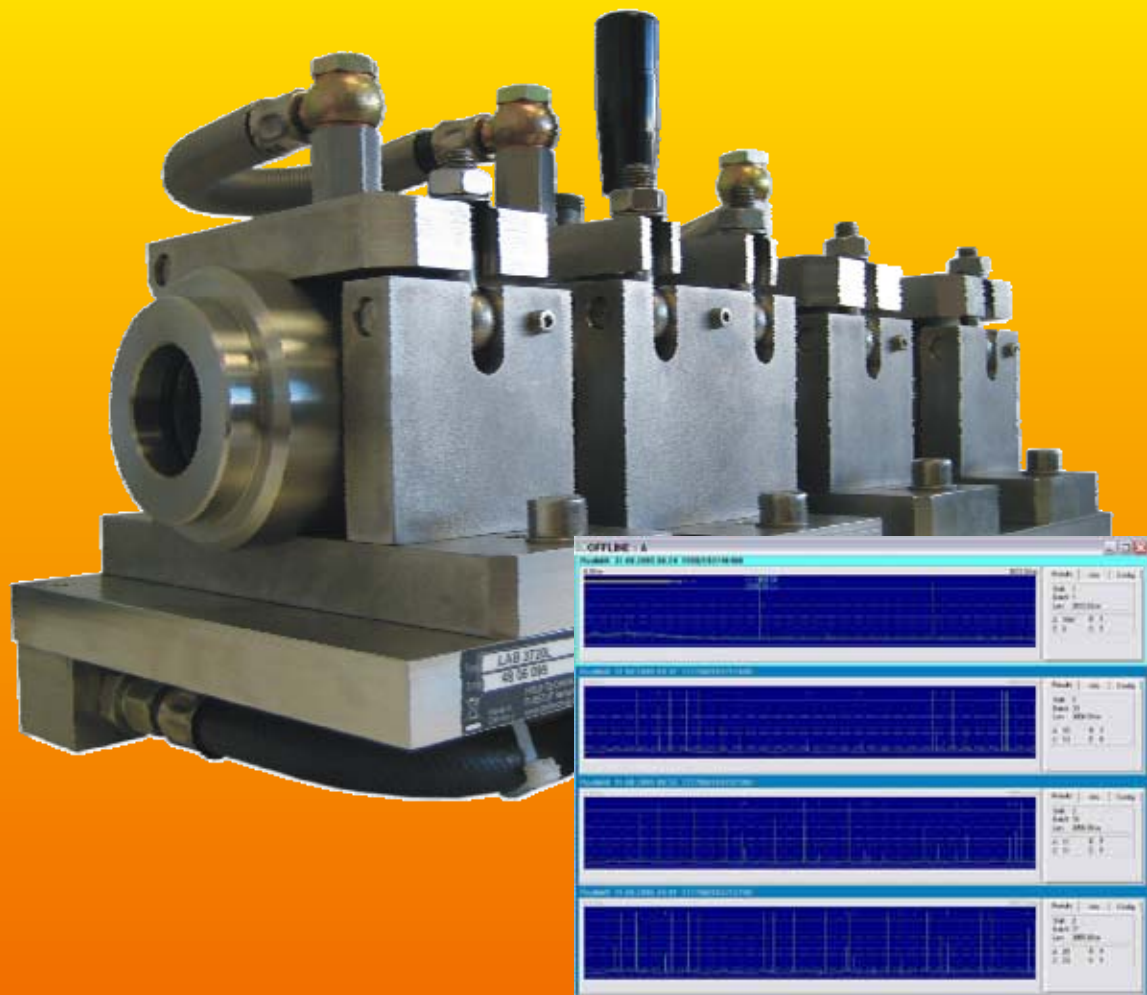


# HOTROD

## Product Catalog



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LAB 5625

15.04.2010

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# Testing assembly/coil holder

The coil holder provides the support and cooling for the system components.

The mechanical parts can be opened to quickly change the guide sleeves or replace the coil.

The coil holder is ordered depending on the direction that the line is running: infeed right (version L) or infeed left (version R).



**LAB 3720L/R\* (SIZE 1)**

**LAB 3721L/R\* (SIZE 2)**

**LAB 3722L/R\* (SIZE 3)**

\* L – production direction from right to left (infeed right)

R – production direction from left to right (infeed left)

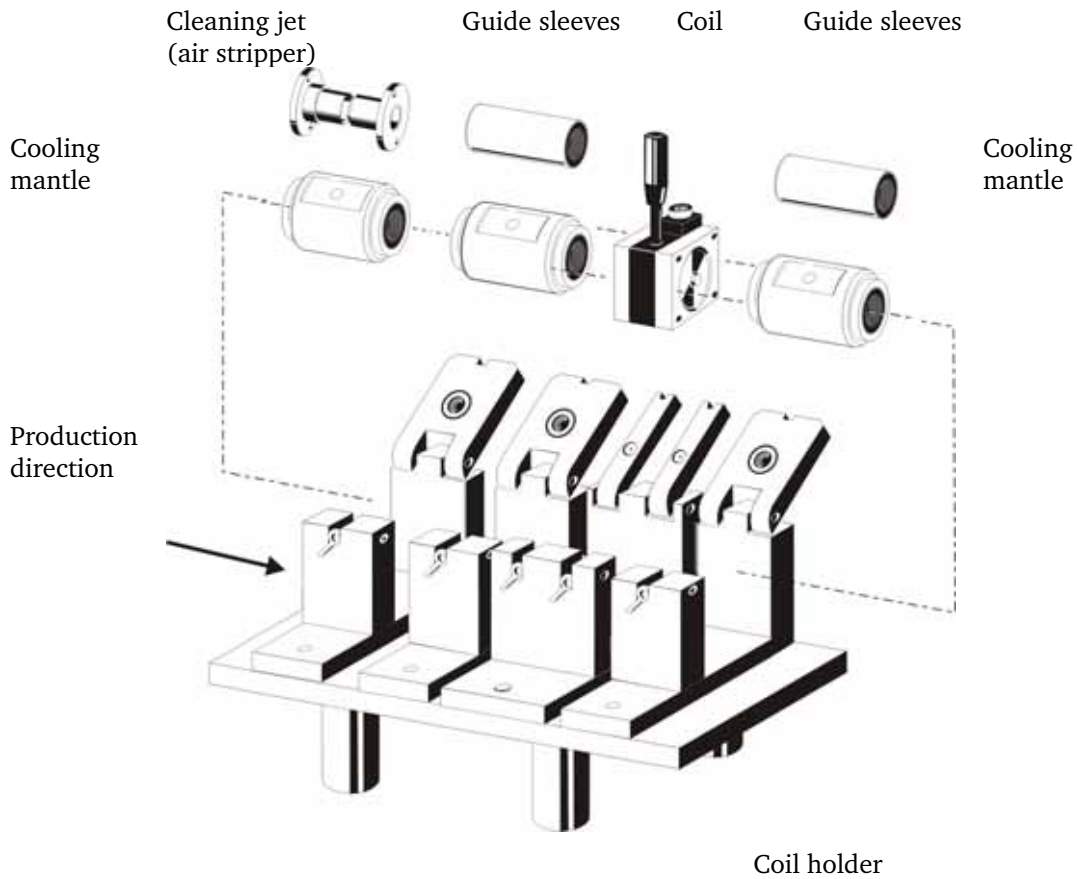
There are also three different diameter ranges (internal diameter of the coil):

	<b>Dimensions (H*xWxD)</b>	<b>* height to centers</b>
<b>Size 1</b>	110 x 450 x 200 mm	(4.33" x 17.72" x 7.87")
<b>Size 2</b>	130 x 460 x 270 mm	(5.12" x 18.11" x 10.63")
<b>Size 3</b>	175 x 475 x 300 mm	(6.89" x 18.70" x 11.81")

<b>Coil holder size</b>	<b>Product diameter</b>
Size 1	5 – 21 mm
Size 2	21 – 66 mm
Size 3	50 – 125 mm

# Mechanical components

## Overview



## Cleaning unit components

The cleaning unit consists of the cleaning jet mantle and cleaning jets described below:



## Cleaning jet holder

The cleaning jet mantle holds the cleaning jets and provides the connections for the compressed air.

**LAB 3766 (SIZE 1)**

**LAB 3767 (SIZE 2)**

**LAB 3768 (SIZE 3)**



## Cleaning jets

Compressed air passes through the cleaning jets to blow any scale off the hot test material before it passes through the test coil.

**Entry side:**

**LAB 3760.XY (SIZE 1)**  
available in 17 and 27 mm

**LAB 3762.XY (SIZE 2)**  
available in 17, 27, 36, 52 and 64 mm

**LAB 3764.XY (SIZE 3)**  
available in 87 and 127 mm



**Exit side:**

**LAB 3761.XY (SIZE 1)**  
available in 17 and 27 mm

**LAB 3763.XY (SIZE 2)**  
available in 17, 27, 36, 52 and 64 mm

**LAB 3765.XY (SIZE 3)**  
available in 87 and 127 mm



---

## Guide sleeve unit components

The guide sleeve unit consists of the cooling mantle and guide sleeves described below:

### Cooling mantle

The cooling mantle provides the water cooling system for the guide sleeves which are heated by the hot rod as it passes through.

**LAB 3745 (SIZE 1)**

**LAB 3746 (SIZE 2)**

**LAB 3747 (SIZE 3)**

two required



### Guide sleeves

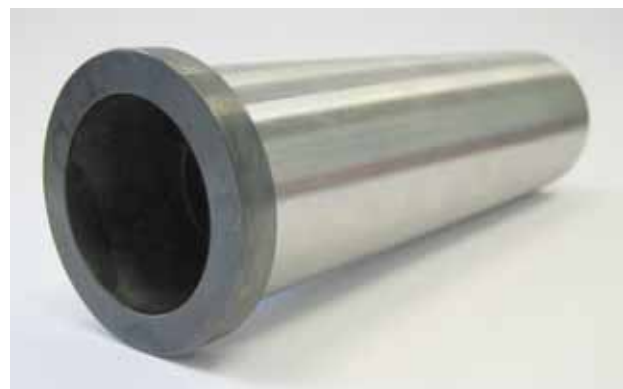
The guide sleeves protect the coil from damage by the hot test material.

**LAB 3740.XY (SIZE 1)**

**LAB 3741.XY (SIZE 2)**

**LAB 3742.XY (SIZE 3)**

two required for each diameter



# Sensors

---

## Test coils

The water-cooled coil is held in the central section of the coil holder.

**LAB 3750A.XY (SIZE 1)\***

\* with ceramic inserts, available in 9 and 11 mm

**LAB 3750.XY (SIZE 1)**

**LAB 3751.XY (SIZE 2)**

**LAB 3752.XY (SIZE 3)**



---

## Coil repair sets

The coil repair set consists of a set of O-rings, a coil body and small steel tube and is used to replace the worn parts of the coil when necessary.

**LAB 3756A.XY (SIZE 1)\***

**LAB 3756.XY (SIZE 1)**

**LAB 3757.XY (SIZE 2)**

**LAB 3758.XY (SIZE 3)**

Set consisting of:

- Actual test coil including stainless steel connector
- Protection tube
- Set of O-rings
- Ceramic inserts (only for A-Type coils\*)



---

## Coil adapters

The coil adapter is required when using a size 1 coil in a size 2 holder or a size 2 coil in a size 3 holder.

**LAB 3730 (SIZE 1 COILS IN SIZE 2 COIL HOLDER)**

**LAB 3731 (SIZE 2 COILS IN SIZE 3 COIL HOLDER)**

two required each

# Cables

---

## Transducer cable

LAB 3996/10 (10 METERS)

LAB 3996/15 (15 METERS)

LAB 3996/20 (20 METERS)

LAB 3996/30 (30 METERS)

Maximum cable length should not exceed 30 meters!

The Prüftechnik coil cable is produced specially to meet the highest standards:

- Multiple shielded cable
- Jacket material withstands temperatures of  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$
- Highly flame retardant
- Resistant to fuels, oils and greases
- Length: up to 30 m.



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## Extension cable (wear part)

LAB 3724/2 (2 METERS)

Note: Requires adapter LAB 3976!



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## HMD cable

LAB 3710/100 (100 METERS)



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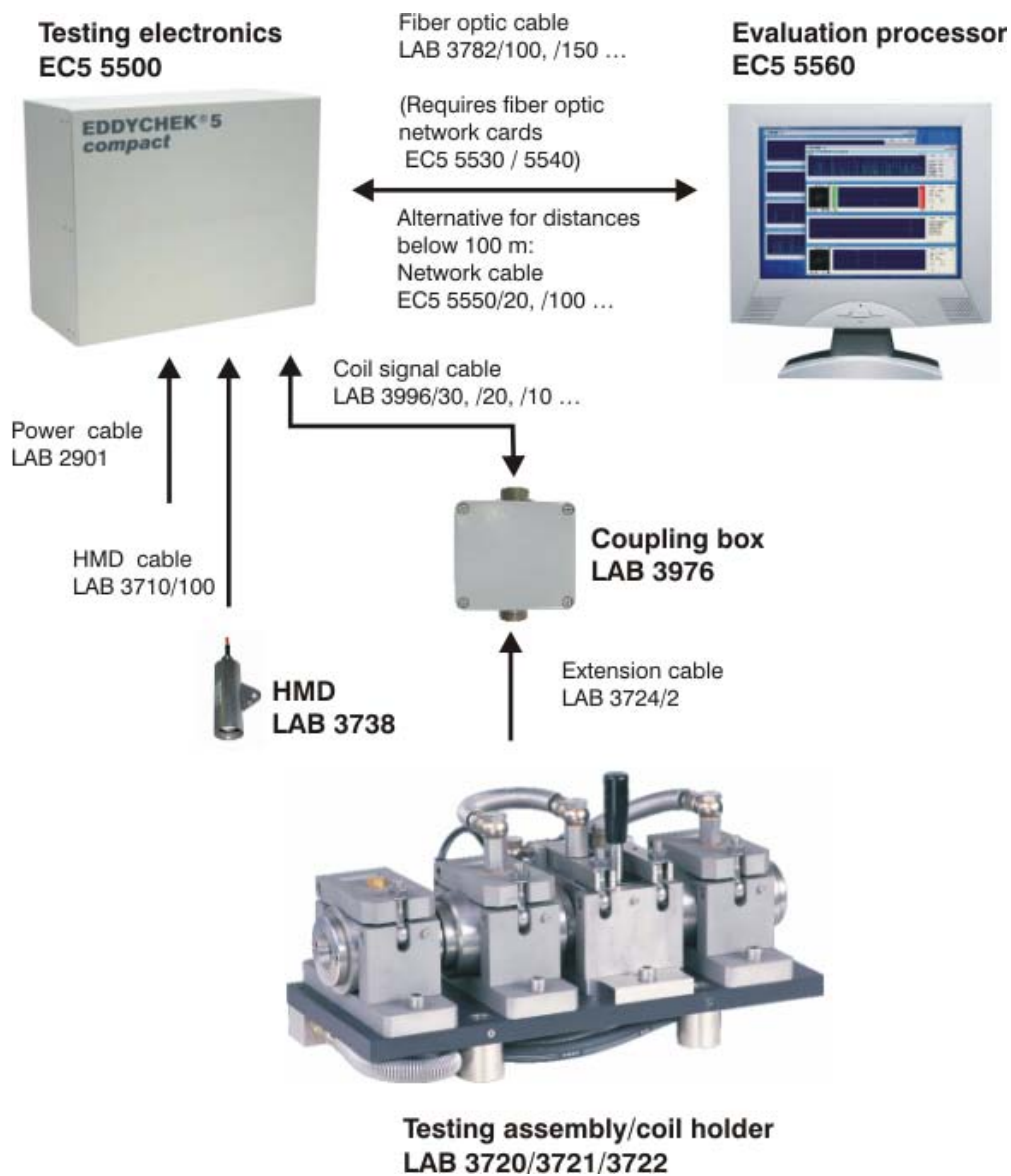
## Adapter/coupling box

LAB 3976



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## Connection/Cable overview



# Fibre optic communication

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## Fibre optic network card (EDDYCHEK 5 compact)

EC5 5530



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## Fibre optic network card (evaluation processor)

EC5 5540



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## Fibre optic network cable

LAB 3782/100 (100 METERS)

LAB 3782/200 (200 METERS)

**Note:** Fibre optic cable in any desired length available.



## Other accessories

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### Hot metal detector (HMD)

(Infrared sensor)

**LAB 3738**



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### Coil leakage tester

This device is used to test the coil for leaks after it has been serviced or removed from the line. Compressed air is pumped into the coil and gauges indicate if pressure is being lost i.e. the coil is leaking when the O-rings must be replaced.

**LAB 3735 (SIZE 1)**

**LAB 3736 (SIZE 2)**

**LAB 3737 (SIZE 3)**





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## Coil replacement (dummy/bypass)

When no testing is taking place, the coil substitute should be placed in the coil holder to ensure continuity of the water supply.

**LAB 3725 (SIZE 1)**

**LAB 3726 (SIZE 2)**

**LAB 3727 (SIZE 3)**

Required if no testing is executed to ensure cooling of other components. For example when rolling REBAR (reinforcement bars).

Note: Additional inserts (bushings) have to be manufactured according to the rolled product diameter.

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## Calibration bars

**LAB 3702 (Ø 6 MM)**

**LAB 3703 (Ø 12 MM)**

**LAB 3704 (Ø 20 MM)**

Calibration bars are used to verify sensitivity of test coils.

All calibration bars contain two artificial defects:

1. pin hole: diameter 1.0 mm, depth 1.5-2.0 mm
2. longitudinal notch: 0.1 mm width, 0.15-0.2 mm depth, 20 mm length

For each calibration bar 2 plastic guide nozzles are delivered to be applied for 2 different coil diameters.

# Electronics

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## EDDYCHEK 5 *compact*

EC5 5500



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## Frontend/DSP

EC5 5010 / EC5 5080

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## Evaluation processor

EC5 5560

PC with Windows® XP operating system, monitor, and keyboard.

# Software/features

## Reporting/data acquisition

### EC5 5120 / EC5 5573

Qualitative protocolling for statistical evaluation and data base storage.

Data format: CSV files.

Data such as tracking number, product length, total number of defects etc. are readable using for instance Microsoft® Excel or Microsoft® Access.

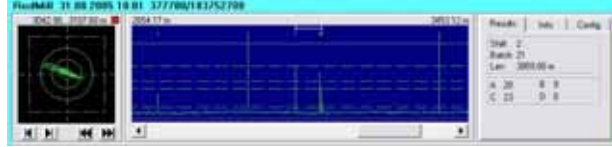
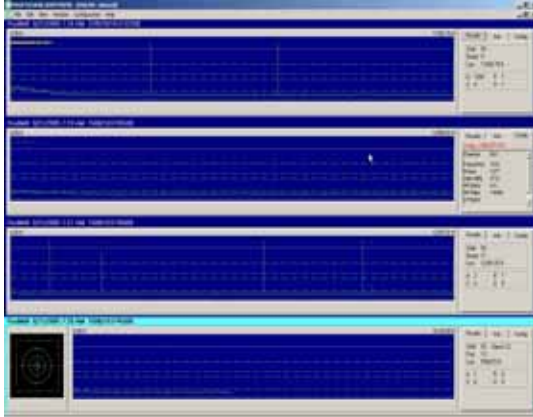
### SPECIAL DATA VIEWER EC5 5573



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## Visualization and online monitoring

### EC5 5570 – EDDYTREND

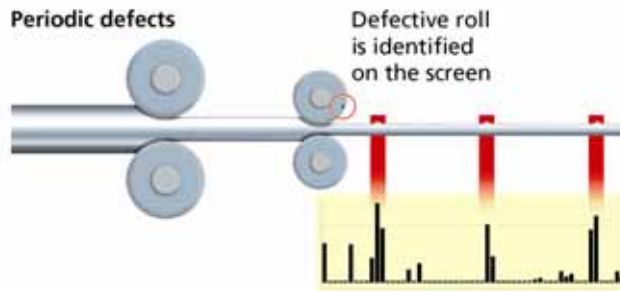


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## Periodic defect detection

### EC5 5590 – PERIODIC ERROR LOGGING

Periodic Eval



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