Firma MULTISERW Morek

Twój Partner! Twój Doradca!

MOLDING AND CORE SAND TESTING EQUIPMENT

www.multiserw-morek.pl

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Company history

MULTISERW-Morek is a manufacturer of testing and measuring equipment used to test properties of construction materials (including road construction materials) as well as molding and core sand. Its registered office is located in the village of Marcyporęba in Małopolskie Province in Poland.

All major companies operating in the construction (and road construction) materials and foundry industries in Poland base their activities on the equipment produced by MULTISERW-Morek. In its current form, the Company has been operating since 5 December 1998. Before that time, a private partnership MULTISERW had been active in the same industry. The beginning point of the whole story connected with the activities in the industry of manufacturers of testing and measuring equipment was Instytut Odlewnictwa (Foundry Institute) in Kraków, later reorganized to Przedsiębiorstwo Państwowe (State-owned Undertaking) "WADAP" – Wadowice, where the two co-founders of MULTISER s.c. Morek had been working.

s.c. As a result of economic reforms in Poland, the state-owned organization was wound up in 1990. And that moment was an opportunity to continue the work started by WADAP. When on 12 September 1991, MULTISERW s.c. was incorporated, nobody even imagined that it would grow to its today's proportions. Initially, the Company activities were supposed to be based solely on servicing the equipment manufactured by WADAP. Over time, however, it turned out that the needs of the market were a great deal more complex in terms of how technologically advanced services were demanded, i.e. conducting minor repairs and issuing certificates to laboratory equipment was not enough. And precisely out of the need to design new devices, an agreement was signed with Instytut Odlewnictwa and Akademia Górniczo-Hutnicza (AGH University of Science and Technology) in Kraków. Today both those institutions exercise scientific patronage over the activities of the Company.

Quality

Thanks to the painstaking and systematic work of the whole team, MULTISERW-Morek boasts numerous awards, certificates and medals at the major international trade fairs. The latest achievement of MULTISERW-Morek is the GRANDPRIX at the International Exhibition GEOLOGY 2012 in Warszawa, Poland, which was awarded for the "Electrical Density Gauge (EDG)."

It is also important to note the fact that our Company, despite its small size, is one of the few in this industry on the Polish market. The demands of modern industry and the possibility to make use of the latest developments in the field of measurement technology have led us to continue the development and improvements with regard to equipment manufacture. The testing and measuring instruments made by MULTISERW-Morek are used in industrial laboratories as well as science and research facilities. These instruments are characterized by high quality, which is proven by their users. In order to ensure the highest quality of the instruments manufactured by our Company, we have implemented ISO 9001 Quality Management System as well as ISO 14001 Environmental Management System. Information on our mission and adopted policy of an Integrated Management System can be found at www.multiserw-morek.pl.


CERTYFIKAT

Intertek

MULTISERW-MOREK
Jan Morek

EN ISO 9001:2008


CERTYFIKAT

Intertek

MULTISERW-MOREK
Jan Morek

EN ISO 14001:2004

Service (repairs)

At MULTISERW-Morek we strongly believe that "responsibility is the most important principle. We never leave our Customers on their own when they need us." Customers are very important to us, even after the sale and installation of a device in a laboratory. Thus, we also provide repair services both at the headquarters of MULTISERW-Morek as well as in Customers' laboratories, including Poland, the EU and other countries.

Our team of engineers and technicians provides professional support, helping to solve technical problems. Our employees are highly qualified thanks to their participation at numerous repair training sessions organized by manufacturers of equipment and software. Each and every employee providing technical support to our Customers aims at constant improvement of their skills. Thanks to skilled staff and rich technical facilities, we are well prepared for providing a full range of repair services of the products that we sell. In order to ensure a fast repair of equipment and enable each Customer to continue their work uninterrupted, we offer a wide range of spare parts and replacement equipment. **Our repair services are tailored to each Customer's expectations!**

Laboratory (test) sieves

MULTISERW-Morek is the leading manufacturer of analytical sieves used in quality control laboratories all over the world. All our sieves are made in compliance with national or international specifications. Moreover, each has a declaration of conformity and an individual serial number, which makes it possible to accurately trace its history.

Our analytical sieves undergo inspection according to procedures set out in clause 5.2 of the PN-ISO 3310 standard. Each sieve is manufactured in compliance with the most demanding procedures of ensuring quality and using the best materials. The woven wire cloth is inspected during the production process by means of the optical projection method and complex computer scanning techniques.

Mesh size measurement and frame dimensions of a sieve ensure that our size and dimensions accuracy standards are conformed to, which is proven by declarations of conformity.

Being a manufacturer of laboratory sieves, MULTISERW-Morek also provides conformity assessment services of sieves with the standard and calibration services of PCA sieves (ILAC-MRA), which confirm conformity of our sieves to the PN-ISO 3310-1 and the PN-ISO 3310-2 standards.

MULTISERW-Morek manufactures a wide range of test sieves. We offer both fine woven wire cloth and perforated stainless sheet sieves, addressing the demands of many branches of industry.

Our sieves are available in versions with diameters of 100 (on request), 200, 300 and 400 mm. Sieve mesh sizes range from 125 mm to 0.020 mm for square-shaped mesh and from 125 mm to 1 mm for round-shaped mesh. Our analytical sieves may be supplied with plastic frames (only for 200 mm sieves) or stainless steel frames made of Ak alloy. All sieves are manufactured in accordance with the highest quality standards in order to ensure high quality and precision of the product.

Also available are: sieve covers (for dry sieving or wet sieving using water for rinsing), containers for sieves (dry and wet sieving), intermediate rings made of plastic or stainless Ak alloy, ultrasonic cleaners for laboratory sieves cleaning, sample dividers and many more accessories useful in conducting a sieve analysis.

Sieves sizes table




Stainless woven wire cloth laboratory sieves in accordance with PN-ISO 3310-1/ASTM E11

Mesh size	Ø200 mm × 25 mm	Ø200 mm × 25 mm	Ø200 mm × 25 mm	Ø200 mm × 50 mm	Ø200 mm × 50 mm	Ø200 mm × 50 mm	Ø300 mm × 50 mm	Ø400 mm × 60 mm
----------	Plastic frame	Ak alloy frame	Ak HB* alloy frame	Plastic frame	Ak alloy frame	Ak HB* alloy frame	Ak alloy frame	Ak alloy frame
3.55 mm	2s–3/3.55/25	2s–3/AL/3.55/25	199.5/3.5/25	2s–3/3.55/50	2s–3/AL/3.55/50	199.5/3.5/50	3s–3/3.55/50	4s–3/3.55/50
3.35 mm (No. 6)	2s–3/3.35/25	2s–3/AL/3.35/25	199.5/3.35/25	2s–3/3.35/50	2s–3/AL/3.35/50	199.5/3.35/50	3s–3/3.35/50	4s–3/3.35/50
3.15 mm	2s–3/3.15/25	2s–3/AL/3.15/25	199.5/3.15/25	2s–3/3.15/50	2s–3/AL/3.15/50	199.5/3.15/50	3s–3/3.15/50	4s–3/3.15/50
3.00 mm**	2s–3/3.00/25	2s–3/AL/3.00/25	199.5/3.00/25	2s–3/3.00/50	2s–3/AL/3.00/50	199.5/3.00/50	3s–3/3.00/50	4s–3/3.00/50
2.8 mm (No. 7)	2s–3/2.80/25	2s–3/AL/2.80/25	199.5/2.80/25	2s–3/2.80/50	2s–3/AL/2.80/50	199.5/2.80/50	3s–3/2.80/50	4s–3/2.80/50
2.5 mm	2s–3/2.50/25	2s–3/AL/2.50/25	199.5/2.50/25	2s–3/2.50/50	2s–3/AL/2.50/50	199.5/2.50/50	3s–3/2.50/50	4s–3/2.50/50
2.36 mm (No. 8)	2s–3/2.36/25	2s–3/AL/2.36/25	199.5/2.36/25	2s–3/2.36/50	2s–3/AL/2.36/50	199.5/2.36/50	3s–3/2.36/50	4s–3/2.36/50
2.24 mm	2s–3/2.24/25	2s–3/AL/2.24/25	199.5/2.24/25	2s–3/2.24/50	2s–3/AL/2.24/50	199.5/2.24/50	3s–3/2.24/50	4s–3/2.24/50
2 mm (No. 10)	2s–3/2.00/25	2s–3/AL/2.00/25	199.5/2.00/25	2s–3/2.00/50	2s–3/AL/2.00/50	199.5/2.00/50	3s–3/2.00/50	4s–3/2.00/50
1.80 mm	2s–3/1.80/25	2s–3/AL/1.80/25	199.5/1.80/25	2s–3/1.80/50	2s–3/AL/1.80/50	199.5/1.80/50	3s–3/1.80/50	4s–3/1.80/50
1.7 mm (No. 12)	2s–3/1.70/25	2s–3/AL/1.70/25	199.5/1.70/25	2s–3/1.70/50	2s–3/AL/1.70/50	199.5/1.70/50	3s–3/1.70/50	4s–3/1.70/50
1.6 mm	2s–3/1.60/25	2s–3/AL/1.60/25	199.5/1.60/25	2s–3/1.60/50	2s–3/AL/1.60/50	199.5/1.60/50	3s–3/1.60/50	4s–3/1.60/50
1.4 mm (No. 14)	2s–3/1.50/25	2s–3/AL/1.50/25	199.5/1.50/25	2s–3/1.50/50	2s–3/AL/1.50/50	199.5/1.50/50	3s–3/1.50/50	4s–3/1.50/50
1.25 mm	2s–3/1.25/25	2s–3/AL/1.25/25	199.5/1.25/25	2s–3/1.25/50	2s–3/AL/1.25/50	199.5/1.25/50	3s–3/1.25/50	4s–3/1.25/50
1.18 mm (No. 16)	2s–3/1.18/25	2s–3/AL/1.18/25	199.5/1.18/25	2s–3/1.18/50	2s–3/AL/1.18/50	199.5/1.18/50	3s–3/1.18/50	4s–3/1.18/50
1 mm (No. 18)	2s–3/1.00/25	2s–3/AL/1.00/25	199.5/1.00/25	2s–3/1.00/50	2s–3/AL/1.00/50	199.5/1.00/50	3s–3/1.00/50	4s–3/1.00/50
900 µm	2s–2/0.900/25	2s–2/AL/0.900/25	199.5/0.900/25	2s–2/0.900/50	2s–2/AL/0.900/50	199.5/0.900/50	3s–2/0.900/50	4s–2/0.900/50
850 µm (No. 20)	2s–2/0.850/25	2s–2/AL/0.850/25	199.5/0.850/25	2s–2/0.850/50	2s–2/AL/0.850/50	199.5/0.850/50	3s–2/0.850/50	4s–2/0.850/50
800 µm	2s–2/0.800/25	2s–2/AL/0.800/25	199.5/0.800/25	2s–2/0.800/50	2s–2/AL/0.800/50	199.5/0.800/50	3s–2/0.800/50	4s–2/0.800/50
710 µm (No. 25)	2s–2/0.710/25	2s–2/AL/0.710/25	199.5/0.710/25	2s–2/0.710/50	2s–2/AL/0.710/50	199.5/0.710/50	3s–2/0.710/50	4s–2/0.710/50
630 µm	2s–2/0.630/25	2s–2/AL/0.630/25	199.5/0.630/25	2s–2/0.630/50	2s–2/AL/0.630/50	199.5/0.630/50	3s–2/0.630/50	4s–2/0.630/50
600 µm (No. 30)	2s–2/0.600/25	2s–2/AL/0.600/25	199.5/0.600/25	2s–2/0.600/50	2s–2/AL/0.600/50	199.5/0.600/50	3s–2/0.600/50	4s–2/0.600/50
500 µm (No. 35)	2s–2/0.500/25	2s–2/AL/0.500/25	199.5/0.500/25	2s–2/0.500/50	2s–2/AL/0.500/50	199.5/0.500/50	3s–2/0.500/50	4s–2/0.500/50
425 µm (No. 40)	2s–2/0.425/25	2s–2/AL/0.425/25	199.5/0.425/25	2s–2/0.425/50	2s–2/AL/0.425/50	199.5/0.425/50	3s–2/0.425/50	4s–2/0.425/50
400 µm	2s–2/0.400/25	2s–2/AL/0.400/25	199.5/0.400/25	2s–2/0.400/50	2s–2/AL/0.400/50	199.5/0.400/50	3s–2/0.400/50	4s–2/0.400/50
355 µm (No. 45)	2s–2/0.355/25	2s–2/AL/0.355/25	199.5/0.355/25	2s–2/0.355/50	2s–2/AL/0.355/50	199.5/0.355/50	3s–2/0.355/50	4s–2/0.355/50
315 µm	2s–2/0.325/25	2s–2/AL/0.325/25	199.5/0.325/25	2s–2/0.325/50	2s–2/AL/0.325/50	199.5/0.325/50	3s–2/0.325/50	4s–2/0.325/50
300 µm (No. 50)	2s–2/0.300/25	2s–2/AL/0.300/25	199.5/0.300/25	2s–2/0.300/50	2s–2/AL/0.300/50	199.5/0.300/50	3s–2/0.300/50	4s–2/0.300/50
250 µm (No. 60)	2s–2/0.250/25	2s–2/AL/0.250/25	199.5/0.250/25	2s–2/0.250/50	2s–2/AL/0.250/50	199.5/0.250/50	3s–2/0.250/50	4s–2/0.250/50
212 µm (No. 70)	2s–2/0.212/25	2s–2/AL/0.212/25	199.5/0.212/25	2s–2/0.212/50	2s–2/AL/0.212/50	199.5/0.212/50	3s–2/0.212/50	4s–2/0.212/50
200 µm	2s–2/0.200/25	2s–2/AL/0.200/25	199.5/0.200/25	2s–2/0.200/50	2s–2/AL/0.200/50	199.5/0.200/50	3s–2/0.200/50	4s–2/0.200/50
180 µm (No. 80)	2s–2/0.180/25	2s–2/AL/0.180/25	199.5/0.180/25	2s–2/0.180/50	2s–2/AL/0.180/50	199.5/0.180/50	3s–2/0.180/50	4s–2/0.180/50
160 µm	2s–2/0.160/25	2s–2/AL/0.160/25	199.5/0.160/25	2s–2/0.160/50	2s–2/AL/0.160/50	199.5/0.160/50	3s–2/0.160/50	4s–2/0.160/50
150 µm (No. 100)	2s–2/0.150/25	2s–2/AL/0.150/25	199.5/0.150/25	2s–2/0.150/50	2s–2/AL/0.150/50	199.5/0.150/50	3s–2/0.150/50	4s–2/0.150/50
125 µm (No. 120)	2s–2/0.125/25	2s–2/AL/0.125/25	199.5/0.125/25	2s–2/0.125/50	2s–2/AL/0.125/50	199.5/0.125/50	3s–2/0.125/50	4s–2/0.125/50
106 µm (No. 140)	2s–2/0.106/25	2s–2/AL/0.106/25	199.5/0.106/25	2s–2/0.106/50	2s–2/AL/0.106/50	199.5/0.106/50	3s–2/0.106/50	4s–2/0.106/50
100 µm	2s–2/0.100/25	2s–2/AL/0.100/25	199.5/0.100/25	2s–2/0.100/50	2s–2/AL/0.100/50	199.5/0.100/50	3s–2/0.100/50	4s–2/0.100/50
90 µm (No. 170)	2s–2/0.090/25	2s–2/AL/0.090/25	199.5/0.090/25	2s–2/0.090/50	2s–2/AL/0.090/50	199.5/0.090/50	3s–2/0.090/50	4s–2/0.090/50
80 µm	2s–2/0.080/25	2s–2/AL/0.080/25	199.5/0.080/25	2s–2/0.080/50	2s–2/AL/0.080/50	199.5/0.080/50	3s–2/0.080/50	4s–2/0.080/50
75 µm (No. 200)	2s–1/0.075/25	2s–1/AL/0.075/25	199.5/0.075/25	2s–1/0.075/50	2s–1/AL/0.075/50	199.5/0.075/50	3s–1/0.075/50	4s–1/0.075/50
63 µm (No. 230)	2s–1/0.063/25	2s–1/AL/0.063/25	199.5/0.063/25	2s–1/0.063/50	2s–1/AL/0.063/50	199.5/0.063/50	3s–1/0.063/50	4s–1/0.063/50
53 µm (No. 270)	2s–1/0.053/25	2s–1/AL/0.053/25	199.5/0.053/25	2s–1/0.053/50	2s–1/AL/0.053/50	199.5/0.053/50	3s–1/0.053/50	4s–1/0.053/50
50 µm	2s–1/0.050/25	2s–1/AL/0.050/25	199.5/0.050/25	2s–1/0.050/50	2s–1/AL/0.050/50	199.5/0.050/50	3s–1/0.050/50	4s–1/0.050/50
45 µm (No. 325)	2s–1/0.045/25	2s–1/AL/0.045/25	199.5/0.045/25	2s–1/0.045/50	2s–1/AL/0.045/50	199.5/0.045/50	3s–1/0.045/50	4s–1/0.045/50
40 µm	2s–1/0.040/25	2s–1/AL/0.040/25	199.5/0.040/25	2s–1/0.040/50	2s–1/AL/0.040/50	199.5/0.040/50	3s–1/0.040/50	4s–1/0.040/50
38 µm (No. 400)	2s–0/0.038/25	2s–0/AL/0.038/25	199.5/0.038/25	2s–0/0.038/50	2s–0/AL/0.038/50	199.5/0.038/50	3s–0/0.038/50	4s–0/0.038/50
32 µm	2s–0/0.032/25	2s–0/AL/0.032/25	199.5/0.032/25	2s–0/0.032/50	2s–0/AL/0.032/50	199.5/0.032/50	3s–0/0.032/50	4s–0/0.032/50
25 µm	2s–0/0.025/25	2s–0/AL/0.025/25	199.5/0.025/25	2s–0/0.025/50	2s–0/AL/0.025/50	199.5/0.025/50	3s–0/0.025/50	4s–0/0.025/50
20 µm	2s–0/0.020/25	2s–0/AL/0.020/25	199.5/0.020/25	2s–0/0.020/50	2s–0/AL/0.020/50	199.5/0.020/50	3s–0/0.020/50	4s–0/0.020/50

* sieve diameter corresponding to other manufacturers' sieves: Impact, Retsch, Fritsch, Controls, Infratest, Emel, Eko-Lab, Haver&Boecker
** sieve complying with the Polish technical standard

Firma MULTISERW Morek

Perforated stainless sheet laboratory sieves in accordance with PN-ISO 3310-2/ASTM E11

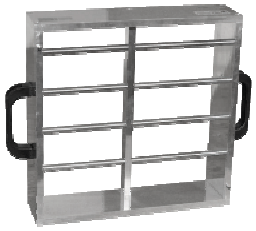
Mesh size	Ø200 mm × 25 mm	Ø200 mm × 25 mm	Ø200 mm × 25 mm	Ø200 mm × 50 mm	Ø200 mm × 50 mm	Ø200 mm × 50 mm	Ø300 mm × 50 mm	Ø400 mm × 60 mm
----------	Plastic frame	Ak alloy frame	Ak HB* alloy frame	Plastic frame	Ak alloy frame	Ak HB* alloy frame	Ak alloy frame	Ak alloy frame
125 mm	2s–4/125.0/25	2s–4/AL/125.0/25	199.5/125.0/25	2s–4/125.0/50	2s–4/AL/125.0/50	199.5/125.0/50	3s–4/125.0/50	4s–4/125.0/50
106 mm	2s–4/106.0/25	2s–4/AL/106.0/25	199.5/106.0/25	2s–4/106.0/50	2s–4/AL/106.0/50	199.5/106.0/50	3s–4/106.0/50	4s–4/106.0/50
100 mm (4")	2s–4/100.0/25	2s–4/AL/100.0/25	199.5/100.0/25	2s–4/100.0/50	2s–4/AL/100.0/50	199.5/100.0/50	3s–4/100.0/50	4s–4/100.0/50
90 mm (3½")	2s–4/90.00/25	2s–4/AL/90.00/25	199.5/90.00/25	2s–4/90.00/50	2s–4/AL/90.00/50	199.5/90.00/50	3s–4/90.00/50	4s–4/90.00/50
80 mm	2s–4/80.00/25	2s–4/AL/80.00/25	199.5/80.00/25	2s–4/80.00/50	2s–4/AL/80.00/50	199.5/80.00/50	3s–4/80.00/50	4s–4/80.00/50
75 mm (3")	2s–4/75.00/25	2s–4/AL/75.00/25	199.5/75.00/25	2s–4/75.00/50	2s–4/AL/75.00/50	199.5/75.00/50	3s–4/75.00/50	4s–4/75.00/50
63 mm (2½")	2s–4/63.00/25	2s–4/AL/63.00/25	199.5/63.00/25	2s–4/63.00/50	2s–4/AL/63.00/50	199.5/63.00/50	3s–4/63.00/50	4s–4/63.00/50
56 mm	2s–4/56.00/25	2s–4/AL/56.00/25	199.5/56.00/25	2s–4/56.00/50	2s–4/AL/56.00/50	199.5/56.00/50	3s–4/56.00/50	4s–4/56.00/50
53 mm (2.12")	2s–4/53.00/25	2s–4/AL/53.00/25	199.5/53.00/25	2s–4/53.00/50	2s–4/AL/53.00/50	199.5/53.00/50	3s–4/53.00/50	4s–4/53.00/50
50 mm (2")	2s–4/50.00/25	2s–4/AL/50.00/25	199.5/50.00/25	2s–4/50.00/50	2s–4/AL/50.00/50	199.5/50.00/50	3s–4/50.00/50	4s–4/50.00/50
45 mm (1¾")	2s–4/45.00/25	2s–4/AL/45.00/25	199.5/45.00/25	2s–4/45.00/50	2s–4/AL/45.00/50	199.5/45.00/50	3s–4/45.00/50	4s–4/45.00/50
40 mm	2s–4/40.00/25	2s–4/AL/40.00/25	199.5/40.00/25	2s–4/40.00/50	2s–4/AL/40.00/50	199.5/40.00/50	3s–4/40.00/50	4s–4/40.00/50
37.5 mm (1½")	2s–4/37.50/25	2s–4/AL/37.50/25	199.5/37.50/25	2s–4/37.50/50	2s–4/AL/37.50/50	199.5/37.50/50	3s–4/37.50/50	4s–4/37.50/50
31.5 mm (1¼")	2s–4/31.50/25	2s–4/AL/31.50/25	199.5/31.50/25	2s–4/31.50/50	2s–4/AL/31.50/50	199.5/31.50/50	3s–4/31.50/50	4s–4/31.50/50
28 mm	2s–4/28.00/25	2s–4/AL/28.00/25	199.5/28.00/25	2s–4/28.00/50	2s–4/AL/28.00/50	199.5/28.00/50	3s–4/28.00/50	4s–4/28.00/50
26.5 mm (1.06")	2s–4/26.50/25	2s–4/AL/26.50/25	199.5/26.50/25	2s–4/26.50/50	2s–4/AL/26.50/50	199.5/26.50/50	3s–4/26.50/50	4s–4/26.50/50
25 mm (1")	2s–4/25.00/25	2s–4/AL/25.00/25	199.5/25.00/25	2s–4/25.00/50	2s–4/AL/25.00/50	199.5/25.00/50	3s–4/25.00/50	4s–4/25.00/50
22.4 mm (7/8")	2s–4/22.40/25	2s–4/AL/22.40/25	199.5/22.40/25	2s–4/22.40/50	2s–4/AL/22.40/50	199.5/22.40/50	3s–4/22.40/50	4s–4/22.40/50
20 mm	2s–4/20.00/25	2s–4/AL/20.00/25	199.5/20.00/25	2s–4/20.00/50	2s–4/AL/20.00/50	199.5/20.00/50	3s–4/20.00/50	4s–4/20.00/50
19 mm (¾")	2s–4/19.00/25	2s–4/AL/19.00/25	199.5/19.00/25	2s–4/19.00/50	2s–4/AL/19.00/50	199.5/19.00/50	3s–4/19.00/50	4s–4/19.00/50
18 mm	2s–4/18.00/25	2s–4/AL/18.00/25	199.5/18.00/25	2s–4/18.00/50	2s–4/AL/18.00/50	199.5/18.00/50	3s–4/18.00/50	4s–4/18.00/50
16 mm (5/8")	2s–4/16.00/25	2s–4/AL/16.00/25	199.5/16.00/25	2s–4/16.00/50	2s–4/AL/16.00/50	199.5/16.00/50	3s–4/16.00/50	4s–4/16.00/50
14 mm	2s–4/14.00/25	2s–4/AL/14.00/25	199.5/14.00/25	2s–4/14.00/50	2s–4/AL/14.00/50	199.5/14.00/50	3s–4/14.00/50	4s–4/14.00/50
13.2 mm (0.530")	2s–4/13.20/25	2s–4/AL/13.20/25	199.5/13.20/25	2s–4/13.20/50	2s–4/AL/13.20/50	199.5/13.20/50	3s–4/13.20/50	4s–4/13.20/50
12.8 mm	2s–4/12.80/25	2s–4/AL/12.80/25	199.5/12.80/25	2s–4/12.80/50	2s–4/AL/12.80/50	199.5/12.80/50	3s–4/12.80/50	4s–4/12.80/50
12.5 mm (½")	2s–4/12.50/25	2s–4/AL/12.50/25	199.5/12.50/25	2s–4/12.50/50	2s–4/AL/12.50/50	199.5/12.50/50	3s–4/12.50/50	4s–4/12.50/50
11.2 mm (7/16")	2s–4/11.20/25	2s–4/AL/11.20/25	199.5/11.20/25	2s–4/11.20/50	2s–4/AL/11.20/50	199.5/11.20/50	3s–4/11.20/50	4s–4/11.20/50
11 mm	2s–4/11.00/25	2s–4/AL/11.00/25	199.5/11.00/25	2s–4/11.00/50	2s–4/AL/11.00/50	199.5/11.00/50	3s–4/11.00/50	4s–4/11.00/50
10 mm	2s–4/10.00/25	2s–4/AL/10.00/25	199.5/10.00/25	2s–4/10.00/50	2s–4/AL/10.00/50	199.5/10.00/50	3s–4/10.00/50	4s–4/10.00/50
9.5 mm (3/8")	2s–4/9.50/25	2s–4/AL/9.50/25	199.5/9.50/25	2s–4/9.50/50	2s–4/AL/9.50/50	199.5/9.50/50	3s–4/9.50/50	4s–4/9.50/50
9 mm	2s–4/9.00/25	2s–4/AL/9.00/25	199.5/9.00/25	2s–4/9.00/50	2s–4/AL/9.00/50	199.5/9.00/50	3s–4/9.00/50	4s–4/9.00/50
8 mm (5/16")	2s–4/8.00/25	2s–4/AL/8.00/25	199.5/8.00/25	2s–4/8.00/50	2s–4/AL/8.00/50	199.5/8.00/50	3s–4/8.00/50	4s–4/8.00/50
7.1 mm	2s–4/7.10/25	2s–4/AL/7.10/25	199.5/7.10/25	2s–4/7.10/50	2s–4/AL/7.10/50	199.5/7.10/50	3s–4/7.10/50	4s–4/7.10/50
6.7 mm (0.265")	2s–4/6.70/25	2s–4/AL/6.70/25	199.5/6.70/25	2s–4/6.70/50	2s–4/AL/6.70/50	199.5/6.70/50	3s–4/6.70/50	4s–4/6.70/50
6.3 mm (¼")	2s–4/6.30/25	2s–4/AL/6.30/25	199.5/6.30/25	2s–4/6.30/50	2s–4/AL/6.30/50	199.5/6.30/50	3s–4/6.30/50	4s–4/6.30/50
5.6 mm (No. 3½")	2s–4/5.60/25	2s–4/AL/5.60/25	199.5/5.60/25	2s–4/5.60/50	2s–4/AL/5.60/50	199.5/5.60/50	3s–4/5.60/50	4s–4/5.60/50
5 mm	2s–4/5.00/25	2s–4/AL/5.00/25	199.5/5.00/25	2s–4/5.00/50	2s–4/AL/5.00/50	199.5/5.00/50	3s–4/5.00/50	4s–4/5.00/50
4.75 mm (No. 4)	2s–4/4.75/25	2s–4/AL/4.75/25	199.5/4.75/25	2s–4/4.75/50	2s–4/AL/4.75/50	199.5/4.75/50	3s–4/4.75/50	4s–4/4.75/50
4 mm (No. 5)	2s–4/4.00/25	2s–4/AL/4.00/25	199.5/4.00/25	2s–4/4.00/50	2s–4/AL/4.00/50	199.5/4.00/50	3s–4/4.00/50	4s–4/4.00/50

Grain sieves in accordance with PN-ISO 5223

Mesh size	Ø200 mm × 50 mm	Ø200 mm × 50 mm	Intended use
----------	Plastic frame	Ak alloy frame	----------
0.70 × 20.00	PS/0.70 × 20.00/50	PS/AL/0.70 × 20.00/50	rape
1.00 × 20.00	PS/1.00 × 20.00/50	PS/AL/1.00 × 20.00/50	all types of grains
1.60 × 20.00	PS/1.60 × 20.00/50	PS/AL/1.60 × 20.00/50	rye, barley
1.70 × 20.00	PS/1.70 × 20.00/50	PS/AL/1.70 × 20.00/50	triticale, wheat
1.80 × 20.00	PS/1.80 × 20.00/50	PS/AL/1.80 × 20.00/50	wheat
1.80 × 25.00	PS/1.80 × 25.00/50	PS/AL/1.80 × 25.00/50	oats
1.90 × 20.00	PS/1.90 × 20.00/50	PS/AL/1.90 × 20.00/50	durum wheat
2.00 × 20.00	PS/2.00 × 20.00/50	PS/AL/2.00 x 20.00/50	wheat
2.20 × 20.00	PS/2.20 × 20.00/50	PS/AL/2.20 × 20.00/50	barley
2.20 × 25.00	PS/2.20 × 25.00/50	PS/AL/2.20 × 25.00/50	malting barley
2.50 × 20.00	PS/2.50 × 20.00/50	PS/AL/2.50 × 20.00/50	wheat
2.50 × 25.00	PS/2.50 × 25.00/50	PS/AL/2.50 × 25.00/50	malting barley
2.80 × 20.00	PS/2.80 × 20.00/50	PS/AL/2.80 × 20.00/50	wheat
2.80 × 25.00	PS/2.80 × 25.00/50	PS/AL/2.80 x 25.00/50	malting barley
3.50 × 20.00	PS/3.50 × 20.00/50	PS/AL/3.50 × 20.00/50	all types of grains
4.00 × 25.00	PS/4.00 × 25.00/50	PS/AL/4.00 x 25.00/50	oats
Ø 1.40	PO/1.40/50	PO/AL/1.40/50	rice grains
Ø 2.80	PO/2.80/50	PO/AL/2.80/50	rape
Ø 3.25	PO/3.25/50	PO/AL/3.25/50	buckwheat
Ø 4.50	PO/4.50/50	PO/AL/4.50/50	corn
Ø 5.00	PO/5.00/50	PO/AL/5.00/50	buckwheat

Bar sieves (grids) in accordance with PN-EN 933-3

Mesh size	Ø300 mm × 50 mm	300 mm × 300 mm × 75 mm
----------	Ak alloy frame	Aluminum frame
= 50.00 mm	P/3s–4/50.00/50	PK/3s–4/50.00/75
= 40.00 mm	P/3s–4/40.00/50	PK/3s–4/40.00/75
= 31.50 mm	P/3s–4/31.50/50	PK/3s–4/31.50/75
= 25.00 mm	P/3s–4/25.00/50	PK/3s–4/25.00/75
= 20.00 mm	P/3s–4/20.00/50	PK/3s–4/20.00/75
= 16.00 mm	P/3s–4/16.00/50	PK/3s–4/16.00/75
= 12.50 mm	P/3s–4/12.50/50	PK/3s–4/12.50/75
= 10.00 mm	P/3s–4/10.00/50	PK/3s–4/10.00/75
= 8.00 mm	P/3s–4/8.00/50	PK/3s–4/8.00/75
= 7.20 mm	P/3s–4/7.20/50	PK/3s–4/7.20/75
= 6.30 mm	P/3s–4/6.30/50	PK/3s–4/6.30/75
= 5.00 mm	P/3s–4/5.00/50	PK/3s–4/5.00/75
= 4.00 mm	P/3s–4/4.00/50	PK/3s–4/4.00/75
= 3.15 mm	P/3s–3/3.15/50	PK/3s–3/3.15/75
= 2.50 mm	P/3s–3/2.500/50	PK/3s–3/2.500/75



* sieve diameter corresponding to other manufacturers' sieves: Impact, Retsch, Fritsch, Controls, Infratest, Emel, Eko-Lab, Haver&Boecker

Foundry engineering

Laboratory sieve shaker, type: LPzE-2e

INTENDED USE

The LPzE-2e device is a laboratory sieve shaker compatible with sieves diameters ranging from 199 to 225 mm. The sieving machine may be used to analyze a maximum of 1.5 kg of loose material (dry or wet). It is the smallest electromagnetically driven laboratory sieving machine manufactured by MULTISERW-Morek. Directly from the control panel, you can set and save the following parameters: sieving time as well as interval and amplitude of vibrations in order to obtain reproducible results of sieve analyses.

ADVANTAGES

- memory for 10 programs
- low noise level
- robust and easy to use
- test sieves may be easily changed using a system of adjustable pulling belts

TECHNICAL CHARACTERISTICS

Sieve working diameter	193 mm
Sieve working height	25 or 50 mm
Sample weight	0–1,500 g
Amplitude (vertical and torsional vibrations)	0–2.5 mm
Vibration frequency	50 Hz (constant)
Working time – adjustable	0–60 min
Weight	25 kg
Power supply	230 V

CATALOG NAMES

LPzE-2e	Laboratory sieve shaker for Ø 100 and 200 mm sieves
LPzE-2s-ZM1	Sieves cover for dry sieving
LPzE-HB-ZM1	HB sieves cover for dry sieving
LPzE-2s-ZM2	Sieves cover for wet sieving
LPzE-HB-ZM2	HB sieves cover for wet sieving
LPzE-2/Zs/25	Sieves container for dry sieving (plastic) – low
LPzE-2/Zs/50	Sieves container for dry sieving (plastic) – high
LPzE-2/Zs/AL/25	Sieves container for dry sieving (Ak) – low
LPzE-2/Zs/AL/50	Sieves container for dry sieving (Ak) – high
199,5/Zs	HB sieves container for dry sieving (Ak)
LPzE-2/Zm/25	Sieves container for wet sieving (plastic) – low
LPzE-2/Zm/50	Sieves container for wet sieving (plastic) – high
LPzE-2/Zm/AL/25	Sieves container for wet sieving (Ak) – low
LPzE-2/Zm/AL/50	Sieves container for wet sieving (Ak) – high
199,5/Zm	HB sieves container for wet sieving (Ak)
LPzE-2s-ZM3	Laboratory sieves set according to PN
LPzE-2s-ZM4	Laboratory sieves set according to DIN
LPzE-2s-ZM5	Laboratory sieves set according to GOST

Typical laboratory sieve sets for molding and core sand testing laboratories:

Standard	Sieves mesh size in mm	Sieves technical parameters
Sieves sets according to PN	Ps cover, 1.60; 0.800; 0.630; 0.400; 0.315; 0.200; 0.160; 0.100; 0.071; 0.056 mm; Zs container	Diameter: 200 mm Height: 25 mm Frame: metal Woven wire cloth: stainless steel
Sieves set according to DIN	Ps cover, 1.40; 1.000; 0.710; 0.500; 0.355; 0.250; 0.180; 0.125; 0.090; 0.063, Zs container	
Sieves set according to GOST	Ps cover; 2.50; 1.60; 1.00; 0.630; 0.400; 0.315; 0.200; 0.160; 0.100; 0.063; 0.050 mm; Zs container	

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Foundry engineering

LPzB-2e sieving machine

INTENDED USE

The primary use of the LPzB-2e air jet sieving machine is sieving very lightweight materials consisting of small particles, which require efficient dispersion. It can save up to
10 programs with any adjustable values of parameters: sieving time, interval, vacuum set in kPa and power value in %. Automatic adjustment of vacuum ensures reproducible and reliable results. Moreover, one of the operation modes allows to perform sieving under vacuum which is manually adjustable in the range from 0–100% of the device power.
Advanced design, dependable air distribution system that uses a rotating nozzle, vacuum adjustment in automatic or manual mode as well as compatibility with sieves as high as 25 mm make the air jet sieving technology even more perfect.

The device complies with the requirements of the following standards:
PN-86/M-94001 Tests of molding sands. Determining the graining of bentonite.
PN-EN 933-10 Tests of geometric properties of aggregates. Fine particles content evaluation. Graining of fillers (sieving in the air stream).

TECHNICAL CHARACTERISTICS

Sieve working diameter	193 mm
Sieve working height	25 mm
Sample weight	0–100 g
Working pressure – adjustable	0–10 kPa
Vibration frequency – constant	50 Hz (constant)
Adjustable working time	0–60 min
Weight	approx. 10 kg
Dimensions	Ø 270 × 430 mm
Power supply	230 V

CATALOG NAMES

LPzB-2e	Air jet sieving machine for Ø 200 mm sieves
LPzB-2e-ZM1	Filtering cover
LPzB-2e-ZM2	Filtering container

Sieves should be ordered as separate items.

Sound absorbing cabinets

INTENDED USE

For many years, MULTISERW-Morek has been selling sound absorbing cabinets used to reduce the noise generated during operation of sieve shakers in laboratory conditions. Drawing on our experience, we have created cabinets allowing to limit noise from a few to a several dozen dB compared to operation in open conditions. Steel walls with a thickness of 500 mm are filled with a purpose-designed sound-absorbing foam. At the Customer's request, the cabinet's door may have a special viewing window which enables the user to monitor the sieving process.

CATALOG NAMES

SzE-2e	dedicated for LPzE-2e and LPzE-3e sieve shakers
SzE-4e	dedicated for LPzE-3e and LPzE-4e sieve shakers

There is a possibility to build a sound absorbing cabinet according to the Customer's requirements.

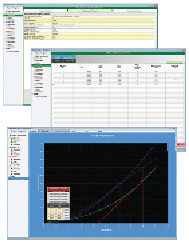
Software

INTENDED USE

The MMK software is used in laboratories where sieve analysis tests (fraction distribution analysis) are conducted. In essence, the program makes it easier and more efficient to run a test as well as shortens as much as possible the needed time. At the same time, it enables its user to store the obtained measurements, create measurement series as well as compare and present the data in the form of reports and graphs.

CATALOG NAMES

MMK	Sieve analysis software



Foundry engineering

Sand sampler

INTENDED USE

The LZ sampler is designed to take sands and molding sand samples from heaps and landfills.

TECHNICAL CHARACTERISTICS

Capacity	0.9 dm^3
Weight	2.5 kg
Dimensions	Ø 50 × 130 cm

CATALOG NAMES

LZ	Sand sampler

Sand binder washer

INTENDED USE

The LSz-2 device is used to elutriate mineral particles (binder) with a grain size of less than 0.02 mm present in the molding sands in order to determine their percentage content.

TECHNICAL CHARACTERISTICS

Speed	2,850 RPM
Beaker capacity	1,000 ml
Power	200 W
Power supply	230 V, 50 Hz
Weight	5 kg
Dimensions	20 × 30 × 70 cm

CATALOG NAMES

LSz-2	Sand binder washer
LSz-2/w	LSz-2 device accessories (complete set)
LSz-2-203	Glass beaker
LSz-2-018	Syphon bottle

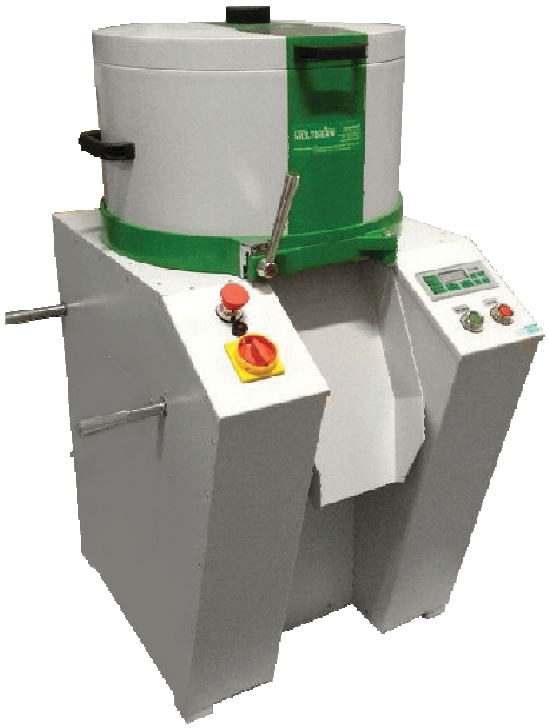
Laboratory muller

INTENDED USE

The LM-2e laboratory muller is designed to:

- prepare molding sand;
- reduce size of grains and mulling ceramic materials whose hardness is smaller than 5 on the Mosh scale.

The device is perfect for short but thorough primary or secondary mixing of the molding sand as well as preparing synthetic laboratory mixtures.



TECHNICAL CHARACTERISTICS

Maximum bowl filling weight	6 kg
Muller width	70 mm
Head I and II muller weight	11.5 kg
Head III muller weight	30 kg
Pressure adjustment range	115–330 N
Water container capacity	0.3 dm^3
Mixing unit rotational speed – adjustable	30–160 RPM
Power supply voltage	230 V, 50 Hz
Operation mode	manual and automatic
Dimensions	72 × 55 × 120 cm
Mixture weight	180 kg

CATALOG NAMES

LM-2e	Laboratory muller
LM-2e/w	Laboratory muller accessories
LM-2e-019	Water dosing funnel

Laboratory core muller with heating bowl

INTENDED USE

The LM-4e laboratory core muller with heating bowl is designed to coat (cover) molding sands with resin. The device is ideal for short but thorough primary or secondary mixing of the molding sand. In order to obtain the best coating efficiency, the following equipment has been installed: a heated bowl with the option to adjust temperature as well as a purpose-designed mixing head with a muller unit and scraper blades. One unquestionable advantage of the device is the bowl inclination adjustment function that is available while mixing.

TECHNICAL CHARACTERISTICS

Bowl capacity	approx. 6 kg
Rotational speed	30–160 RPM
Operating temperature	adjustable
Power consumption	approx. 3,800 W
Power supply	230 V, 50 Hz
Weight	180 kg
Dimensions	72 × 55 × 100 cm

CATALOG NAMES

LM-4e	Laboratory core muller with heating bowl

Foundry engineering

Laboratory intensive mixer with rotating bowl

INTENDED USE

The device is designed to mix various materials (dry or moist).
It has been equipped with a rotating bowl with a capacity of 18 liters and stainless steel blades. If necessary, the blades may be adjusted according to the user's needs.

Advantages:

- 18-liter rotating bowl
- automatic raising/lowering system of the mixer arm
- visor allowing to add doses of materials while mixing
- adjustable rotational speed of the mixer arm
- adjustable rotational speed of the bowl
- electronic controller allowing to save mixing programs
- power supply: 230 V, 50 Hz
- weight: 120 kg

CATALOG NAMES

LM-3e	Laboratory intensive mixer with rotating bowl

Core sand mixer

INTENDED USE

Being high quality devices for professional laboratory work, the RN10 mixers stand out from other similar devices thanks to the implementation of a planetary motion of their instruments. This unique operation mode involves a motion of the instrument along the circumference of a stationary bowl and, at the same time, rotation about its own axis.
The RN10 devices are fitted with energy-efficient engines, safety switches and clocks that allow to adjust the mixing time. Stepless rotational speed adjustment for mixing in the range from 100 to 460 RPM of the instrument. Robustness, reliability and durability are ensured by a full metal construction. A direct drive, that eliminates belts and chains, makes the mixer work more quietly than others.

TECHNICAL CHARACTERISTICS

Rotational speed of the mixer arm – adjustable	110–460 RPM
Power	750 W
Power supply	230 V, 50 Hz
Weight	110 kg
Dimensions	40 × 70 × 110 cm

CATALOG NAMES

RN10	Core sand mixer (10 l)
RN-10P	Core sand mixer (10 l) with mixing blades adjustment
RN/M10	10-liter stainless steel bowl
RN10/M-001	Mixing blades – flat

Laboratory rammer – hand drive version

INTENDED USE

The LU-1 hand driven (manual) laboratory rammer is designed to prepare laboratory profiles from molding materials for the purpose of testing their strength properties. Using the accessories (complying with PN, DIN or GOST as required), it is possible to prepare the following samples for testing purposes:

- cylindrical samples to test compressive, shear and splitting strength;
- oblong samples to test bending strength;
- dog bone samples to test tensile strength.

TECHNICAL CHARACTERISTICS

Nominal mass of the weight	6.667 kg (6.350 kg GOST)
Weight drop height	50.3 mm (50.00 mm GOST)
Nominal compaction work (3 impacts of the weight)	9.80 J (9.34 J GOST)
Weight	45 kg
Dimensions	26 × 40 × 60 cm

CATALOG NAMES

LU-1	Laboratory rammer – hand drive version (PN/DIN)
LU-1r	Laboratory rammer – hand drive version (GOST)
LU-1/w	LU-1 rammer accessories PN/DIN – complete set
LU-1/wr	LU-1 rammer accessories GOST – complete set
LU/LUA-ws	Rammer block – a wooden base for the rammer with a base plate

Laboratory rammer – automatic drive version

INTENDED USE

The semi-automatic laboratory rammer LUA-2e is designed to prepare laboratory profiles from molding materials for the purpose of testing their strength properties. Using accessories (complying with PN, DIN or GOST as required), it is possible to prepare the following samples for testing purposes:

- cylindrical samples to test compressive, shear and splitting strength;
- oblong samples to test bending strength;
- dog bone samples to test tensile strength.

The LUA-2e device is controlled electrically with the possibility to perform a set number of repeatable impacts. Thanks to this, the probability of incorrectly preparing a test sample is minimized.

LU-1/w

TECHNICAL CHARACTERISTICS

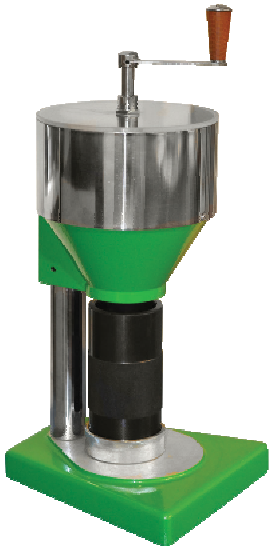
Nominal mass of the weight	6.667 kg (6.350 kg GOST)
Weight drop height	50.3mm (50.00 mm GOST)
Nominal compaction work (3 impacts of the weight)	9.80 J (9.34 J GOST)
Power supply	230 V, 50 Hz
Power	200 W
Weight	48 kg
Dimensions	26 × 40 × 60 cm

CATALOG NAMES

LUA-2e	Laboratory rammer – automatic drive version (PN/DIN)
LUA-2er	Laboratory rammer – automatic drive version (GOST)
LU-1/w	LUA-2e rammer accessories PN/DIN – complete set
LU-1/wr	LUA-2e rammer accessories GOST – complete set
LU/LUA-ws	Rammer block – a wooden base for the rammer with a base plate

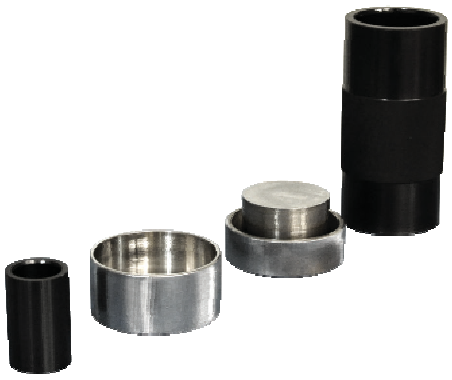
Foundry engineering

Digital compactibility tester



LPr-

LPr-2e/w2



INTENDED USE

The LPr-2e device is designed to assess qualitatively the molding sand used in the technology of molding under high pressures. The press allows you to:

- prepare cylindrical profiles by applying a desired pressure;
- determine molding sand compactibility under the pressure of 100 N/m^2;
- determine compressive strength under pressures of up to 500 N/m^2.

An additional piece of equipment included in the package is a device designed to determine the bulk density of molding sand and loose materials.
The data from the device may be transferred to a PC and then analyzed using specialist MMRD software.

TECHNICAL CHARACTERISTICS

Profile dimensions	Ø 50 × 50 mm
Compactibility range	20–80%
Maximum pressure	5 MPa (500.0 N/cm^2)
Compaction rate	20 s or freely adjustable
Oil container capacity	4.2 l
Power	200 W
Power supply	230 V, 50 Hz
Dimensions	30 × 58 × 42 cm
Weight	70 kg

CATALOG NAMES

LPr-2e	Digital compactibility tester
LPr-2e/w	LPr-2e device accessories (complete set)
LPr-2e/w1	Grinder for grinding down sand
LPr-2e/w2	Bulk density testing device
LPr-2e/w3-004	Measuring cylinder
LPr-2e/w3-001	Cylinder base used to measure compactibility
LPr-2e/w3-002	Cylinder base used to prepare profiles

Digital permeability tester

INTENDED USE

The LPiR-3e device is designed to measure the permeability of molding materials, e.g. moist, dry or hardened molding and core sand as well as quartz sands, etc. The device has been equipped with RS232 interface for the purpose of transferring data to a PC in order to record, archive or further edit them with the use of specialist MMRD software.

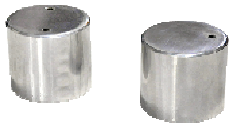
TECHNICAL CHARACTERISTICS

Sample dimensions	Ø 50 × 50 mm
Working pressure	980 Pa (100 mm H_2O)
Measuring range expressed in permeability units (10^{-8} m/Pa s)	2–80 permeability units for a Ø 0.5 mm nozzle 70–4,000 permeability units for a Ø 1.5 mm nozzle
Dimensions	42 × 32 × 26 cm
Power supply	230 V, 50 Hz
Weight	17 kg

CATALOG NAMES

LPiR-3e	Digital permeability tester
LPiR-3e/w1	Cylinder used to determine the permeability of dry samples
LPiR-3e/w2	Adapter used to determine the permeability of sand castings
LPiR-3e/w3	LPiR-3e device accessories (instruments used to compare the results to a standard)
LPiR-3e/w4	Calibration kit

LPiR-3e/w1



LPiR-3e/w3

Digital wet tensile strength testing machine

INTENDED USE

The LRP machine is used to determine tensile strength in the over-moisture zone, i.e. wet tensile strength. The device has been equipped with a data transfer interface for the purpose of transferring data to a PC in order to record, archive or further edit them with the use of specialist MMRD software.

TECHNICAL CHARACTERISTICS

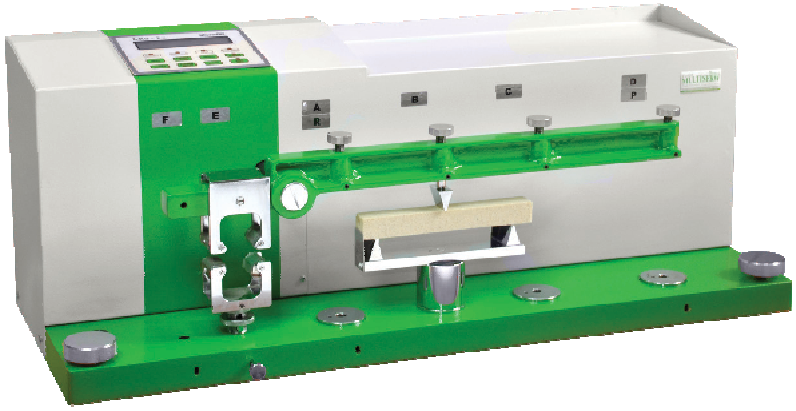
Stress measuring range	0–999.0 N/cm^2
Heating temperature	100.0–350.0 ℃
Heating time	0–9.50 min
Power	approx. 500 W
Power supply	230 V, 50 Hz
Dimensions	30 × 35 × 60 cm
Weight	20 kg

CATALOG NAMES

LRP	Digital wet tensile strength testing machine
LRP/w	LRP machine accessories – complete set
LRP/K	Calibration kit

Foundry engineering

Universal strength testing machine



LRu-2e/w

INTENDED USE

The LRu-2e machine is designed to test the strength of moist, dry or hardened laboratory profiles made of molding and core sand. Measuring range: 0–3,360 N/cm². The machine can be used to measure the following properties: compressive, shear, splitting, double share, tensile and bending strength as well as the flexion angle. The data from the machine may be transferred to a PC and then analyzed using specialist MMRD software.

NOTICE

A special instrument dedicated for the LRu-2e machine is the LRuW adapter used to measure tensile strength of moist molding sand. Measuring range: 0–3.3 N/cm².

TECHNICAL CHARACTERISTICS

Drive	electric
Control	semi-automatic
Pressure increase rate	linear: 0.25 N/cm²
Dimensions	78 × 29 × 30 cm
Power	approx. 100 W
Power supply	230 V, 50 Hz
Weight	86 kg

MEASURING RANGES

Compression		Standard
RcI support B	0–22.40 N/cm²	PN/EN/DIN/GOST
RcII support A	10–67.20 N/cm²	
RcIII support R	30–200 N/cm²	
Shear		**Standard**
RtI support B	0–17.4 N/cm²	PN/EN/DIN/GOST
RtII support A	10–52.60 N/cm²	
RtIII support R	30–156 N/cm²	
Bending		**Standard**
Rg1 support B	0–870 N/cm²	PN/EN/DIN
Rg2 support A	500–2,640 N/cm²	
RgS support D	0–3,300 N/cm²	
Rg7 support B	0–3,300 N/cm²	
RgS 7 support D	0–1,300 N/cm²	
Rg8 support B	0–2,500 N/cm²	
RgS 8 support D	0–1,000 N/cm²	
Rg1G support B	0–705 N/cm²	GOST
Rg2G support A	500–2,100 N/cm²	
Double shear		**Standard**
RtI support B	0–11.20 N/cm²	PN/EN/DIN/GOST
RtII support A	5–33.60 N/cm²	
RtIII support R	10–100 N/cm²	
Splitting		**Standard**
RpI support B	0–17.4 N/cm²	PN/EN/DIN/GOST
RpII support A	10–52.60 N/cm²	
RpIII support R	30–156 N/cm²	
Tensile strength		**Standard**
RmI support F	0–130 N/cm²	PN/EN/DIN
RmII support E	80–260 N/cm²	
RmIG support F	0–105 N/cm²	GOST
RmIIG support E	80–210 N/cm²	
Wet tensile strength		**Standard**
Rmw support P	0–3.3 N/cm²	PN/EN/DIN/GOST

CATALOG NAMES

LRu-2e	Universal strength testing machine (PN/DIN)
LRu-2er	Universal strength testing machine (GOST)
LRu-2e/w	LRu-2e machine (PN/DIN) accessories – complete set
LRu-2e/wr	LRu-2er machine (GOST) – complete set
LRu-K	Calibration kit
LRuW	Adapter used to measure tensile strength of moist molding sand

LRuW

Firma MULTISERW Morek

Foundry engineering

Universal strength testing machine

INTENDED USE

The LRuE-2e machine is designed to test strength properties of standardized samples of moist, dry or chemically hardened molding and core sand in accordance with PN 83 H-11073/EN, GOST. The data from the machine may be transferred to a PC and then analyzed using specialist MMRD software.

TECHNICAL CHARACTERISTICS

Drive	electric
Control	semi-automatic
Pressure increase rate	linear: 0.25 N/cm^2
Dimensions	78 × 40 × 60 cm
Power	100 W
Power supply	230 V, 50 Hz
Weight	150 kg

MEASURING RANGES

Compression		Standard
RcI	0–7.5 N/cm^2	PN/EN/DIN/GOST
RcII	5.4–15.0 N/cm^2	
RcIII	9.0–75.0 N/cm^2	
RcIV	54.0–150.0 N/cm^2	
RcV	90.0–250.0 N/cm^2	
RcVI	180.0–500.0 N/cm^2	
Shear		**Standard**
RtI	0–6.0 N/cm^2	PN/EN/DIN/GOST
RtII	4.5–12.0 N/cm^2	
RtIII	9.0–60.0 N/cm^2	
RtIV	45.0–120.0 N/cm^2	
RtV	90.0–200.0 N/cm^2	
RtVI	150.0–400.0 N/cm^2	
Bending		**Standard**
RgI	0.0–300.0 N/cm^2	PN/EN/DIN/GOST
RgII	225.0–600.0 N/cm^2	
RgIII	450.0–3,000.0 N/cm^2	
RgIV	2,250.0–6,000.0 N/cm^2	
RgIG	0.0–215.0 N/cm^2	GOST
RgIIG	100.0–430.0 N/cm^2	
RgIIIG	200.0–2,150.0 N/cm^2	
RgIVG	400.0–4,300.0 N/cm^2	
Tensile strength		**Standard**
RmI	0–100.0 N/cm^2	PN/EN/DIN/GOST
RmII	75.0–200.0 N/cm^2	
RmIII	90.0–250.0 N/cm^2	
RmIV	180.0–500.0 N/cm^2	
Wet tensile strength		**Standard**
Rmw	0–3.3 N/cm^2	PN/EN/DIN/GOST

LRuE-2e/w

CATALOG NAMES

LRuE-2e	Universal strength testing machine (PN/DIN)
LRuE-2er	Universal strength testing machine (GOST)
LRuE-2e/w	LRuE-2e machine (PN/DIN) accessories – complete set
LRuE-2e/wr	LRuE-2e machine (GOST) accessories – complete set
LRu-K	Calibration kit
LRuW	Adapter used to measure tensile strength of moist molding sand

Foundry engineering

Gas volume tester

INTENDED USE

The device has been manufactured in accordance with the requirements of the BN-76/4005 standard. It consists of a furnace with a quartz reactor and a measuring kit with a burette (filled with water) calibrated at 1 ml steps as well as a surge vessel with a comfortable to use position adjustment mechanism. The furnace has been equipped with a precise, electronic temperature control which makes it possible to adjust and maintain a given temperature independently of the ambient temperature (+/–5 ºC, up to 1,100 ºC). The volume of emitted gases is determined in the atmosphere of carbon dioxide whose flow is regulated with a valve connected to a rotameter. The device has been equipped with a gas cleaning and drying system and the 3-way valves allow to purge the working space before making a measurement.

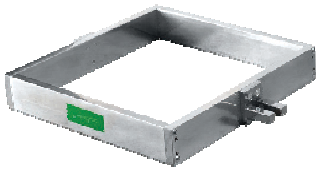
Advantages:

- robust and easy to use
- high reproducibility of measurements
- short measuring time
- high precision of temperature distribution and adjustment

CATALOG NAMES

PR-45/1200MM	Gas volume tester

Vibrating table for preparing samples from self-hardening core sand



Mounting frame (small) dedicated for the LUZ-2e/ZM1, ZM2, ZM3, ZM4 accessories

Mounting frame (large) dedicated for the LUZ-2e/ZM6, ZM7 accessories

INTENDED USE

The LUZ-2e device is designed to prepare standardized laboratory, cylindrical, dog bone and oblong samples from loose, self-hardening molding and core sand, which is used to determine the following strength properties: compressive, shear, tensile, bending, permeability, abrasibility of the sag and others. The device allows to prepare simultaneously from 5 to 12 samples with identical degree of compaction.

TECHNICAL CHARACTERISTICS

Compaction time	adjustable (0–30 s)
Vibration amplitude	adjustable (0–1.5 mm)
Vibration frequency	50 Hz
Power	400 W
Power supply	230 V, 50 Hz
Dimensions	34 × 32 × 33 cm
Weight	25 kg

LUZ-2e	Vibrating table for preparing samples from self-hardening core sand
LUZ-2e/ZM1	Accessories for preparing cylindrical samples
LUZ-2e/ZM2	Accessories for preparing dog bone samples
LUZ-2e/ZM4	Accessories for preparing oblong samples (5 pieces)
LUZ-2e/ZM9	Mounting frame (small) dedicated for the LUZ-2e/ZM1, ZM2, ZM3, ZM4, ZM5 accessories
LUZ-2e/ZM6	Accessories for preparing oblong samples (12 pieces)
LUZ-2e/ZM8	Mounting frame (large) dedicated for the LUZ-2e/ZM6, ZM7 accessories
LUZ-2e/ZM3	Accessories for preparing dog bone samples (GOST)
LUZ-2e-ZM5	Accessories for preparing oblong samples (5 pieces) (GOST)
LUZ-2e-ZM7	Accessories for preparing oblong samples (12 pieces) (GOST)

Resin coated sand softening point tester

INTENDED USE

The LTM-3e device is designed to determine the softening point temperature of resin coated sands. The softening point temperature determines the usability of tested sand for mold and core forming purposes using the shell molding method.
The data from the device may be transferred to a PC and then analyzed using specialist MMRD software.

TECHNICAL CHARACTERISTICS

Temperature range	60–120 ℃
Accuracy	+/–1 ℃
Heating time – adjustable	0–9.50 min
Sand blow-through pressure – adjustable	0–6 bar
Power supply	230 V, 50 Hz
Weight	approx. 40 kg
Dimensions	90 × 35 × 40 cm

CATALOG NAMES

LTM-3e	Resin coated sand softening point tester

Universal hot-distortion and bending strength machine

INTENDED USE

The LRu-DMA machine allows to conduct the following types of tests:

- Studying high-temperature phenomena in sand molded casting cores (hot-distortion).
- Testing sand bending strength using the COLD-BOX, Croning and CO_2 technologies.

The machine allows to save up to 200 measurements and calculate a mean from a series of measurements. It is possible to connect a printer to it which can, apart from recording the results, record the graph showing the evolution of bending until a breaking point has been reached. The machine has been equipped with a data transfer interface for the purpose of transferring data to a PC in order to record, archive or edit them further.

TECHNICAL CHARACTERISTICS

Heating temperature	100.0–990.0 ℃
Heater power	range: 10–100 %
Heating time limit	range: 1–60 min
Power supply	230 V, 50 Hz
Weight	15 kg

Dimensions of a profile used to measure distortion and bending strength:

- 2.50 × 0.60 cm – 1.50 cm^2
- 2.24 × 2.24 cm – 5.00 cm^2
- 2.24 × 0.70 cm – 1.57 cm^2

Bending strength measuring range: 0–14 MPa

Sample heating modes:

- set temperature – heating from the top
- set temperature – heating from the bottom
- set power – heating from the bottom
- set power – heating from the top
- heating from the bottom

CATALOG NAMES

LRu-DMA	Universal hot-distortion and bending strength machine

Foundry engineering

Universal core shooter (core blower) in Hot-box, Cold-box, Inorganic and CO_2 technologies

INTENDED USE

The LUT machine is designed to prepare test samples and small cores by means of the Hot-box, Cold-box, CO_2 and Inorganic technologies. In order to start the formation of samples, simply connect the machine to the mains and a compressed air system. The presented series of automatic shooters is characterized by a small and compact design. The machine is versatile and easy to use, since its operation does not require the presence of qualified staff. All its components, i.e. electronic control panel, control cabinets, working chamber and gas dosing device are integrated to form a unified, modular network, which makes it easier to use the machine.

Advantages:

- integrated, modular design
- it is possible to use the Hot-Box, Cold-Box, Inorganic and CO_2 technologies
- shot capacity ranging between 1 and 2.5 l
- compact design does not take up much space while in operation
- it is possible to mount the machine on a laboratory table or on a purpose-designed mobile table with levelling function
- low energy consumption
- intuitive, easy to use control system
- wide range of accessories, including in particular core boxes for the production of test samples to test bending, compressive and tensile strength
- it is possible to customize the machine to specific requirements of the Customer
- good price
- low operating costs.

Do not wait and contact us today to get specific information on the machine, its accessories, prices and terms of delivery!

TECHNICAL CHARACTERISTICS

Operating temperature	100–355 ℃
Shot time	0.1–20 s
Heating time	0–600 s
Working pressure – adjustable	0.4–0.6 MPa
Heaters power	2 × 1.5 kW
Mold and feeder components' drive	pneumatic
Power supply	230/380 V
Dimensions	60 × 125 × 90 cm
Weight	225 kg

CATALOG NAMES

LUT	Universal core shooter (core blower) in Hot-Box, Cold-Box, Inorganic and CO_2 technologies
LUT-ZM1	Mobile table with levelling system

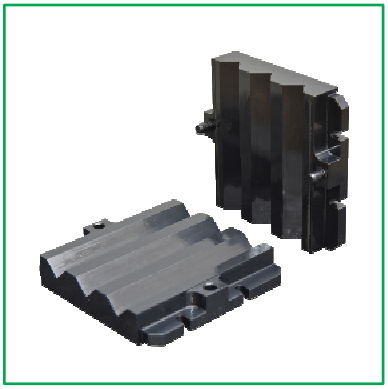
LUT/G

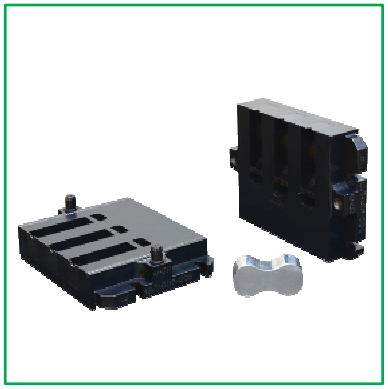
CATALOG NAMES (ACCESSORIES)

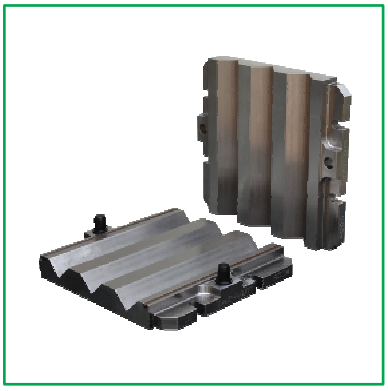
HOT-BOX/CRONING		
OBLONG SAMPLES	**DOG BONE SAMPLES**	**ø 50 mm SAMPLES**
LUT/R-ZM1 – 22.4 × 22.4 mm core box LUT/R-ZM2 – 7 × 22.4 mm core box LUT/R-ZM5 – 22.4 × 22.4 mm core box with a heating panel	LUT/R-ZM6 – core box LUT/R-ZM13 – core box (GOST)	LUT/R-ZM8 – core box
LUT/ZTS-ZM1 – sand storage container	LUT/ZTS-ZM8 – sand storage container	LUT/ZTS-ZM5 – sand storage container
LUT-ZM4-001 – panel blowing gas through		LUT-ZM4-003 – panel blowing gas through

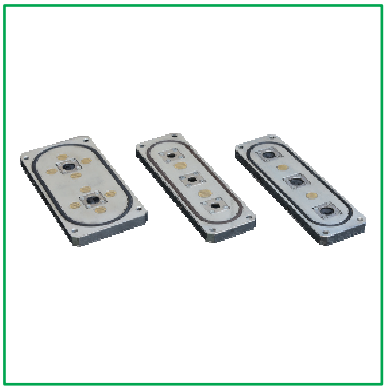
COLD-BOX / CO_2		
OBLONG SAMPLES	**DOG BONE SAMPLES**	**ø 50 mm SAMPLES**
LUT/R-ZM3 – 22.4 × 22.4 mm core box LUT/R-ZM4 – 7x22.4 mm core box	LUT/R-ZM7 – core box LUT/R-ZM14 – core box (GOST)	LUT/R-ZM9 – core box
LUT/ZTS-ZM2 – sand storage container	LUT/ZTS-ZM9 – sand storage container	LUT/ZTS-ZM6 – sand storage container
LUT-ZM4-001 – panel blowing gas through		LUT-ZM4-003 – panel blowing gas through
LUT/G – gas dosing device		

INORGANIC		
OBLONG SAMPLES	**DOG BONE SAMPLES**	**ø 50 mm SAMPLES**
LUT/R-ZM1 – 22.4 × 22.4 mm core box LUT/R-ZM2 – 7 × 22.4 mm core box LUT/R-ZM5 – 22.4 × 22.4 mm core box with a heating panel	LUT/R-ZM6 – core box LUT/R-ZM13 – core box (GOST)	LUT/R-ZM8 – core box
LUT-ZTS-ZM3 – sand storage container	LUT-ZTS-ZM10 – sand storage container	LUT-ZTS-ZM7 – sand storage container
LUT-ZM4-002 – panel blowing gas through		LUT-ZM4-004 – panel blowing gas through
LUT/MA – external module for LUBER gas dosing device		
LUT/WA – hose with a heater		



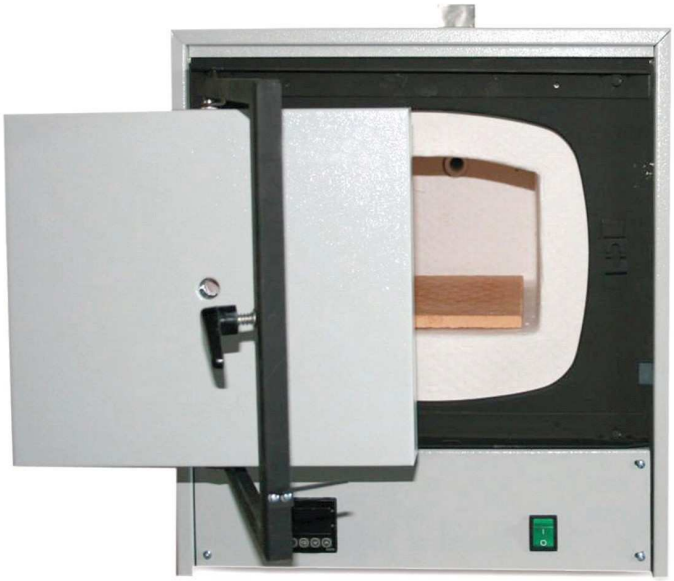






Foundry engineering

Muffle furnace EN 196-2



INTENDED USE

High temperature muffle furnace is used to determine the extent of loss during calcination of cement and building lime. Max. temperature: 1,100 or 1,300 ℃.
High precision electric furnaces designed to conduct thermal analysis work. The furnaces are equipped with doors opening to the left or to the bottom. They may be used in scientific laboratories, teaching institutions, medicine and industry.

ADVANTAGES

- working chamber made of thermoinsulating material, ceramic fiber
- four-side heating up
- switch protecting the door
- ceramic bottom plate
- microprocessor-based thermoregulator
- short heating up time
- tightly closed door
- low energy consumption
- high level of precision
- compatible with a PC

TECHNICAL CHARACTERISTICS

Maximum operating temperature	1,100 ºC	1,300 ºC
Chamber capacity	8.2 l	7.2 l
Working chamber dimensions (width × length × height)	20 × 30 × 13.5 cm	
Power supply	230 V, 50 Hz	
Power	1,800 W	3,800 W
Weight	33 kg	105 kg

CATALOG NAMES

SNOL8,2/1100	Muffle furnace EN 196-2
SNOL7,2/1300	Muffle furnace EN 196-2
PR-45-206	Ceramic pot (sampling boat)
PR-45-207	Ø 35 × 38 mm ceramic tray
PR-45-208	Ø 40 × 25 mm ceramic tray
30.355.303.35	Laboratory pliers
491.04.1101	Protective gloves, heat-resistant (3 fingers)

Molding sand peel measuring device

INTENDED USE

The molding sand peel measuring device is designed to measure how much the surface of molding sand peels off when subjected to the action of temperature in order to evaluate the quality of a binder.

Advantages:

- electronic control with automatic press cycle
- temperature control in the range from 0 to 160 ℃
- roll rotation adjustment
- working time adjustment in the range from 0 to 60 min
- precise weighing system with a precision of 0.001 g
- precise heating system
- measurement result is displayed after the completion of a working cycle (%)

CATALOG NAMES

LS-2e	Molding and core sand peel measuring device

Laboratory scales – PS series (internal calibration)

INTENDED USE

The PS scales have a 12-key control panel and a backlit LCD or a graphic touch display. Their scale pans' dimensions are 128 × 128 and 195 × 195 mm. The scales with a 128 ×128 mm scale pans are equipped with glass shields protecting the loads being weighed against any possible airflows. The scales have an internal calibration system. As standard equipment, each scale has RS232 interface and allows to connect an additional display.

The GLP control procedure for these scales is presented in the form of a scale calibration report and this cannot be modified. The scales can also weigh loads outside the scale pan, i.e. under the scale pan, as the load is suspended under the scale itself. It is an alternative used in the case of loads with non-standard dimensions and shapes as well as those generating a magnetic field. This weighing method is also used when determining the density of bodies. **Please contact our Sales Department to get accurate information on prices: phone 33 8792 172.**

Laboratory scales – WLC and WLC/A2 series (internal calibration)

INTENDED USE

The WLC scales are designed for fast and accurate measurement of weight in laboratory and industrial conditions. They may also be used in places where there is no 230 V mains, since all of them have been factory-equipped with an internal battery and RS232 interface. All scales types (scale pan: 125 × 145, 128 × 128, 195 × 195, 290 × 360 and 400 × 500 mm) have scale pans made of stainless steel and backlit LCDs, ensuring good readability of results. The A2 scales can weigh loads outside the scale pan, i.e. under the scale pan, as the load is suspended under the scale itself. It is an alternative used in the case of loads with non-standard dimensions and shapes as well as those generating a magnetic field. This weighing method is also used when determining the density of bodies.

The scales are certified in two stages (internal calibration not available). It is necessary to calibrate them in the place of use due to the effects of gravitational acceleration.
The cost of the second stage of certification is not included in the price and depends on the place of use of a scale. **Please contact our Sales Department to get accurate information on prices: phone 33 8792 172.**

Laboratory moisture analyzers

Laboratory moisture analyzers – MAX series

INTENDED USE

A moisture analyzer is a laboratory measuring device designed to determine the relative moisture content in small samples of various materials. The MA.R series sets new standards for moisture analyzers.

The moisture analyzers have been equipped with a new and easy to read LCD which has a new information text line allowing to display additional messages and information, e.g. name of the goods or tare value. Additionally, by displaying symbols, the moisture analyzers indicate the active operation mode, connection to a PC as well as weighing and service functions.
The MA.R moisture analyzers have been equipped with many communication interfaces: RS 232, USB-A, USB-B and optionally WiFi. The scale body is made of plastic.

DATABASES IN R SERIES MOISTURE ANALYZERS

In the case of the R series moisture analyzers, the information system has been based on 6 databases which allow many users to work with many goods and optionally further analyze the measurements stored in a database.

Data are stored in 6 databases:
- users' (up to 100 users)
- goods' (up to 1,000 items)
- weighing (up to 1,000 weighing procedures)
- tare's (up to 100 tare entries)
- drying programs' (up to 100 programs)
- drying reports' (up to 1,000 reports).

Data exchange in the system is carried out in two directions through USB interface. The MA.R moisture analyzers allow to import and export databases using external flash drives (pendrives).

Advantages of the MA.R moisture analyzer:
- large, backlit LCD
- simple, intuitive use
- drying profiles (standard, mild, stepped and fast)
- completion of the drying process modes (automatic, time-controlled, manual)
- GLP/GMP report printouts
- reproducible and non-standard applications
- operation optimization thanks to halogen lamps.

The maximum load of the moisture analyzer ranges from 50 g/0.1 mg to 210 g/1 mg. The moisture content is measured with an accuracy of 0.01 % (0.001 % for samples over 1.5 g). The maximum sample drying temperature is 160 ℃ (a moisture analyzer capable of drying at 250 ℃ is optionally available).
An additional equipment that extends the functionality of the moisture analyzers is a purpose-designed kit for testing the permeability of water vapor, which is used, among other applications, in the tanning industry to determine the hygienic properties of leather.

TECHNICAL CHARACTERISTICS

Maximum load [Max]	110 g
Measurement accuracy [d]	1 mg
Tare range	–110 g
Weighing pan dimensions	ø 90, h = 8 mm
Power supply	230 V, 50 Hz, AC
Display	LCD (backlit)
Interfaces	1 × RS 232, USB-A, USB-B, WiFi (option)
Package dimensions	470 × 380 × 336 mm
Net weight	4.9 kg
Gross weight	6.4 kg
Maximum sample weight	110 g
Moisture measurement accuracy	0.001 %
Reproducibility of moisture	+/– 0.05 % (approx. 2 g sample), +/– 0.01 % (approx. 10 g
Drying temperature range	max. 160 °C
Maximum height of tested sample	h = 20 mm
Heating element	infrared radiator
Drying method	4 drying profiles (standard, fast, stepped and mild)
Drying completion options	4 modes (time-controlled, user-defined, automatic and manual)
Additional functions	sample identification

CATALOG NAMES

MA50/1.R	Moisture analyzer (50 g)
MA50.R	Moisture analyzer (50 g)
MA110.R	Moisture analyzer (110 g)
MA210.R	Moisture analyzer (210 g)

Firma MULTISERW Morek

Drying ovens

Laboratory ovens with natural air circulation

INTENDED USE

Drying ovens are laboratory equipment capable of maintaining a higher temperature in their chambers than the ambient temperature (max. 300 ºC).

INTENDED USES

- drying aggregates and sands
- thermal resistance analysis of building materials
- testing electronic and electrical components, etc.
- monitoring properties of products subjected to high temperature
- drying wires of papermaking machines
- drying laboratory glass
- general aging and curing
- ordnance material testing
- preheating
- vulcanization studies
- agricultural genetics
- digestion of proteins
- drying plant tissues
- metabolism of drugs
- paper drying
- serum protein analysis
- suspended solids testing
- and other applications

Laboratory ovens with forced air circulation

Technical Characteristics of Laboratory Ovens

Parameters	SLN 53 STD SLW 53 STD	SLN 115 STD SLW 115 STD	SLN240 STD SLW240 STD	SLW400 STD	SLW750 STD
Capacity (l)	56	112	245	424	749
Temperature range (℃)	0–300	0–300	0–300	0–300	0–300
External dimensions (mm) W D H	 590 560 690	 650 650 835	 815 710 1,140	 1,020 710 1,385	 1,255 810 1,620
Chamber dimensions (mm) W D H	 395 360 395	 460 450 540	 600 510 800	 800 510 1,040	 1,040 600 1,200
Rated power (W)	1,600	2,400	3,000	3,900	5,400
Temperature stability	±0.3	±0.3–0.5	±0.4–0.5	±0.5–0.7	±0.5–0.6
Temperature homogeneity	±0.1–0.7	±0.2–0.8	±0.2–0.9	±0.3–1.6	±0.3–1.8
Electronic controller	yes	yes	yes	yes	yes
Start delay function	yes	yes	yes	yes	yes
Power supply	230 V, 50 Hz	230 V, 50 Hz	230 V, 50 Hz	380 V, 50 Hz	380 V, 50 Hz
Weight (kg)	50	65	126	174	174

Among other products, our offer includes:

GROUND
Static VSS-1P-000 plate to test the bearing capacity and density of the ground

AGGREGATES
Air jet sieving machine (PN-EN 933-10)

CONCRETE
Automatic 2,000 kN and 3,000 kN concrete testing press (PN-EN 12390-4)

LABORATORY SIEVES AND SIEVE SHAKERS
(IS0-3310-1 and 3310-2)

MOLDING AND CORE SAND TESTING EQUIPMENT
LRP machine designed to test wet tensile strength

CEMENT
Vicata device
(PN-EN 196-3)

ASPHALT (MMA)
Automatic Marshall Rammer
(PN-EN 12697-30)

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