

THE COMPLETE PRODUCT LINE

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Think Big, We Do.

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   / BaykalMachinery

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Baykal

APHS HYBRID

Environmentally friendly. Smart. This is how we do it.

01

ACCURATE

Because each side of the APHS HYBRID press brake is independently operated by its own hydraulic system, it is an on-demand direct drive system. It is rapid, accurate and repeatable.

02

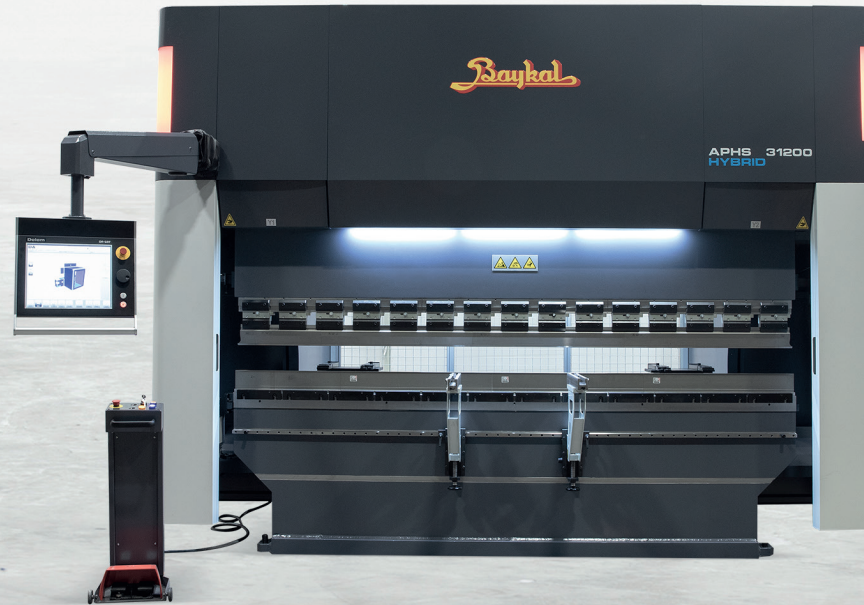
AFFORDABLE

The hybrid brake technology allows a more efficient hydraulic system design.

03

FLEXIBLE

Large range of lengths and tonnages are available.



04

EFFICIENCY

Up to 55% energy saving

05

QUIET

When it's on standby mode (all axis are idle), the hydraulics are not running.

06

SAFE

Hybrid machines incorporate a great deal of safety into their designs including lasers and other features to improve operator's safety.

APHS HYBRID										
APHS HYBRID SERIES		31120	31160	31200	31240	31300	41160	41200	41240	41300
Bending Length	mm	3100	3100	3100	3100	3100	4100	4100	4100	4100
Bending Force	Tons	120	160	200	240	300	160	200	240	300
Oil Capacity	lt	2x34.5	2x55	2x55	2x55	2x55	2x55	2x55	2x55	2x55
Daylight Opening	mm	530	530	530	530	660	530	530	530	635
Stroke	mm	260	260	260	260	260	260	260	260	320
Throat Gap	mm	410	410	410	410	500	410	410	410	500
Approach	mm/s	200	200	200	160/200*	140/200*	200	200	160/200*	140/200*
Working	mm/s	10	10	10	8/10*	7/10*	10	10	8/10*	7/10*
Return	mm/s	200	200	200	160/200*	140/200*	200	200	160/200*	140/200*
X Axis Range	mm	750	750	750	750	750	750	750	750	750
X Axis Speed	mm/s	350	350	350	350	350	350	350	350	350
X Axis Precision		0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
R Axis Range	mm	150	150	150	150	150	150	150	150	150
R Axis Speed	mm/s	200	200	200	200	200	200	200	200	200
*		Higher speeds are available with H+Package								

• Design and specifications are subject to change without notice

APHS PRO

The robust and reliable solution for high-quality bending results in all sheet thicknesses

04

EFFICIENT

APHS PRO series hydraulic press brakes have great efficiency and productivity.

01

ACCURATE

It's rapid, accurate, and repeatable thanks to the design and hydraulic system.

02

AFFORDABLE

APHS PRO series combined with high quality and are well-priced.

03

FLEXIBLE

Wide range of lengths and tonnages are available.



05

QUICK INSTALLATION

Fast and easy installation allows time-saving.

06

SAFE

High safety for operators
Suitable for CE Standards

APHS PRO

APHS PRO SERIES		125040	21060	26090	31090	31120	31160	31200	31240	31300	31440	41160	41200	41240	41300	41440	61240	61300	61380	61440	61600
Capacity	kN	400	600	900	900	1200	1600	2000	2400	3000	4400	1600	2000	2400	3000	4400	2400	3000	3800	4400	6000
Oil Tank Volume		80	140	140	140	140	210	210	210	280	450	210	210	210	280	450	300	300	450	450	500
Speeds (mm/s)	Approach	160	150	150	160	160	160	150	130	110	80	170	160	150	120	80	140	120	90	90	80
	Working	10	10	10	10	10	10	10	10	8	8	10	10	10	8	8	10	8	8	8	7
	Return	130	130	130	130	130	130	130	120	100	70	120	110	100	90	70	100	70	70	70	70
Approx. Weight	Ton	3.3	5.4	7.1	7.9	8.4	9.7	10	11	15	22	12	12.5	14	18.5	26	25	30	35	39	55
Bending Length	A	1250	2100	2600	3100	3100	3100	3100	3100	3100	3100	4100	4100	4100	4100	4100	6100	6100	6100	6100	6100
Inside Frames	B	1070	1600	2050	2550	2550	2550	2550	2550	2550	3550	3550	3550	3550	3550	3550	5100	5100	5100	5100	5100
Side Frame Width	C	1470	1580	1580	1590	1590	1600	1600	1610	1815	2060	1600	1600	1610	1820	2235	1960	2060	2210	2250	2400
Bed Height	G	800	880	880	880	880	880	880	880	905	1005	880	880	880	980	955	1100	1115	1100	1100	1050
Daylight Opening	K	455	475	540	530	540	540	530	530	660	575	530	530	530	635	590	500	560	570	570	620
Stroke	L	215	210	260	260	260	260	260	260	320	320	260	260	260	320	320	260	320	320	320	360
Table Width	M	60	60	60	60	60	60	90	90	380	450	60	90	90	280	380	90	200	240	280	380
Throat Gap	N	410	410	410	410	410	410	410	410	500	500	410	410	410	500	500	500	500	500	500	500

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APHS

Powerful bending technology at an attractive price level

01

COMPACT

Up to 4100 mm, and 300 tons.

02

FLEXIBLE

Flexible and customizable optional features in order to meet your most demanding in flexibility.

03

EFFICIENT AND ECONOMICAL

Best BAYKAL quality with simple operation and an attractive price-performance ratio.



04

PRODUCTIVITY

Minimizes production cost with high speed, quality and superior bending ability.

05

ROBUST DESIGN

Monoblock welded body structure with static and dynamic rigidity.

06

USER-FRIENDLY AND ERGONOMIC

Operation is easy and intuitive.

		APHS													
APHS SERIES		125040	21060	26090	31090	31120	31160	31200	31240	31300	31440	41160	41200	41240	41300
Capacity	kN	400	600	900	900	1200	1600	2000	2400	3000	4400	1600	2000	2400	3000
Motor Output		4	5.5	7.5	7.5	11	15	19	22	22	30	15	18.5	22	22
Oil Tank Volume		80	140	140	140	140	210	210	210	280	450	210	210	210	280
Speeds (mm/s)	Approach	160	150	150	160	160	160	150	130	110	80	170	160	150	120
	Working	10	10	10	10	10	10	10	10	8	8	10	10	10	8
	Return	130	130	130	130	130	130	130	120	100	70	120	110	100	90
Approx. Weight	Ton	3.3	5.4	7.1	7.9	8.4	9.7	10	11	15	22	12	12.5	14	18.5
Bending Length	A	1250	2100	2600	3100	3100	3100	3100	3100	3100	3100	4100	4100	4100	4100
Inside Frames	B	1070	1600	2050	2550	2550	2550	2550	2550	2550	2550	3550	3550	3550	3550
Side Frame Width	C	1470	1580	1580	1590	1590	1600	1600	1610	1815	2060	1600	1600	1610	1820
Bed Height	G	800	880	880	880	880	880	880	880	905	1005	880	880	880	980
Daylight Opening	K	455	475	540	530	540	540	530	530	660	575	530	530	530	635
Stroke	L	215	210	260	260	260	260	260	260	320	320	260	260	260	320
Table Width	M	60	60	60	60	60	60	90	90	380	450	60	90	90	280
Throat Gap	N	410	410	410	410	410	410	410	410	500	500	410	410	410	500

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APHE

Compact design, efficient and economical

04

COST EFFECTIVE

APHE has well priced standard and optional features.

01

SIMPLE OPERATION

APHE is mostly suitable for simple bending processes.

02

OPERATOR-FRIENDLY CONTROL UNIT

Universal and easy to operate control unit options lead better bending experience for your operators.

03

UNIVERSAL BENDING

APHE can be equipped with universal top and bottom toolings.



05

COMPACT DESIGN

APHE is available up to 4-meter length and various tonnages options.

06

EASY TO TRANSPORT

Shipping sizes of APHE lead easy transportation and small place on your company layout.

APHE											
APHE SERIES	Bending Length	Bending Force	Main Motor	Oil Capacity	Inside Frames	Daylight Opening	Stroke	Throat Gap	Approach	Working	Return
	mm	Tons	kW	lit	mm	mm	mm	mm	mm/s	mm/s	mm/s
31120	3100	120	11	140	2550	375	180	255	160	10	130
31160	3100	160	15	210	2550	375	180	255	160	10	130
31200	3100	200	18.5	210	2550	445	210	255	150	10	130
41200	4100	200	18.5	210	3050	445	210	255	150	10	130

GUILLOTINE SHEARS

Outstanding cutting quality and accuracy.

HGL

Hydraulic Swing-beam Shears



MGH

Hydraulic Swing-beam Shears



HNC

Hydraulic Variable-rake Guillotines



HGL											
HGL SERIES	Capacity		Cutting Length	Rake Angle	Main Motor	Number of Hold-Downs	Strokes per Minute	Capacity of Oil Tank	Backgauge Range	Backgauge Motor	Approx. Weight
	≤ 450 N/mm ²	≤ 700 N/mm ²									
	mm	mm									
2606	6	4	2560	1.6	11	15	24	160	750	0.37	4700
3106	6	4	3060	1.6	11	17	20	160	750	0.37	5500
3108	8	5	3060	1.8	15	17	13	160	750	0.37	6450
4106	6	4	4060	1.2	11	23	12	160	750	0.37	9400

MGH											
MGH SERIES	Capacity		Cutting Length	Rake Angle	Main Motor	Number of Hold-Downs	Strokes per Minute	Capacity of Oil Tank	Backgauge Range	Backgauge Motor	Approx. Weight
	≤ 450 N/mm ²	≤ 700 N/mm ²									
	mm	mm									
3106	6	4	3060	1.5	11	15	8	170	1000	0.37	7000
3110	10	6	3060	2.0	22	17	12	170	1000	0.37	9200
3113	13	8	3060	2.4	30	17	12	220	1000	0.37	11500
3116	16	10	3060	2.7	30	17	7	220	1000	0.55	15500
3120	20	13	3060	3.0	37	18	7	280	1000	0.55	19600
4110	10	6	4060	2.0	22	23	10	170	1000	0.37	13000
4113	13	8	4060	2.2	30	23	8	220	1000	0.37	16100

HNC													
HNC SERIES	Capacity		Cutting Length	Rake Angle	Main Motor	Number of Hold-Downs	Strokes per Minute	Capacity of Oil Tank	Backgauge Range	Backgauge Motor	Approx. Weight		
	≤ 450 N/mm ²	≤ 700 N/mm ²											
	mm	mm											
3106	6	4	3070	0.5-1.5	11	16	20-32	240	1000	0.37	7800		
3110	10	6	3070	0.5-2.0	22	15	12-18	360	1000	0.37	11000		
3113	13	8	3070	0.5-2.5	30	15	9-14	360	1000	0.37	13000		
3116	16	10	3070	0.5-3.0	30	15	8-14	400	1000	0.55	16500		
3120	20	13	3070	0.5-3.0	37	16	6-10	400	1000	0.55	21000		
3125	25	16	3070	0.5-3.5	45	15	4-16	600	1000	0.55	23000		
4106	6	4	4070	0.5-1.5	11	21	16-25	360	1000	0.55	12000		
4110	10	6	4070	0.5-2.0	22	21	9-14	360	1000	0.55	15000		
4113	13	8	4070	0.5-2.5	30	21	7-14	400	1000	0.55	18000		
4116	16	10	4070	0.5-3.0	30	21	7-12	400	1000	0.55	23500		
4120	20	13	4070	0.5-3.0	37	21	6-9	400	1000	0.55	26000		
6106	6	4	6070	0.5-2.0	18.5	30	12-18	360	1000	0.55	22000		
6110	10	6	6070	0.5-2.0	22	30	6-10	400	1000	0.55	30000		
6113	13	8	6070	0.5-2.5	30	30	6-10	400	1000	0.75	38000		
6116	16	10	6070	0.5-3.0	37	30	5-9	400	1000	0.75	43000		
6120	20	13	6070	0.5-3.0	37	30	5-9	600	1000	0.75	48000		

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BLT

Tube Processing With Laser Technology

01

FLEXIBILITY

Unload short or long parts, front or back, while scrap is automatically managed.

02

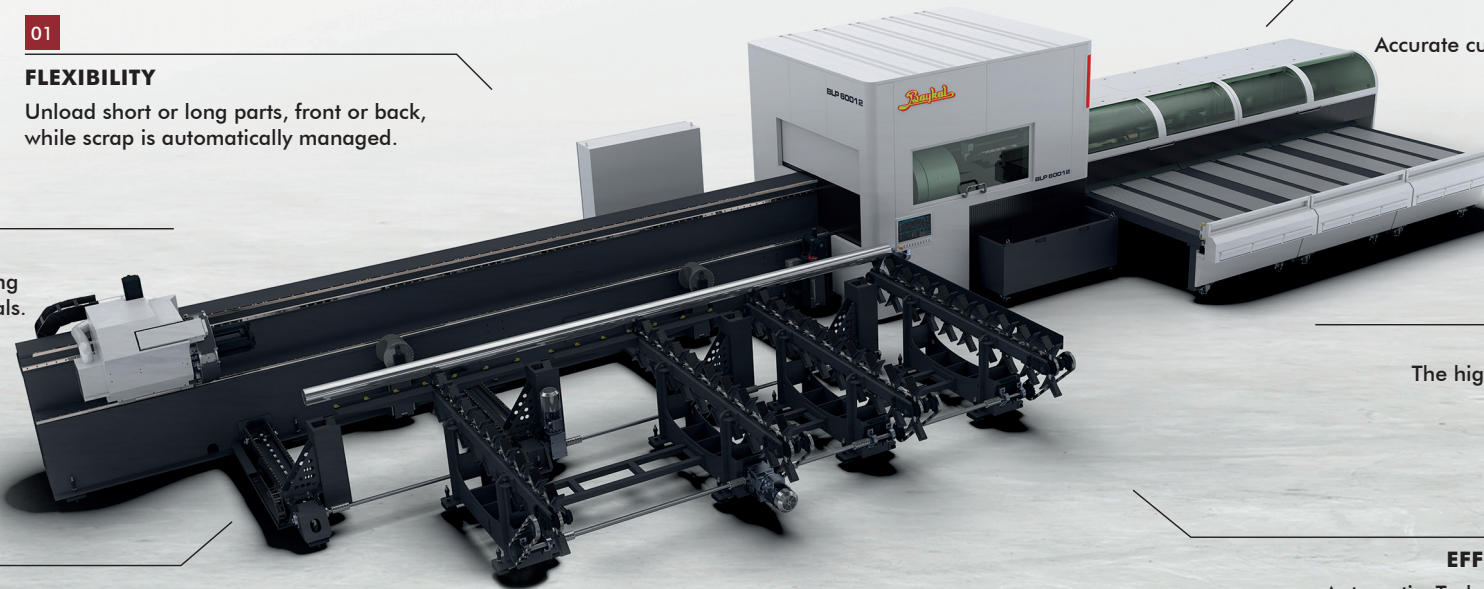
RELIABLE

Optimized quality and cutting speed even on thick materials.

03

PRECISION

Change section, material, and thickness without sacrificing cut quality.



04

ACCURACY

Accurate cut geometries even on distorted tubes.

05

PRODUCTIVITY

The highest productivity at the lowest cost per part.

06

EFFICIENCY

Automatic. Technological. High-performing

BLT				
BLT SERIES	6220 3D	8220 3D	6170	8170
CNC Control Unit	Beckhoff CNC (18.5" TFT - Windows 10)			
Cutting Head	Precitec Light Cutter 3D			
Bevel Cutting ($\pm 45^\circ$)	Optional	Optional	N/A	N/A
Max. Tube Length	6100 mm	8100 mm	6100 mm	8100 mm
Max. Part Length	4000 mm			
Min. Auto Loading Length	2000 mm			
Acceleration of Driver Chuck	7000 Deg/s ²			
Speed of Driver Chuck	560 °/s			
Types of Profiles	Round, Rectangular, Triangular, H, C, U, L, Ellipse, Obround, Custom Shapes			
Min./Max. Round Diameter	Ø16 / Ø220 mm		Ø16 / Ø170 mm	
Min./Max. Square Diameter	Min 16x16 mm / Max 220x220 mm		Min 16x16 mm / Max 170x170 mm	
Length of Last Part	60 mm			
Max. Tube Weight	240 kg			
Min. Material Thickness	0.8 mm			
Rapid Speed	90 m/min			
Vector Speed	130 m/min			
Acceleration	1.0G (10m/s)			
Absolute Positioning Accuracy	± 0.01 mm			
Repeatability (X & Y Axis)	± 0.02 mm			
Automatic Loading	Optional			
Automatic Unloading	Optional			
Feed Rate	Programmable up to 50m/min Actual feed rate depends on material and thickness			

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BLE PRO

Cost-effective and productive

01

PRODUCTIVE

High dynamism increases productivity on thin sheets (+20%) compared to a conventional drive system.

02

ACCURATE

Precise and repeatable in cutting and laser head positioning thanks to effective CNC management. Excellent cutting quality and dynamics on all materials.

03

MODULAR

Suitable for any production need, offering a full range of automation solutions.

04

USER FRIENDLY

Automatic nozzle changer (optional) and easy to use programming software.

05

PROFITABLE

Low operating costs and reduced maintenance.

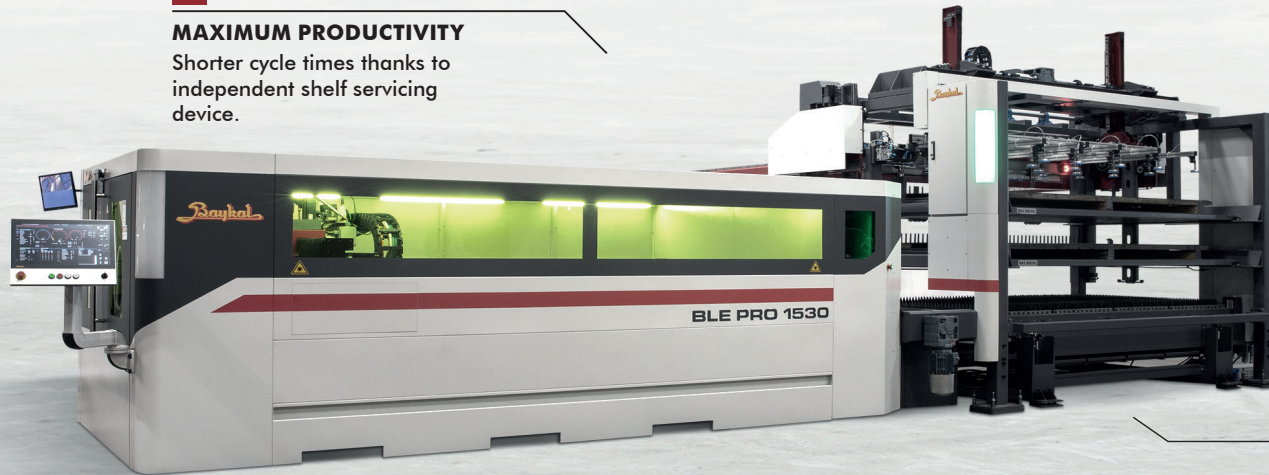


BLE PRO			
BLE PRO SERIES	1530	2040	2060
Working Area	1524x3048 mm	2032x4064 mm	2032x6096 mm
Laser Power	1000 - 6000 W		
Cutting Head	Precitec LightCutter (Automatic Focus) // Precitec ProCutter (Optional)		
Focusing Lenses	150 mm		
CNC Control Unit	Beckhoff CNC (18.5" TFT - Windows 10)		
Servo Motors / Drivers	Beckhoff		
Rapid Traverse	95 m/min	115 m/min	
Vector Speed	135 m/min	165 m/min	
Acceleration	1.8G (15 m/s ²)	2.0G (18 m/s ²)	
Absolute Positioning Accuracy	±0.03 mm		
Repeatability	±0.04 mm		
Feed Rate	Programmable up to 50 m/min	Programmable up to 75 m/min	
Transfer Table Motorized	Motorized - Automatic Exchange		
Max. Load Capacity	1250 kg for Each Table	2500 kg for Each Table	3000 kg for Each Table
Nesting Software	LANTEK Expert Cut II or Metalix AutoNest Pro		
Nozzle Cleaning and Calibration	Automatic		
Fume Extractor	Optional		
Nozzle Changer	Optional		

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BLE PRO TOWER

Entry-level economical compact tower storage system.



01

COMPACT

Designed to take up as little floor space as possible.

04

UNIQUE DESIGN

Easy to assemble and quick to install.

02

MAXIMUM PRODUCTIVITY

Shorter cycle times thanks to independent shelf servicing device.

05

RELIABLE

More reliable and optimized material flow.

03

SMART AUTOMATION

Enable unsupervised production.

06

VERSATILE APPLICATION

Combined loading/unloading system complete with storage tower.

BLE PRO TOWER	
BLE PRO TOWER SERIES	1530
Max. Sheet Size	20x1500x3000 mm
Max. Load Per Compartment	3000 kg
Lifting Speed	30 m/min
Number of Compartments	2 Units (Stacking and Scrap)
Max. Sheet Height	100 mm
Loading and Unloading Positioning Accuracy	±1 mm
Capacity of Loading and Unloading System	600 kg
Loading and Unloading Cycle Time	135 seconds

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BLS

High flexibility and high performance

01

LIMITLESS FLEXIBILITY

Oversize sheets cutting

02

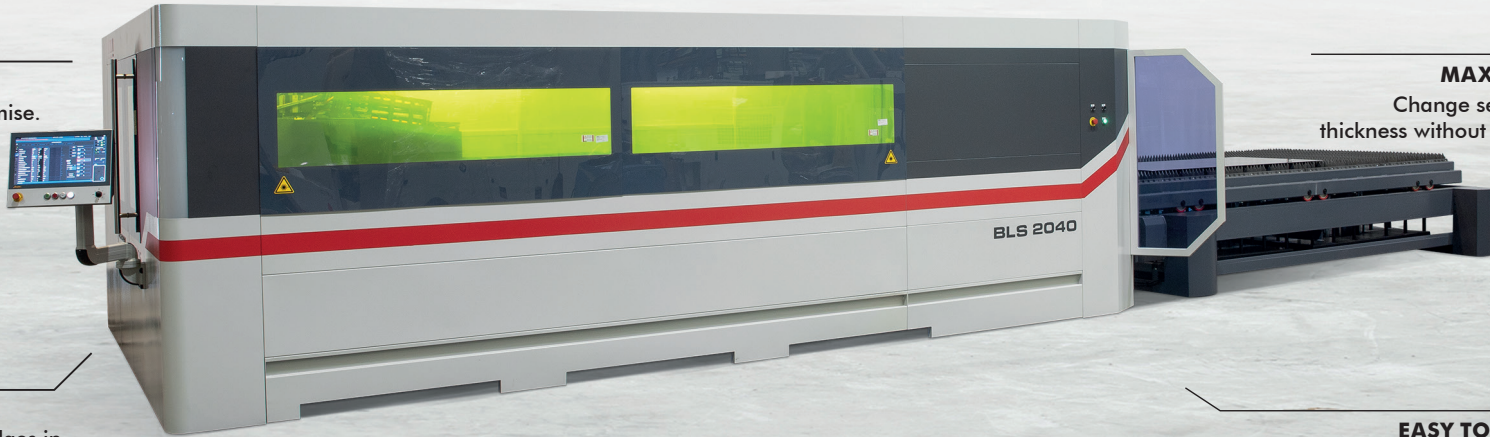
HIGH-QUALITY RESULTS

The best results without compromise.

03

TOP CUTTING EDGES

Create high-quality cutting edges in thick sheet.



04

HIGH-END PRODUCTIVITY

Achieve high feed rates and process the workpiece productively.

05

MAXIMUM PRECISION

Change section, material, and thickness without affecting cut quality.

06

EASY TO OPERATE

Fast and intuitive operation performance.

BLS	
BLS SERIES	
Working Area	2000x4000 mm / 2000x6000 mm (up to 3000x15000 mm)
Laser Power	6000 - 30000 W
Cutting Head	Precitec LightCutter (Automatic Focus) // Precitec ProCutter (Optional)
Focusing Lenses	150 mm
CNC Control Unit	Beckhoff CNC (18.5" TFT - Windows 10)
Motors / Drivers	Beckhoff (Rotary Servo) Beckhoff (Linear Servo)
Motion System	Rack and Pinion (Wittenstein) Linear Rails (Bosch Rexroth)
Rapid Traverse	115 m/min 150 m/min
Vector Speed	165 m/min 215 m/min
Acceleration	2.2G (22 m/s ²) 3.0G (30 m/s ²)
Absolute Positioning Accuracy	±0.02 mm ±0.01 mm
Repeatability	±0.02 mm ±0.01 mm
Programmable Feed Rate	Up to 100 m/min Up to 125 m/min
Transfer Table Motorized	Motorized - Automatic Exchange
Max. Load Capacity	2500 kg for 2000x4000 mm / 3500 kg for 2000x6000 mm
Nesting Software	LANTEK Expert Cut II or Metalix AutoNest Pro
Nozzle Cleaning and Calibration	Automatic
Fume Extractor	Optional
Bevel Cutting Head	Optional
Nozzle Changer	Optional

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BLC

High performance and high quality in one feature

04

VERSATILE APPLICATION

01

CONCENTRATED TECHNOLOGY

02

SHEET + TUBE PROCESSING

05

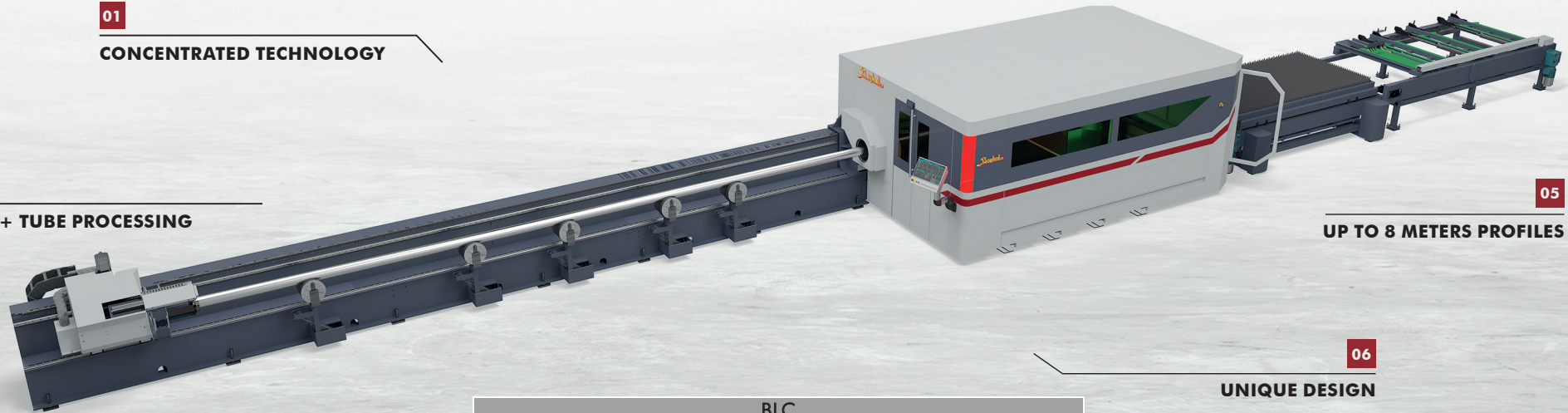
UP TO 8 METERS PROFILES

03

MAXIMUM PRODUCTIVITY

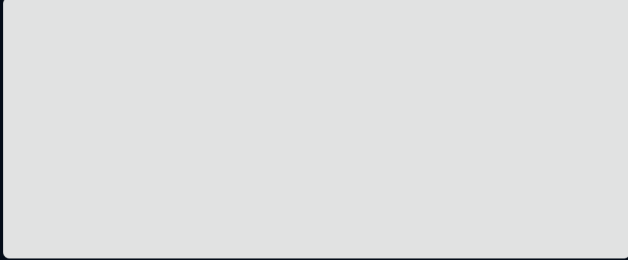
06

UNIQUE DESIGN



BLC	
BLC SERIES	
Net Sheet Cutting Area	1500x3000 mm 2000x4000 mm 2000x6000 mm 2500x8000 mm
Max. Tube Length	6100 mm (8100 mm Optional)
Max. Part Length	4000 mm
Min. Auto Loading Length	2000 mm
Acceleration of Driver Chuck	7000 Deg/s ²
Speed of Driver Chuck	560 °/s
Types of Profiles	Round, Rectangular, Triangular, C, U, L, Ellipse, Obround, Custom Shapes
Min./Max. Round Diameter	Ø16 / Ø220 mm
Min./Max. Square Diameter	Min 16x16 mm / Max 220x220 mm
Length of Last Part	220 mm
Max. Tube Weight	240 kg
Min. Material Thickness	0,8 mm
Cutting Head	Precitec ProCutter 2.0
CNC Control Unit	Beckhoff CNC (18.5" TFT - Windows 10)
Rapid Traverse	115 m/min
Vector Speed	160 m/min
Acceleration	2.2G (22m/s)
Absolute Positioning Accuracy	± 0.01 mm
Repeatability (X & Y Axis)	± 0.02 mm
Automatic Loading	Optional
Automatic Unloading	Standard
Feed Rate	Programmable up to 50m/min Actual feed rate depends on material and thickness

• Design and specifications are subject to change without notice



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