

AshCheck

COAL ANALYZER



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Latest technology at hand

AshCheck is a unique measuring instrument to precisely detect the ash content in natural coal. With tremendous accuracy, AshCheck measures the ash contamination of stone coal directly at the mining location, on a truck or train wagon. The simple menu structure of the readout enables even an inexperienced user to conduct precise measurement results anywhere and at any time.

The self-contained ash meter is manufactured with state-of-the-art digital technology. The measuring probe contains digital analysis electronics to reduce any cable or information losses to literally zero. This leads to increased sensitivity by a factor of 9 (+800%), which allows measuring a larger coal bulk at the same time. Furthermore, it increases the absolute precision of the average ash content and leads to fewer measuring points in a coal pile.

The sensor

The detection sensor is based on natural gamma radiation, without any artificial radiation or a radiative source. It is equipped with shock absorbers all around and even withstands drops or falls as well as axial shocks without defect of the sensor tube. Any accidental downtime is reduced to a minimum. At the same time, the IP65 construction is water- and dust-sealed. The stainless steel hull of the sensor is resistant against pressure, dirt, dust, water and almost all other influences in coal mines. The internal parts are easily interchangeable.

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72336 Balingen / Germany

Phone: +49 7433 90799 0

Fax: +49 7433 90799 22

www.ashcheck.de

United Instruments is a subsidiary of MediaLas Electronics, located and based in Southwest Germany. Our extensive knowledge in laboratory equipment coupled with customer demands inspired us to create AshCheck, the most sophisticated coal measuring instrument that we have ever built. Enjoy the information provided here!

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Benefits

- Very quick results of ash content in raw coal
- Reduced costs through measuring directly at coal production
- Coal buyers can immediately check coal quality
- Highest accuracy for precise data acquisition
- Reduced standing time through measuring directly on a train wagon or truck
- Enhanced temperature range - measure in-field at any time
- No warm up time - immediate measuring results.



can be less than 0.5% of the absolute value of the ash determination. The increased sensibility and the higher measuring coal mass results in a calculative accuracy error of less than 0.2% of the measured volume. For fast measurement procedures, usually 1% accuracy can be achieved after a few seconds measuring time.

Quick results with AshCheck

After the calibration of the ash content with the coefficient determined at a coal lab, the accuracy of each measurement can be less than 0.5% of the absolute value of the ash determination. The increased sensibility and the higher measuring coal mass results in a calculative accuracy error of less than 0.2% of the measured volume. For fast measurement procedures, usually 1% accuracy can be achieved after a few seconds measuring time.



Once the measurement is completed, the results can be stored with a unique numeration or pile name in the internal memory, after which the instrument is immediately ready for the next measurement.

After finishing all measuring procedures, AshCheck can be left in its flight case or any other storage place and it switches itself off after a specified non-operating time. Thus, a neglected switch-off of the probe is irrelevant, preventing an accidental discharge of the batteries. You wish never suffer from accidently empty batteries again!

The genesis of a new metering era

When we started our first drawings for a new ash detection probe, we began from scratch. We knew that there were already ash meters on the market for decades, but we were also aware that there were many problems involved with their handling, technology and reliability. Customers and partners

reported many significant failures and expensive repairs and demanded something better, something reliable with a long lifetime and less downtime. This was our source of inspiration, based upon a fast spin of ideas, and we quickly had a vision of what we wanted to accomplish: it had to be something fresh and unique, rugged, stable, enhanced and affordable. A Swiss army knife, so to speak. Accordingly, we started with the first design and many months of tests in the lab and field. Within the development period of more than 18 months, things did not always proceed so smoothly. Nonetheless, we were finally holding our AshCheck device in our hands, which was as fresh and rugged than anything seen before. It is now available for the world of black energy – the coal business!

Most simple handling ever

In close cooperation with customer demands, we have created an easy and understandable user interface with simple “one-touch” control and vast abilities for configuration and data acquisition. Each measurement process gains an automatic numeration, but also can be easily renamed. The readout of AshCheck is built with most modern electronics and display components and offers a memory storage space of more than 4,000 piles, with more than 100 measuring points per pile. Each measurement contains the exact date and time along with the calculated ash content of the point. After the measurement is completed, all data can be transferred to a USB stick and import to Excel or other analysis software.

Higher accuracy

After the calibration of the ash content with the coefficient determined at a coal lab, the accuracy of each measurement

Features

- No artificial radiation source
- Latest digital technology
- Operating temperature -30° to +55°C
- Low weight of the instrument
- Battery lifetime: up to 30 hours
- Fast battery recharge time (1hour)
- 4000 reading positions in memory
- 99 coal pile positions in memory
- Simple user interface
- High resolution color display
- USB port for data transportation
- No fragile cables involved
- Sensor mounted on shock absorbers
- Made of stainless steel and aluminum
- High grip rubberized handles
- Easy service, removable tip
- Including flightcase and carrying belt

Purchasing AshCheck

Once you decided to purchase AshCheck for your daily business, we are here to support you. Besides the usual manual, we provide tutorial videos to make your learning easy and fast. Our support team can help you on the phone in different languages: German, English and Russian. If you need training on site, our engineers are happy to assist at your place.

Data transfer from AshCheck to computer

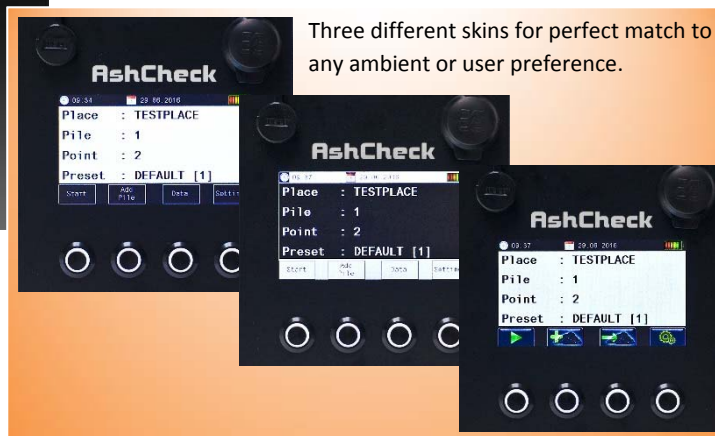
After data acquisition on site is finished, all acquired data can easily be transferred to a USB stick. The file format is compatible to MS Office, OpenOffice, LibreOffice, and most other office formats, and can be further included into graphics, comparisons or any other files.



The complete package

For any purchase of AshCheck, we ship this extremely versatile instrument in a specially designed, precise and rugged wooden flight case, fitted with aluminum edges and butterfly steel fasteners. AshCheck is embedded on shock absorbing foam, thus withstanding drops or falls from more than 2m height.

For easy carrying, an adjustable leather strap is included.



Three different skins for perfect match to any ambient or user preference.

Delivery content of AshCheck

- Readout probe with integrated sensor
- Very rugged and lightweight flight case
- Power supply and battery charger
- Carrying belt
- Manual