

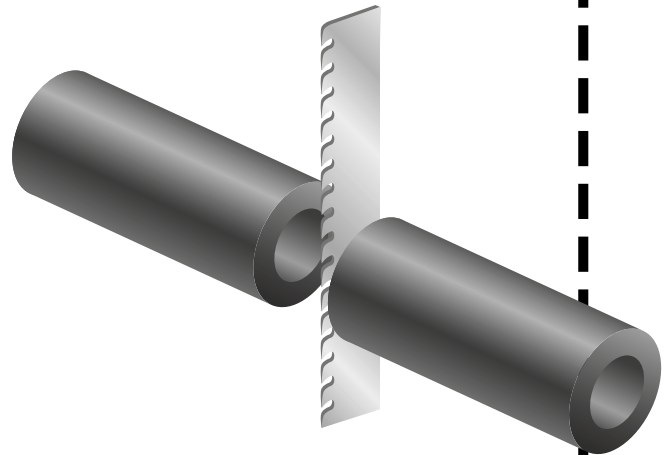
BENDING TEST

The bending flexural test provides modulus of elasticity in bending values, flexural stress, flexural strain and the flexural stress-strain response of the material.

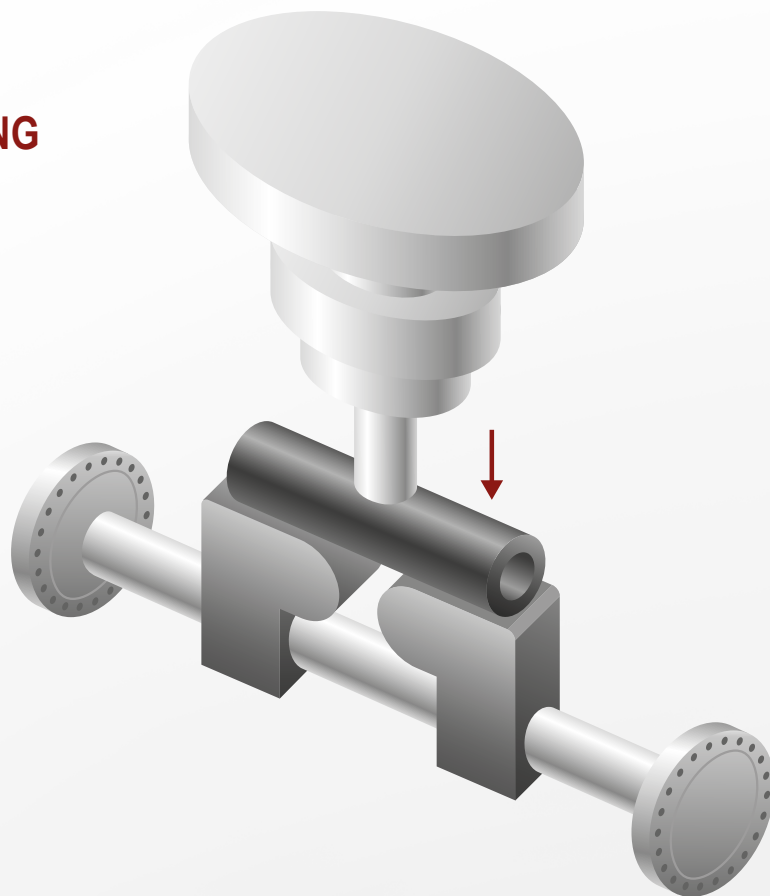
The upper-positioned cylinder applies the bending force to specimen at preset angle. Then two opposite horizontal cylinders bend the specimen to required angle.

The common test requires machines which allow 180° bend test with complete sets of mandrels according to international standards.

1 CUTTING



2 BENDING



BTV Series

- > BTV series Bending Testing Machines designed with compact cast steel structure, high stiffness and ergonomic.
- > All models designed with three hydraulic cylinders structure.
- > Two horizontal positioned cylinders, controlled by highly precise synchronous valve with an error less than 2%, and one upper positioned cylinder, which apply the force to bend the specimen under test.

BTV series features:

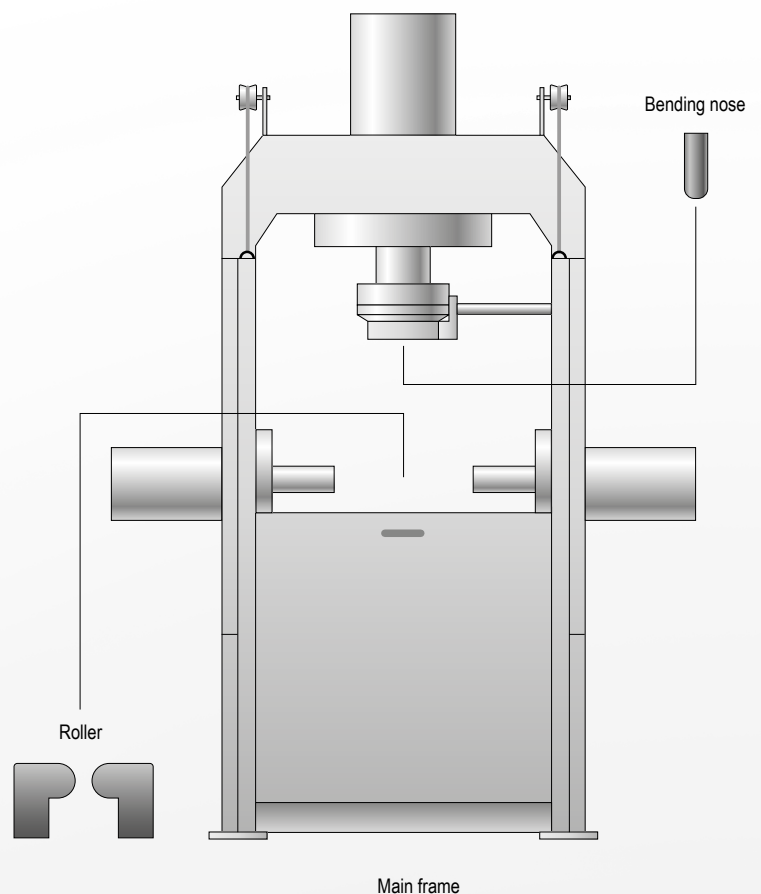
- > Automatic and manual bending test
- > High accuracy, reliability and stability load cell
- > Self-calibration system which allow to perform automatic calibration, force and displacement, in according to the standards
- > High speed DSP control electronics
- > Overload protections
- > Full range stepless 1/500000 resolution controller
- > Low noise hydraulic unit

BTV series machines are in according to the follow international standards:

- > ISO 5173
- > ISO 7438
- > GOST 6996
- > ASTM A 370
- > ASTM E 190
- > ASTM E 290

For selection the correct bending testing machine must be chosen:

- > Frame type according to load capacity
- > Mandrels diameters according to standard indications



BTV Series



Model		BTV 2000	BTV 1000	BTV 500
Load cell				
Max vertical force	kN	2000	1000	500
Max horizontal force	kN	1000	400	300
Accuracy	-	Class 1		
Force resolution	Fs	1/500000		
Accuracy in synchronism	%	<2		
Displacement resolution	mm	0.01		
Displacement accuracy	%	±1 of reading		
Testing speed				
Force loading speed	kN/s	0.2-20		0.4-40
Vertical compression speed	mm/min	170	167	350
Horizontal compression speed	mm/min	2x196	2x196	2x300
Main frame				
Frame structure	-	One body cast steel		
Maximum specimen thickness	mm	40		20
Maximum piston travel	mm	350	347	150
Maximum span	mm	360		150
Support roller/mandrel	mm	ø80x210/ø5-ø160	ø50x200/ø5-ø160	ø30x130/ø1-ø75
Power consumption	kW	14	10	9
Power supply	V-Hz-ph	400-50/60-3ph		
Hydraulic unit dimensions	mm	1150x600x1000	845x1070x460	Built-in machine
Hydraulic unit flow rate	l/min	14		7.2
Dimensions	mm	1650x672x2450	1580x550x2200	950x550x1850
Weight	kg	4500	3300	1000

Accessories

Computer System

Computer System	EHOCS01	Computer
	EHOCS02	Monitor
	EHOCS03	Color printer
	EHOCS04	Mouse
	EHOCS05	Keyboard

Mandrels

Model	Bending nose diameter
BTV460018	18mm
BTV460024	24mm
BTV460030	30mm
BTV460032	32mm
BTV460036	36mm
BTV460040	40mm
BTV460042	42mm
BTV460048	48mm
BTV460054	54mm
BTV460056	56mm
BTV460060	60mm
BTV460064	64mm
BTV460066	66mm
BTV460072	72mm

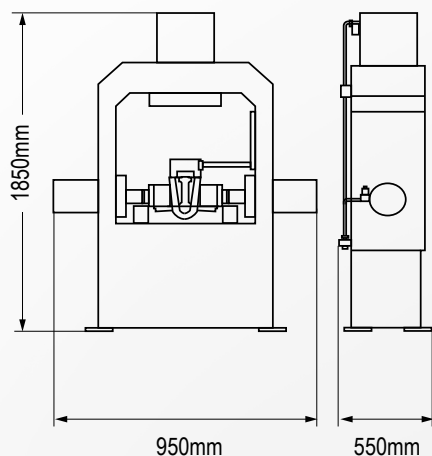
NOTE: On request different bending noses and support roller diameters available, e.g. BTV460XXX

Mandrels

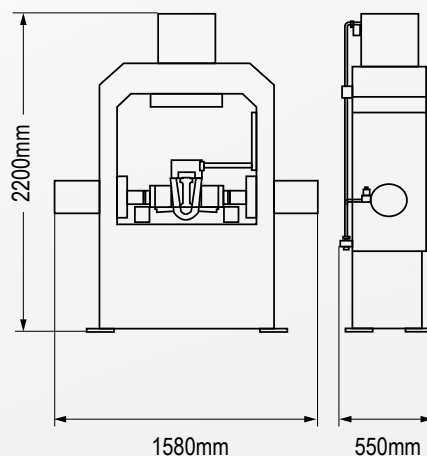
Model	Bending nose diameter
BTV460075	75mm
BTV460080	80mm
BTV460084	84mm
BTV460088	88mm
BTV460096	96mm
BTV460100	100mm
BTV460108	108mm
BTV460112	112mm
BTV460120	120mm
BTV460128	128mm
BTV460132	132mm
BTV460140	140mm
BTV460144	144mm
BTV460150	150mm
BTV460160	160mm
BTV460180	180mm
BTV460200	200mm

NOTE: On request different bending noses and support roller diameters available, e.g. BTV460XXX

BTV 500



BTV 1000



BTV 2000

