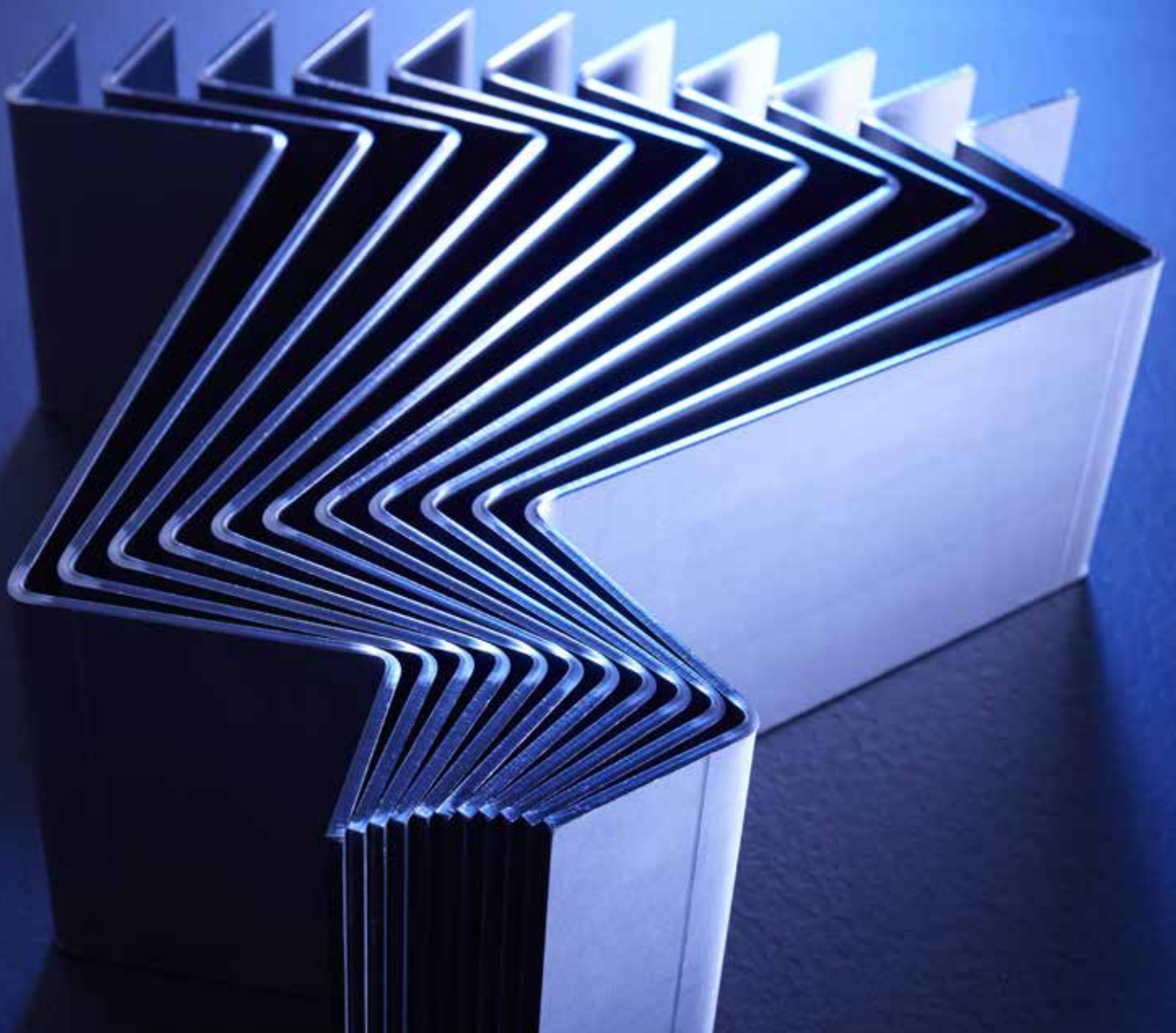
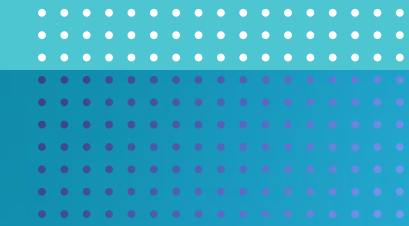


*Hydraulic
press brakes*

EASY-FORM[®] SERIES

THE ULTIMATE BENDING MACHINE



EASY-FORM® SERIES

THE ULTIMATE BENDING MACHINE

The Easy-Form® Series are smart, highly accurate bending machines through the integration of advanced technology and software.



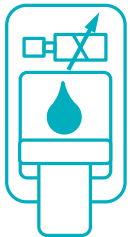
STATUS LIGHTING

LED lights indicate the machine status.



INTUITIVE CONTROL

The 19" Touch-B control is user-friendly and makes full use of the machine's bending capabilities.



SERVO-CONTROLLED HYDRAULIC SYSTEM

The hydraulic components are machined in-house to a high standard from a solid steel billet. The hardened steel pistons are precisely finished and micropolished for a lifetime of trouble-free service.



RIGID FRAME DESIGN

Easy-Form® models up to 400 tons have a one-piece welded frame that can be installed at floor level. Longer bed lengths and higher pressing forces may require modified floor arrangements.





LED WORK ZONE LIGHTING SYSTEM

The backgauge and front work zone areas are illuminated for improved visibility.



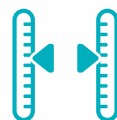
EASY-FORM® LASER ADAPTIVE BENDING

LVD's in-process angle monitoring system adapts the punch position in real time to ensure precise, consistent bending.



CNC CROWNING

The Easy-Form press brake is equipped with an in-house developed and machined, tailor-made V-axis crowning system.



LINEAR ENCODERS

Bed-referenced linear encoders ensure precise control of the upper beam position and repeatability.



BACKGAUGE

The 2-, 5- or 6-axis backgauge is automatically positioned for optimum bending results.



ACCURATE BENDING

LINEAR ENCODERS

Referenced encoders are connected to the bed in such a way that deformation during bending does not influence the positioning accuracy of the ram ($Y1$, $Y2$).

.....

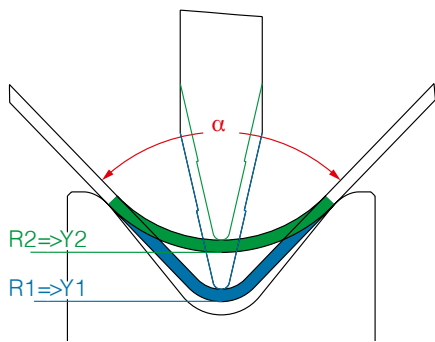


Fig. a

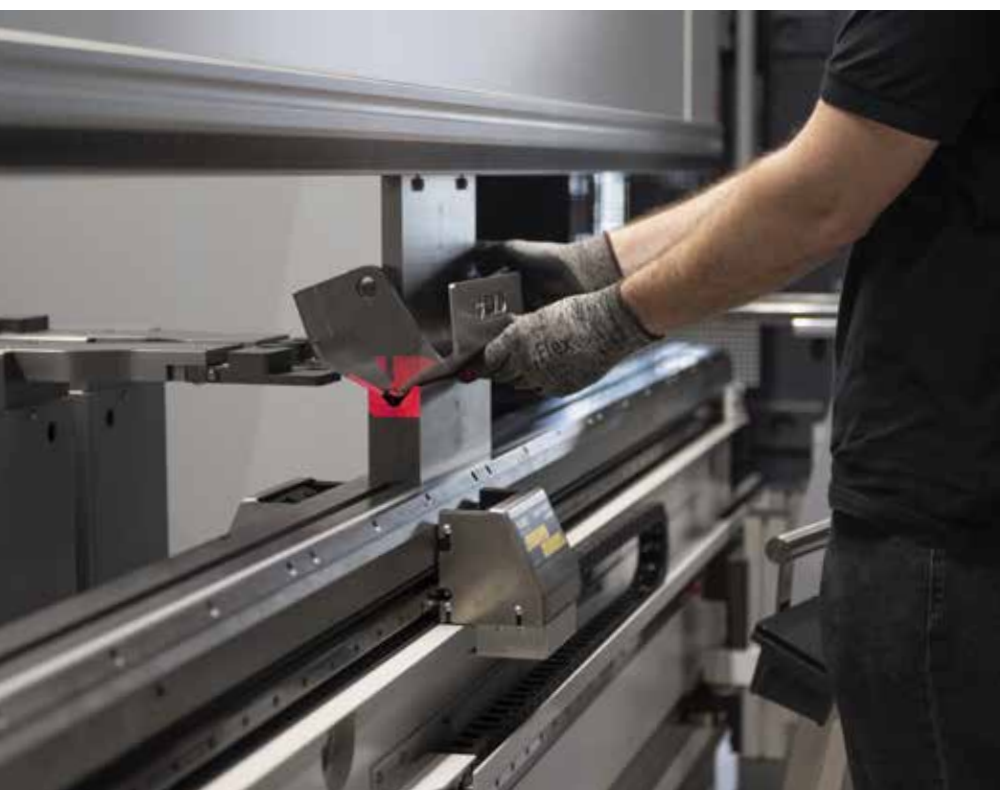
EASY-FORM® LASER (EFL) ADAPTIVE BENDING SYSTEM

EFL guarantees the desired angle from the first bending operation. The angle measuring system consists of two laser scanners located on the front and back of the table.

The unique aspect of EFL is that it uses V-die reference instead of sheet reference. EFL rapidly measures up to 100 samples per second between the die and the sheet. The scanners are linked to the CADMAN database containing a tooling library and proven bending results.

As the bending sequence of the press brake is initiated, the EFL system transmits the digital information in real time to the CNC control unit, which processes it and immediately adjusts the punch position to achieve the correct angle. The bending process is not interrupted, and no production time is lost.

The unique design of the Easy-Form® Laser system allows the machine to adapt to material variations such as sheet thickness, strain hardening and grain direction, automatically compensating for any changes (Fig. a).



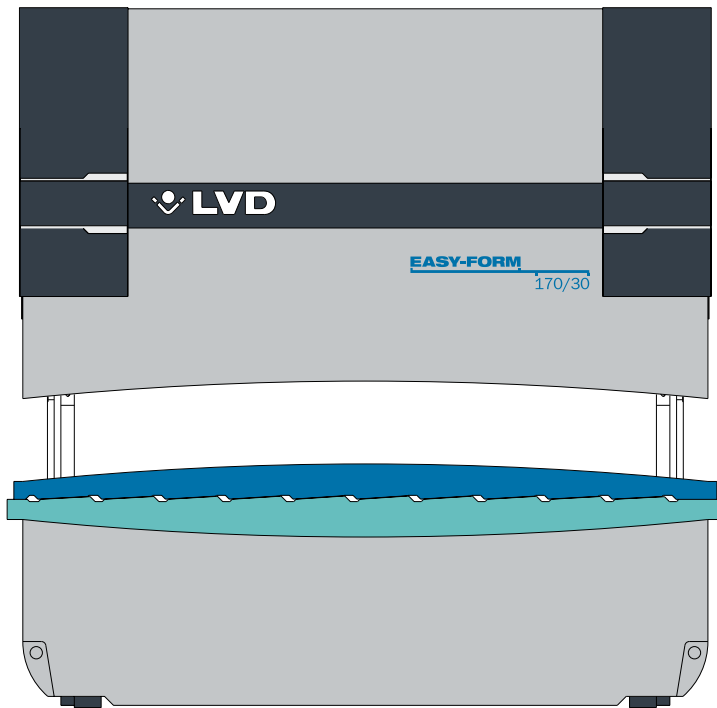
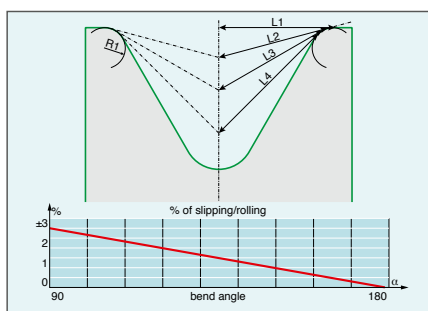


Fig. b

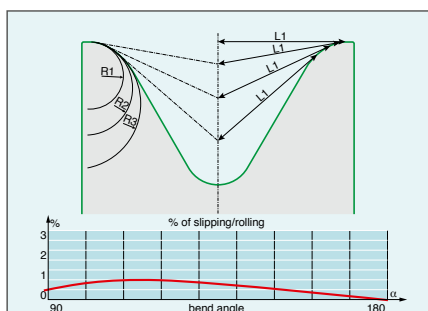
CNC CROWNING

Sheet thickness, bend length, die opening and tensile strength data are entered into the Touch-B control to determine the amount of crowning required to compensate for bed and ram deflection. LVD's proprietary design creates a perfect curve by using accurately machined contact wedges (Fig. b) that are moved against each other under servo control.

The crowning device is tailor-made for each individual machine. The associated components are machined and finished following the geometrical measurement between the ram and lower frame.



Normal radius



STONE radius

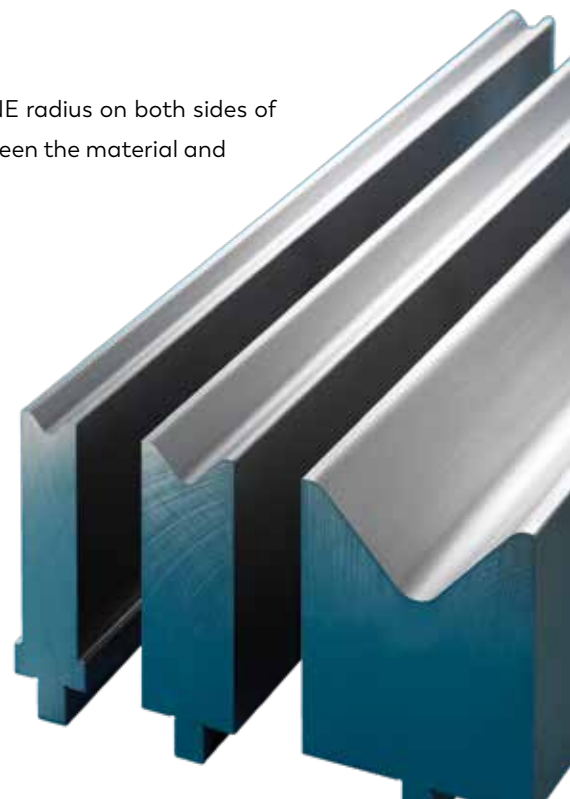
Fig. c

STONE RADIUS

All LVD dies feature a progressive STONE radius on both sides of the V opening that reduces friction between the material and the die to minimize part marking (Fig. c).

STONE tooling also provides:

- reduced tool wear
- tool interchangeability
- reduced residue
- improved material control
- reduced tonnage requirements
- symmetric bending, even on longer parts



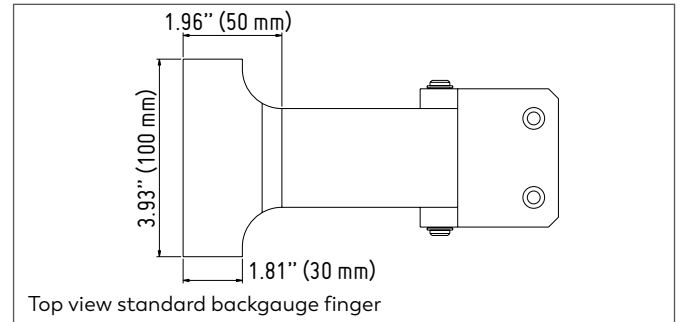
BACKGAUGE VERSATILITY

The backgauge ensures correct positioning of the workpiece in the machine, reducing overall cycle time and increasing productivity. LVD's backgauge systems offer the ultimate in flexibility in the production of both parallel and non-parallel flanges. The three-point gauge fingers allow automatic calculation and setting of both the backgauge and side stop positions for accurate part production.

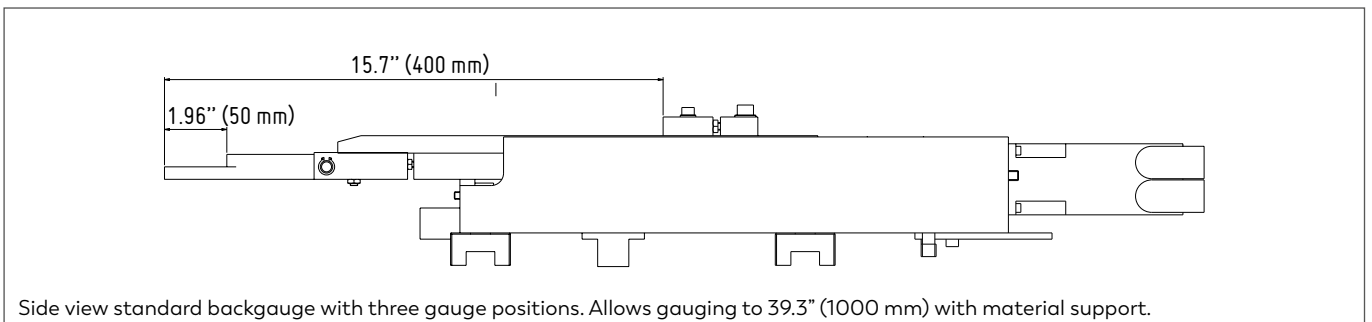
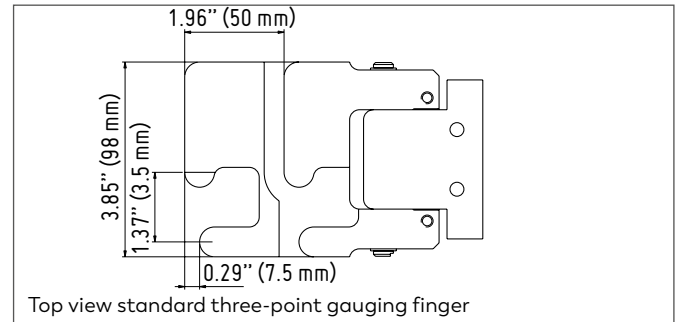
LVD's CADMAN® software enables feasibility checks prior to production. The database information is automatically used to achieve precise flange lengths the first time. You can determine the exact position of the backgauge, no modifications are necessary throughout production.

The range starts from a basic two-axis backgauge up to a full multiaxis system.

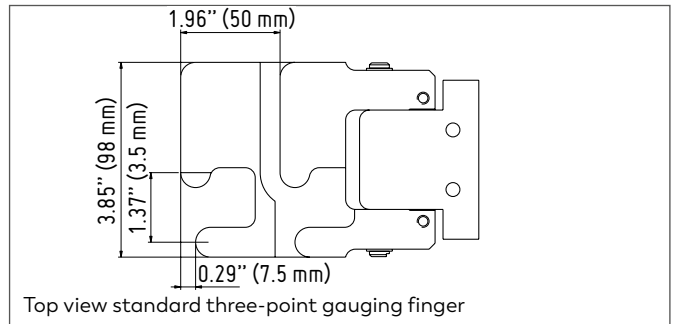
Standard two-axis backgauge (X, R) with manual Z-axis on Easy-Form 6



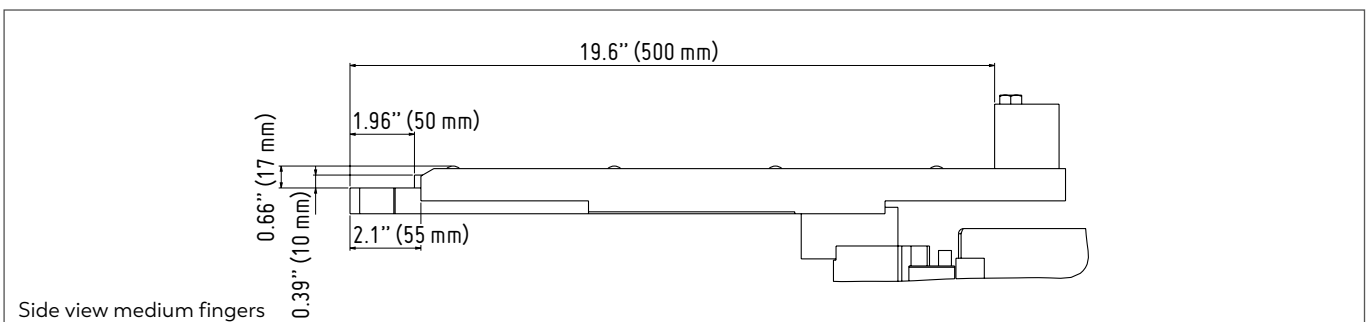
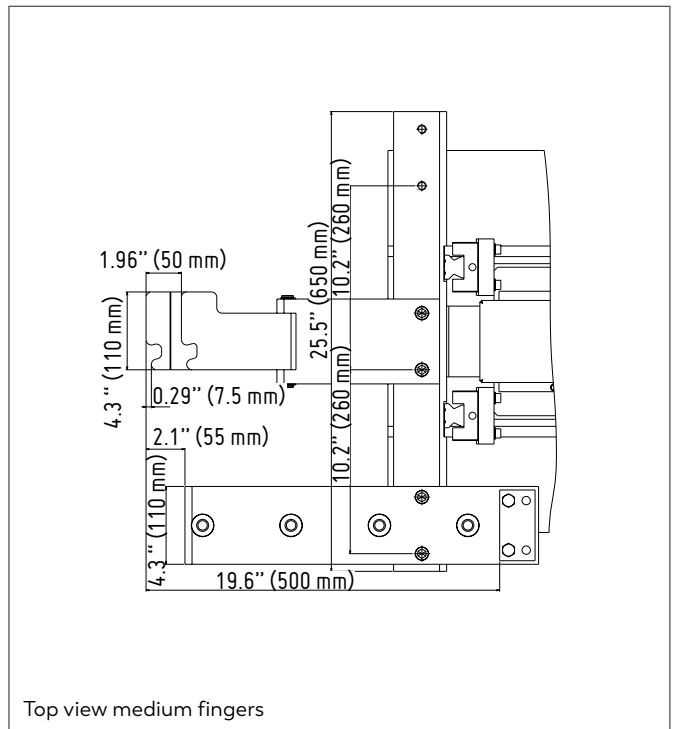
Five-axis backgauge (X, R, Z1, Z2, X') on Easy-Form 9



Six-axis modular backgauge (X1, R1, Z1, X2, R2, Z2) up to 400T on Easy-Form 9 (option)



Six-axis modular backgauge (X1, R1, Z1, X2, R2, Z2) for 500T and 640T



CONFIGURE YOUR PRESS BRAKE

Front and back LED work zone lighting, a second foot pedal, a barcode reader to automatically load bending programs and an electrical cabinet air conditioner are included in the standard Easy-Form machine.

Maximizing machine efficiency is the turbo hydraulic drive, a standard feature. This exclusive pump design regulates the flow rate to achieve optimal machine speed, avoiding unnecessary oil heating and energy waste. No energy is lost when the machine is holding the ram in position under pressure or when operating at low capacity.

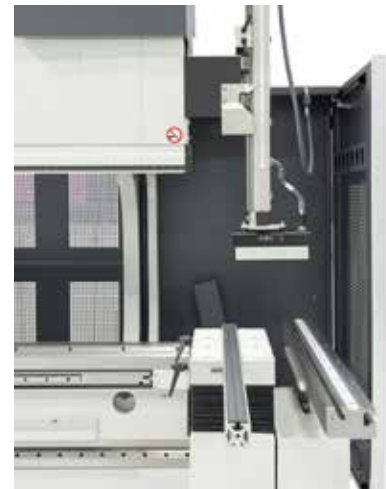
Numerous options are available to increase output on your press brake: quick-acting hydraulic clamping on ram and on table, hardened clamping, increased distance table-ram/stroke of the ram, increased gap, laser safety of the bending line, interface for robot connection, and more.



Front supports on guide rails allow quick positioning along the entire length



Two programmable sheet followers



A parking zone is standard left/right



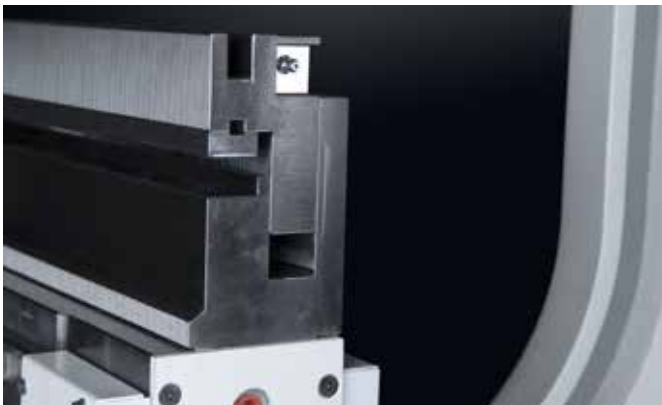
Increase the table-ram/stroke/gap distance in 3.93" (100 mm) steps



Additional backgauge finger for gauging long parts



Backgauge finger with electric contact for robotic bending



Hemming table



Lazersafe safety system



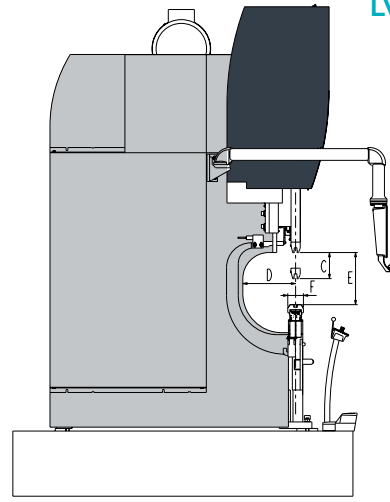
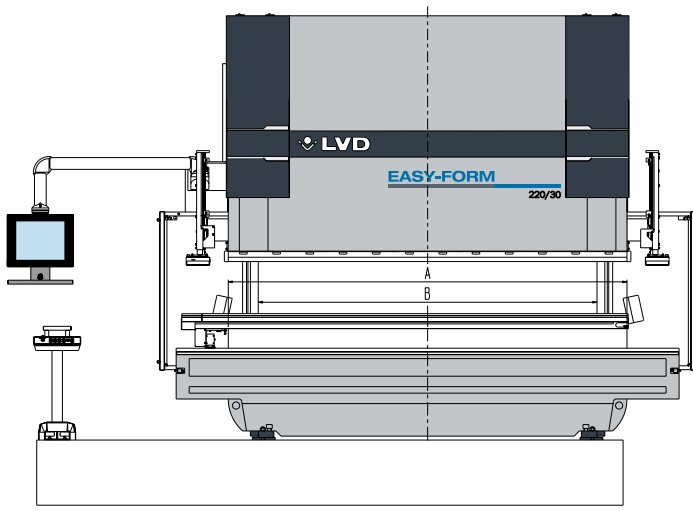
Tandem operation: Synchronized operation of two machines with a single master CNC control or independent operation of each machine with separate control, available with dissimilar tonnage and lengths in tandem configuration.

TECHNICAL SPECIFICATIONS

Type		80/15	80/20	80/25	110/30	110/40	110/42	135/30	135/40	135/42	170/30
Pressing force	ton	90	90	90	120	120	120	150	150	150	190
Working length	A inch	59	78	98	120	157	168	120	157	168	120
Dist. betw. uprights	B inch	41	61	80	102	124	150	102	124	150	102
Stroke	C inch	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
Distance table/ram	E inch	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7
Gap	D inch	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7
Table width	F inch	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
Max. load table	Ton/Ft	68	68	68	68	68	68	68	68	68	68
Working height	inch	38	38	38	38	38	38	38	38	38	38
Approach speed*	inch/min	378	378	378	425	425	425	425	425	425	425
Working speed**	inch/min	54	54	54	52	52	52	52	52	52	52
Return speed	inch/min	472	472	472	472	472	472	472	472	472	472
Motor	HP	20	20	20	30	30	30	30	30	30	50
Oil	Gal	33	33	33	66	66	66	66	66	66	92
Weight	lbs.	12,125	13,230	14,340	20,900	24,200	26,400	20,900	24,200	26,400	24,200

Type		220/50	220/50 Plus	220/61	220/61 Plus	320/30	320/40	320/45	320/51	320/61	400/40
Pressing force	ton	240	240	240	240	350	350	350	350	350	440
Working length	A inch	196	196	240	240	120	157	177	200	240	160
Dist. betw. uprights	B inch	179	179	198	198	102	124	150	168	198	124
Stroke	C inch	7.9	11.8	7.9	11.8	11.8	11.8	11.8	11.8	11.8	11.8
Distance table/ram	E inch	15.7	22.4	15.7	22.4	22.4	22.4	22.4	22.4	22.4	22.4
Gap	D inch	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7
Table width	F inch	4.7	7.9	4.7	7.9	7.9	7.9	7.9	7.9	7.9	7.9
Max. load table	Ton/Ft	68	85	68	85	85	85	85	85	85	85
Working height	inch	40	41	40	41	39	39	39	40	45	38
Approach speed*	inch/min	283	283	283	283	283	283	283	283	283	236
Working speed**	inch/min	50	50	50	50	33	33	33	33	33	26
Return speed	inch/min	472	472	472	472	307	307	307	307	307	283
Motor	HP	50	50	50	50	50	50	50	50	50	50
Oil	Gal	92	92	92	92	106	106	106	106	106	132
Weight	lbs.	45,100	46,200	51,700	52,800	46,200	50,600	56,100	63,800	79,200	67,100

* For CE-countries only if the machine is equipped with an optional safety system. ** For CE-countries working speed is limited to safety norm. Different combinations of stroke and daylight are available in our standard range by steps of +100 mm. Specifications subject to change without prior notice.



Type		170/40	170/42	170/50	220/30	220/30 Plus	220/40	220/40 Plus	220/42	220/42 Plus
Pressing force	ton	190	190	190	240	240	240	240	240	240
Working length	A inch	157	168	196	120	120	157	157	168	168
Dist. betw. uprights	B inch	124	150	179	102	102	124	124	150	150
Stroke	C inch	7.9	7.9	7.9	7.9	11.8	7.9	11.8	7.9	11.8
Distance table/ram	E inch	15.7	15.7	15.7	15.7	22.4	15.7	22.4	15.7	22.4
Gap	D inch	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7
Table width	F inch	4.7	4.7	4.7	4.7	7.9	4.7	7.9	4.7	7.9
Max. load table	Ton/Ft	68	68	68	68	85	68	85	68	85
Working height	inch	38	38	40	38	39	38	39	38	39
Approach speed*	inch/min	425	425	425	283	283	283	283	283	283
Working speed**	inch/min	59	59	59	50	50	50	50	50	50
Return speed	inch/min	472	472	472	472	472	472	472	472	472
Motor	HP	50	50	50	50	50	50	50	50	50
Oil	Gal	92	92	92	92	92	92	92	92	92
Weight	lbs.	28,600	31,900	42,900	27,500	28,000	33,000	34,100	36,300	37,400

Type		400/45	400/51	400/61	500/40	500/45	500/61	640/45	640/61	640/80
Pressing force	ton	440	440	440	550	550	550	700	700	700
Working length	A inch	180	200	240	160	177	240	177	240	315
Dist. betw. uprights	B inch	150	168	198	124	148	198	148	198	277
Stroke	C inch	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8
Distance table/ram	E inch	22.4	22.4	22.4	22.4	22.4	22.4	22.4	22.4	22.4
Gap	D inch	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7
Table width	F inch	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
Max. load table	Ton/Ft	85	85	85	85	85	85	85	85	85
Working height	inch	38	38	38	38	38	38	38	38	38
Approach speed*	inch/min	236	236	236	236	236	236	212	212	212
Working speed**	inch/min	26	26	26	21	21	21	21	21	21
Return speed	inch/min	283	283	283	189	189	189	236	236	236
Motor	HP	50	50	50	50	50	50	75	75	75
Oil	Gal	132	132	132	172	172	172	225	225	225
Weight	lbs.	70,400	74,800	72,400	86,680	82,840	108,724	108,460	125,400	157,410

