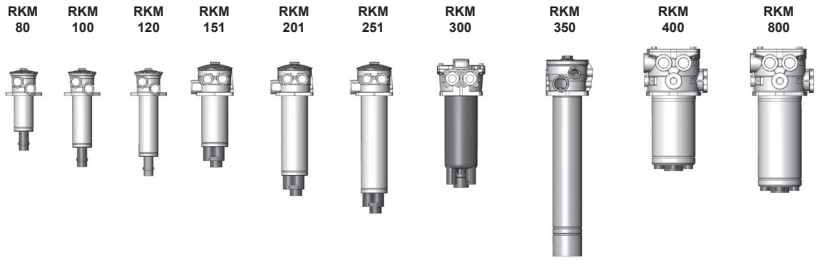
HYDAC INTERNATIONAL

# Spare Parts List
## Return line and Suction Boost Filter RKM
up to 850 l/min, up to 10 bar




### 1. MAINTENANCE

### 1.1 GENERAL

Please follow the maintenance instructions on the last page!

### 1.2 INSTALLATION

Before fitting the filter into the system, check that the operating pressure of the system does not exceed the permitted operating pressure of the filter.
Refer to the name plate on the filter!

### 1.3 COMMISSIONING

Check that the correct filter element is fitted, apply the cover and secure it.
Switch on the hydraulic system and check filter for leakage.
Vent filter at an appropriate point in the system.

### 1.4 TOOLS REQUIRED FOR MAINTENANCE (torque wrench)

| Size | Cover bolts | Tightening torque Nm | Int. hex AF width |
|---|---|---|---|
| 80 | - | 15 | - |
| 100 | - | 15 | - |
| 120 | - | 15 | - |
| 151 | - | 35 | - |
| 201 | - | 35 | - |
| 251 | - | 35 | - |
| 300 | M10 x 30 | 26 | - |
| 350 | - | 45 | - |
| 400 | M12 x 30 | 40 | 10 |
| 800 | M12 x 30 | 40 | 10 |

### 1.5 TORQUE VALUE FOR CLOGGING INDICATORS

| Type | Max. torque | Thread |
|---|---|---|
| VMF | 10 Nm | G 1/8 |
| VR | 33 Nm<br>15 Nm (for indicators B, BM, GC, LE, LZ) | G 1/2 |

### 1.6 TIGHTENING TORQUES FOR STRAIGHT THREADED PORT*

| Pipe thread | Max. torque |
|---|---|
| G 3/4 | 60 Nm |
| G 1 | 70 Nm |
| G 1 1/4 | 70 Nm |
| G 1 1/2 | 70 Nm |

* in acc. with DIN 3852

### 1.7 TIGHTENING TORQUE AT CS CONNECTION

| Bolt thread | Max. torque |
|---|---|
| CS 1 1/4 (M10) | 26 Nm |
| CS 1 1/2 (M12) | 40 Nm |

### 2. CHANGING THE ELEMENT

### 2.1 REMOVING THE ELEMENT

1. Switch off hydraulic system and release filter pressure. (if necessary, release the pressure in the tank).
2. Size 80–251, 350:
   Unscrew cover.

   Size 300, 400–800:
   Loosen cover bolts and lift off the cover.
3. Size 80–251, 350:
   Pull out the filter dividing plate with attached filter element and filter bowl by turning gently.

   Size 300:
   Pull out the filter element with attached filter bowl.

   Size 400–800:
   Pull out the filter dividing plate with attached filter element by turning gently. The filter bowl remains in the filter head.
4. Dismantle the removed unit into dividing plate, filter element and bowl.
5. Clean bowl, cover, dividing plate and dirt retainer (if present).
6. Examine filter, especially sealing surfaces, for mechanical damage.
7. Check O-rings – and replace if necessary.

### 2.2 FITTING THE ELEMENT

1. Wet the sealing surfaces and thread, as well as the O-ring, with clean operating fluid.
2. When fitting a new filter element, check that the designation corresponds to that of the old element.

   Size 400–800:
   Fit the dirt retainer onto the new filter element by turning clockwise.
3. Assemble the dividing plate, element and bowl to form a unit.
4. Size 80–251, 350:
   Install the filter dividing plate with attached filter element and filter bowl by turning gently.

   Size 300:
   Install the filter element with attached filter bowl.

   Size 400–800:
   Install the filter dividing plate with attached filter element by turning gently.
5. Size 80–251, 350:
   Replace cover and tighten with appropriate tightening torque.

   Size 300, 400–800:
   Replace cover. Screw in cover bolts and tighten them in alternation.
6. Switch on hydraulic system and vent filter at a suitable point in the system.
7. Check the filter for leakage.

**NOTICE:**

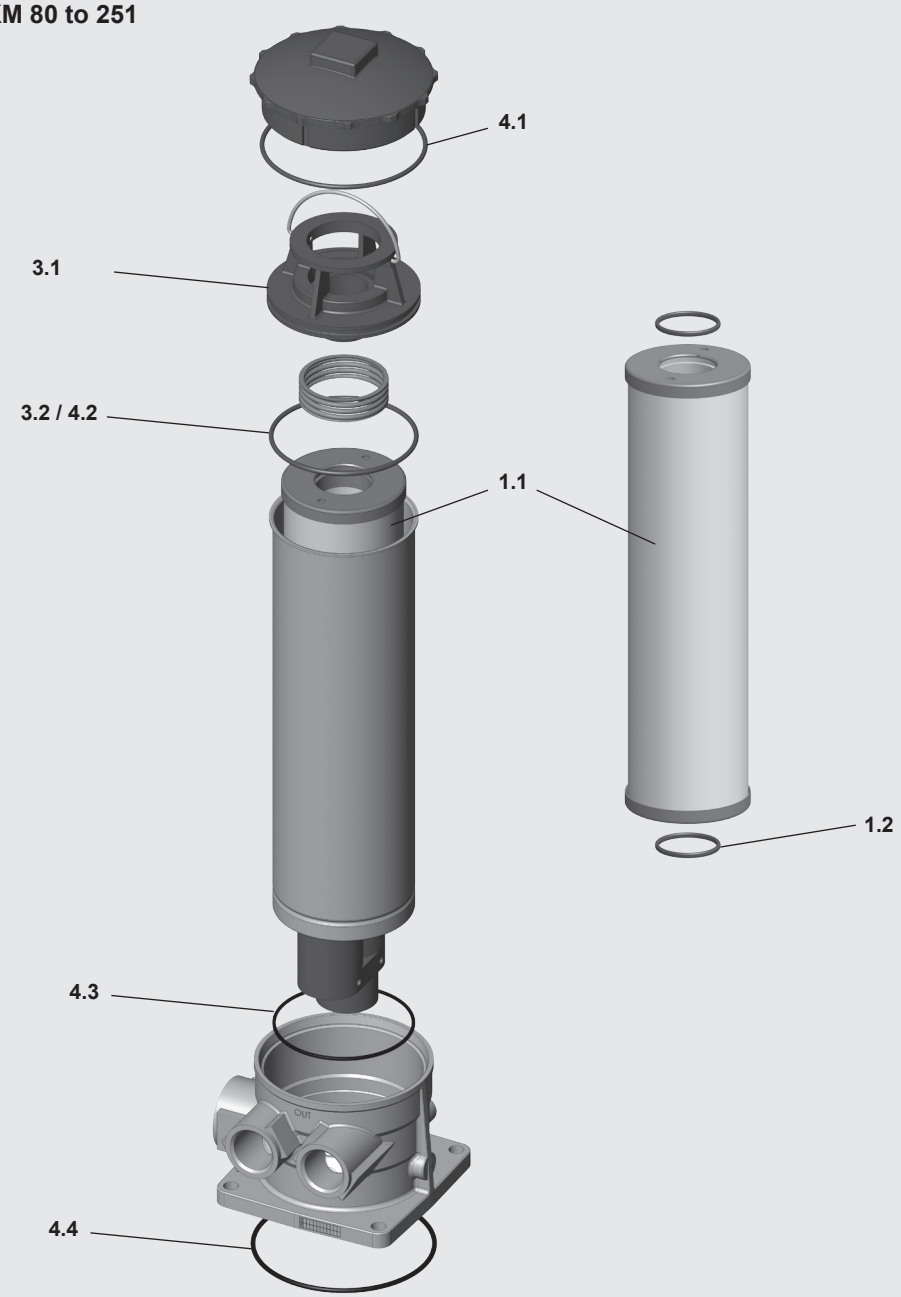
Dirt or incomplete pressure release on disassembly can lead to "seizing".

Filter elements are to be disposed of in an environmentally safe manner.

EN 7.108.E1/08.17

## 3. SPARE PARTS

### 3.1 SPARE PARTS DRAWING RKM 80 to 251

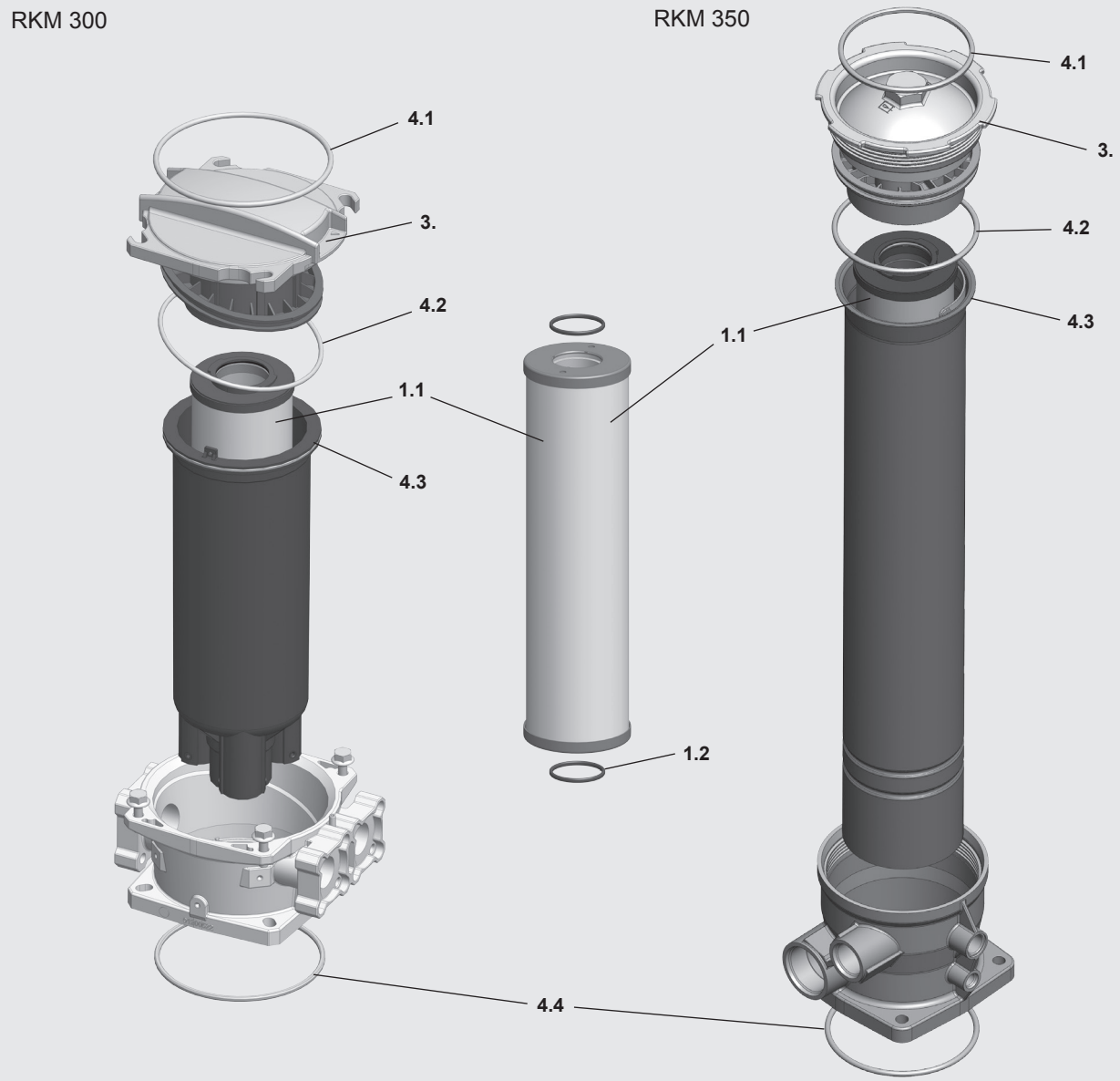



### 3.2 SPARE PARTS LIST 80 to 251

| Item | Con-sists | Description | 80 | 100 | 120 | 151 | 201 | 251 |
|---|---|---|---|---|---|---|---|---|
| **1.** | | **Filter element** | see Point 4. Replacement elements | | | | | |
| | 1.1 | Filter element | 0080 RK... | 0100 RK... | 0120 RK... | 0151 RK... | 0201 RK... | 0251 RK... |
| | 1.2 | O-ring | 28 x 3 | | | 40 x 3.5 | | |
| **2.** | | **Clogging indicator or screw plug** | See Point 5. Replacement clogging indicators | | | | | |
| **3.** | | **Dividing plate E RKM...W.0**<br>**Dividing plate E RKM..W.0 /-NRF** | 01276813<br>01270754 | | | 01274178<br>01272259 | | |
| | 3.1 | Dividing plate | RKM 100 | | | RKM 198 | | |
| | 3.2 | O-ring | 72.62 x 3.53 | | | 98.02 x 3.53 | | |
| **4.** | | **Repair kit E RKM...0.0**<br>**Repair kit E RKM...0.0 /-V** | 01270753<br>01277282 | | | 01271462<br>01277283 | | |
| | 4.1 | O-ring (cover) | Seal RFM (84 x 3.5 x 3.4) | | | 110.72 x 3.53 | | |
| | 4.2 | O-ring (dividing plate) | 72.62 x 3.53 | | | 98.02 x 3.53 | | |
| | 4.3 | O-ring (head) | 71.12 x 2.62 | | | 94.92 x 2.62 | | |
| | 4.4 | O-ring (flange) | 85.32 x 3.53 | | | 123.42 x 3.53 | | |

Other spare parts on request

### 3.3 SPARE PARTS DRAWING RKM 300, 350

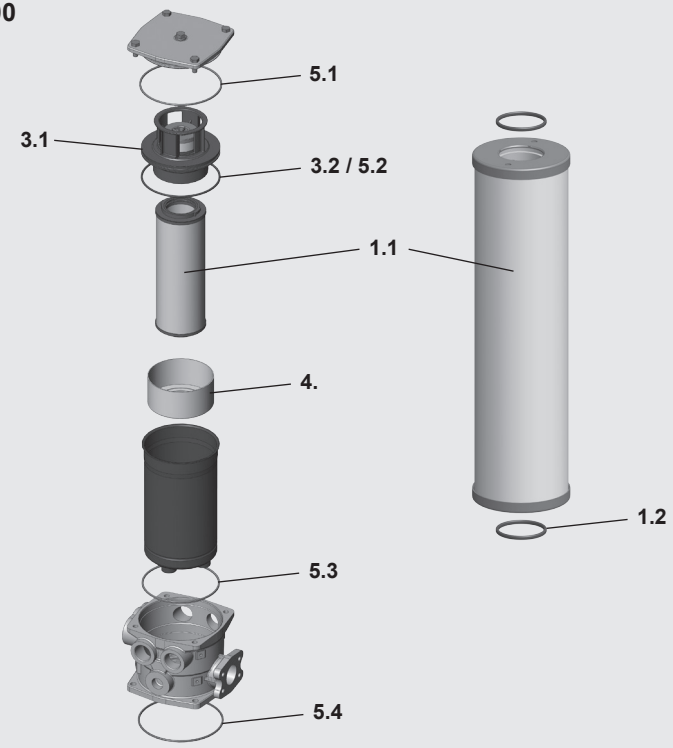



### 3.4 SPARE PARTS LIST RKM 300, 350

| Item | Con-sists | Description | 300 | 350 |
|---|---|---|---|---|
| **1.** | | **Filter element** | see Pt. 4. Replacement elements | |
| | 1.1 | Filter element | 0300 RK... | 0350 RK... |
| | 1.2 | O-ring | 48 x 3 | 48 x 3 |
| **2.** | | **Clogging indicator or screw plug** | See Point 5. Replacement clogging indicator | |
| **3.** | | **Cover E RKM....W.0**<br>**Cover E RKM....W.0 /-NRF125** | 01253296<br>01277733 | 01305527<br>01305528 |
| **4.** | | **Repair kit E RKM...0.0**<br>**Repair kit E RKM...0.0 /-V** | 01253300<br>01277284 | 01305529<br>01305530 |
| | 4.1 | O-ring (cover) | 151.76 x 5.33 | 135.89 x 5.33 |
| | 4.2 | O-ring (dividing plate) | 139.07 x 5.33 | 123.19 x 5.33 |
| | 4.3 | O-ring (head) | 132.94 x 3.53 | 113.67 x 5.33 |
| | 4.4 | O-ring (flange) | 139.07 x 5.33 | 129.54 x 5.33 |

Other spare parts on request

### 3.5 SPARE PARTS DRAWING RKM 400 to 800




### 3.6 SPARE PARTS LIST RKM 400 to 800

| Item | Con-sists | Description | 400 | 800 |
|---|---|---|---|---|
| **1.** | | **Filter element** | see Pt. 4. Replacement elements | |
| | 1.1 | Filter element | 0400 RK... | 0800 RK... |
| | 1.2 | O-ring | 68 x 5 | |
| **2.** | | **Clogging indicator or screw plug** | See Point 5. Replacement clogging indicator | |
| **3.** | | **Dividing plate E RKM..W.0**<br>**Dividing plate E RKM..W.0 /-NRF** | 01271135<br>01272054 | |
| | 3.1 | Dividing plate | RKM 400 | |
| | 3.2 | O-ring | 164.47 x 5.33 | |
| **4.** | | **Dirt retainer** | 01202357 | |
| **5.** | | **Repair kit E RKM...0.0**<br>**Repair kit E RKM...0.0 /-V** | 01271189<br>01277285 | |
| | 5.1 | O-ring (cover) | 164.47 x 5.33 | |
| | 5.2 | O-ring (dividing plate) | 164.47 x 5.33 | |
| | 5.3 | O-ring (head) | 164.67 x 5.33 | |
| | 5.4 | O-ring (flange) | 183.52 x 5.33 | |
| | 5.5 | O-ring (VR 0 A.0) | 18 x 2.5 | |

Other spare parts on request

## 4. REPLACEMENT ELEMENT

**0300 RK 010 MM /-V**

**Size**
0080, 0100, 0120, 0151, 0201, 0251,
0300, 0350, 0400, 0800

**Type**
RK

**Filtration rating**
MM 008, 010, 015

**Filter material**
MM

**Supplementary details**
V Viton
(for further descriptions, see "RKM" brochure)

## 5. REPLACEMENT CLOGGING INDICATOR

**VMF 2 F . X /-V**

**Type of indicator**
VMF connection G 1/8

**Response pressure**
0.2 -0.2 bar (negative pressure)
2 2 bar (back pressure)
} others on request

**Type of clogging indicator**
F Pressure switch
K Dynamic and vacuum pressure indicator
R Dynamic pressure indicator
UF Vacuum pressure switch

**Modification number**
X the latest version is always supplied

**Supplementary details**
V Viton
(for further descriptions, see "Clogging indicators" brochure)

# 6. MAINTENANCE INSTRUCTIONS

## 6.1 USER INSTRUCTIONS FOR FILTERS


Notice

**This pressure equipment must only be put into operation in conjunction with a machine or system.**


Notice

**The pressure equipment must only be used as stipulated in the operating instructions of the machine or system.**


Notice

**This pressure equipment must only be operated using hydraulic or lubricating fluid.**


Caution

**The user must take appropriate action (e.g. venting) to prevent the formation of air pockets.**


Caution

**Repair, maintenance work and commissioning must be carried out by specialist personnel only.**

**Allow the pressure equipment to cool before handling.**

**The stipulations of the operating instructions of the machine or system must be followed.**


Danger

**Caution: pressure equipment! Before any work is carried out on the pressure equipment, ensure the pressure chamber concerned (filter housing) is depressurised.**


Danger

**On no account must any modifications (welding, drilling, opening by force etc.) be carried out on the pressure equipment.**


Notice

**It is the responsibility of the owner to comply with the water regulations of the country concerned.**


Caution

**Statutory accident prevention regulations, safety regulations and safety data sheets for fluids must be observed.**


Caution

**Filter housing must be earthed.**


Caution

**When working on, or in the vicinity of, hydraulic systems, naked flames, spark generation and smoking are forbidden.**


Caution

**Hydraulic oils and water-polluting fluids must not be allowed to enter the soil or watercourses or sewer systems. Please ensure safe and environmentally friendly disposal of hydraulic oils. The relevant regulations in the country concerned with regard to ground water pollution, used oil and waste must be complied with.**


Caution

**Whenever work is carried out on the filter, be prepared for hot oil to escape which can cause injury or scalding as a result of its high pressure or temperature.**


Danger

**When using electrical clogging indicators, the electrical power supply to the system must be switched off before removing the clogging indicator connector.**

**Customer Information in respect of Machinery Directive 2006/42/EC**

Hydraulic filters are fluid power parts/ components and are therefore excluded from the scope of the Machinery Directive.
They do not bear the CE mark.

Before using these components, ensure compliance with the specifications provided by HYDAC Filtertechnik GmbH in this documentation.

The specifications also contain information on the relevant essential health and safety requirements (based on Machinery Directive 2006/42/EC) that are to be applied by the user.

We hereby declare that the filters are intended to be incorporated into machinery within the terms of the Machinery Directive 2006/42/EC.

It is prohibited to put the filters into service until the machinery as a whole is in conformity with the provisions of the Machinery Directive. Furthermore, our Terms of Sale and Delivery are available on our website (www.hydac.com).

# SERVICE ADDRESSES


**HYDAC Service GmbH**
**Postfach 1251**
**66273 Sulzbach / Saar, Germany**

**<u>Factory address:</u>**
**Werk 13**
**Friedrichsthaler Str. 15**
**66540 Neunkirchen / Heinitz, Germany**

**<u>ServiCenter:</u>**
**Tel.: +49 (0) 6897 / 509-9083**
**Fax: +49 (0) 6897 / 509-9881**

**<u>Customer service:</u>**
**Tel: +49 (0) 6897 / 509-412**
**Fax: +49 (0) 6897 / 509-828**


## 6.2 MAINTENANCE, GENERAL

This section describes maintenance work which must be carried out periodically. The operational safety and life expectancy of the filter, and whether it is ready for use, depend to a large extent on regular and careful maintenance.

## 6.3 MAINTENANCE MEASURES

- Spare parts must fulfil the technical requirements specified by the manufacturer.
  This is always guaranteed for original HYDAC spare parts.
- Keep tools, working area and equipment clean.
- After disassembling the filter, clean all parts, check for damage or wear and replace parts if necessary.
- When changing a filter element, a high level of cleanliness must be observed!

## 6.4 INTERVAL BETWEEN ELEMENT CHANGES

In principle we recommend that the filter element is changed after 1 year of operation at the latest.

We recommend fitting the filter with a clogging indicator (visual and/or electrical or electronic) to monitor the filter element.

If the clogging indicator responds, it is necessary to change or clean the filter element without delay (only W and V elements can be cleaned).

When no clogging indicator has been fitted, we recommend changing the elements at specific intervals. (The frequency of changing the filter elements depends on the filter design and the conditions under which the filter is operated.) When filter elements are subject to high dynamic loading it may prove necessary to change them more frequently. The same applies when the hydraulic system is commissioned or repaired or when the oil is changed.

The standard clogging indicators only respond when fluid is flowing through the filter. With electrical indicators the signal can also be converted into a continuous display on the control panel. In this case the continuous display must be switched off during a cold start or after changing the element.

If the clogging indicator responds during a cold start only, it is possible that the element does not yet need to be changed.

**NOTE**

The information in this brochure relates to the operating conditions and applications described.
For applications or operating conditions not described, please contact the relevant technical department.
Subject to technical modifications.

EN 7.108.E1/08.17