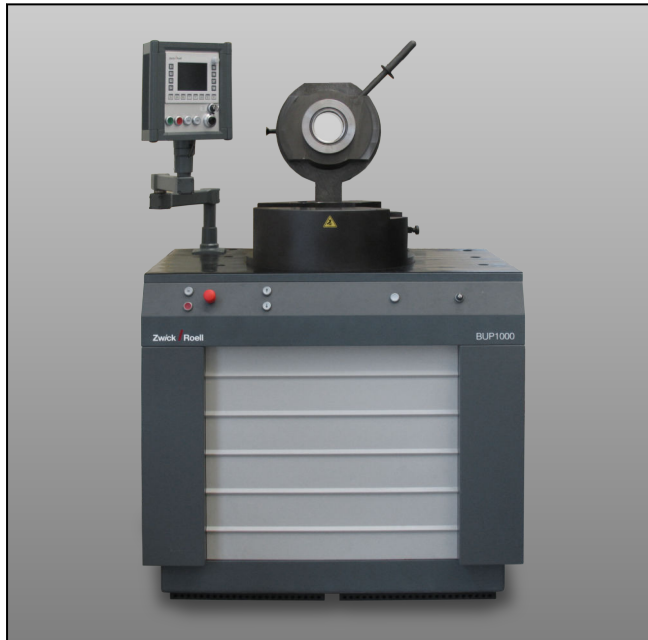


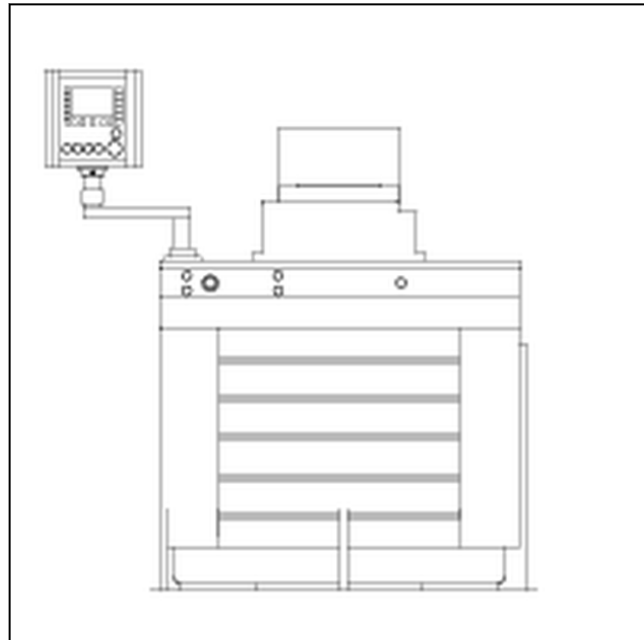
Product Information

BUP 1000 Sheet Metal Testing Machine

CTA: 127421 61739



BUP 1000 sheet metal testing machine



Drawing: BUP 1000

Applications

Testing the ductility of sheet metal to common standards (DIN EN ISO 20482, DIN EN 1669).

Testing the influence of surface treatments, coatings, and lubricants for typical types of forming such as cupping and earing tests. Testing the influence of tools and method 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 from earlier-generation machines can still be used (with some restrictions). Test tools/fixtures for established test methods available 'off-the-shelf', special tools/fixtures on application.
- Low piston-cylinder friction enables accurate measurement recording and excellent reproducibility.
- Clean and quiet in operation. Easily transportable thanks to compact design.
- Hydraulic cup-extractor via integrated piston, with piston rod acting through drawing-punch.
- Electronics can be swiveled to optimum viewing angle for measured values.
- Conveniently positioned controls.
- Electrical and hydraulic protection for all functions.

- Adjustable automatic blank-holder unloading during test enables cup-drawing without crushing ear.
- Automatic setting of pre-selected clamping force after blanking procedure.
- Automatic piston withdrawal and switch-off after end of test due to crack detection or on reaching maximum ram stroke (s-limit).
- Swing doors and removable casing panels for easy access to components.
- Open design allows multiple tests to be performed on long sheet-metal strips without the need to open and close the tool head.
- No unpleasant odors thanks to closed oil-circuit.
- Special solutions (e.g. piezo load cell, different deep drawing speeds, separate hydraulic power-packs etc.) are available on request.
- Change deep drawing speed during test (BUP 400 / 600 / 1000).
- Operating-mode switch for automatic or manual operation (BUP 400 / 600 / 1000).
- Two-handed operation eliminates risk of accident when closing the manual tool head of the BUP 100/200 (e.g. falling due to accidental jolt).
- Hydraulic opening and closing of tool head, with 2-handed operation (BUP 400 / 600 / 1000).
- Setup stroke for easy tool/fixture change (BUP 400 / 600 / 1000).

Product Information

BUP 1000 Sheet Metal Testing Machine

Technical data

Type Item No.	BUP 1000 632802	
Test load, max. (ram force, max.)	1000	kN
Machine dimensions		
Total height, approx.	1734	mm
Table height	1076	mm
Height up to tool head (w/o protective screen), approx.	1353	mm
Width	1200	mm
Depth	1970	mm
Weight, approx.	2100	kg
Punching force, max.	1000	kN
Clamping force, max.	1000	kN
Specimen dimensions		
Blank (punchable)	Ø 250	mm
Blank insertable, max.	Ø 250	mm
Blank insertable (with centering finger), max.	Ø 270	mm
Sheet metal strip width, max.	260	mm
Sheet thickness, max.	10	mm
Tool/fixture dimensions		
Drawing-die outside, max.	Ø 250	mm
Drawing-punch, max.	Ø 120	mm
Reading accuracies		
Reading accuracy, ram stroke	0.01	mm
Reading accuracy, ram force	0.01	kN
Reading accuracy, clamping force	0.01	kN
Reading accuracy, deep drawing speed	0.01	mm/s
Ram stroke (travel of deep draw piston)	0 ... 150	mm
Deep drawing speed, max.	750	mm/min
Coolant water		
Coolant water connection	G3/4"	
Coolant water req. at 20°C water temperature	10	l/min
Electrical supply data		
Electrical power supply	3 x 400	V (3 Ph/PE)
Power consumption	16	kVA
Frequency	50	Hz
Back-up fuse	32	A