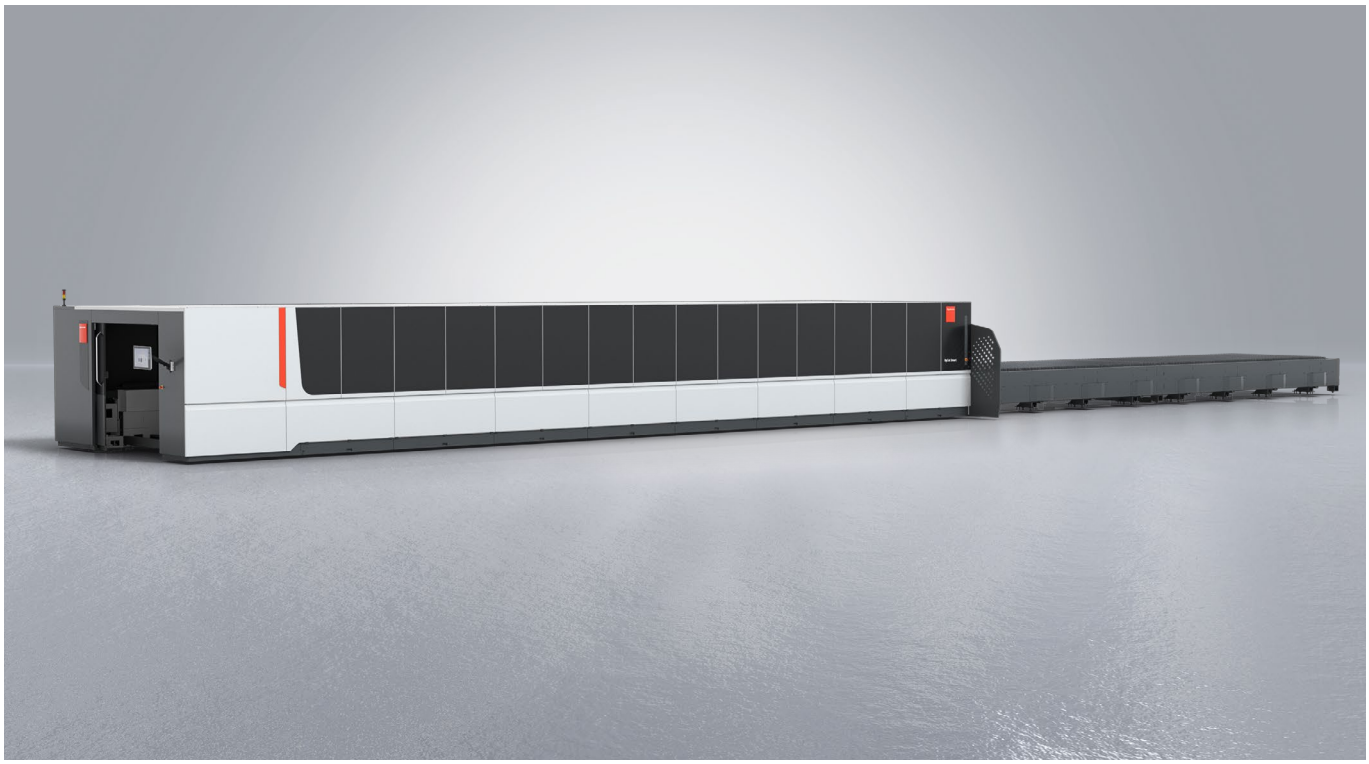
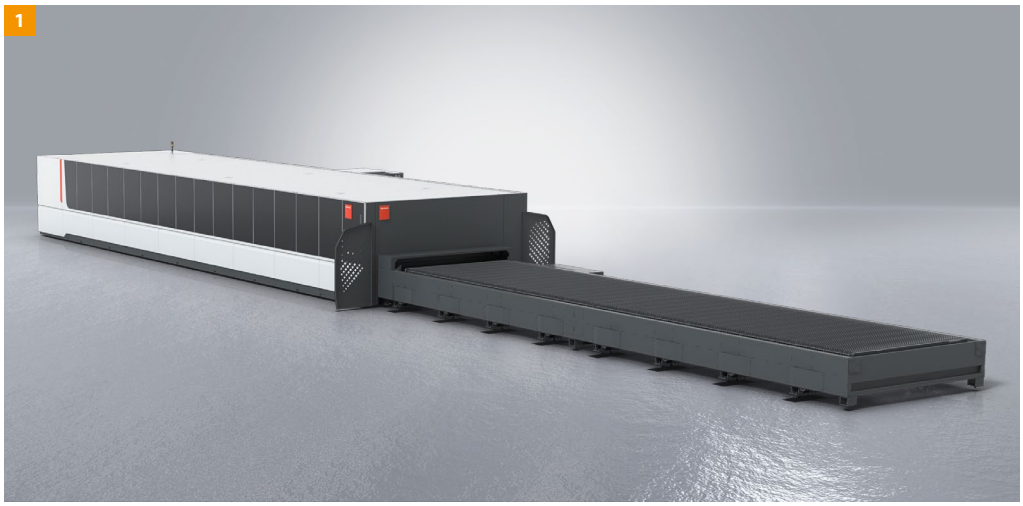


ByCut Smart 6225/12025

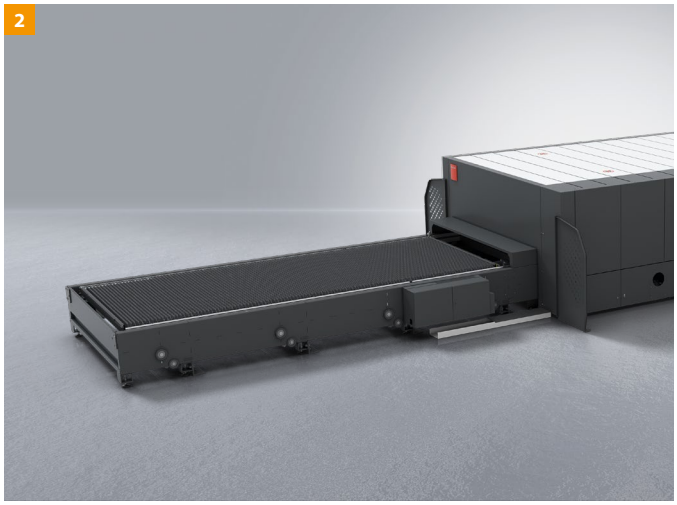
High productivity and performance in the XXL format at a favorable price

Customer benefits

- High degree of material utilization thanks to a cutting length of up to 480 inch and a width of 98.42 inch. Cut not only large parts, but also many small parts with high efficiency thanks to outstanding nesting processes.
- High-end productivity: More parts per cycle. Cut a wide range of materials without interrupting the cutting process hence reducing non-productive time.
- High productivity and performance in the XXL format at a favorable price.
- The latest version of the high-performance Bystronic cutting head excels with maximum precision and high speed thanks to laser outputs of up to 15 kW.
- Using a 21.5-inch touch screen, Bystronic's BySoft Cell Control Cut software is operated just as simply as a smartphone. Ease of use and an intuitive user interface guarantee excellent results even when operators are inexperienced.

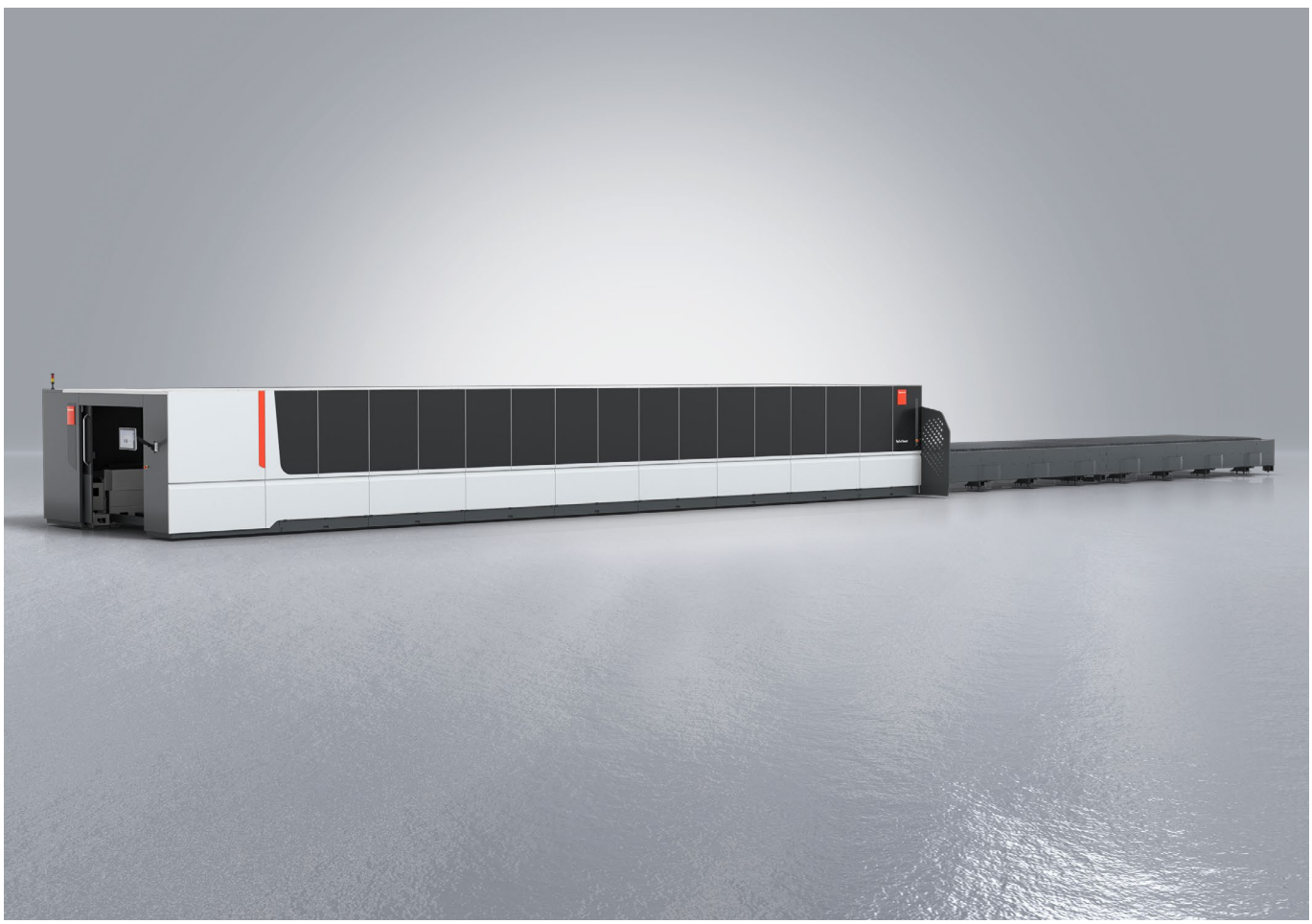


1 Available in the large formats 244 × 98 and 480 × 98 inch: Bystronic launches the ByCut Smart laser cutting system in the XXL formats 6225 and 12025.
2 More sheet metal, more parts: The XXL formats increase productivity thanks to a high degree of material utilization.
3 The ByCut Smart can be equipped with the Fiber 3000, 4000, 6000, 8000, 10000, 12000 or 15000 laser sources, depending on the users' requirements.



	ByCut Smart 6225	ByCut Smart 12025
Nominal sheet size	244 × 100 inch	480 × 100 inch
Max. simultaneous positioning speed	5,512 inch/min	5,512 inch/min

ByCut Smart 6225/12025
Technical Data



	ByCut Smart 6225	ByCut Smart 12025
Length	768 inch	1220 inch
Width	321 inch	341 inch
Height	126 inch	134 inch
Nominal sheet size (X)	244 inch	480 inch
Nominal sheet size (Y)	100 inch	98 inch
Cutting area (X)	246 inch	484 inch
Cutting area (Y)	100 inch	102 inch
Cutting area (Z)	6 inch	6 inch
Max. positioning speed parallel axis X/Y	3,937 inch/min	3,937 inch/min
Max. simultaneous positioning speed	5,512 inch/min	5,512 inch/min
Bilateral repeatability of positioning of one axis R (following ISO 230-2:2014(E))	0.002 inch	0.002 inch
Averaged, bilateralposition deviation of one axis M (following ISO 230-2:2014(E))	0.004 inch	0,004 inch
Edge detection accurancy (±)	0.02 inch	0.02 inch
Max. workpiece weight	8,040 lbs	15,600 lbs
Maximum allowed workpiece weight on both shuttle tables	16,080 lbs	31,200 lbs
Machine weight (without exhaust, chiller and conveyor)	46,297 lbs	76,059 lbs
Table changeover time	72 s	154 s
Operation	BySoft Cell Control Cut Touchscreen and manual control unit	

Laser source	Fiber 3000	Fiber 4000	Fiber 6000
Power	3,000 W	4,000 W	6,000 W
Range of adjustment	300–3,000 W	400–4,000 W	600–6,000 W
Wavelength	Fiber	Fiber	Fiber
Steel (max. cutting sheet thickness) *	0.75 inch	0.75 inch	1 inch
Steel (with option BeamShaper) *	0.75 inch	1 inch	1.125 inch
Stainless steel (max. cutting sheet thickness) *	0.5 inch	0.625 inch	1.125 inch
Aluminum (max. cutting sheet thickness) *	0.5 inch	0.625 inch	1.125 inch
Brass (max. sheet thickness) *	0.25 inch	0.625 inch	0.625 inch
Copper (max. sheet thickness) *	0.25 inch	0.312 inch	0.5 inch
Total electric consumption of system (with exhaust, chiller) **	23 kW	25 kW	25 kW

Laser source	Fiber 8000	Fiber 10000	Fiber 12000	Fiber 15000
Power	8,000 W	10,000 W	12,000 W	15,000 W
Range of adjustment	800–8,000 W	1,000–10,000 W	1,200–12,000 W	1,500–15,000 W
Wavelength	Fiber	Fiber	Fiber	Fiber
Steel (max. cutting sheet thickness) *	1 inch	1 inch	1 inch	1 inch
Steel (with option BeamShaper) *	1.125 inch	1.125 inch	1.125 inch	1.125 inch
Stainless steel (max. cutting sheet thickness) *	1.125 inch	1.125 inch	1.125 inch	1.5 inch
Aluminum (max. cutting sheet thickness) *	1.125 inch	1.125 inch	1.125 inch	1.5 inch
Brass (max. sheet thickness) *	0.625 inch	0.625 inch	0.625 inch	0.75 inch
Copper (max. sheet thickness) *	0.5 inch	0.625 inch	0.625 inch	0.75 inch
Total electric consumption of system (with exhaust, chiller) **	28 kW	29 kW	29 kW	29 kW

* In order to cut the maximum thicknesses, the following conditions must be met:
- optimally maintained and adjusted laser cutting systems
- the materials must be of the quality specified by Bystronic (laser materials)

** Entire system with exhaust and chiller: Electrical consumption data shows an average value based on 4 reference cutting plans of mild steel between 1–10 mm thickness

The right to make changes to dimensions, construction, and equipment is reserved. ISO-9001-certified.

The technical data can vary in the different countries, according to local security rules and configuration of the machine.