Zwick / Roell

Product Information

BUP 400 / BUP 600 Sheet Metal Testing Machines for testControl II

CTA: 142348 139700

BUP 600 Sheet Metal Testing Machine

Display for BUP 400 / 600 / 1000 (1048583)

Range of application

Testing the ductility of sheet metals in accordance with established standards and customers' requirements.

Testing the influence of surface treatments, coatings, and lubricants in typical types of forming such as cupping and earing tests. Checking the effect of tool and process parameters on the forming process.

Advantages and features

- Fast, easy tool and fixture changes, including drawing-punch, drawing-die, blank-holder, cutting-punch, cutting-ring and scraper-ring. Numerous modular expansion options.
- Test tools/fixtures for established test methods available 'off-the-shelf', special tools on application. Test tools/fixtures from earlier-generation machines can mostly still be used.
- Open-design tool head for tests on long sheet metal strips.
- Low piston-actuator friction, proportional valve technology and non-contact digital travel sensor positioned centrally enable accurate measurement recording and outstanding reproducibility.
- Position-controlled deep drawing speed.
- Deep drawing speed or clamping force can be changed manually during the test sequence.
- Program-controlled change of deep drawing speed and clamping force during the test.
- Automatic piston withdrawal and switch-off after end of test due to crack detection or on reaching maximum ram stroke (s-limit).
- Easy to operate: illuminated push-buttons guide the operator intuitively through the test sequence.
- Electrical and hydraulic protection for all functions.
- Innovative testControl II with 500Hz measured-value acquisition-rate for high data transmission rate, together with 24-bit resolution and 2-channel safety circuit. Development based on experience gained from over 12,000 installations of testControl electronics.
- testXpert III software: logical grouping of test preparation and performance, results analysis and the higher-level system settings makes every user feel confident and at home with the software, avoiding user error. Time-synchronized display of clamping, ram force and ram stroke measurement channels.
- Clean and quiet in operation. Easily transportable thanks to compact design.
- Individual requirements accommodated: as an alternative to the standard version, the testing machine, tools and accessories can be adapted to suit your requirements, e.g. piezo load cell, different deep drawing speeds, separate hydraulic power-pack, U-bending tool etc.

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- Set-up stroke for easy tool change.
- Hydraulic opening and closing of tool head, with 2-handed operation
- Display for parameter input and test result read-out has a swivel arm mount and can be aligned to suit the operator. Alternatively the testing system can optionally be operated with testControl II electronics and testXpert III testing software.
- Low testing machine overall height plus convenient positioning of controls enables fatigue-free, operator-friendly working.

All data at ambient temperature.

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Technical data

Type Item No.	BUP 400 1043581	BUP 600 1043583	
Test load, max. (ram force, max.)	400	600	kN
Machine dimensions			
Total height, approx.	1739	1739	mm
Table height	983	983	mm
Height to tool head	1185	1185	mm
Width	1048	1048	mm
Depth	1775	1775	mm
Weight, approx.	1600	1600	kg
Punching force, max.	400	600	kN
Clamping force, max.	400	600	kN
Specimen dimensions			
Blank (punchable)	Ø 250	Ø 250	mm
Blank insertable, max.	Ø 250	Ø 250	mm
Blank insertable (with centering finger), max.	Ø 220	Ø 220	mm
Sheet metal strip width, max.	260	260	mm
Sheet thickness, max.	10	10	mm
Tool/fixture dimensions			
Drawing-die outside, max.	Ø 250	Ø 250	mm
Drawing-punch, max.	Ø 120	Ø 120	mm
Reading accuracy, ram stroke	0.01	0.01	mm
Reading accuracy, ram force	0.01	0.01	kN
Reading accuracy, clamping force	0.01	0.01	kN
Reading accuracy, deep drawing speed	0.01	0.01	mm/s
Ram stroke (travel of deep draw piston)	0 ... 120	0 ... 120	mm
Deep drawing speed, max.	1000	1000	mm/min
Coolant water			
Coolant water connection	G1/2"	G1/2"	
Coolant water req. at 20 °C water temperature	7	7	l/min
Electrical supply data			
Electrical supply	3 x 400	3 x 400	V (3Ph, N, PE)
Electrical supply with option tC II	3 x 400	3 x 400	V (3Ph, N, PE)
Power consumption	17.5	17.5	kVA
Frequency	50	50	Hz
Back-up fuse	32	32	A

All data at ambient temperature.

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