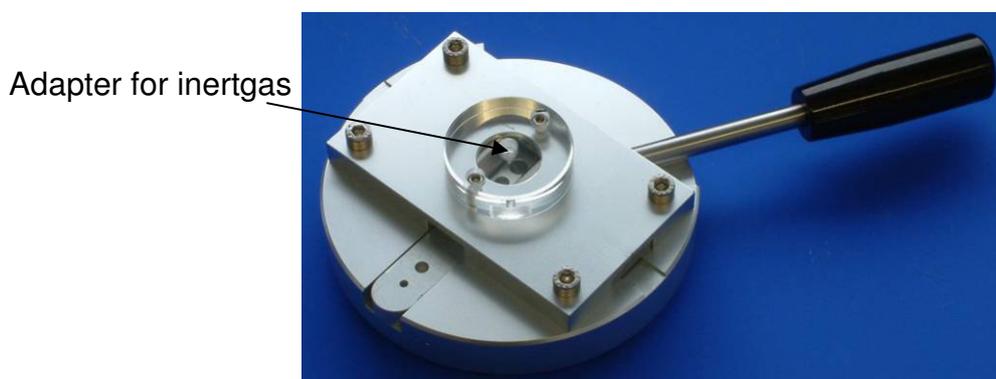


Fig. 99: Sealing device for liquids (IVA20503002)

Part No.	Ref Code	Description	Unit
IVA-20503002	20503002	Sealing device for liquids	1 pc.

**This is a protected name and only for identification.*

25 CAPSULES

25.1 Pressed Capsules

25.1.1 Tin capsules for solids



Fig. 100: Tin capsules for solids

Part No.	Ref. Code	Diameter x Height, Purity	Unit	Min. Volume
SA76980002 <i>76.9800.26</i>	24002600	3,2 x 4,0 mm, Sn 97,5	250 pc.	0,02 ml
SA76980002L	24002600	3,2 x 4,0 mm, light, Sn 97,5	250 pc.	0,02 ml
76.9802.26	24002700	3,2 x 6,0 mm, Sn 97,5	250 pc.	0,04 ml
SA76980502 <i>76.9805.26</i>	24005300	3,3 x 5,0 mm, Sn 97,5	250 pc.	0,03 ml
SA76980502L	24005300	3,3 x 5,0 mm, light, Sn 97,5	250 pc.	0,03 ml
SA76980702 <i>76.9807.26</i>	24005305	4,0 x 6,0 mm, Sn 97,5	250 pc.	0,07 ml
SA76980702L	24005305	4,0 x 6,0 mm, light, Sn 97,5	250 pc.	0,07 ml
SA76980902	24006260	5,0 x 8,0 mm, Sn 97,5	250 pc.	0,12 ml
SA76981102 <i>76.9811.26</i>	24006400	5,0 x 9,0 mm, Sn 97,5	250 pc.	0,15 ml
SA76981102L	24006400	5,0 x 9,0 mm, light, Sn 97,5	250 pc.	0,15 ml
SA76981302 <i>76.9813.26</i>	24006500	5,0 x 12,0 mm, Sn 97,5	250 pc.	0,22 ml
SA76162401	25208000	10,0 x 10,0 mm, Sn 97,5	100 pc.	---

Prcleaned tin capsules (incl. tray):

SA76980903	---	5,0 x 8,0 mm, Sn 97,5	96 pc.	0,07 ml
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25. CAPSULES

25.1.2 Tin foils



Fig. 101: Tin foils (conical)

Part No.	Diameter x Height, Purity	Unit
SA76152301 76.1523.00	30,0 x 17,0 mm, Sn 97,5	100 sheets
SA999990	Tin foil squares 35 x 35 mm	400 sheets
SA999991	Tin foil squares 50 x 50 mm	450 sheets

25.1.3 Tin discs

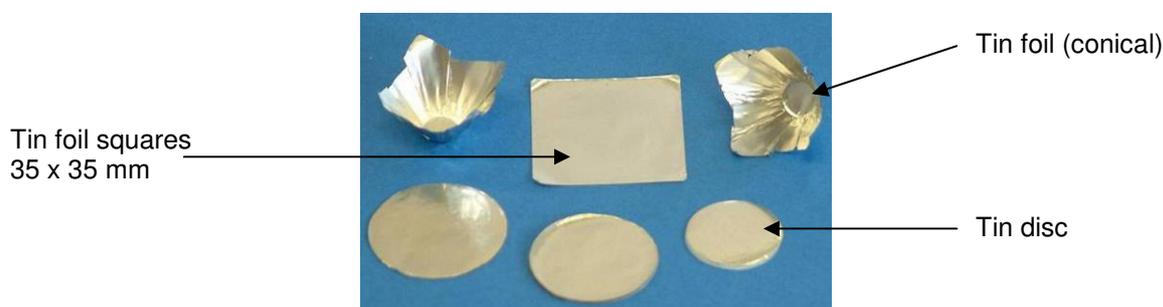


Fig. 102: Tin foils (conical) and tin discs

Part No.	Ref. Code	Description, Diameter, Purity	Unit
SA999917	---	Tin disc, Ø 21 mm, Sn 97,5	100 sheets
SA999901	---	Tin disc, Ø 28 mm, Sn 97,5	100 sheets
SA999918	25208015	Tin disc, Ø 30 mm, Sn 97,5	100 sheets
SA999902	25208018	Tin disc, Ø 35 mm, Sn 97,5	100 sheets
SA999976	25208019	Tin disc, Ø 62 mm, Sn 97,5	100 sheets

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25. CAPSULES

Attention: NEW in our assortment!!!

Silver foil with thickness 0.01 mm and
Gold foil with thickness 0.02 mm.



Silver and gold foil at different dimensions can be made to order. Please contact us with your requirements.

25.1.4 Silver capsules for solids

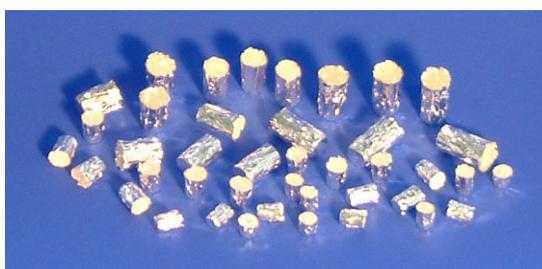


Fig. 103: Silver capsules for solids

Part No.	Ref. Code	Diameter x Hight, Purity	Unit	Min. Volume
SA76980006 76.9800.36	24005410	3,2 x 4,0 mm, Ag 99,99	250 pc.	0,02 ml
SA76980206 76.9802.36	24005450	3,2 x 6,0 mm, Ag 99,99	250 pc.	0,04 ml
SA76980506 76.9805.36	24055400	3,3 x 5,0 mm, Ag 99,99	250 pc.	0,03 ml
SA76980706 76.9807.36	24005400	4,0 x 6,0 mm, Ag 99,99	250 pc.	0,07 ml
SA76981106 76.9811.36	24005405	5,0 x 9,0 mm, Ag 99,99	250 pc.	0,15 ml
SA76981306	---	5,0 x 12,0 mm, Ag 99,99	250 pc.	0,23 ml
SA76162406	---	10 x 10 mm, Ag 99,99	100 pc.	0,8 ml

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25. CAPSULES

25.1.5 Aluminium capsules for solids

Part No.	Ref. Code	Diameter x Height, Purity	Unit	Min. Volume
76.1308.81	24002100	3,2 x 4,0 mm, Al 99,0	100 pc.	0,02 ml
76.1309.91E	24002200	3,0 x 5,0 mm, Al 99,0	100 pc.	0,03 ml
76.9807.16	24002300	4,0 x 6,0 mm, Al 99,0	250 pc.	0,07 ml

25.1.6 Store box for capsules

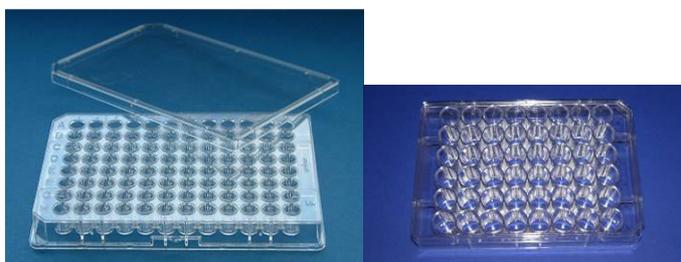


Fig. 104: Store box for capsules (IVA9900006 and IVA677102)

Part No.	Description	Unit
IVA99000096	Store box for 96 capsules, flat bottom base with cover (Fig. 104) (8 x 12 cavities for capsules with Ø 5 mm)	1 pc.
IVA99000U96	Store box for 96 capsules, U-bottom base with cover	1 pc.
IVA08291148	Sealmat™ block cover Silicone nat. / PTFE blue transparent with solids plugs, suitable for 96 store box, reusable	1 pc.



Fig. 105: *Sealmat™*, bottom side

IVA677102	Store box for 48 capsules base with cover (Fig. 104) (Suitable for capsules with Ø 10 mm)	1 pc.
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25. CAPSULES

25.2 Smooth Wall Capsules

NEW: Sorbits®



Fig. 106: Sorbits® d=3,5 mm (IVA502283), 100 pc.

25.2.1 Tin capsules for liquids



Fig. 107: Tin capsules for liquids

Part No.	Ref. Code	Diameter x Height, Purity	Unit	Min. Volume
84.9900.26	24007000	1,06 x 5,5 mm, Sn 99,9	250 pc.	0,003 ml
84.9903.26	24008820	2,0 x 5,0 mm, Sn 99,9	250 pc.	0,012 ml
84.9906.26	24008810	3,0 x 6,0 mm, Sn 99,9	250 pc.	0,025 ml
84.9912.26	24009100	3,5 x 4,0 mm, Sn 99,9	250 pc.	0,03 ml
84.9915.26	24009200	3,5 x 5,5 mm, Sn 99,9	250 pc.	0,04 ml
84.9918.26	24009300	3,5 x 7,0 mm, Sn 99,9	250 pc.	0,06 ml
84.9921.26	24007200	3,5 x 9,0 mm, Sn 99,9	250 pc.	0,07 ml
84.9927.26	24004100	4,75 x 11,0 mm, Sn 99,9	250 pc.	0,15 ml
84.9928.24	---	5,0 x 13,0 mm, Sn 99,9	100 pc.	---
84.9929.24	---	6,0 x 15,0 mm, Sn 99,9	100 pc.	---
84.9930.26	---	6,75 x 14,0 mm, Sn 99,9	100 pc.	0,45 ml
84.1544.00	--	8,0 x 20,0 mm, Sn 99,9	100 pc.	0,98 ml

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25. CAPSULES

25.2.2 Silver capsules for liquids



Fig. 108: Silver capsules for liquids

Part No.	Ref. Code	Diameter x Height, Purity	Unit	Min. Volume
84.9903.36	24005100	2,0 x 5,0 mm, Ag 99,99	250 pc.	0,012 ml
84.9912.36	24001200	3,5 x 4,0 mm, Ag 99,99	250 pc.	0,025 ml
84.9912.37 NEW		3,5 x 4,0 mm, Ag 99,99 Thermal treatment -> improved sealing	250 pc.	0,025 ml
84.9915.36	24001300	3,5 x 5,5 mm, Ag 99,99	250 pc.	0,04 ml
84.9921.36	24001400	3,5 x 9,0 mm, Ag 99,99	250 pc.	0,07 ml

25. CAPSULES

25.3 Boats

25.3.1 Tin boats

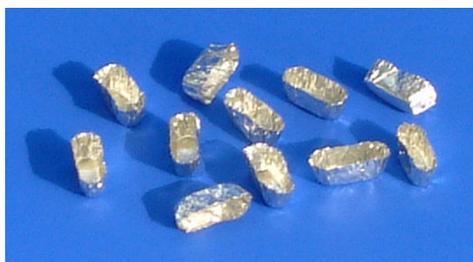


Fig. 109: Tin boats

Part No.	Length x Height x Width, Purity	Unit	Min. Volume
76.9828.26	10,0 x 4,0 x 4,5 mm, Sn 97,5	250 pc.	0,11 ml
76.9831.26	12,0 x 4,0 x 2,7 mm, Sn 97,5	250 pc.	0,12 ml

25.3.2 Silver boats



Fig. 110: Silver boats

Part No.	Length x Height x Width, Purity	Unit	Min. Volume
76.9825.36	6,5 x 3,5 x 2,5 mm, Ag 99,999	250 pc.	0,04 ml
76.9831.36	12,0 x 4,0 x 2,7 mm, Ag 99,999	250 pc.	0,11 ml
99.AG1244	12,0 x 4,0 x 4,0 mm, Ag 99,999	100 pc.	0,12 ml

You will find more capsules in our special catalogue “Capsules, Boats and Weighing Pans”. Please contact us, we will send it to you promptly or visit our homepage www.iva-analysentechnik.de, there you can download it.

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