

MADE IN USA TUBE BENDERS | METRIC SERIES TUBE BENDERS | LASER TUBE CUTTERS

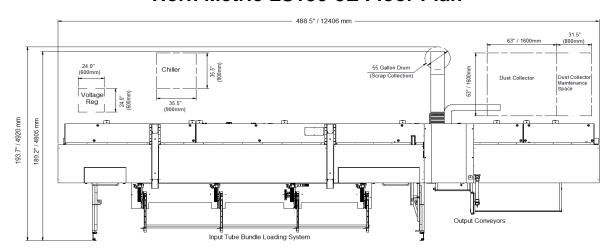
## Horn Motrie I 9150 55 Specifications

Horn Metric LS150-5E Specifications				
	Min Max			
Tube / Pipe Range	Imperial	Metric	Imperial	Metric
Round Tube (Minimum & Maximum)	0.630"	16.0 mm	6.00"	152.4 mm
Square Tube (Minimum & Maximum)	0.630"	16.0 mm	4.00"	101.6 mm
Diagonal of Square Tube (Minimum & Maximum)	.885 "	22.5 mm	6.00"	152.4 mm
Rectangular Tube (Minimum & Maximum)	.630" x 4.00" / 16 mm x 101.6 mm (EW or HW)			
Pipe (IPS)	5" IPS Schedule 80			
Material types	Carbon & stainless steel, AL, & Alloys			
	Steel	Steel	Stainless Steel	
Wall Thickness	$O^2$	$N^2$	N	
Maximum wall thickness (2 kW)	.315" / 8mm	.236" / 6mm	.236" / 6mm	
Maximum wall thickness (3 kW)	.472" / 12mm	.315" / 8mm	.315" / 8mm	
Maximum wall thickness (4 kW)	.630" / 16mm	.393" / 10mm	.393" / 10mm	
Note: If laser cutting speeds are reduced than thicker wall tubes may be cut				
1 1 1				
Loading / Unloading	Imperial	Metric	Imperial	Metric
Tube Loading Options (Standard = 240" / 6096 mm)	120.00"	3048.0 mm	326.7"	8300.0 mm
Tube Unloading Options (Standard = 120" / 3048.0 mm)	120.00"	3048.0 mm	360.00"	9144.0 mm
Minimum Length of remaining tube (3 chuck system)	2.56" / 65mm			
Maximum Bundle Weight	4,4000 lbs / 2,000 Kg			
Average raw material weight	12 lbs / ft or 18 Kg / M (Stroke) (Speed)			
Axis Stroke / Speed	Imperial	Metric	Imperial	Metric
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X-Axis (Laser head horizontal)	6.30"	160 mm	9.85 In / sec	250 mm / sec
X-Axis (Laser head horizontal)	6.30"	160 mm 310 mm	9.85 In / sec 13.86 In / sec	250 mm / sec
X-Axis (Laser head horizontal) Z-Axis (Laser head vertical)	6.30" 12.20" +/- 45	160 mm 310 mm	9.85 ln / sec 13.86 ln / sec 360 De	250 mm / sec 352 mm / sec
X-Axis (Laser head horizontal) Z-Axis (Laser head vertical) A-Axis (Laser head tilt)	6.30" 12.20" +/- 45 +/- 36	160 mm 310 mm 5 Deg	9.85 ln / sec 13.86 ln / sec 360 De	250 mm / sec 352 mm / sec eg / sec
X-Axis (Laser head horizontal) Z-Axis (Laser head vertical) A-Axis (Laser head tilt) B1, B2 & B3 Axes (Tube rotation)	6.30" 12.20" +/- 45 +/- 36	160 mm 310 mm 5 Deg 0 Deg	9.85 ln / sec 13.86 ln / sec 360 De 600 De 30.60 ln / sec	250 mm / sec 352 mm / sec eg / sec eg / sec
X-Axis (Laser head horizontal) Z-Axis (Laser head vertical) A-Axis (Laser head tilt) B1, B2 & B3 Axes (Tube rotation) Y-Axes (Stroke will vary based upon loader length)	6.30" 12.20" +/- 45 +/- 36	160 mm 310 mm 5 Deg 0 Deg /A 5 in/min	9.85 ln / sec 13.86 ln / sec 360 De 600 De 30.60 ln / sec	250 mm / sec 352 mm / sec eg / sec eg / sec 777 mm / sec
X-Axis (Laser head horizontal) Z-Axis (Laser head vertical) A-Axis (Laser head tilt) B1, B2 & B3 Axes (Tube rotation) Y-Axes (Stroke will vary based upon loader length) Maximum Machine feeding rate Positioning Accuracy (Travel) Rotational Accuracy (degrees)	6.30" 12.20" +/- 45 +/- 36	160 mm 310 mm 5 Deg 0 Deg /A 5 in/min +/- 0.00	9.85 In / sec 13.86 In / sec 360 De 600 De 30.60 In / sec 46,620 1" / 0.03 mm 0.01 Deg	250 mm / sec 352 mm / sec eg / sec eg / sec 777 mm / sec
X-Axis (Laser head horizontal) Z-Axis (Laser head vertical) A-Axis (Laser head tilt) B1, B2 & B3 Axes (Tube rotation) Y-Axes (Stroke will vary based upon loader length) Maximum Machine feeding rate Positioning Accuracy (Travel) Rotational Accuracy (degrees)  General Specifications	6.30" 12.20" +/- 45 +/- 36 N/ 1,83	160 mm 310 mm 5 Deg 0 Deg /A 5 in/min +/- 0.00 +/- 0	9.85 In / sec 13.86 In / sec 360 De 600 De 30.60 In / sec 46,620 1" / 0.03 mm 0.01 Deg cription	250 mm / sec 352 mm / sec eg / sec eg / sec 777 mm / sec
X-Axis (Laser head horizontal) Z-Axis (Laser head vertical) A-Axis (Laser head tilt) B1, B2 & B3 Axes (Tube rotation) Y-Axes (Stroke will vary based upon loader length) Maximum Machine feeding rate Positioning Accuracy (Travel) Rotational Accuracy (degrees)  General Specifications Laser Power, IPG Fiber Optic	6.30" 12.20" +/- 45 +/- 36 N/ 1,83	160 mm 310 mm 5 Deg 0 Deg /A 5 in/min +/- 0.00 +/- 0	9.85 ln / sec 13.86 ln / sec 360 De 600 De 30.60 ln / sec 46,620 1" / 0.03 mm 0.01 Deg cription ard = 2 kW)	250 mm / sec 352 mm / sec eg / sec eg / sec 777 mm / sec
X-Axis (Laser head horizontal) Z-Axis (Laser head vertical) A-Axis (Laser head tilt) B1, B2 & B3 Axes (Tube rotation) Y-Axes (Stroke will vary based upon loader length) Maximum Machine feeding rate Positioning Accuracy (Travel) Rotational Accuracy (degrees)  General Specifications  Laser Power, IPG Fiber Optic Chiller system dual loop for laser power & cutting head	6.30" 12.20" +/- 45 +/- 36 N/ 1,83	160 mm 310 mm 5 Deg 0 Deg /A 5 in/min +/- 0.00 +/- 0 Des & 4 kW (Standa	9.85 In / sec  13.86 In / sec  360 De 600 De 30.60 In / sec 46,620 1" / 0.03 mm 0.01 Deg cription ard = 2 kW) ser cutter	250 mm / sec 352 mm / sec eg / sec eg / sec 777 mm / sec mm / min
X-Axis (Laser head horizontal) Z-Axis (Laser head vertical) A-Axis (Laser head tilt) B1, B2 & B3 Axes (Tube rotation) Y-Axes (Stroke will vary based upon loader length) Maximum Machine feeding rate Positioning Accuracy (Travel) Rotational Accuracy (degrees)  General Specifications  Laser Power, IPG Fiber Optic Chiller system dual loop for laser power & cutting head Scrap take-away conveyor	6.30" 12.20" +/- 45 +/- 36 N/ 1,83 2 kW, 3 kW 8 Included as sometimes on the second of the se	160 mm 310 mm 5 Deg 0 Deg /A 5 in/min +/- 0.00 +/- 0 Des & 4 kW (Standard with lawyor for loading	9.85 In / sec  13.86 In / sec  360 De  600 De  30.60 In / sec  46,620  1" / 0.03 mm  0.01 Deg  cription  ard = 2 kW)  ser cutter  of scrap bin (.37)	250 mm / sec 352 mm / sec eg / sec eg / sec 777 mm / sec mm / min
X-Axis (Laser head horizontal) Z-Axis (Laser head vertical) A-Axis (Laser head tilt) B1, B2 & B3 Axes (Tube rotation) Y-Axes (Stroke will vary based upon loader length) Maximum Machine feeding rate Positioning Accuracy (Travel) Rotational Accuracy (degrees)  General Specifications  Laser Power, IPG Fiber Optic Chiller system dual loop for laser power & cutting head Scrap take-away conveyor Tube length measurement system (servo driven)	6.30" 12.20" +/- 45 +/- 36 N/ 1,83 2 kW, 3 kW 8 Included as sometimes on the second of the se	160 mm 310 mm 5 Deg 0 Deg /A 5 in/min +/- 0.00 +/- 0 Des & 4 kW (Standa	9.85 In / sec  13.86 In / sec  360 De  600 De  30.60 In / sec  46,620  1" / 0.03 mm  0.01 Deg  cription  ard = 2 kW)  ser cutter  of scrap bin (.37)	250 mm / sec 352 mm / sec eg / sec eg / sec 777 mm / sec mm / min
X-Axis (Laser head horizontal) Z-Axis (Laser head vertical) A-Axis (Laser head tilt) B1, B2 & B3 Axes (Tube rotation) Y-Axes (Stroke will vary based upon loader length) Maximum Machine feeding rate Positioning Accuracy (Travel) Rotational Accuracy (degrees)  General Specifications  Laser Power, IPG Fiber Optic Chiller system dual loop for laser power & cutting head Scrap take-away conveyor Tube length measurement system (servo driven) Power Requirement	6.30"  12.20"  +/- 45  +/- 36  N/  1,83  2 kW, 3 kW 8 Included as s Included as s Included as s	160 mm 310 mm 5 Deg 0 Deg /A 5 in/min +/- 0.00 +/- 0 Des & 4 kW (Standard with later of the standard w	9.85 In / sec  13.86 In / sec  360 December 30.60 In / sec  46,620 1" / 0.03 mm  0.01 Deg  cription  ard = 2 kW)  ser cutter  of scrap bin (.37 leads)	250 mm / sec 352 mm / sec eg / sec eg / sec 777 mm / sec o mm / min kW, 0.6 Amps)
X-Axis (Laser head horizontal) Z-Axis (Laser head vertical) A-Axis (Laser head tilt) B1, B2 & B3 Axes (Tube rotation) Y-Axes (Stroke will vary based upon loader length) Maximum Machine feeding rate Positioning Accuracy (Travel) Rotational Accuracy (degrees)  General Specifications  Laser Power, IPG Fiber Optic Chiller system dual loop for laser power & cutting head Scrap take-away conveyor Tube length measurement system (servo driven) Power Requirement 2 kW Laser (Assumes PF of .80)	6.30" 12.20" +/- 45 +/- 36 N/ 1,83  2 kW, 3 kW 8 Included as s Incline conve	160 mm 310 mm 5 Deg 0 Deg /A 5 in/min +/- 0.00 +/- (  Des & 4 kW (Standard with late by or for loading standard with late	9.85 In / sec  13.86 In / sec  360 December 600 December	250 mm / sec 352 mm / sec eg / sec eg / sec 777 mm / sec mm / min  kW, 0.6 Amps)
X-Axis (Laser head horizontal) Z-Axis (Laser head vertical) A-Axis (Laser head tilt) B1, B2 & B3 Axes (Tube rotation) Y-Axes (Stroke will vary based upon loader length) Maximum Machine feeding rate Positioning Accuracy (Travel) Rotational Accuracy (degrees)  General Specifications  Laser Power, IPG Fiber Optic Chiller system dual loop for laser power & cutting head Scrap take-away conveyor Tube length measurement system (servo driven) Power Requirement 2 kW Laser (Assumes PF of .80) 3 kW Laser (Assumes PF of .80)	6.30"  12.20"  +/- 45  +/- 36  N/  1,83  2 kW, 3 kW 8 Included as s Included as s Included as s	160 mm 310 mm 5 Deg 0 Deg /A 5 in/min +/- 0.00 +/- 0 Des & 4 kW (Standard with late of the standard with late of the stand	9.85 In / sec  13.86 In / sec  360 Dec 600 Dec 30.60 In / sec 46,620  1" / 0.03 mm  0.01 Deg cription ard = 2 kW) ser cutter of scrap bin (.37 lists ser cutter Hz, 18.5 kW, 24 Ard Hz, 26 kW, 32 And	250 mm / sec 352 mm / sec eg / sec eg / sec 777 mm / sec mm / min  kW, 0.6 Amps)  Amps nps
X-Axis (Laser head horizontal) Z-Axis (Laser head vertical) A-Axis (Laser head tilt) B1, B2 & B3 Axes (Tube rotation) Y-Axes (Stroke will vary based upon loader length) Maximum Machine feeding rate Positioning Accuracy (Travel) Rotational Accuracy (degrees)  General Specifications  Laser Power, IPG Fiber Optic Chiller system dual loop for laser power & cutting head Scrap take-away conveyor Tube length measurement system (servo driven) Power Requirement 2 kW Laser (Assumes PF of .80) 3 kW Laser (Assumes PF of .80) 4 kW Laser (Assumes PF of .80)	6.30" 12.20" +/- 45 +/- 36 N/ 1,83  2 kW, 3 kW 8 Included as s Included as s Included as s	160 mm 310 mm 5 Deg 0 Deg /A 5 in/min +/- 0.00 +/- 0 Des & 4 kW (Standard with later of loading standard with later of loadi	9.85 In / sec  13.86 In / sec  360 December 30.60 In / sec  46,620  1" / 0.03 mm  0.01 Deg  cription  ard = 2 kW) ser cutter of scrap bin (.37 least ser cutter  Hz, 18.5 kW, 24 Ard Hz, 26 kW, 32 Ard Hz, 29 kW, 35 Ard	250 mm / sec 352 mm / sec eg / sec eg / sec 777 mm / sec mm / min  kW, 0.6 Amps)  Amps nps nps
X-Axis (Laser head vertical) Z-Axis (Laser head vertical) A-Axis (Laser head tilt) B1, B2 & B3 Axes (Tube rotation) Y-Axes (Stroke will vary based upon loader length) Maximum Machine feeding rate Positioning Accuracy (Travel) Rotational Accuracy (degrees)  General Specifications  Laser Power, IPG Fiber Optic Chiller system dual loop for laser power & cutting head Scrap take-away conveyor Tube length measurement system (servo driven) Power Requirement 2 kW Laser (Assumes PF of .80) 3 kW Laser (Assumes PF of .80) Dual output air compressor (Assumpes PF of .80)	6.30" 12.20" +/- 45 +/- 36 N/ 1,83  2 kW, 3 kW 8 Included as s Included as s Included as s	160 mm 310 mm 5 Deg 0 Deg /A 5 in/min +/- 0.00 +/- 0 Des & 4 kW (Standard with later of loading standard with later of loadi	9.85 In / sec  13.86 In / sec  360 Dec 600 Dec 30.60 In / sec 46,620  1" / 0.03 mm  0.01 Deg cription ard = 2 kW) ser cutter of scrap bin (.37 lists ser cutter Hz, 18.5 kW, 24 Ard Hz, 26 kW, 32 And	250 mm / sec 352 mm / sec eg / sec eg / sec 777 mm / sec mm / min  kW, 0.6 Amps)  Amps nps nps
X-Axis (Laser head vertical) Z-Axis (Laser head vertical) A-Axis (Laser head tilt) B1, B2 & B3 Axes (Tube rotation) Y-Axes (Stroke will vary based upon loader length) Maximum Machine feeding rate Positioning Accuracy (Travel) Rotational Accuracy (degrees)  General Specifications  Laser Power, IPG Fiber Optic Chiller system dual loop for laser power & cutting head Scrap take-away conveyor Tube length measurement system (servo driven) Power Requirement 2 kW Laser (Assumes PF of .80) 3 kW Laser (Assumes PF of .80) Dual output air compressor (Assumpes PF of .80) Air Requirement	6.30" 12.20" +/- 45 +/- 36 N/ 1,83  2 kW, 3 kW 8 Included as s Included as s Included as s	160 mm 310 mm 5 Deg 0 Deg /A 5 in/min +/- 0.00 +/- 0 Des & 4 kW (Standard with later of the standard w	9.85 In / sec  13.86 In / sec  360 December 30.60 In / sec  46,620 1" / 0.03 mm  0.01 Deg  cription ard = 2 kW) ser cutter of scrap bin (.37 leads are cutter  Hz, 18.5 kW, 24 A Hz, 26 kW, 32 An Hz, 29 kW, 35 An dryer (15 kW, 23 And	250 mm / sec 352 mm / sec eg / sec eg / sec 777 mm / sec mm / min  kW, 0.6 Amps)  Amps nps nps
X-Axis (Laser head horizontal) Z-Axis (Laser head vertical) A-Axis (Laser head tilt) B1, B2 & B3 Axes (Tube rotation) Y-Axes (Stroke will vary based upon loader length) Maximum Machine feeding rate Positioning Accuracy (Travel) Rotational Accuracy (degrees)  General Specifications  Laser Power, IPG Fiber Optic Chiller system dual loop for laser power & cutting head Scrap take-away conveyor Tube length measurement system (servo driven) Power Requirement 2 kW Laser (Assumes PF of .80) 3 kW Laser (Assumes PF of .80) 4 kW Laser (Assumes PF of .80) Dual output air compressor (Assumpes PF of .80) Air Requirement Loading, Chucks & Unloading	6.30" 12.20" +/- 45 +/- 36 N/ 1,83  2 kW, 3 kW 8 Included as s Included as s Included as s	160 mm 310 mm 5 Deg 0 Deg /A 5 in/min +/- 0.00 +/- 0 Des & 4 kW (Standard with lawyor for loading standard with lawyor for loading s	9.85 In / sec  13.86 In / sec  360 De 600 De 30.60 In / sec  46,620  1" / 0.03 mm  0.01 Deg cription ard = 2 kW) ser cutter of scrap bin (.37 lister ser cutter  Hz, 18.5 kW, 24 A Hz, 26 kW, 32 An Hz, 29 kW, 35 An dryer (15 kW, 23 A)  (6 Kg / cm²)	250 mm / sec 352 mm / sec eg / sec eg / sec 777 mm / sec mm / min  kW, 0.6 Amps)  Amps nps nps
X-Axis (Laser head vertical) Z-Axis (Laser head vertical) A-Axis (Laser head tilt) B1, B2 & B3 Axes (Tube rotation) Y-Axes (Stroke will vary based upon loader length) Maximum Machine feeding rate Positioning Accuracy (Travel) Rotational Accuracy (degrees)  General Specifications  Laser Power, IPG Fiber Optic Chiller system dual loop for laser power & cutting head Scrap take-away conveyor Tube length measurement system (servo driven) Power Requirement 2 kW Laser (Assumes PF of .80) 3 kW Laser (Assumes PF of .80) Dual output air compressor (Assumpes PF of .80) Air Requirement	6.30"  12.20"  +/- 45  +/- 36  N/  1,83  2 kW, 3 kW 8 Included as s Included as s Included as s Solution converting the second of the second o	160 mm 310 mm 5 Deg 0 Deg /A 5 in/min +/- 0.00 +/- 0 Des & 4 kW (Standard with late) standard with late, s	9.85 In / sec  13.86 In / sec  360 December 30.60 In / sec  46,620 1" / 0.03 mm  0.01 Deg  cription ard = 2 kW) ser cutter of scrap bin (.37 leads are cutter  Hz, 18.5 kW, 24 A Hz, 26 kW, 32 An Hz, 29 kW, 35 An dryer (15 kW, 23 And	250 mm / sec 352 mm / sec eg / sec eg / sec 777 mm / sec mm / min  kW, 0.6 Amps)  Amps nps nps Amps)

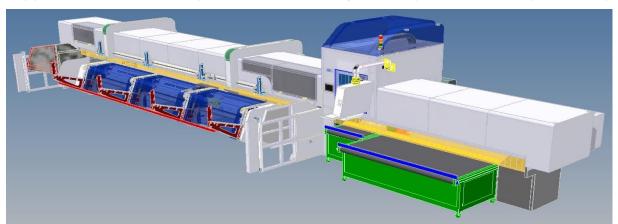


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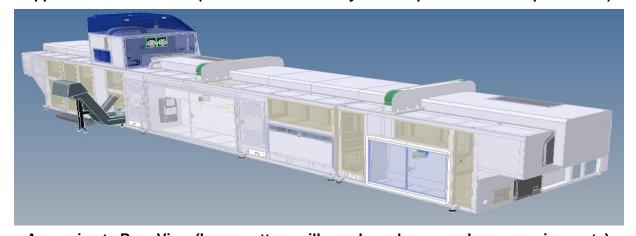
### Horn Metric LS150-5E Floor Plan



### Approximate Dimensions (Laser cutters will vary based upon end-user requirements)



Approximate Front View (Laser cutters will vary based upon end-user requirements)



Approximate Rear View (Laser cutters will vary based upon end-user requirements)

#### Notes:

- 1) Dimensions and weights will vary based upon lengths of the loading and unloading systems.
- 2) For lasers in stock, if a voltage system other than 480V, 3-ph is required, a transformer will need to be provided.

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