

Product Information

BUP100 / BUP 200 sheet metal testing machine



Figure: BUP 200

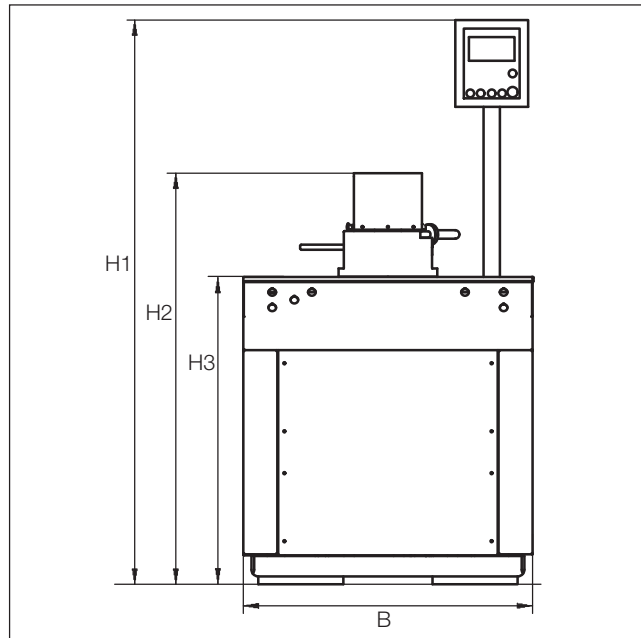


Figure: BUP 100/200 on machine table with dimensions

Application range

Testing of formability of sheet metal in accordance with the most common standards and procedures (DIN EN ISO 20482, DIN EN 1669).

Testing the influences of surface treatments, coatings and lubricants, with typical types of forming processes such as cupping and earing tests. Testing the effect of tools and process parameters on the forming process.

Advantages and features

- Easy and rapid interchangeability of test tools, such as punch, die, blankholder, cutting ring, cutting punch and scraper ring. Numerous modular possibilities of extensions.
- Tooling from most earlier generations of machines can be incorporated conditionally. Tooling for all well-known test procedures available as standard, special tooling on request.
- Low cylinder-piston frictions deliver precise measurement acquisitions and excellent reproducibility.
- Silent and clean operation. Easy transport due to compact machine.

- Hydraulic cup extractor through integrated piston, with piston rod functioning via punch.
- Pivoted electronics, the reading angle for the measurement values can be adapted to different operators.
- Ergonomically arranged operational controls.
- All functions secured hydraulically and electrically - push-button activation.
- Prevention of unrealistic earing of cups through adjustable clamping force which is automatically released during a test.
- Automatic setting of the pre-selected clamping force after stamping.
- Automatic piston return and disconnection after end of test by crack detection or maximum ram stroke (s-limit).

Product Information

BUP100 / BUP 200 sheet metal testing machine

Type	BUP 100	BUP 200
Ram force range [kN]	0 – 130	0 – 200
Digitally displayed unit min. [kN]	0.01	0.01
Clamping force range [kN]	3 – 250	3 – 250
Punching force [kN]	3 – 275	3 – 275
Digitally displayed unit min. [kN]	0.01	0.01
Ram stroke (travel of deep draw piston) [mm]	0 – 80	0 – 80
Digitally displayed unit min. [mm]	0.01	0.01
Deep drawing speed max. [mm/min]	1200	1200
Digitally displayed unit min. [mm/s]	0.01	0.01
Dimensions of test tools		
Outer diameter of die max. [mm]	155	155
Punch diameter (male mold) max. [mm]	60	60
Dimensions of specimens		
Disc diameter inserted (with centering device) max. [mm]	150	150
Disc diameter stamped [mm]	118	118
Sheet metal strip width max. [mm]	120	120
Sheet metal strip thickness max. [mm]	6.4	6.4
Dimension of the machine		
H1 – Height total ca. [mm]	1635	1635
H2 – Height without display panel [mm]	1185	1185
H3 – Height of table [mm]	880	880
B – Width [mm]	850	850
Depth [mm]	1200	1200
Weight [kg]	650	650
Electrical connection		
Mains voltage 3 Ph/PE ^{1 2} [V]	400 ²	400 ²
Mains frequency [Hz]	50 ²	50 ²
Drive power [kVA]	10	10
Fuse [A]	16	16
Cooling		
Cooling water flow rate max. [l/min]	4	4
Cooling water connection	G ½"	G ½"
Item no.	• 049779 (BPB100.00.010)	• 024024 (BPB200.00.010)

¹ Three phase AC motor (L1, L2, L3), protective earth PE

² Other voltage / frequency available on request

Product Information

BUP 400 / BUP 600 sheet metal testing machine



Figure: BUP 600

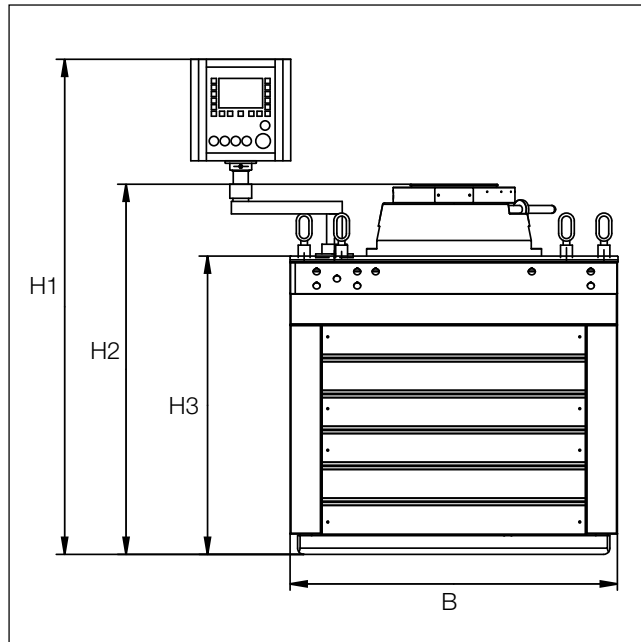


Figure: BUP 400 / BUP 600 with dimensions

Application range

Testing of formability of sheet metal in accordance with the most common standards and procedures (DIN EN ISO 20482, DIN EN 1669, ISO 12004).

Testing the influences of surface treatments, coatings and lubricants, with typical types of forming processes such as cupping and earing tests. Testing the effect of tools and process parameters on the forming process.

Advantages and features

- Easy and rapid interchangeability of test tools, such as punch, die, blankholder, cutting ring, cutting punch and scraper ring. Numerous modular possibilities of extensions.
- Tooling from most earlier generations of machines can be incorporated conditionally. Tooling for all well-known test procedures available as standard, special tooling on request.
- Low cylinder-piston frictions deliver precise measurement acquisitions and excellent reproducibility.
- Silent and clean operation. Easy transport, due to compact machine.
- Hydraulic cup extractor through integrated piston, with piston rod functioning via punch.
- Pivoted electronics, the reading angle for the measurement values can be adapted to different operators.
- Ergonomically arranged operational controls. Choice between fully automatic or manual control.
- All functions secured hydraulically and electrically (two-hand operation).
- Prevention of unrealistic earing of cups through adjustable clamping force which is automatically released during a test.
- Automatic setting of the pre-selected clamping force after stamping.
- Deep drawing speed increasing or reducing during the test.
- Automatic piston return and disconnection after end of test by crack detection or maximum ram stroke (s-limit).
- Cover opens and closes automatically.

Product Information

BUP 400 / BUP 600 sheet metal testing machine

Type	BUP 400	BUP 600
Ram force range [kN]	0 – 400	0 – 600
Digitally displayed unit min. [kN]	0.01	0.01
Clamping force range [kN]	3 – 400	3 – 600
Punching force [kN]	3 – 400	3 – 600
Digitally displayed unit min. [kN]	0.01	0.01
Ram stroke (travel of deep draw piston) [mm]	0 – 120	0 – 120
Digitally displayed unit min. [mm]	0.01	0.01
Deep drawing speed max. [mm/min]	1150	1150
Digitally displayed unit min. [mm/s]	0.01	0.01
Dimensions of test tools		
Outer diameter of die max. [mm]	250	250
Punch diameter (male mold) max. [mm]	120	120
Dimensions of specimens		
Disc diameter inserted (with centering device) max. [mm]	220	220
Disc diameter stamped [mm]	250	250
Sheet metal strip width max. [mm]	260	260
Sheet metal strip thickness max. [mm]	10	10
Dimension of the machine		
H1 – Height total ca. [mm]	1850	1850
H2 – Height without display panel [mm]	1185	1185
H3 – Height of table [mm]	955	955
B – Width [mm]	1048	1048
Depth [mm]	1775	1775
Weight [kg]	2100	2100
Electrical connection		
Mains voltage 3 Ph/N/PE ¹ [V]	400 ²	400 ²
Mains frequency [Hz]	50/60 ²	50/60 ²
Drive power [kVA]	17.5	17.5
Fuse [A]	32	32
Cooling		
Cooling water flow rate max. [l/min]	10	10
Cooling water connection	G ¾“	G ¾“
Item no.	• 037359 (BPB400.00.010)	• 049042 (BPB600.00.010)

¹ Three phase AC motor (L1, L2, L3), neutral wire N, protective earth PE

² Other voltage / frequency available on request

Product Information

BUP 1000 sheet metal testing machine



Figure: BUP 1000

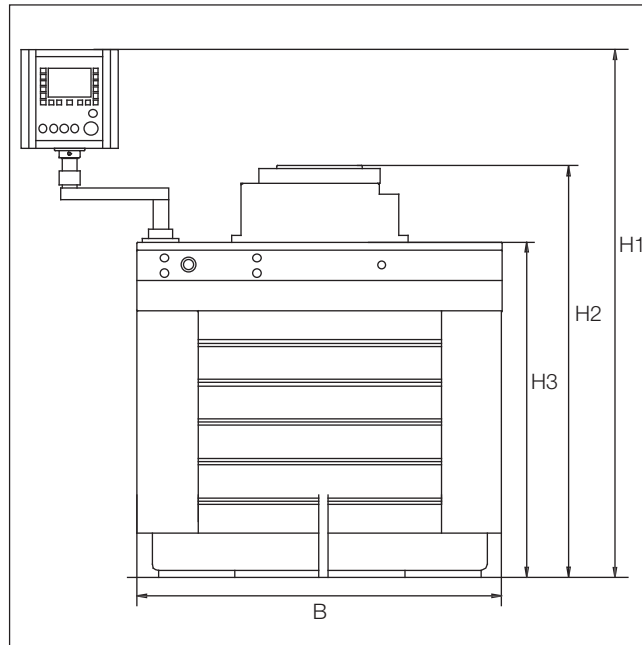


Figure: BUP 1000 with dimensions

Application range

Testing of formability of sheet metal in accordance with the most common standards and procedures (DIN EN ISO 20482, DIN EN 1669).

Testing the influences of surface treatments, coatings and lubricants, with typical types of forming processes such as cupping and earing tests. Testing the effect of tools and process parameters on the forming process.

Advantages and features

- Easy and rapid interchangeability of test tools, such as punch, die, blankholder, cutting ring, cutting punch and scraper ring. Numerous modular possibilities of extensions.
- Tooling from most earlier generations of machines can be incorporated conditionally. Tooling for all well-known test procedures available as standard, special tooling on request.
- Low cylinder-piston frictions deliver precise measurement acquisitions and excellent reproducibility.
- Silent and clean operation. Easy transport, due to compact machine.
- Hydraulic cup extractor through integrated piston, with piston rod functioning via punch.
- Hydraulic opening and closing of tool head (2-hand-operation).
- Pivoted electronics, the reading angle for the measurement values can be adapted to different operators.
- Ergonomically arranged operational controls. Working mode key for automatic or manual operation.
- All functions secured hydraulically and electrically - push-button activation.
- Prevention of unrealistic earing of cups through adjustable clamping force which is automatically released during a test.
- Automatic setting of the pre-selected clamping force after stamping.
- Deep drawing speed increasing or reducing during the test.
- Automatic piston return and disconnection after end of test by crack detection or maximum ram stroke (s-limit)

Product Information

BUP 1000 sheet metal testing machine

Type	BUP 1000
Ram force range [kN]	0 – 1000
Digitally displayed unit min. [kN]	0.01
Clamping force range [kN]	5 – 1000
Punching force [kN]	5 – 1000
Digitally displayed unit min. [kN]	0.01
Ram stroke (travel of deep draw piston) [mm]	0 – 150
Digitally displayed unit min. [mm]	0.01
Deep drawing speed max. [mm/min]	750
Digitally displayed unit min. [mm/s]	0.01
Dimensions of test tools	
Outer diameter of die max. [mm]	250
Punch diameter (male mold) max. [mm]	120
Dimensions of specimens	
Disc diameter inserted (with centering device) max. [mm]	220
Disc diameter stamped [mm]	250
Sheet metal strip width max. [mm]	260
Sheet metal strip thickness max. [mm]	10
Dimension of the machine	
H1 – Height total ca. [mm]	1750
H2 – Height without display panel [mm]	1540
H3 – Height of table [mm]	1100
B – Width [mm]	1225
Depth [mm]	1970
Weight approx. [kg]	2000
Electrical connection	
Mains voltage 3 Ph/N/PE ^{1 2} [V]	400 ²
Mains frequency [Hz]	50 ²
Drive power [kVA]	17.5
Fuse [A]	32
Cooling	
Cooling water flow rate max. [l/min]	10
Cooling water connection	G 1“
Item no.	• 632802 (BPB1000.00.02)

¹ Three phase AC motor (L1, L2, L3), neutral wire N, protective earth PE

² Other voltage / frequency available on request