

# CONSUMABLES 2020

Calibration Material, Crucibles, Chemicals, Tools





COMB AID  
QUARZSAND

90840

100 g (nominal weight)

Graphite  
Graphit  
90800

100 %C

50 g (nominal weight)

H302  
R22/  
P273  
S60/  
...



## ELTRA consumables

Tongs, spatula, chemicals,  
CRM's, crucibles,

|  |            |
|--|------------|
| General chemicals, tools                               | <b>92</b>  |
| Consumables for C(H)S analysis                         | <b>95</b>  |
| Consumables for ONH analysis                           | <b>96</b>  |
| Calibration material C(H)S                             | <b>97</b>  |
| Calibration material ONH                               | <b>99</b>  |
| General terms & conditions of<br>business and delivery | <b>100</b> |



## Eltra consumables

ELTRA offers a wide range of consumables for their analyzers. Most of which can also be used for the elemental analyzers from other manufacturers. In case you cannot find what you are looking for please contact ELTRA directly and maybe we can implement it in our delivery content.

- ▶ Best quality
- ▶ Fast delivery
- ▶ Wide range of consumables

More information available at [www.eltra.com](http://www.eltra.com)



### Order data

| Item Number | Description |
|-------------|-------------|
|-------------|-------------|

### General chemicals, wools and fillings

#### Models

| ONH-p / ONH-2000 | ON-p / ON-900 | OH-p / OH-900 | H-500 | CS-i / CS-800 | CS-d / CS-2000 | C(H)S-580 | C(H)S-580A | CW-800 | CW-800M | SurfaceC-800 | TIC Modul | TGA Thermostep |
|------------------|---------------|---------------|-------|---------------|----------------|-----------|------------|--------|---------|--------------|-----------|----------------|
|------------------|---------------|---------------|-------|---------------|----------------|-----------|------------|--------|---------|--------------|-----------|----------------|

#### Key

- O = Option available
- = Not available

#### General chemicals, wools and fillings

|     |                   |    |  | ONH-p / ONH-2000 | ON-p / ON-900 | OH-p / OH-900 | H-500 | CS-i / CS-800 | CS-d / CS-2000 | C(H)S-580 | C(H)S-580A | CW-800 | CW-800M | SurfaceC-800 | TIC Modul | TGA Thermostep |
|-----|-------------------|----|--|------------------|---------------|---------------|-------|---------------|----------------|-----------|------------|--------|---------|--------------|-----------|----------------|
| 11) | <b>90200</b>      | DC | Anhydrone (magnesium perchlorate), 454 g   | O                | O             | O             | O     | O             | O              | O         | O          | O      | O       | O            | O         | -              |
| 11) | <b>90210</b>      | DC | Sodium hydroxide, 500 g  | O                | O             | O             | O     | O             | O              | O         | O          | O      | O       | O            | O         | -              |
| 11) | <b>90270</b>      | DC | Schuetze reagent, 100 g  | O                | -             | O             | O     | -             | -              | -         | -          | -      | -       | -            | -         | -              |
| 11) | <b>90289</b>      | DC | Copper II oxide, 100 g   | O                | O             | -             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |
|     | <b>88400-0535</b> | DC | Pt/Si catalyst, 15 g   | -                | -             | -             | -     | O             | O              | -         | -          | -      | -       | -            | -         | -              |
|     | <b>90331</b>      | DC | Glass wool, 454 g  | O                | O             | O             | O     | O             | O              | O         | O          | O      | O       | O            | O         | -              |
|     | <b>90332</b>      | DC | Glass wool, 50 g   | O                | O             | O             | O     | O             | O              | O         | O          | O      | O       | O            | O         | -              |
|     | <b>90340</b>      | DC | Cellulose, 100 g   | -                | -             | -             | -     | O             | O              | -         | -          | -      | -       | -            | -         | -              |
|     | <b>90341</b>      | DC | Cellulose, 50 g  | -                | -             | -             | -     | O             | O              | -         | -          | -      | -       | -            | -         | -              |
|     | <b>90330</b>      | DC | Quartz wool, 50 g  | O                | O             | -             | -     | O             | O              | -         | -          | -      | O       | O            | -         | -              |
|     | <b>92610</b>      | DC | Tube of high vacuum grease, 35 g   | O                | O             | O             | O     | O             | O              | O         | O          | O      | O       | O            | -         | -              |
| 11) | <b>88400-0122</b> | DC | Filling for carrier gas purification furnace (optional for CS analyzers)               | -                | -             | -             | -     | O             | O              | -         | -          | -      | -       | -            | -         | -              |
| 11) | <b>90426-1001</b> | DC | Filling for carrier gas purification furnace (optional for ONH analyzers)              | O                | O             | O             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |
| 14) | <b>91000-1005</b> | DC | Copper, flakes, 25 g   | -                | -             | -             | -     | -             | -              | O         | O          | -      | -       | -            | -         | -              |
| 14) | <b>88400-0508</b> | DC | Steel wool, 454 g  | -                | -             | -             | -     | -             | -              | O         | O          | -      | -       | -            | -         | -              |
| 15) | <b>90234</b>      | DC | Filling for halogen trap, potassium iodide   | O                | O             | O             | -     | O             | O              | -         | -          | -      | -       | -            | -         | -              |
| 15) | <b>90235</b>      | DC | Filling for halogen trap, antimony   | O                | O             | O             | -     | O             | O              | -         | -          | -      | -       | -            | -         | -              |
|     | <b>88600-0021</b> | DC | Copper oxide wire (0,5*2 mm), 100 g<br>(could be used alternatively to Pt/Si catalyst) | O                | O             | -             | -     | O             | O              | -         | -          | -      | O       | O            | -         | -              |

#### Please note:

- 11 Hazardous material
- 14 Required for TOC analysis
- 15 Required for analysis of halogen containing samples

Order data

| Item Number | Description |
|-------------|-------------|
|-------------|-------------|

**Key**  
 O = Option available  
 - = Not available

**Models**

| ONH-p / ONH-2000 | ON-p / ON-900 | OH-p / OH-900 | H-500 | CS-i / CS-800 | CS-d / CS-2000 | C(H)S-580 | C(H)S-580A | CW-800 | CW-800M | SurfaceC-800 | TIC Modul | TGA Thermostep |
|------------------|---------------|---------------|-------|---------------|----------------|-----------|------------|--------|---------|--------------|-----------|----------------|
|------------------|---------------|---------------|-------|---------------|----------------|-----------|------------|--------|---------|--------------|-----------|----------------|



**Accelerators for the induction furnace**

|            |    |   |   |   |   |   |   |   |   |   |   |   |
|------------|----|---|---|---|---|---|---|---|---|---|---|---|
| 90220      | DC | Tungsten, premium, 2,500 g                | - | - | - | - | O | O | - | - | - | - |
| 90260      | DC | Iron accelerator, premium, 908 g          | - | - | - | - | O | O | - | - | - | - |
| 88600-0013 | DC | Iron accelerator, high purity, 454 g      | - | - | - | - | O | O | - | - | - | - |
| 88600-0010 | DC | Eltracell tungsten-tin accelerator, 750 g | - | - | - | - | O | O | - | - | - | - |
| 90280      | DC | Tin accelerator, 908 g                    | - | - | - | - | O | O | - | - | - | - |
| 90240      | DC | Copper accelerator, 1392 g                | - | - | - | - | O | O | - | - | - | - |

**Combustion support for the resistance furnace**

|            |    |                    |   |   |   |   |   |   |   |   |   |   |
|------------|----|--------------------|---|---|---|---|---|---|---|---|---|---|
| 90840      | DC | Quartz sand, 100 g | - | - | - | - | - | - | O | O | - | - |
| 88600-0008 | DC | Combsolid, 100 g   | - | - | - | - | - | - | O | O | - | - |

**General tools and accessories**

|            |    |   |  |   |   |   |   |   |   |   |   |   |
|------------|----|---|--|---|---|---|---|---|---|---|---|---|
| 23110      | DC | Spatula, 1 piece  | M size   | O | O | O | O | O | O | O | O | O |
| 23111      | DC | Spatula, 1 piece  | L size   | O | O | O | O | O | O | O | O | O |
| 23113      | DC | Spoon, 1 piece  | for dosing sample and accelerator in CS series | - | - | - | - | O | O | - | - | - |
| 90145      | DC | Tongs for ceramic crucibles and boats, 220 mm, 1 piece, for CS series |  | - | - | - | O | O | O | O | O | O |
| 88400-0213 | DC | Tongs for graphite crucibles, 1 piece                                 | for ONH series                                 | O | O | O | - | - | - | - | - | - |
| 88400-0229 | DC | Tweezers (160 mm), curved, 1 piece                                    |  | O | O | O | O | O | O | O | O | O |
| 88400-0472 | DC | Tweezers (145 mm), straight, 1 piece                                  |  | O | O | O | O | O | O | O | O | O |
| 88400-0475 | DC | Set with 6 spatula and 1 tweezers                                     | for multiple weighing procedures               | O | O | O | O | O | O | O | O | O |
| 88400-0476 | DC | Micro spatula, 1 piece  | XS size for filling small capsules             | O | O | O | O | O | O | O | O | O |



Crucible holder (88600-0015)



Tungsten (90220)



Copper accelerator (90240)



Tin accelerator (90280)



Tongs for crucibles (88400-0213)

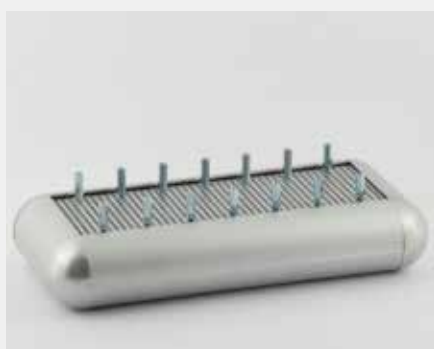


Spatula (23110)

CONSUMABLES

## Order data

| Item Number   | Description |   | Models  |               |               |       |               |                |           |            |        |         |              |           |                |   |
|---|-------------|---|---|---------------|---------------|-------|---------------|----------------|-----------|------------|--------|---------|--------------|-----------|----------------|---|
|   |             |   | ONH-p / ONH-2000                                    | ON-p / ON-900 | OH-p / OH-900 | H-500 | CS-i / CS-800 | CS-d / CS-2000 | C(H)S-580 | C(H)S-580A | CW-800 | CW-800M | SurfaceC-800 | TIC Modul | TGA Thermostep |   |
| <b>Tools for storage, transporting and weighing</b> |             |   |   |               |               |       |               |                |           |            |        |         |              |           |                |   |
| <b>36121</b>  | DC          | Quartz boat, 74 x 22 x 10 mm, 1 piece                                 | for weighing pins                                   | O             | O             | O     | O             | O              | O         | -          | -      | -       | -            | O         | -              | - |
| <b>71010</b>  | DC          | Brush, 16 mm, 1 piece   | for cleaning balance from dust                      | O             | O             | O     | O             | O              | O         | O          | O      | O       | O            | O         | O              | O |
| <b>88400-0477</b>                                   | DC          | Weighing boat, 1 piece  | for weighing and usage of granulates                | O             | O             | O     | O             | O              | O         | O          | O      | O       | O            | O         | O              | O |
| <b>88400-0509</b>                                   | DC          | Metal pan, 1 piece  | for storage of used crucibles, boats                | O             | O             | O     | O             | O              | O         | O          | O      | O       | O            | O         | O              | O |
| <b>88400-0517</b>                                   | DC          | Transfer pipettes for applying liquids, 3 ml, 500 pieces              |   | -             | -             | -     | -             | -              | O         | O          | O      | -       | -            | -         | -              | - |
| <b>88600-0015</b>                                   | DC          | Crucible holder   | for storage of crucibles                            | -             | -             | -     | -             | O              | O         | -          | O      | -       | -            | -         | -              | - |
| <b>90146</b>  | DC          | Steel pot for preheated crucibles and used crucibles                  |   | O             | O             | O     | O             | O              | O         | O          | O      | O       | O            | O         | -              | O |
| <b>90179</b>  | DC          | Vacuum pipettes 150 x 3.5 mm, for sampling molten steel, 1,000 pieces |   | O             | O             | O     | O             | O              | O         | -          | -      | -       | -            | -         | -              | - |
| <b>46245</b>  | DC          | Boat rack for used quartz boats                                       |   | -             | -             | -     | -             | -              | O         | O          | -      | O       | O            | O         | -              | - |
| <b>Tools for maintenance</b>                        |             |   |   |               |               |       |               |                |           |            |        |         |              |           |                |   |
| <b>88400-0473</b>                                   | DC          | Powder funnel (plastics), 1 piece                                     | for easy filling of chemical tubes                  | O             | O             | O     | O             | O              | O         | O          | O      | O       | O            | O         | O              | - |
| <b>88400-0489</b>                                   | DC          | Rubber plug 14 x 20 x 24 mm, 1 piece                                  | for sealing small glass tubes like 88400-0006       | O             | O             | O     | O             | O              | O         | -          | -      | -       | -            | O         | -              | - |
| <b>88400-0490</b>                                   | DC          | Rubber plug 29 x 35 x 30mm  | for sealing big glass tubes like 09090              | -             | -             | -     | -             | -              | O         | O          | O      | O       | O            | -         | O              | - |
| <b>71010</b>  | DC          | Brush, 16 mm, 1 piece   | for cleaning balance from dust                      | O             | O             | O     | O             | O              | O         | O          | O      | O       | O            | O         | O              | - |
| <b>88400-0332</b>                                   | DC          | Threaded rod M4 x 150, 1 piece  | for removing paper filter holder                    | -             | -             | -     | -             | O              | O         | -          | -      | -       | -            | -         | -              | - |
| <b>88400-0500</b>                                   | DC          | Telescope mirror, 1 piece   | for inspection of upper electrode of ONH-p/ONH-2000 | O             | O             | O     | -             | -              | -         | -          | -      | -       | -            | -         | -              | - |
| <b>71032</b>  | DC          | Composite brush, 1 piece  | for cleaning upper electrode of ONH-p furnace       | O             | O             | O     | -             | -              | -         | -          | -      | -       | -            | -         | -              | - |
| <b>71035</b>  | DC          | Cleaning brush / furnace brush, 1 piece                               | for cleaning sample inlet of ONH furnaces           | O             | O             | O     | -             | -              | -         | -          | -      | -       | -            | -         | -              | - |
| <b>71031</b>  | DC          | Metal brush, 1 piece  | for cleaning graphite tip and its holder            | O             | O             | O     | -             | O              | O         | -          | -      | -       | -            | -         | -              | - |
| <b>88400-0504</b>                                   | DC          | Cylinder brush, brass furnace   | for intensive cleaning of lower furnace             | O             | O             | O     | -             | -              | -         | -          | -      | -       | -            | -         | -              | - |
| <b>88400-0501</b>                                   | DC          | Micro brush, 1 piece  | for cleaning of ONH series furnace outlet tube      | O             | O             | O     | -             | -              | -         | -          | -      | -       | -            | -         | -              | - |



Boat rack for used quartz boats (46245)



Metal brush (71031)



Telescope mirror (88400-0500)

Order data

| Item Number | Description |
|-------------|-------------|
|-------------|-------------|

**Key**  
 ○ = Option available  
 - = Not available

Consumables for ELTRA CS,  
 CHS and special analyzers

Models

| ONH-p / ONH-2000 | ON-p / ON-900 | OH-p / OH-900 | H-500 | CS-i / CS-800 | CS-d / CS-2000 | C(H)S-580 | C(H)S-580A | CW-800 | CW-800M | SurfaceC-800 | TIC Modul | TGA Thermostep |
|------------------|---------------|---------------|-------|---------------|----------------|-----------|------------|--------|---------|--------------|-----------|----------------|
| ↓                | ↓             | ↓             | ↓     | ↓             | ↓              | ↓         | ↓          | ↓      | ↓       | ↓            | ↓         | ↓              |

Crucibles and lids for the combustion furnace

| Item Number | DC | Description  | ONH-p / ONH-2000 | ON-p / ON-900 | OH-p / OH-900 | H-500 | CS-i / CS-800 | CS-d / CS-2000 | C(H)S-580 | C(H)S-580A | CW-800 | CW-800M | SurfaceC-800 | TIC Modul | TGA Thermostep |
|-------------|----|--|------------------|---------------|---------------|-------|---------------|----------------|-----------|------------|--------|---------|--------------|-----------|----------------|
| 90149       | DC | Ceramic crucibles, premium, Ø 1", foil-wrapped, 1,000 pieces | -                | -             | -             | -     | ○             | ○              | -         | ○          | -      | -       | -            | -         | -              |
| 90148       | DC | Ceramic crucibles, premium, Ø 1", bagged, 1,000 pieces       | -                | -             | -             | -     | ○             | ○              | -         | ○          | -      | -       | -            | -         | -              |
| 88400-0176  | DC | Ceramic filtering crucibles, 100 pieces                      | -                | -             | -             | -     | ○             | ○              | -         | ○          | -      | -       | -            | -         | -              |
| 88400-0142  | DC | Ceramic filtering crucibles, small version, 100 pieces       | -                | -             | -             | -     | ○             | ○              | -         | ○          | -      | -       | -            | -         | -              |
| 88600-0014  | DC | Ceramic lids, 10 mm hole, 250 pieces                         | -                | -             | -             | -     | ○             | ○              | -         | ○          | -      | -       | -            | -         | -              |
| 88600-0017  | DC | Ceramic lids, 4 mm hole, 1000 pieces                         | -                | -             | -             | -     | ○             | ○              | -         | ○          | -      | -       | -            | -         | -              |
| 26063       | DC | Ceramic crucibles for TGA                                    | -                | -             | -             | -     | -             | -              | -         | -          | -      | -       | -            | -         | ○              |
| 26053       | DC | Ceramic lid for TGA  | -                | -             | -             | -     | -             | -              | -         | -          | -      | -       | -            | -         | ○              |

Boats for the resistance furnace

| Item Number | DC | Description   | ONH-p / ONH-2000 | ON-p / ON-900 | OH-p / OH-900 | H-500 | CS-i / CS-800 | CS-d / CS-2000 | C(H)S-580 | C(H)S-580A | CW-800 | CW-800M | SurfaceC-800 | TIC Modul | TGA Thermostep |
|-------------|----|---|------------------|---------------|---------------|-------|---------------|----------------|-----------|------------|--------|---------|--------------|-----------|----------------|
| 90153       | DC | Re-usable ceramic boats, premium, 58 x 22 x 14 mm, 500 pieces | -                | -             | -             | -     | -             | ○              | ○         | -          | -      | ○       | -            | -         | -              |
| 90160       | DC | Disposable porcelain boats, 86 x 13 x 10 mm, 1,000 pieces     | -                | -             | -             | -     | -             | ○              | ○         | -          | ○      | ○       | -            | -         | -              |
| 88600-0011  | DC | Re-usable ceramic boats, 95 x 13 x 10 mm, 500 pieces          | -                | -             | -             | -     | -             | ○              | ○         | -          | ○      | ○       | -            | -         | -              |
| 88400-0502  | DC | Re-usable inconel boat, 54 x 18 x 13.5 mm, 1 piece            | -                | -             | -             | -     | -             | ○              | ○         | -          | -      | ○       | -            | -         | -              |
| 88400-0503  | DC | Re-usable inconel boat, 54 x 18 x 9 mm, 1 piece               | -                | -             | -             | -     | -             | ○              | ○         | -          | -      | ○       | -            | -         | -              |
| 36120       | DC | Quartz boat, 75 x 16 x 7.5 mm, 1 piece                        | -                | -             | -             | -     | -             | -              | -         | -          | -      | ○       | ○            | -         | -              |
| 36121       | DC | Quartz boat, 74 x 22 x 10 mm, 1 piece                         | -                | -             | -             | -     | -             | -              | -         | -          | -      | ○       | ○            | -         | -              |
| 46160       | DC | Combustion boat SurfaceC-800                                  | -                | -             | -             | -     | -             | -              | -         | -          | -      | -       | ○            | -         | -              |

Tools

| Item Number | DC | Description  | ONH-p / ONH-2000 | ON-p / ON-900 | OH-p / OH-900 | H-500 | CS-i / CS-800 | CS-d / CS-2000 | C(H)S-580 | C(H)S-580A | CW-800 | CW-800M | SurfaceC-800 | TIC Modul | TGA Thermostep |
|-------------|----|--|------------------|---------------|---------------|-------|---------------|----------------|-----------|------------|--------|---------|--------------|-----------|----------------|
| 36216       | DC | Combustion boat insertion stick, 1 piece (not suitable for CS-d)               | -                | -             | -             | -     | -             | ○              | ○         | -          | -      | ○       | -            | -         | -              |
| 36217       | DC | Combustion boat removing stick, 380 mm, 1 piece (not suitable for CS-d)        | -                | -             | -             | -     | -             | ○              | ○         | -          | -      | ○       | -            | -         | -              |
| 36218       | DC | Combustion boat removing stick, 600 mm, 1 piece recommended for SurfaceC-800   | -                | -             | -             | -     | -             | -              | -         | -          | ○      | ○       | -            | -         | -              |
| 36216-2001  | DC | Combustion boat insertion stick, 1 piece (only for CS-d)                       | -                | -             | -             | -     | -             | ○              | -         | -          | -      | -       | -            | -         | -              |
| 36218-2001  | DC | Combustion boat removing stick, 1 piece (only for CS-d)                        | -                | -             | -             | -     | -             | ○              | -         | -          | -      | -       | -            | -         | -              |
| 88400-0499  | DC | Safety glasses, 1 piece protection when working with hot furnace               | -                | -             | -             | -     | -             | ○              | ○         | -          | -      | -       | -            | -         | -              |
| 88600-0009  | DC | Screen glass with edge guard, 1 piece protection when working with hot furnace | -                | -             | -             | -     | -             | ○              | ○         | -          | -      | -       | -            | -         | -              |



Ceramic lids (88600-0017)



Re-usable inconel boat (88400-0502)



Safety glasses (88400-0499)

## Order data

| Item Number | Description |
|-------------|-------------|
|-------------|-------------|

## Key

- o = Option available
- = Not available

## Consumables for ELTRA ONH analyzers

## Models

| ONH-p / ONH-2000 | ON-p / ON-900 | OH-p / OH-900 | H-500 | CS-i / CS-800 | CS-d / CS-2000 | C(H)S-580 | C(H)S-580A | CW-800 | CW-800M | SurfaceC-800 | TIC Modul | TGA Thermostep |
|------------------|---------------|---------------|-------|---------------|----------------|-----------|------------|--------|---------|--------------|-----------|----------------|
|------------------|---------------|---------------|-------|---------------|----------------|-----------|------------|--------|---------|--------------|-----------|----------------|

## Capsules, foils and fluxes for ONH analysis

| Item Number | DC | Description                                       | ONH-p / ONH-2000 | ON-p / ON-900 | OH-p / OH-900 | H-500 | CS-i / CS-800 | CS-d / CS-2000 | C(H)S-580 | C(H)S-580A | CW-800 | CW-800M | SurfaceC-800 | TIC Modul | TGA Thermostep |
|-------------|----|---|------------------|---------------|---------------|-------|---------------|----------------|-----------|------------|--------|---------|--------------|-----------|----------------|
| 90257       | DC | Nickel capsules, 3.2 x 7 mm, 100 pieces           | o                | o             | o             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |
| 90256       | DC | Nickel capsules, 4.5 x 10 mm, 250 pieces          | o                | o             | o             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |
| 88400-0066  | DC | Nickel capsules, pressed, 12.5 x 5 mm, 100 pieces | o                | o             | o             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |
| 90252       | DC | Tin capsules, 5 x 18 mm, 100 pieces               | o                | o             | o             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |
| 88400-0474  | DC | Tin foil, 36 x 36 mm, cup form, 200 pieces        | o                | o             | o             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |

## Baskets (required for oxygen and nitrogen determination in refractories)

| Item Number | DC | Description  | ONH-p / ONH-2000 | ON-p / ON-900 | OH-p / OH-900 | H-500 | CS-i / CS-800 | CS-d / CS-2000 | C(H)S-580 | C(H)S-580A | CW-800 | CW-800M | SurfaceC-800 | TIC Modul | TGA Thermostep |
|-------------|----|--|------------------|---------------|---------------|-------|---------------|----------------|-----------|------------|--------|---------|--------------|-----------|----------------|
| 90250       | DC | Nickel baskets, 100 pieces, 1 g each                           | o                | o             | o             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |
| 88600-0012  | DC | Nickel baskets, high purity (low oxygen), 100 pieces, 1 g each | o                | o             | o             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |

## Fluxes (required for some application)

| Item Number | DC | Description   | ONH-p / ONH-2000 | ON-p / ON-900 | OH-p / OH-900 | H-500 | CS-i / CS-800 | CS-d / CS-2000 | C(H)S-580 | C(H)S-580A | CW-800 | CW-800M | SurfaceC-800 | TIC Modul | TGA Thermostep |
|-------------|----|---|------------------|---------------|---------------|-------|---------------|----------------|-----------|------------|--------|---------|--------------|-----------|----------------|
| 90251       | DC | Tin pellets, 454 g (for determination of hydrogen in titanium)          | o                | o             | o             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |
| 90800       | DC | Graphite, 50 g (improves oxygen determination)                          | o                | o             | o             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |
| 90258       | DC | Nickel accelerator, 100 g (for analysis of high amount of refractories) | o                | o             | o             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |

## Crucibles

| Item Number | DC | Description  | ONH-p / ONH-2000 | ON-p / ON-900 | OH-p / OH-900 | H-500 | CS-i / CS-800 | CS-d / CS-2000 | C(H)S-580 | C(H)S-580A | CW-800 | CW-800M | SurfaceC-800 | TIC Modul | TGA Thermostep |
|-------------|----|--|------------------|---------------|---------------|-------|---------------|----------------|-----------|------------|--------|---------|--------------|-----------|----------------|
| 90190       | DC | Graphite crucibles, 400 pieces (for copper, brass and steel analysis)  | o                | o             | o             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |
| 90180       | DC | Inner graphite crucibles, 100 pieces (requires outer graphite crucible 90185)  | o                | o             | o             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |
| 90185       | DC | Outer graphite crucibles, 50 pieces  | o                | o             | o             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |
| 88400-0491  | DC | HT crucibles, 1,000 pieces, recommended for refractories (special application settings and 31360-3002 graphite tip required) | o                | o             | o             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |



Nickel baskets (90250)



Tin capsules (90252)



Graphite (90800)



Tin pellets (90251)



Nickel capsules (90256)



Tin foil (88400-0474)



Order data

| Item Number | Description |
|-------------|-------------|
|-------------|-------------|

**Key**  
 o = Option available  
 - = Not available

Calibration material  
for induction furnaces

Models

| ONH-p / ONH-2000 | ON-p / ON-900 | OH-p / OH-900 | H-500 | CS-i / CS-800 | CS-d / CS-2000 | C(H)S-580 | C(H)S-580A | CW-800 | CW-800M | SurfaceC-800 | TIC Modul | TGA Thermostep |
|------------------|---------------|---------------|-------|---------------|----------------|-----------|------------|--------|---------|--------------|-----------|----------------|
|------------------|---------------|---------------|-------|---------------|----------------|-----------|------------|--------|---------|--------------|-----------|----------------|

Steel and cast iron

| Item Number | DC | Description      | Composition   | ONH-p / ONH-2000 | ON-p / ON-900 | OH-p / OH-900 | H-500 | CS-i / CS-800 | CS-d / CS-2000 | C(H)S-580 | C(H)S-580A | CW-800 | CW-800M | SurfaceC-800 | TIC Modul | TGA Thermostep |
|-------------|----|------------------|---------------|------------------|---------------|---------------|-------|---------------|----------------|-----------|------------|--------|---------|--------------|-----------|----------------|
| 92400-3020  | DC | Steel, 150 g     | 0.001-0.01% C | -                | -             | -             | -     | o             | o              | -         | -          | -      | -       | -            | -         | -              |
| 92400-3030  | DC | Steel, 150 g     | 0.01-0.05% C  | -                | -             | -             | -     | o             | o              | -         | -          | -      | -       | -            | -         | -              |
| 92400-3040  | DC | Steel, 150 g     | 0.05-0.1% C   | -                | -             | -             | -     | o             | o              | -         | -          | -      | -       | -            | -         | -              |
| 92400-3050  | DC | Steel, 150 g     | 0.1-0.2% C    | -                | -             | -             | -     | o             | o              | -         | -          | -      | -       | -            | -         | -              |
| 92400-3060  | DC | Steel, 150 g     | 0.2-0.5% C    | -                | -             | -             | -     | o             | o              | -         | -          | -      | -       | -            | -         | -              |
| 92400-3061  | DC | Steel, 150 g     | 0.2-0.5% C    | -                | -             | -             | -     | o             | o              | -         | -          | -      | -       | -            | -         | -              |
| 92400-3062  | DC | Steel, 150 g     | 0.2-0.5% C    | -                | -             | -             | -     | o             | o              | -         | -          | -      | -       | -            | -         | -              |
| 92400-3070  | DC | Steel, 150 g     | 0.5-1.0% C    | -                | -             | -             | -     | o             | o              | -         | -          | -      | -       | -            | -         | -              |
| 92400-3090  | DC | Cast iron, 150 g | 2.0-3.0% C    | -                | -             | -             | -     | o             | o              | -         | -          | -      | -       | -            | -         | -              |
| 92400-3091  | DC | Cast iron, 150 g | 2.0-3.0% C    | -                | -             | -             | -     | o             | o              | -         | -          | -      | -       | -            | -         | -              |
| 92400-3100  | DC | Cast iron, 150 g | 3.0-5.0% C    | -                | -             | -             | -     | o             | o              | -         | -          | -      | -       | -            | -         | -              |
| 92400-3101  | DC | Cast iron, 150 g | 3.0-5.0% C    | -                | -             | -             | -     | o             | o              | -         | -          | -      | -       | -            | -         | -              |
| 92400-3102  | DC | Cast iron, 150 g | 3.0-5.0% C    | -                | -             | -             | -     | o             | o              | -         | -          | -      | -       | -            | -         | -              |
| 92400-4005  | DC | Steel, 150 g     | ~0.05% S      | -                | -             | -             | -     | o             | o              | -         | -          | -      | -       | -            | -         | -              |
| 92400-4010  | DC | Steel, 150 g     | ~0.1% S       | -                | -             | -             | -     | o             | o              | -         | -          | -      | -       | -            | -         | -              |
| 92400-4011  | DC | Steel, 150 g     | ~0.1% S       | -                | -             | -             | -     | o             | o              | -         | -          | -      | -       | -            | -         | -              |
| 92400-4020  | DC | Steel, 150 g     | ~0.3% S       | -                | -             | -             | -     | o             | o              | -         | -          | -      | -       | -            | -         | -              |

Steel pins; nominal weight 1 g

| Item Number | DC | Description     | Composition | ONH-p / ONH-2000 | ON-p / ON-900 | OH-p / OH-900 | H-500 | CS-i / CS-800 | CS-d / CS-2000 | C(H)S-580 | C(H)S-580A | CW-800 | CW-800M | SurfaceC-800 | TIC Modul | TGA Thermostep |
|-------------|----|-----------------|-------------|------------------|---------------|---------------|-------|---------------|----------------|-----------|------------|--------|---------|--------------|-----------|----------------|
| 92500-1001  | DC | C/S pins, 454 g | ~0.2% C     | -                | -             | -             | -     | o             | o              | -         | -          | -      | -       | -            | -         | -              |
| 92500-1002  | DC | C/S pins, 454 g | ~0.4% C     | -                | -             | -             | -     | o             | o              | -         | -          | -      | -       | -            | -         | -              |
| 92500-1003  | DC | C/S pins, 454 g | ~0.8% C     | -                | -             | -             | -     | o             | o              | -         | -          | -      | -       | -            | -         | -              |
| 92500-2001  | DC | C/S pins, 454 g | ~0.2% S     | -                | -             | -             | -     | o             | o              | -         | -          | -      | -       | -            | -         | -              |

Copper pins

| Item Number | DC | Description | Composition | ONH-p / ONH-2000 | ON-p / ON-900 | OH-p / OH-900 | H-500 | CS-i / CS-800 | CS-d / CS-2000 | C(H)S-580 | C(H)S-580A | CW-800 | CW-800M | SurfaceC-800 | TIC Modul | TGA Thermostep |
|-------------|----|-------------|-------------|------------------|---------------|---------------|-------|---------------|----------------|-----------|------------|--------|---------|--------------|-----------|----------------|
| 91000-1001  | DC | Copper pins | ~10 ppm S   | -                | -             | -             | -     | o             | o              | -         | -          | -      | -       | -            | -         | -              |

Tungsten carbide

| Item Number | DC | Description      | Composition | ONH-p / ONH-2000 | ON-p / ON-900 | OH-p / OH-900 | H-500 | CS-i / CS-800 | CS-d / CS-2000 | C(H)S-580 | C(H)S-580A | CW-800 | CW-800M | SurfaceC-800 | TIC Modul | TGA Thermostep |
|-------------|----|------------------|-------------|------------------|---------------|---------------|-------|---------------|----------------|-----------|------------|--------|---------|--------------|-----------|----------------|
| 90816-3001  | DC | Tungsten carbide | ~6.1% C     | -                | -             | -             | -     | o             | o              | -         | -          | -      | -       | -            | -         | -              |

Other calibration material suitable for resistance and induction furnace

| Item Number | DC | Description              | Composition    | ONH-p / ONH-2000 | ON-p / ON-900 | OH-p / OH-900 | H-500 | CS-i / CS-800 | CS-d / CS-2000 | C(H)S-580 | C(H)S-580A | CW-800 | CW-800M | SurfaceC-800 | TIC Modul | TGA Thermostep |
|-------------|----|--------------------------|----------------|------------------|---------------|---------------|-------|---------------|----------------|-----------|------------|--------|---------|--------------|-----------|----------------|
| 92811-3020  | DC | Cement, 100 g            | 2.0-4.0% SO3   | -                | -             | -             | -     | o             | o              | o         | o          | -      | -       | -            | -         | -              |
| 90812-3001  | DC | Limestone, 25 g          | 0.04% S; 12% C | -                | -             | -             | -     | o             | o              | o         | o          | -      | -       | -            | -         | -              |
| 90812-3002  | DC | Limestone, 25 g          | 0.4% S; 12% C  | -                | -             | -             | -     | o             | o              | o         | o          | -      | -       | -            | -         | -              |
| 90812-3003  | DC | Limestone, 25 g          | < 5% C         | -                | -             | -             | -     | o             | o              | o         | o          | -      | o       | o            | -         | -              |
| 90812-3004  | DC | Limestone, 25 g          | 5-10% C        | -                | -             | -             | -     | o             | o              | o         | o          | -      | -       | -            | -         | -              |
| 90817-3001  | DC | Soil, 25 g               | > 2% C, S      | -                | -             | -             | -     | o             | o              | o         | o          | -      | -       | -            | -         | -              |
| 90817-3002  | DC | Soil, 25 g               | < 1% C, S      | -                | -             | -             | -     | o             | o              | o         | o          | -      | -       | o            | -         | -              |
| 90817-3003  | DC | Soil, 25 g               | < 2% C, S      | -                | -             | -             | -     | o             | o              | o         | o          | -      | -       | -            | -         | -              |
| 90817-3004  | DC | Soil, 25 g               | < 2% C, < 1% S | -                | -             | -             | -     | o             | o              | o         | o          | -      | -       | -            | -         | -              |
| 91900-1001  | DC | Ore, 30 g                | ~1.4% S        | -                | -             | -             | -     | o             | o              | o         | o          | -      | -       | -            | -         | -              |
| 91900-1002  | DC | Ore, 30 g                | ~4.2% S        | -                | -             | -             | -     | o             | o              | o         | o          | -      | -       | -            | -         | -              |
| 91900-1003  | DC | Ore, 30 g                | ~3% S          | -                | -             | -             | -     | o             | o              | o         | o          | -      | -       | -            | -         | -              |
| 91900-2001  | DC | Zink sulfite, 50 g       | 32% S          | -                | -             | -             | -     | o             | o              | o         | o          | -      | -       | -            | -         | -              |
| 90810       | DC | Calcium carbonate, 100 g |                | -                | -             | -             | -     | o             | o              | o         | o          | o      | o       | -            | o         | o              |
| 90821       | DC | Barium sulphate, 50 g    |                | -                | -             | -             | -     | o             | o              | o         | o          | -      | -       | -            | -         | -              |

## Order data

| Item Number  | Description |                       | Models           |               |               |       |               |                |           |            |        |         |              |           |                |
|--|-------------|-----------------------|------------------|---------------|---------------|-------|---------------|----------------|-----------|------------|--------|---------|--------------|-----------|----------------|
|  |             |                       | ONH-p / ONH-2000 | ON-p / ON-900 | OH-p / OH-900 | H-500 | CS-i / CS-800 | CS-d / CS-2000 | C(H)S-580 | C(H)S-580A | CW-800 | CW-800M | SurfaceC-800 | TIC Modul | TGA Thermostep |
| <b>Key</b>   |             |                       |                  |               |               |       |               |                |           |            |        |         |              |           |                |
| o = Option available   |             |                       |                  |               |               |       |               |                |           |            |        |         |              |           |                |
| - = Not available  |             |                       |                  |               |               |       |               |                |           |            |        |         |              |           |                |
| <b>Other calibration material only suitable for resistance furnace</b> |             |                       |                  |               |               |       |               |                |           |            |        |         |              |           |                |
| 90710-3010   | DC          | EDTA, 50 g            | -                | -             | -             | -     | -             | o              | o         | o          | -      | -       | -            | -         | -              |
| 90710-3020   | DC          | Acetanilid, 10 g      | -                | -             | -             | -     | -             | o              | o         | o          | -      | -       | -            | -         | -              |
| 90710-3030   | DC          | Sucrose, 50 g         | -                | -             | -             | -     | -             | o              | o         | o          | -      | -       | -            | -         | -              |
| 90824  | DC          | Sulfanilic acid, 50 g | -                | -             | -             | -     | -             | o              | o         | o          | -      | -       | -            | -         | -              |
| 90700-1040   | DC          | Calciumoxalate        | -                | -             | -             | -     | -             | -              | -         | -          | o      | o       | -            | -         | o              |
| <b>Coal, only sulfur certified</b>                                     |             |                       |                  |               |               |       |               |                |           |            |        |         |              |           |                |
| 92511-3005   | DC          | Coal, 50 g            | <0.1% S          | -             | -             | -     | -             | -              | o         | o          | o      | -       | -            | -         | -              |
| 92511-3010   | DC          | Coal, 50 g            | 0.1-0.5% S       | -             | -             | -     | -             | -              | o         | o          | o      | -       | -            | -         | -              |
| 92511-3020   | DC          | Coal, 50 g            | 0.5-1.0% S       | -             | -             | -     | -             | -              | o         | o          | o      | -       | -            | -         | -              |
| 92511-3030   | DC          | Coal, 50 g            | 1.0-1.5% S       | -             | -             | -     | -             | -              | o         | o          | o      | -       | -            | -         | -              |
| 92511-3040   | DC          | Coal, 50 g            | 1.5-2.0% S       | -             | -             | -     | -             | -              | o         | o          | o      | -       | -            | -         | -              |
| 92511-3050   | DC          | Coal, 50 g            | 2.0-3.0% S       | -             | -             | -     | -             | -              | o         | o          | o      | -       | -            | -         | -              |
| 92511-3060   | DC          | Coal, 50 g            | 3.0-4.0% S       | -             | -             | -     | -             | -              | o         | o          | o      | -       | -            | -         | -              |
| 92511-3070   | DC          | Coal, 50 g            | 4.0-5.0% S       | -             | -             | -     | -             | -              | o         | o          | o      | -       | -            | -         | -              |
| 92511-3080   | DC          | Coal, 50 g            | >5.0% S          | -             | -             | -     | -             | -              | o         | o          | o      | -       | -            | -         | -              |
| <b>Coal, premium, C/H/N/S, ash, volatile content, certified</b>        |             |                       |                  |               |               |       |               |                |           |            |        |         |              |           |                |
| 92550-3010   | DC          | Coal, premium, 50 g   | < 1% S           | -             | -             | -     | -             | -              | o         | o          | o      | -       | -            | -         | o              |
| 92550-3020   | DC          | Coal, premium, 50 g   | ~1% S            | -             | -             | -     | -             | -              | o         | o          | o      | -       | -            | -         | o              |
| 92550-3040   | DC          | Coal, premium, 50 g   | 1.0-3.0% S       | -             | -             | -     | -             | -              | o         | o          | o      | -       | -            | -         | o              |
| 92550-3060   | DC          | Coal, premium, 50 g   | > 3.0% S         | -             | -             | -     | -             | -              | o         | o          | o      | -       | -            | -         | o              |
| <b>Coke, premium, C/H/N/S, ash, volatile content, certified</b>        |             |                       |                  |               |               |       |               |                |           |            |        |         |              |           |                |
| 92560-3010   | DC          | Coke, premium, 50 g   |                  | -             | -             | -     | -             | -              | o         | o          | o      | -       | -            | -         | o              |
| <b>Pet coke, premium, C/H/N/S, ash, volatile content certified</b>     |             |                       |                  |               |               |       |               |                |           |            |        |         |              |           |                |
| 92570-3020   | DC          | Pet coke, 50 g        | < 1% S           | -             | -             | -     | -             | -              | o         | o          | o      | -       | -            | -         | o              |
| 92570-3040   | DC          | Pet coke, 50 g        | > 1% S           | -             | -             | -     | -             | -              | o         | o          | o      | -       | -            | -         | o              |
| <b>Liquid calibration material</b>                                     |             |                       |                  |               |               |       |               |                |           |            |        |         |              |           |                |
| 92530  | DC          | Oil, 100 ml           |                  | -             | -             | -     | -             | -              | o         | o          | o      | -       | -            | -         | -              |
| 90860  | DC          | Glycerine, 100 g      |                  | -             | -             | -     | -             | -              | o         | o          | o      | -       | -            | -         | -              |



All prices ex works, excluding packaging and insurance · ELTRA price list 99000-2020/E · valid as of January 1, 2020

ELTRA GmbH · Retsch-Allee 1-5 · 42781 Haan · Germany · Phone: +49 (0) 21 04 / 23 33-400 · Fax: +49 (0) 21 04 / 23 33-499 · E-Mail: info@eltra.com · www.eltra.com

Order data

| Item Number | Description |
|-------------|-------------|
|-------------|-------------|

**Key**  
 O = Option available  
 - = Not available

Calibration materials

Calibration materials may show slight variations depending on the current lot.  
 To see the current certification please visit [www.ELTRA.com](http://www.ELTRA.com).

Models

| ONH-p / ONH-2000 | ON-p / ON-900 | OH-p / OH-900 | H-500 | CS-i / CS-800 | CS-d / CS-2000 | C(H)S-580 | C(H)S-580A | CW-800 | CW-800M | SurfaceC-800 | TIC Modul | TGA Thermostep |
|------------------|---------------|---------------|-------|---------------|----------------|-----------|------------|--------|---------|--------------|-----------|----------------|
|------------------|---------------|---------------|-------|---------------|----------------|-----------|------------|--------|---------|--------------|-----------|----------------|

Oxygen and nitrogen in steel, pins

| Item Number | DC | Description               | Range         | ONH-p / ONH-2000 | ON-p / ON-900 | OH-p / OH-900 | H-500 | CS-i / CS-800 | CS-d / CS-2000 | C(H)S-580 | C(H)S-580A | CW-800 | CW-800M | SurfaceC-800 | TIC Modul | TGA Thermostep |
|-------------|----|---------------------------|---------------|------------------|---------------|---------------|-------|---------------|----------------|-----------|------------|--------|---------|--------------|-----------|----------------|
| 91100-1001  | DC | Steel, 100 pins, 1 g each | 25-40 ppm N   | O                | O             | O             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |
| 91100-1002  | DC | Steel, 100 pins, 1 g each | 30-70 ppm N   | O                | O             | O             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |
| 91100-1003  | DC | Steel, 100 pins, 1 g each | 150-250 ppm N | O                | O             | O             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |
| 91100-1004  | DC | Steel, 100 pins, 1 g each | 50-80 ppm N   | O                | O             | O             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |
| 91100-1005  | DC | Steel, 100 pins, 1 g each | 300-600 ppm N | O                | O             | O             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |
| 91100-1007  | DC | Steel, 100 pins, 1 g each | 70-130 ppm N  | O                | O             | O             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |
| 91100-1010  | DC | Steel, 100 pins, 1 g each | > 1,000 ppm N | O                | O             | O             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |
| 91100-1011  | DC | Steel, 100 pins, 1 g each | 600-100 ppm N | O                | O             | O             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |

Hydrogen in steel, pins

| Item Number | DC | Description               | Range       | ONH-p / ONH-2000 | ON-p / ON-900 | OH-p / OH-900 | H-500 | CS-i / CS-800 | CS-d / CS-2000 | C(H)S-580 | C(H)S-580A | CW-800 | CW-800M | SurfaceC-800 | TIC Modul | TGA Thermostep |
|-------------|----|---------------------------|-------------|------------------|---------------|---------------|-------|---------------|----------------|-----------|------------|--------|---------|--------------|-----------|----------------|
| 91400-1001  | DC | Steel, 100 pins, 1 g each | 0.5-1 ppm H | O                | -             | O             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |
| 91400-1002  | DC | Steel, 100 pins, 1 g each | 1.5-4 ppm H | O                | -             | O             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |
| 91400-1003  | DC | Steel, 100 pins, 1 g each | >5 ppm H    | O                | -             | O             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |

Hydrogen in steel, balls

| Item Number | DC | Description                             | Range     | ONH-p / ONH-2000 | ON-p / ON-900 | OH-p / OH-900 | H-500 | CS-i / CS-800 | CS-d / CS-2000 | C(H)S-580 | C(H)S-580A | CW-800 | CW-800M | SurfaceC-800 | TIC Modul | TGA Thermostep |
|-------------|----|---|-----------|------------------|---------------|---------------|-------|---------------|----------------|-----------|------------|--------|---------|--------------|-----------|----------------|
| 91110       | DC | Steel, 100 balls, gold plated, 1 g each | 1.9 ppm H | -                | -             | -             | O     | -             | -              | -         | -          | -      | -       | -            | -         | -              |

Oxygen and sulfur in copper, pins

| Item Number | DC | Description                | Range                   | ONH-p / ONH-2000 | ON-p / ON-900 | OH-p / OH-900 | H-500 | CS-i / CS-800 | CS-d / CS-2000 | C(H)S-580 | C(H)S-580A | CW-800 | CW-800M | SurfaceC-800 | TIC Modul | TGA Thermostep |
|-------------|----|----------------------------|-------------------------|------------------|---------------|---------------|-------|---------------|----------------|-----------|------------|--------|---------|--------------|-----------|----------------|
| 91000-1001  | DC | Copper, 100 pins, 1 g each | ~500 ppm O; 10-20 ppm S | O                | O             | O             | -     | O             | O              | -         | -          | -      | -       | -            | -         | -              |
| 91000-1002  | DC | Copper, 100 pins, 1 g each | ~300 ppm O; 10-20 ppm S | O                | O             | O             | -     | O             | O              | -         | -          | -      | -       | -            | -         | -              |
| 91000-1004  | DC | Copper, 100 pins, 1 g each | ~10 ppm O; 10-20 ppm S  | O                | O             | O             | -     | O             | O              | -         | -          | -      | -       | -            | -         | -              |

Oxygen in copper, pins

| Item Number    | DC | Description                | Range      | ONH-p / ONH-2000 | ON-p / ON-900 | OH-p / OH-900 | H-500 | CS-i / CS-800 | CS-d / CS-2000 | C(H)S-580 | C(H)S-580A | CW-800 | CW-800M | SurfaceC-800 | TIC Modul | TGA Thermostep |
|----------------|----|----------------------------|------------|------------------|---------------|---------------|-------|---------------|----------------|-----------|------------|--------|---------|--------------|-----------|----------------|
| 91000 (LOT 48) | DC | Copper, 100 pins, 1 g each | ~180 ppm O | O                | O             | O             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |
| 91000 (LOT 52) | DC | Copper, 100 pins, 1 g each | ~800 ppm O | O                | O             | O             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |
| 91000 (LOT 58) | DC | Copper, 100 pins, 1 g each | ~180 ppm O | O                | O             | O             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |
| 91000 (LOT 59) | DC | Copper, 100 pins, 1 g each | ~600 ppm O | O                | O             | O             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |

Oxygen, nitrogen and hydrogen in titanium, pins

| Item Number | DC | Description                    | Range         | ONH-p / ONH-2000 | ON-p / ON-900 | OH-p / OH-900 | H-500 | CS-i / CS-800 | CS-d / CS-2000 | C(H)S-580 | C(H)S-580A | CW-800 | CW-800M | SurfaceC-800 | TIC Modul | TGA Thermostep |
|-------------|----|--------------------------------|---------------|------------------|---------------|---------------|-------|---------------|----------------|-----------|------------|--------|---------|--------------|-----------|----------------|
| 91205-1001  | DC | Titanium, 100 pins, 0.1 g each | 10-35 ppm H   | O                | O             | O             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |
| 91205-1002  | DC | Titanium, 100 pins, 0.1 g each | 20-70 ppm H   | O                | O             | O             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |
| 91205-1003  | DC | Titanium, 100 pins, 0.1 g each | 30-90 ppm H   | O                | O             | O             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |
| 91205-1004  | DC | Titanium, 100 pins, 0.1 g each | 60-120 ppm H  | O                | O             | O             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |
| 91205-1005  | DC | Titanium, 100 pins, 0.1 g each | 150-250 ppm H | O                | O             | O             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |
| 91205-1006  | DC | Titanium, 100 pins, 0.1 g each | 120-150 ppm H | O                | O             | O             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |

Hydrogen and carbon in titanium, pins (250 mg)

| Item Number | DC | Description                     | Range        | ONH-p / ONH-2000 | ON-p / ON-900 | OH-p / OH-900 | H-500 | CS-i / CS-800 | CS-d / CS-2000 | C(H)S-580 | C(H)S-580A | CW-800 | CW-800M | SurfaceC-800 | TIC Modul | TGA Thermostep |
|-------------|----|---------------------------------|--------------|------------------|---------------|---------------|-------|---------------|----------------|-----------|------------|--------|---------|--------------|-----------|----------------|
| 91305-1001  | DC | Titanium, 100 pins, 0.25 g each | < 50 ppm H   | O                | O             | O             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |
| 91305-1002  | DC | Titanium, 100 pins, 0.25 g each | 50-100 ppm H | O                | O             | O             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |
| 91305-1003  | DC | Titanium, 100 pins, 0.25 g each | > 100 ppm H  | O                | O             | O             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |

Iron powder

| Item Number | DC | Description | Range              | ONH-p / ONH-2000 | ON-p / ON-900 | OH-p / OH-900 | H-500 | CS-i / CS-800 | CS-d / CS-2000 | C(H)S-580 | C(H)S-580A | CW-800 | CW-800M | SurfaceC-800 | TIC Modul | TGA Thermostep |
|-------------|----|-------------|--------------------|------------------|---------------|---------------|-------|---------------|----------------|-----------|------------|--------|---------|--------------|-----------|----------------|
| 91500-1001  | DC | Iron powder | ~1% O <sub>2</sub> | O                | O             | O             | -     | -             | -              | -         | -          | -      | -       | -            | -         | -              |

CONSUMABLES







# Eltra GmbH, Germany, General Terms and Conditions of Business and Delivery

## 1. General remarks

- 1.1 Deliveries and services are performed exclusively on the basis of the following General Terms and Conditions of Delivery. They form a component of all contracts entered into and also apply to all future business relationships, even if they are not expressly agreed again.
- 1.2 The Customer acknowledges these General Terms and Conditions when it places an order, and no later than upon acceptance of the delivery or service.
- 1.3 Any contrary terms and conditions or divergent counter-confirmations from the Customer will have no binding effect on us, even if we do not expressly object to them. They require our express written acknowledgement to take legal effect.
- 1.4 Any addenda, amendments or ancillary agreements require our written confirmation to take legal effect. The same applies to the revocation of the written form requirement.

## 2. Offer and conclusion of contract

- 2.1 Catalogues, promotional brochures, price lists, cost estimates and offers are subject to confirmation and non-binding. All documents in this respect, such as drawings, typical analyses, dimensional data etc. are to be treated as approximate unless expressly designated as binding. We reserve our right of ownership and copyright to catalogues, drawings, cost estimates and other documents; and they may not be made available to third parties.
- 2.2 The Customer is liable for the correctness and completeness of specified dimensions and Customer samples as well as the correctness of documents to be provided by it, which include drawings, instructions, samples and the like as well as other information that affects the suitability of the items ordered for the intended application. The Customer is further liable for any infringement of third-party patent rights or intellectual property rights arising from the use of these documents. In that respect the Customer will indemnify us against any liability claims brought by third parties. We are not obliged to check whether the execution of any documents provided to us in this capacity infringes any third-party rights.
- 2.3 Material samples or Customer samples are to be delivered to us by the Customer free of charge. We may destroy any material samples submitted unless an express request for their return is made at the time of their delivery or within four weeks of us receiving them. The party submitting the material samples is liable for all risks associated with their transportation, storage and processing. This applies in particular to any damage that the material sample causes itself or in combination with any substances with which it comes into contact (toxic, corrosive, explosive materials), unless liability under clause 10.1 applies. We will invoice the analysis of material samples on the basis of the effective applicable hourly rates. If the analysis leads to a sale, the analysis costs will be offset against the purchase price.
- 2.4 The contract will only come into force when we provide written confirmation of the order and in accordance with the content of this confirmation, or upon acceptance of the delivery by the Customer. If no written confirmation is made, our delivery notes or invoices will additionally serve as order confirmations.
- 2.5 We reserve the right to make technical modifications to the subject matter of the contract during the delivery period, including after issue of the order confirmation, provided this is reasonable for the Customer balanced against our interests in the modification. The same applies to standard industry variations in weights and measures.
- 2.6 Spoken promises by and arrangements with our employees shall only bind us to the extent that these have been confirmed by us.

## 3. Deliveries

- 3.1 The delivery times set out in the order confirmations are non-binding, approximate information. They are only binding if we have expressly designated them as binding.
- 3.2 The delivery period commences with the date of the written order confirmation; if, at this time, there are any outstanding issues requiring clarification, the delivery period only commences after all such issues have been clarified. If advance payments have been agreed, the delivery period does not start until receipt of the first payment.
- 3.3 The delivery period will be deemed to have been complied with if the item to be delivered has left our plant or readiness for dispatch has been communicated before or on the date of expiry of the agreed delivery period.
- 3.4 In justified exceptional cases, and in particular for operational reasons, part deliveries and part services may be performed subject to advance notice. These will be invoiced separately.
- 3.5 We will not be liable for any delays to deliveries and services due to force majeure or other events over which we have no influence and for which evidence that they affect the completion or delivery of the subject matter of the delivery can be adduced – these include strike, lock-out, official directives, material shortages, non-availability or non-deliverability of goods etc. – including such circumstances affecting our own suppliers, even where binding periods and dates have been agreed and also during any period of default. We will notify the Customer of the commencement and termination of such hindrances without undue delay. In the event of temporary impairments, we are entitled to postpone the deliveries or services for the duration of the hindrance plus a reasonable lead time. Should performance become permanently impossible, we have the right to withdraw from unfulfilled part of the contract in full or part. The Customer may demand a declaration from us as to whether we intend to withdraw from the contract or deliver within a reasonable period. If we do not provide such a declaration and the Customer feels that it is unreasonable to expect it to accept delivery due to the delay, the Customer may withdraw from the contract.
- 3.6 The Customer bears sole responsibility for the suitability of the installation location for the supplied goods, for procurement of all necessary permits and for compliance with all planning, building and company regulations as well as for the preparation of the installation location, including the erection of any necessary foundations and the performance of all preliminary work necessary for the delivery and assembly or installation of the goods. The Customer also bears sole responsibility for the availability of the installation location with the necessary lifting and installation tools.
- 3.7 Our performance is subject to correct and timely delivery to us by our suppliers at all times. This reservation regarding correct and timely delivery by our suppliers is subject to the proviso that we entered into a corresponding covering transaction in good time and/or we are not responsible for the delayed delivery by our suppliers.
- 3.8 If we are responsible for not meeting agreed binding deadlines or dates, or we are in default of delivery/service, the Customer is entitled to withdraw from the contract after the expiry of an appropriate grace period; any further obligation to pay compensation is governed under clause 10 of these General Terms and Conditions.
- 3.9 If the Customer is in default in acceptance, we are entitled to demand compensation for non-performance in the amount of 15% of the agreed order value, without prejudice to the option to prove a greater loss. This is subject to an appropriate grace period being set along with a notice of potential rejection and subsequent withdrawal from the contract. For its part, the Customer reserves the right to provide evidence that no loss was sustained, or that the loss was substantially lower. In the case of Customer-specific products and/or systems, the loss is in principle the contract value less any advance payments made. The option to provide evidence of a higher or lower loss is reserved.

## 4. Shipping and transfer of risk

- 4.1 The place of performance for delivery is the location of our respective dispatching plant (INCO terms as amended from time to time: FCA dispatching plant).
- 4.2 Shipping is always performed at the Customer's own risk, including where partial shipments are made or we are rendering other services such as payment of shipping costs or carriage.
- 4.3 In the absence of any specific instructions, packaging and the selection of the transport route and means of transport is at our discretion. If the goods are accepted by the rail company, postal service, freight carrier or other transport company with no objections, this serves as a confirmation that the packaging is in a flawless condition on dispatch and excludes any liability on our part

for any damage or loss incurred en route due to improper packaging or loading, unless we are subject to strict liability for intentional misconduct or gross negligence.

- 4.4 The risk of accidental destruction or accidental deterioration of the goods passes to the Customer no later than at the point of handover of the goods to the haulier, the railways or other freight carrier, and no later than on dispatch from our warehouse or, in the case of direct delivery, on dispatch from our dispatching plant – e.g. also for CPT and CIP transactions. If the goods are to be collected by the Customer, the risk passes to the Customer on issue of the notification informing the Customer that the goods are ready for collection.
- 4.5 Any goods accepted prior to dispatch are deemed delivered pursuant to the agreed terms.
- 4.6 If dispatch or acceptance is delayed at the Customer's request or for reasons for which it is at fault, the risk of accidental destruction or accidental deterioration passes to the Customer on the date when we communicate the first and initial notification of readiness for dispatch or notification of acceptance in writing or verbally. In this case we are entitled to charge storage costs of 1.0% of the invoice amount for each month of the delivery delay, starting one month after notification of readiness for dispatch. The Customer reserves the right to furnish proof that no costs were sustained, or that the costs were substantially lower.
- 4.7 In the event of a delay in acceptance by the Customer, we may assert our right under clause 3.9 or freely dispose of the item or items for delivery and supply an equivalent item or items at the contract terms instead
- 4.8 We are entitled to insure the transport risk and invoice these costs to the Customer unless the Customer instructs otherwise in writing.

## 5. Prices and payment terms

- 5.1 Prices are quoted on a strictly net basis ex works or ex warehouse – also net of the costs of packaging, insurance, export/import or other supplementary costs – and exclusive of VAT at the applicable rate.
  - 5.2 If the conclusion of the contract and the date of delivery are more than four months apart, we may invoice the prices applicable on the date of delivery, unless otherwise agreed. If this is more than a minimal price increase, the Customer may withdraw from the contract.
  - 5.3 Increase of wages, procurement prices, freight costs, taxes, charges or other costs that result in price increases between the conclusion of the contract and delivery, or the emergence of equivalent new, unforeseen costs, entitle us to adjust the purchase price accordingly to the extent permissible by law.
  - 5.4 After conclusion of the contract we are entitled to request a deposit of a reasonable amount. In the case of Customer-specific systems/apparatus, this will be at least 50% of the contract value.
  - 5.5 In the absence of any other express agreement, payment will fall due on receipt of the invoice. Payments are to be made strictly net no later than 30 days after the invoice date. For Customer-specific systems/apparatus at least 50% of the order value will fall due with the request for a deposit. The rest will be invoiced on issue of the notification of readiness for delivery and is payable immediately.
  - 5.6 In the case of default we are entitled to charge interest at the level of interest for commercial loans calculated by our company bank, and no less than interest of 5 percentage points above the base rate applicable on the day on which the event of default commenced (EURIBOR). The Customer reserves the right to provide evidence that no loss was sustained, or that the loss was substantially lower. We reserve the right to assert further claims for damages resulting from delayed payment.
  - 5.7 All of our receivables are payable immediately including where bills of exchange or cheques have been presented, if the terms of payment are breached without justification or we become aware of a substantial deterioration in the Customer's asset position after the contract is concluded. We are entitled to perform any deliveries and services outstanding at that point only against advance payment(s) or security deposit(s) or to reduce or cancel any assured commercial loans. If no advance payment(s) or security deposit(s) have been made on expiry of a reasonable grace period, we are entitled to withdraw fully or partly from the contract. In such a case we expressly reserve the right to assert claims for any expenditure incurred unnecessarily, loss of profits and other losses.
  - 5.8 The Customer is only entitled to assert a right of set-off or retention, including in claims for defects or counterclaims, if the counterclaims are undisputed or established at law.
- ### 6. Commissioning Customer-specific systems/apparatus
- 6.1 Compliance with the agreed service features is always inspected at the place of manufacture.
  - 6.2 If our services include assembly and commissioning, the Customer is required to prepare all installations, facilities and/or other factors necessary for the assembly of the system and its proper commissioning in full and in good time unless these preparatory tasks are included in our scope of services under an express written agreement. In this respect the duties set out at clause 3.6 also apply.
  - 6.3 The provision at 6.2 notwithstanding, the Customer will be liable for the following during assembly and commissioning:
    - a) that our employees can commence their work as soon after their arrival as possible and can perform their tasks expeditiously during regular working hours and, if we deem such to be necessary, also outside regular working hours;
    - b) all statutory stipulations and safety regulations are complied with and the necessary facilities for the performance of the installation work are available;
    - c) the access routes to the installation location are suitable for deliveries to be performed;
    - d) the planned location for the assembly and operation of the system is suitable;
    - e) the necessary lockable storage facilities for material, tools and other accessories are available and accessible;
    - f) other auxiliary personnel, additional standard tools, industrial auxiliary materials (e.g. fuel, oils and lubricants, cleaning and other incidentals, gas, water, electricity, compressed air, heating, light etc.) and the Customer's standard measuring and test equipment are available promptly and at no charge;
    - g) the goods and products delivered by us for the assembly are at the correct location at the beginning of and during the assembly work.
  - 6.4 The Customer bears sole liability for the risk of a breach of the duties set out at clause 6.3.

## 7. Retention of title

- 7.1 We reserve title to all goods supplied by us until the Customer has settled all claims arising under the business relationship, including any future claims from contracts entered into at the same time or subsequently, from any current account balance as well as until the absolute release from any contingent liabilities entered into in the Customer's interest.
- 7.2 The Customer must handle and store any goods subject to the retention of title with care and perform any standard inspection, servicing and maintenance work required at its own expense. The Customer may neither pledge the goods subject to the retention of title nor transfer them by way of security during the period of retention of title. Any access to the goods subject to the retention of title by third parties, for example by way of pledging or confiscation, as well as any damage or destruction must be reported to us in writing without undue delay.
- 7.3 If the Customer acts in a manner that is in breach of contract, in particular in the case of delayed payment of securitised claims, we are entitled to repossess the goods subject to the retention of title. Such repossession only represents a withdrawal from the contract if we confirm this in writing. Following repossession we are entitled to sell the goods and the proceeds will be set off against the Customer's liabilities after deduction of reasonable sales expenses.
- 7.4 a) The Customer is entitled and authorised to sell the goods subject to the retention of title in the course of ordinary business, which does not include what is known as the cheque-bill-of-exchange procedure. If the Customer is in default in respect of payments arising under the business relationship with us, we may forbid that the goods be sold on. If the Customer allows

its purchaser delayed payment of the purchase price, it may only sell the goods on if it, too, retains title to the goods sold.

- b) The Customer hereby assigns to us the purchase price claims or other claims for consideration accruing to it against its purchaser under the selling-on of the goods or other selling business including all ancillary rights. These serve as security to the same extent as the goods subject to the retention of title. The Customer is only entitled and authorised to sell on or otherwise dispose over the goods subject to the retention of title if it has been established that the claims arising thereunder are transferred to us, and in particular that no prohibition on assignment exists between the Customer and its purchaser.
  - c) If the Customer sells the goods subject to the retention of title along with other goods not supplied by us, the assignment of the claim from the sale only applies to the level of the invoice value of the respective goods subject to the retention of title sold. Where goods in which we have a co-ownership share are sold, the claim will be assigned to the value of this co-ownership share. If the assigned claim is included in a current account, the Customer hereby assigns to us a proportion of the balance corresponding to this claim—including a corresponding share of the closing balance—from the current account. If an interim balance is drawn up and it is agreed for this to be carried forward, the claim accruing to us per se under the foregoing provision is to be treated as if assigned to us for the purposes of the next balance.
  - d) The Customer is authorised to collect the claims assigned to us until we revoke such authorisation. We may not exercise this right of revocation as long as the Customer fulfils its payment obligations under the business relationship with us and provided we do not become aware of any circumstances which might substantially reduce the Customer's creditworthiness. If the prerequisites for exercising the right of revocation apply, we may request that the Customer assign to us any claims for surrender vis-à-vis its purchaser or notify us of the assigned claims and their debtors, provide all information necessary for collecting these claims, hand to us the associated paperwork and notify the debtors of the assignment. Additionally, we are authorised to give notice of the assignment to the debtors.
- 7.5 The Customer is entitled to process the goods subject to the retention of title in the ordinary course of its business, provided it is not in default of payment. Where the goods subject to the retention of title are processed or remodelled, we will be deemed the manufacturer of the newly created goods without being subject to any obligations. The processed or remodelled goods are deemed goods subject to the retention of title as set out at clause 7.1. Where the Customer processes the goods subject to the retention of title in combination with other items not belonging to us, we acquire co-ownership in the new item in the proportion of the value of the goods subject to the retention of title to the total value of the other items used; the time of processing is authoritative. If the goods subject to the retention of title are mixed, blended or combined with other items, and as a consequence our ownership of the goods subject to the retention of title is extinguished, the Customer hereby transfers to us the rights of ownership of the mixed or combined items accruing to it, or of the unified item in the proportion of the value of the goods subject to the retention of title to the total values of the other mixed, blended or combined items; the time at which the event occurs is authoritative. The Customer will also store the items co-owned by us under the foregoing provisions at no cost to us. The co-ownership shares arising under this clause are subject to the provisions of the whole of clause 7. in the context of goods subject to the retention of title.
- 7.6 At our request the Customer is obliged to provide information on the whereabouts of the goods subject to the retention of title at any time and on any claims arising from the selling-on of the goods or other further disposal.
- 7.7 Should the value of the existing security assigned to us exceed the secured claims by a total of more than 10%, we are obliged, if requested by the Customer, to release securities of our choosing to the same level.
- 7.8 If the retention of title set out in the foregoing provisions is not legally valid under the law of the country in which the goods subject to the retention of title are located, such security as most closely resembles this and is allowed under the law of this country will be deemed agreed. If the Customer is required to act in this context, the Customer is required to perform such acts at our request.
- 8. Warranty**
- 8.1 The Customer must inspect the delivered goods upon receipt, and no later than within ten working days, for defects and, if agreed, to examine any guaranteed characteristics and report any identified defects without undue delay, and no later than within a further five working days. Where goods are delivered, the goods must be inspected immediately on receipt in respect of transport and packaging damage as well as variations in terms of quantity and dimensions. Any variations must be noted on the bill of lading or delivery note. Concealed defects must be reported in writing as soon as they are discovered. If the Customer fails to report defects within the stipulated time, the goods will be deemed defect-free and contractually compliant. In terms of quality, only our description of services in the order confirmation or the manufacturer's product description is deemed agreed. Public statements, testimonials or advertisements do not count as contractually binding information about the quality of the goods. Any deviations from an instruction manual, specification or other functionality described in the contract will only be recognised as a defect if they result in a substantial impairment of use. We must be notified of any returns in advance. The rectification of defects caused by normal wear and tear, other influences or operator error are excluded from the warranty unless covered by binding statutory claims. The same applies to any defects arising that are attributable to a modification of the goods not performed by us. We provide no warranty that the products supplied correspond to the Customer's specific application scenarios, or work together with other of the Customer's goods, or other manufacturers' goods, without failure or impairment. We accept no liability for advisory obligations. Consequently, any liability for assisted calculations, recommendations, suggested solutions etc. which are dependent on the Customer's systems or relate thereto is excluded.
- 8.2 The Customer has a right to subsequent performance for defective products by way of rectification of the defect or delivery of a defect-free replacement item at our discretion. If subsequent performance is unsuccessful, the Customer may choose to demand either a reduction in the consideration or the rescission of the contract. In the event of a minor contractual breach, in particular minor defects, the Customer will have no right of rescission. If the Customer exercises its right to rescission following unsuccessful subsequent performance, it has no additional claim to compensation due to the defect. If the Customer brings any claims for compensation following unsuccessful subsequent performance, the Customer will retain the goods if it is reasonable for it to do so. The claim for compensation is limited to the difference between the purchase price and the value of the defective goods. This does not apply if we breached the contract in bad faith. We may choose whether to render the subsequent performance at the place of installation or at our head office. If the subsequent performance is rendered at the place of installation, the Customer must provide our representative with unrestricted access to the purchased item both as regards time and place of access. Clause 6.3 applies in this respect. The Customer may further demand that warranty work is only performed during the regular business hours for the respective location. If the Customer requests that we perform warranty work outside our regular business hours, the Customer must pay any additional costs.
- 8.3 In the event of third party products, our liability is limited to the assignment of the warranty claims against our own supplier accruing to us. The warranty period is limited accordingly to the term that we are granted by our own supplier.
- 8.4 Warranty claims will expire within 24 months from the transfer of risk or the acceptance of the service. The warranty period relates to goods deployed in a laboratory that operates a single shift. If multiple shifts are worked, this period will be reduced accordingly to a minimum of twelve months. For customer-specific systems/apparatus, as well as for repairs and spare parts the warranty period is limited to twelve months.
- 8.5 The foregoing paragraphs contain the full extent of the warranty for our products and goods. Any

further liability is governed solely by the provisions in clause 10. of these General Terms and Conditions.

- 8.6 The Customer is liable for the proper disposal of the supplied goods after the cessation of use in accordance with statutory provisions and at its own expense. The Customer will relieve the supplier of the statutory duties to take back old appliances and associated third party claims. If the Customer passes the supplied goods on to commercial third parties, it must impose on that party a contractual duty to properly dispose of the goods after the cessation of use in accordance with the statutory provisions and at that party's expense and to impose a corresponding obligation on any further parties to which the goods pass. If the Customer fails to do so when passing goods to a third party, it is obliged to take back the goods at its expense after the cessation of use and to properly dispose of them in accordance with the statutory provisions. The manufacturer's claim for the Customer to take on the goods and relieve it from its obligations will not expire until two years after the Customer ultimately ceases to use the appliance. The two-year period during which expiry is postponed begins no earlier than upon written notification by the Customer to the manufacturer regarding the cessation of use.

## 9. Software

- 9.1 The warranty for software is based on the above provisions in clause 8 with the following modifications: We will provide a warranty for the compliance of the software provided to the purchaser with our program specifications provided the software was installed on the systems envisaged by us in accordance with our stipulations. The warranty only covers software defects that can be readily reproduced. We undertake to rectify all non-insubstantial defects affecting usage in accordance with the contract; however, we reserve the right to select the method of rectification (installation of an improved software version or instructions on working around the defect).
- 9.2 The Customer is granted a non-exclusive and non-transferrable usage right over programs and associated documentation that are required for proper and internal use of the delivered product. The purchaser will accrue no further rights to programs and documentation, and in particular we will remain the copyright holder. The Customer is not permitted to provide third parties with access to programs, documentation and any subsequent amendments, or to copy, otherwise reproduce, decompile, disassemble or reverse-engineer such without our prior written consent.

## 10. Liability

- 10.1 We accept liability for any losses attributable to wilful misconduct or gross negligence on the part of our statutory representatives or vicarious agents or where contractually assured warranties or qualities of the goods that are intended to safeguard the Customer against atypical risks of loss are missing. In the case of ordinary negligence, we will only accept liability if material contractual duties are breached or if insurance cover is in place, and this will be limited to loss that was foreseeable at the time when the contract was entered into. No liability will be accepted for any further consequential losses. In particular, liability for any direct or indirect loss of any kind other than that set out here, including consequential loss, loss of use, income or profits and futile expenditure, additional expenditure and third-party claims is expressly ruled out, including in cases of negligence.
- 10.2 Liability is excluded in the case of defects caused by external factors such as voltage fluctuations, improper installation, wear and tear, operation and use/ maintenance/ changes to the goods by the Customer or third parties commissioned by the Customer, irrespective of the legal grounds.
- 10.3 In the absence of agreements to the contrary, any fixed compensation claims will be limited to a maximum of 5% of the purchase price.
- 10.4 The above limitations of liability have no bearing on any claims brought by the Customer under product liability legislation. Furthermore, the limitations on liability do not apply to personal injury, damage to health or death of the Customer or its vicarious agents and other third parties attributable to us.

## 11. Intellectual property rights and copyright

- 11.1 The products, all specifications, drawings, descriptions and illustrations are protected by intellectual property rights by the seller and subject to an obligation of confidentiality, unless they have been or will be published by the seller. The buyer will not disclose this information to anyone, except for the purpose of using the products in the course of its business.
- 11.2 The sale of the products does not bestow on the purchaser any rights or licences under any patent, industrial design or copyright, except for non-exclusive use of the product in the course of its own business.
- 11.3 If a third party brings a justified claim against the Customer due to the breach of an intellectual property right or copyright (hereinafter referred to as Protective Rights) due to the goods supplied by us or the contractually compliant use thereof, we will only be liable to the Customer subject to the following conditions:
- We will choose, at our expense, either to obtain a usage right for the goods, to modify the goods such that the Protective Right is not infringed or replace the goods. If this is not possible at reasonable terms, we will take the goods back and refund the purchase price.
  - The obligations set out above shall only apply if the Customer notifies us of any claims brought by third parties in writing and without undue delay, does not acknowledge a breach of the Protective Rights to the third party and reserves all defensive measures and settlement negotiations for us. Should the Customer cease to utilise the product owing to loss mitigation or other significant reasons, the Customer will point out to the third party that the cessation of utilisation is no acknowledgement of any infringement of any Protective Rights.
- 11.4 If the use of the product causes a breach of a patent, industrial design or copyright and if this breach is based on designs, specifications or instructions made by the purchaser, on the operation of the system by the purchaser in which the products are included, or manufacturing processes applied thereto, the purchaser will defend the claim, which must be notified to it without undue delay, at its own expense or to settle the claim by mutual agreement and to reimburse all losses and costs incurred by the seller as a result of such breach. This also applies if the infringement of the Protective Right is caused by an unforeseeable application on the part of the buyer or due to the products being modified or deployed with products not supplied by us. Any further claims against us will not be acknowledged. This does not apply e.g. where mandatory liability exists due to product liability, wilful misconduct, gross negligence or the infringement of material contractual obligations. The Customer also retains the right to withdraw from the contract under the foregoing provisions.

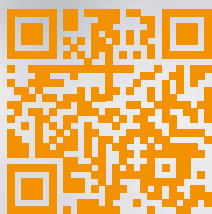
## 12. Closing provisions

- 12.1 The place of jurisdiction for deliveries and payments (including actions on cheques and bills of exchange) as well as all disputes arising between the parties is the competent court for Haan, Germany. However, we reserve the right to bring a claim against the Customer at any other place of jurisdiction permitted by law. The relationship between the contracting parties is governed solely by the law applicable in the Federal Republic of Germany. The UN Convention on Contracts for the International Sale of Goods (CISG) does not apply.
- 12.2 The Customer may only transfer the rights and obligations arising under this contract to third parties with our written consent. Such consent is not required if the assignment is made in the course of an effective extended retention of title that the Customer has agreed with a third party under the provisions of clause 7.
- 12.3 If individual provisions of these terms and conditions or parts thereof become invalid, this will have no bearing on the validity of the remaining provisions. An invalid provision of these terms and conditions will be replaced by a valid provision that most closely corresponds to the commercial intent of the invalid provision.

## Sign up for our newsletters!

You will occasionally receive exclusive information on seminars/webinars, applications and product news.

Subscribe now:



[www.eltra.com/newsletter](http://www.eltra.com/newsletter)  
(You may unsubscribe any time)

