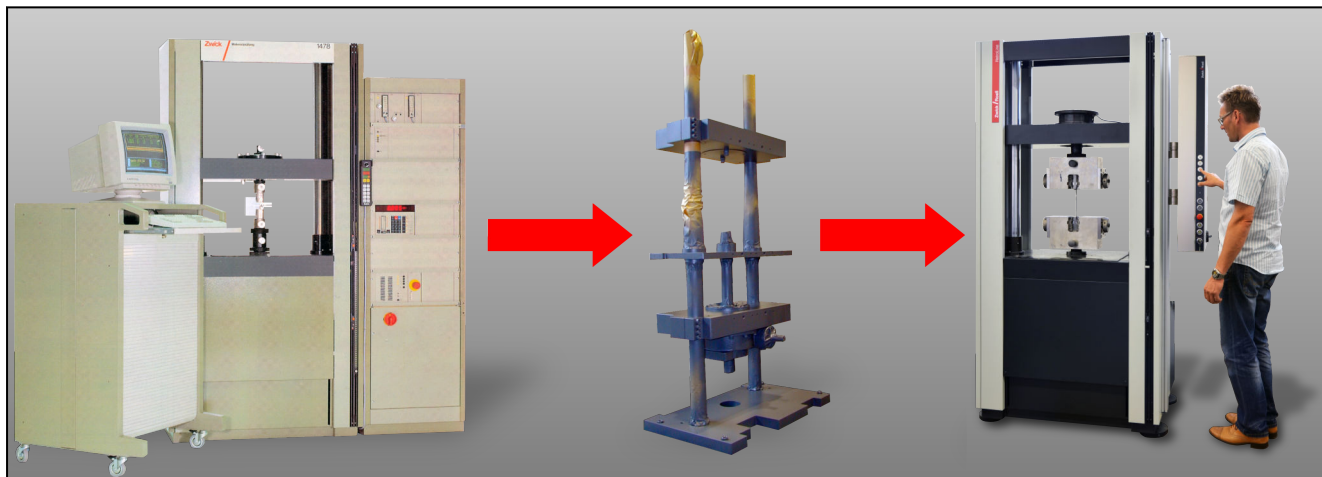


Product Information

RetroLine testControl II AllroundLine

CTA: 74400



New from old - modernization in ZwickRoell's workshops with load-frame overhaul, including repainting

Modernization

Even though older testing machines may have given faithful service over many decades thanks to their robust construction, the demands and requirements of today's technology can no longer be met using outdated equipment. Precision and reproducibility are key criteria in materials testing today, as is the observance of current safety regulations. The needs of the markets can best be served with innovative products and sophisticated technology.

The modular design of ZwickRoell testing machines means that retrofit sets are available for all types, regardless of nominal force rating. Just as with our own machine ranges, modernizing machines from other manufacturers presents no difficulty for ZwickRoell. We have already converted 40 different makes of machine to ZwickRoell technology, acquiring a great deal of knowledge in the process.

Advantages and features

- over 20 years' experience in modernizing materials testing machines
- warranty for newly installed components, as with new machines
- renewed long-term service and support
- rapid assistance via Hotline and in the event of repairs
- testControl II measurement and control electronics satisfy the most demanding safety requirements
- enables validation of the testing machine in accordance with the latest quality standards
- intelligent testXpert III testing software
- re-use of expensive components such as extensometers and specimen grips
- existing load cells converted and re-calibrated
- Modern drive technology, achieved by installing a new, energy-efficient AC motor, with greatly improved control and positioning accuracy

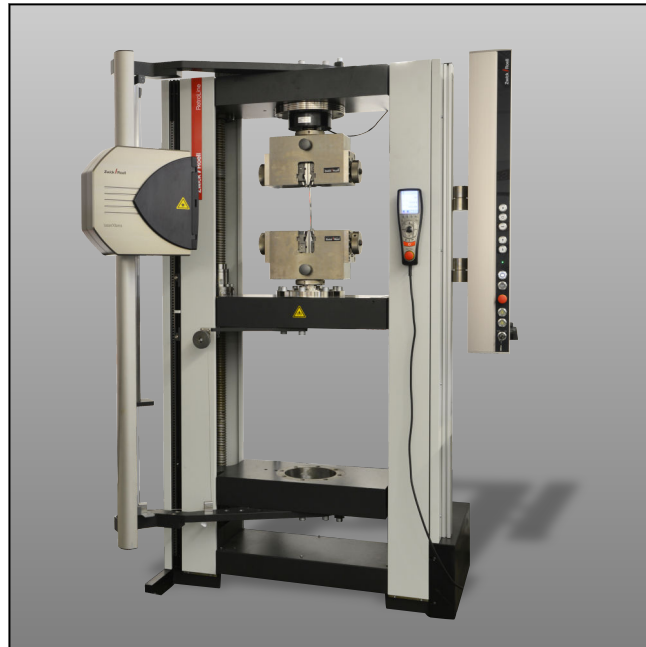
Product Information

RetroLine testControl II AllroundLine

CTA: 127647 90254



ZwickRoell Z100 modernized with testControl II



Zwick 1474 (100 kN) modernized with testControl II

testControl II - innovative machine electronics

The new testControl II measurement and control electronics provide the ideal basis for precise, reproducible test results. As well as setting new standards in accuracy, control and acquisition rate, testControl II is laying down a benchmark for drive speed. The machines feature high positioning and return speeds, while the additional fast return ensures short cycle times. Impressive features include new drive technology, high measured-value acquisition rates, modular design and high safety standards. The combination of powerful, flexible control technology plus an innovative operating concept guarantees an optimum solution for testing applications, from the simplest to the most demanding.

Flexible connection options

The provision of up to 6 slots allows additional sensors and measuring equipment to be connected to testControl II whenever required. The system's modular design allows it to adapt to current testing requirements

via plug-in modules such as the digital measured-value acquisition card, USC module and 2,000 Hz online measured-value transmission.

Made by ZwickRoell

testControl II control technology is truly 'Made by ZwickRoell'. Development and production take place entirely in Ulm, allowing optimum matching of all components and enabling ZwickRoell to offer outstanding support. In developing testControl II ZwickRoell was able to draw on the experience gained from over 12,000 installations of testControl machine electronics.

In the case of machines modernized on-site, ZwickRoell will issue a new Declaration of Conformity as per the EC Machinery Directive following verification of intended use and co-ordination of the necessary operator safety measures. An individual inspection is required for on-site modernizations.

Description	Value
Machine electronics	
Number of available slots for measurement and control modules:	
Synchronized module bus slots	2 (expandable to 5) ¹⁾
Synchronized PCIe slots	1
Force measurement	Class 0.5/1, depending on load cell, compliant to DIN EN ISO 7500-1, ASTM E4

All data at ambient temperature.

We reserve the right to make technical changes in the course of ongoing development.

Product Information

RetroLine testControl II AllroundLine

Description	Value
Measurement range	Up to 165% of Fmax
Calculated resolution (e.g., load cell in tensile/compression direction)	24 bit
Effective resolution in tensile/compression direction:	
DCSC module	19 bits (corresponds to $\pm 524,000$ points)
USC module	20 bits (corresponds to $\pm 1,000,000$ points)
Measured value recording rate	400 kHz
Measurement value transmission rate to PC	500 (optional 2000) Hz
Zero-point correction	Automatic, at start of measurement
Measurement signal, runtime correction	Yes
Interface to PC	Ethernet
Eco mode	Yes, automatic switch off of power section (time can be set)
CE conformity	Yes, according to Machinery Directive 2006/42/EG

1) A DCSC module is included in the scope of delivery (occupies one module slot).

Power input specifications				
Version	1	4	9	kW
Power supply	230	400	400	V
Phases	1Ph/N/E	3Ph/N/PE	3Ph/N/PE	
Permissible voltage fluctuation	± 10	± 10	± 10	%
Power consumption (full load), approx.	2.3	6	11	kVA
Power frequency	50/60	50/60	50/60	Hz

ZwickRoell modernization packages (list not exhaustive)

Description	Item number
Nominal load 5 to 20 kN	
1445 with V= 2000 mm/min and test-area height 1000 mm	1012111
1446 with V= 1500 mm/min and test-area height 1094 mm	1012119
Z010/TN with V= 1800 mm/min and test-area height 1058 mm	1011962
Z010/TH with V= 1800 mm/min and test-area height 1458 mm	1011952
1445 with V= 2000 mm/min and test-area height 1460 mm	1012115
1445 with V= 1000 mm/min and test-area height 1430 mm	1012192
1446 with V= 1500 mm/min and test-area height 570 mm	1012117
1445 with V= 2000 mm/min and test-area height 1460 mm	1012114
1445 with V= 1000 mm/min and test-area height 1460 mm	1012110
Z020/TN with V= 750 mm/min and test-area height 1058 mm	1012009
Nominal load 30 to 50 kN	
Z030/TH with V= 500 mm/min and test-area height 1380 mm	1012037
Z050/TH with V= 500 mm/min and test-area height 1380 mm	1012056
1465 with V= 1000 mm/min and test-area height 1700 mm	1012200
Z050/SN with V= 2000 mm/min and test-area height 1892 mm	1012041
1466 with V= 2000 mm/min and test-area height 1700 mm	1012205
1465 with V= 2000 mm/min and test-area height 1700 mm	1012203
Z050/TH with V= 500 mm/min and test-area height 1340 mm	1012055

Product Information

RetroLine testControl II AllroundLine

Description	Item number
Z050/TH with V= 1000 mm/min and test-area height 1380 mm	1012039
Nominal load 100 to 250 kN	
1475 with V= 500 mm/min and test-area height 1892 mm	1012221
1476 with V= 1000 mm/min and test-area height 1892 mm	1012227
Z100/TL with V= 200 mm/min and test-area height 1360 mm	1012080
1474 with V= 600 mm/min and test-area height 1200 mm	1012206
Z100/SN with V= 200 mm/min and test-area height 1757 mm	1012070
Z100/SN with V= 1000 mm/min and test-area height 1757 mm	1012068
1474 with V= 600 mm/min and test-area height 1600 mm (raised 400 mm)	1012212
1478 with V= 500 mm/min and test-area height 1066 mm	1012230
Z100/TL with V= 1500 mm/min and test-area height 1360 mm	1012081
Z250/SN with V= 600 mm/min and test-area height 1847 mm	1012303
1484 with V= 200 mm/min and test-area height 1400 mm	1012243
Z250/SN with V= 600 mm/min and test-area height 1675 mm	1012306
Nominal load greater than 250 kN	
Z400 with V= 250 mm/min and test-area height 1800 mm	1004943
Z600 with V= 200 mm/min and test-area height 1940 mm	1013453
1494 with V= 200 mm/min and test-area height 1730 mm	1013454
1496 with V= 250 mm/min and test-area height 1940 mm	1007623