



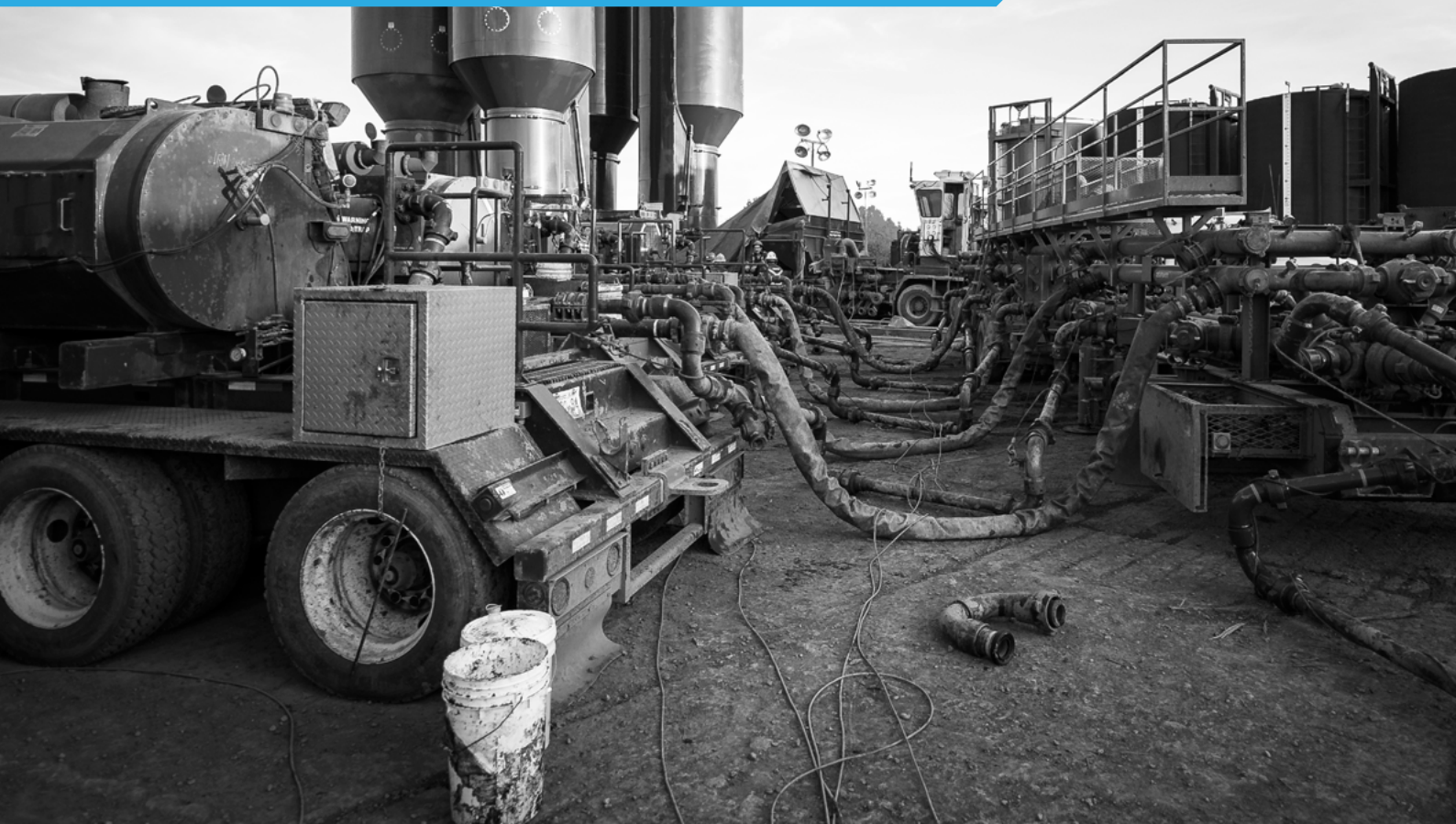
ALIA
INSTRUMENTS

INSTITUTENWEG 25A
7521 PH ENSCHEDE
THE NETHERLANDS

ALIAINSTRUMENTS.COM
INFO@ALIAINSTRUMENTS.COM
+31 (0) 85 77 31 436


NON-NUCLEAR DENSITY METERS WELL SERVICES INDUSTRY

EDITION
DECEMBER 2017



Alia Instruments is a producer of process control equipment in various markets. The Alia Density Meters (ADMs) are used for the continuous density control of different slurries in many applications. These processes are often characterized as challenging processes due to their abrasive or corrosive characteristics.

For many years, there was no option available other than using gamma radiation to measure these slurries from outside the pipe. However, with the inception of Alia Instruments, customers now have a sustainable alternative to control and optimize their processes.

 For more information about Alia Instruments, please refer to the company profile.



Density Meter for the Well Services Industry

The Alia Density Meter (ADM) has two applications in the well services industry:

Cementing

The meter can be used in the cementing process, when the cement is brought into the well during or after the drilling process to secure the pipes in the well by filling and sealing the annulus between the drilled hole and the well casing.

If a cementing job is performed well, it will isolate the different layers, stabilize the well, control corrosion, and therefore protect the environment. The consistency of the cement is of the highest importance for a stable well, as well as for preventing gas leakage and possible drinking water contamination.

Bad cementing jobs, which often result from an inconsistent cement mixture, are the number one cause of environmental problems during fracking operations. Therefore, the ADM is essential to maintaining a consistent cement slurry.

Fracturing

The density meter can also be used on blender trucks to help the operators continuously monitor the density of the mixture and consequently the sand consumption during the process. This enables contractors to accurately follow specifications, as well as increase the efficiency of their operations.

Installing density meters on trucks for such processes usually creates specific challenges for the meter. The vibrations from the truck, both while driving and in operation, should be considered. Additionally, the highly abrasive process can pose serious problems for the meter. However, due to the simple and robust design of the ADM, the system can withstand this application.

Advantages Alia Instruments

- +** A simple, reliable, and robust product
- +** Easy installation; no need for external commissioning engineers
- +** An immediate signal, showing actual values
- +** Measurement of all materials—e.g., sand, metals, rocks, and gases—without any problems (incl. freshwater and saltwater)
- +** Easy integration with existing systems and software

Working principle

The meter's design is as straightforward as possible: an in-line density meter that is robust and exceptionally easy to install and use. The design makes use of Newton's second law of gravity to determine the mass of the slurry, while the volume is a known factor in the meter. This means that the output data is immediate and accurate regardless of pipe diameter or slurry composition.

In order to yield accurate results, all non-gravitational forces working on the device are mitigated. In particular, to overcome arduous process conditions—for example, a dredger rolling on ocean waves, or pipes vibrating under high pressure pumps—an accelerometer is implemented, which can calculate and neutralize any interfering forces simultaneously.



Sustainable
production
optimization

Advantages of using a non-nuclear density meter

- + A more sustainable business management and company reputation
- + Employees who are not afraid to perform checks and repairs
- + No need for special trainings or specifically trained personnel
- + No concerns about more stringent regulations in the future
- + No more challenges when transporting nuclear sources
- + Demonstrating social responsibility, and responding to society's pressure to reduce nuclear waste



Available sizes

ADMs are available in the following standard inner-diameter sizes:

METRIC SIZES (MM)	80	100	150	200	250	300	350	400	450	500	550	600	650
METRIC SIZES (MM)	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300

IMPERIAL SIZES (INCH)	3	4	6	8	10	12	14	16	18	20	22	24	26
IMPERIAL SIZES (INCH)	28	30	6	32	34	36	38	40	42	44	46	50	52

- Apart from the standard sizes displayed above, Alia Instruments can also deliver any customized size.
- Alia Density Meters are delivered with DIN, ASME, JIS, or BS10 standard flanges.

i For specific information about the Alia Density Meter, please refer to the datasheet.



AGENT NETWORK

Alia Instruments aims for a widespread sales network, with representatives in all relevant regions. This enables us to best serve your business by providing someone who understands the local demands and speaks the local language, and who can therefore serve you in the most satisfactory manner.

Alia Instruments' representatives are carefully selected based on their market knowledge and professional business attitude. They are extensively trained by Alia Instruments and are able to provide you with optimal service and support. In order to find your regional point of contact, please visit our website.

SERVICE

Although the ADM is designed in such a manner that the customer can be fully self-sufficient, a complete service package is available:

- Commissioning supervisory service
- A customer support phone line
- The possibility for Alia Instruments remotely reading out the meter
- On-site assistance from the Alia Instruments service team can be requested anytime, anywhere

PRODUCT OPTIONS

Customers who are looking for a more complete service are also welcome. Alia Instruments is capable of delivering several standard options such as flow meters and cross-needle meters. In collaboration with our sister company, Alia Instruments can also deliver various automation solutions.



Alia Instruments is a technology leader, focused solely on our density meter. We aim to become, and remain, the market leader in non-nuclear density meters. This means that the company is in constant development to further improve the meter and make it even more adaptable to the applicable processes. Our meter strives to be the most suitable solution offering sustainable production maximization to each and every one of our customers. We believe that as long as we maintain this focus, we will progressively achieve all of our targets.

Non-nuclear a clear choice

INSTITUTENWEG 25A
7521 PH ENSCHEDE
THE NETHERLANDS

BANK: RABOBANK
IBAN: NL56RABO0316090328
BIC: RABONL2U

CHAMBER OF COMMERCE: 67 81 30 46 | ENSCHEDE
VAT: NL 8571.83.527.B.01