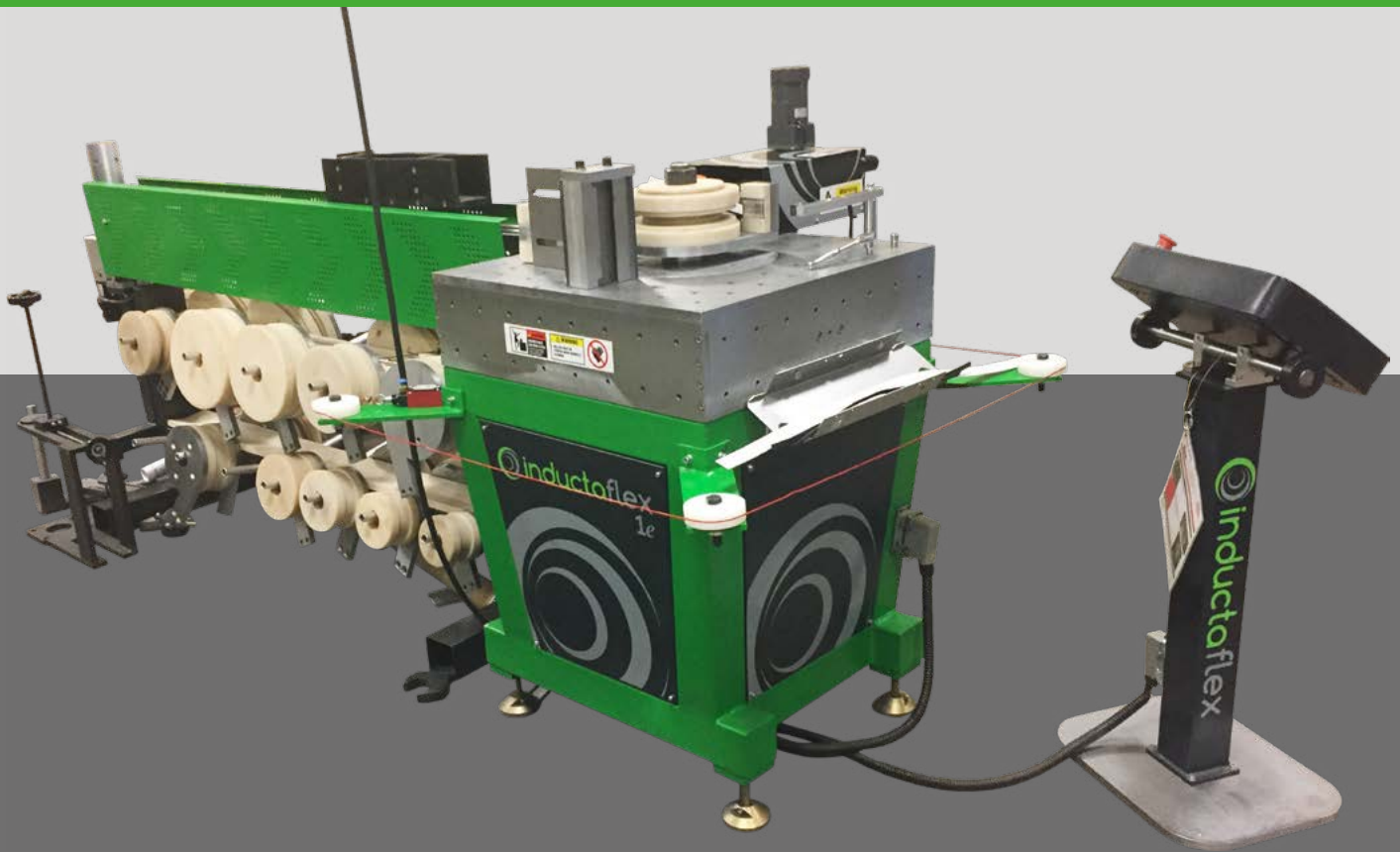




# FL-1e

CNC BENDING MACHINE

# Machine Overview



- CNC Control

Automatic positioning of the section to commence bending. Automatic movement to the next bend position.

- Servo electric bending

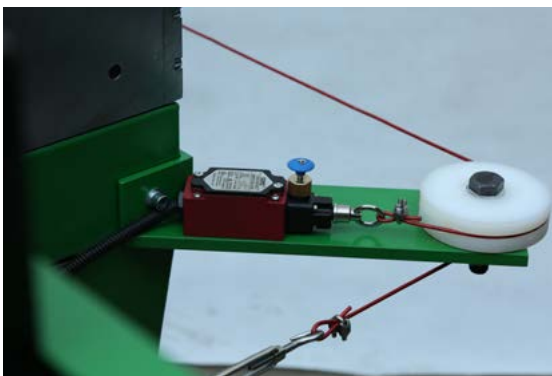
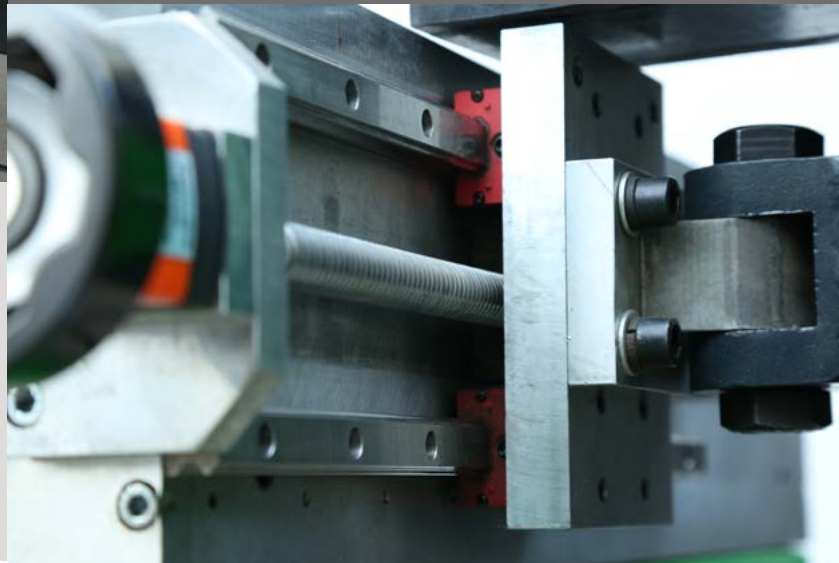
Accurate, reliable and efficient. 0.05mm positional accuracy, lower power use, Schneider motion control quality.





Servo electric control ensures accuracy and reliability

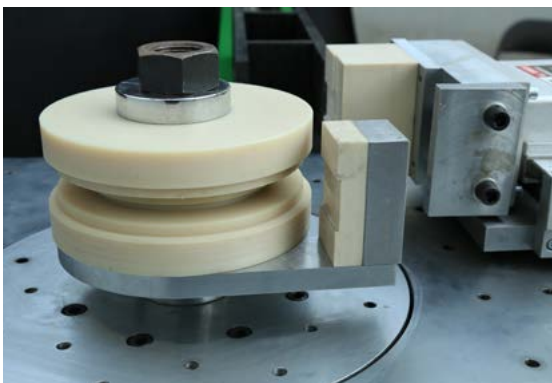
Tooling can be produced economically without the need to pay typical OEM prices.



- Mandrel device  
With automatic lubrication.

- Safety light curtain  
For operator protection.

- Power booster  
Servo electrically controlled to eliminate slipping of the section during bending with a mandrel



# Machine Capacity



The flow former range compliments the roller bending range and matches capacity as such. From the flexible entry size up to the mighty FL-5e.

## FL-1e Machine Capacity

Section Capacity	4" x 4" x 3/16" (100mm x 100mm x 5)
Frame Capacity	4" wide ( 100mm )
Pipe Capacity	4" x 1/8" (114mm o/d x 3mm)



Inductaflex Machine Range and Capacity:

	AL-1e	AL-2e	AL-3e	AL-4	AL-5s
Style	All servo	All servo	All servo	Servo / hydraulic	Servo / hydraulic
Drive motors (one per shaft)	3	3	3	3	3
Maximum torque per roller	2500Nm (1844 lb.ft)	4500Nm (3319 lb.ft)	3500Nm (2581 lb.ft)	9000Nm (6638 lb.ft)	11500Nm (8482 lb.ft)
Bending force	10 t	20 t	35 t	50 t	70 t
X-axis travel	200mm (7 7/8")	350mm (13 25/32")	400mm (15 3/4")	500mm (19 11/16")	700mm (27 9/16")
Standard shaft length	200mm (7 7/8")	300mm (11 13/16")	400mm (15 3/4")	400mm (15 3/4")	600mm (23 5/8")
Shaft diameter	50mm (1.97")	80mm (3.15")	105mm (4.13")	130mm (5.19")	150mm (5.91")
Front roller spacing	260 - 500mm (10.24 - 19.69")	400 - 1000mm (15 3/4 - 39 3/8")	475 - 1150mm (18.70 - 45.28")	550 - 1300mm (21.65 - 51.18")	660 - 1500mm (25.98 - 59.06")
Approx. size	1 x 1m (3' 3 3/8" x 3' 3 3/8")	1.4 x 1.4m (4' 7 1/8" x 4' 7 1/8")	1.7 x 1.7m (5' 6 15/16" x 5' 6 15/16")	1.9 x 1.9m (6' 2 13/16" x 6' 2 13/16")	2.2 x 3m (7' 2 5/8" x 9' 10 1/8")
Approx. weight	1,800kg (3,960 lbs)	2,200kg (4,840 lbs)	3,300kg (7,260 lbs)	7,800kg (17,160 lbs)	14,000kg (30,800 lbs)

Section	Drawing	AL-1e	AL-2e	AL-3e	AL-4	AL-5s
Tube		76.1 x 2 3" x 1/8"	168 x 3mm 6" x 1/8"	219 x 3 8" x 1/8"	323 x 3 12" x 1/8"	323 x 5 12" x 13/64"
Rectangle Easy way		100 x 50 4" x 2"	125 x 75 x 3 5" x 3"	200 x 50 8" x 2"	300 x 100 12" x 4"	500 x 125 20" x 5"
Rectangle Hard way		80 x 40 x 3 3" x 1/2"	125 x 75 x 3 5" x 3"	150 x 75 x 3 6" x 3"	250 x 100 x 3 10" x 4"	450 x 125 18" x 5"
Square Tube		70 2 1/2"	125 5"	150 6"	175 7"	250 10"
Channel Easy way		100 x 50 4" x 2"	150 x 75 6" x 3"	250 x 75 x 5 10" x 3"	300 x 100 x 3 12" x 4"	300 x 100 x 3 12" x 4"
Channel Hard way		75 x 25 3" x 2"	100 x 50 4" x 2"	200 x 100 8" x 4"	250 x 100 10" x 4"	300 x 100 12" x 4"
Glazing section		100mm wide 4"	125mm wide 5"	150mm wide 6"	250mm wide 10"	250mm wide 10"
Truck Cant rails		90 x 90 3 1/2"	150 x 150 6"	200 x 200 8"	300 x 300 12"	300 x 300 12"
Solar shading		75mm 3"	150mm 6"	200mm wide 8"	300mm 12"	400mm 16"
Frame sections		60mm 2.36"	80mm 3.15"	125 5"	150 6"	200 8"
Stainless Steel Tube		76.1 3"	114 4"	168 6"	273 10"	323 12"

Due to work hardening certain sections may need more power to bend. Subsequently a larger machine may be needed. Chart is based upon T4 bendable grade material. Harder grades / anodized material may need a heat treatment cycle to be suitable for bending.

- Most sections are curved to internationally acceptable standards like CE and EN1090
- The best temper grades for forming are T0 and T4
- Larger sections are possible if the section is curved to a larger radius
- We aim to bend all sections mark free using the correct procedures and preparation, it may not be possible to do this with certain sections
- Anodised coatings have virtually no elasticity and will 'craze' when the section is formed

# CNC Control and Software



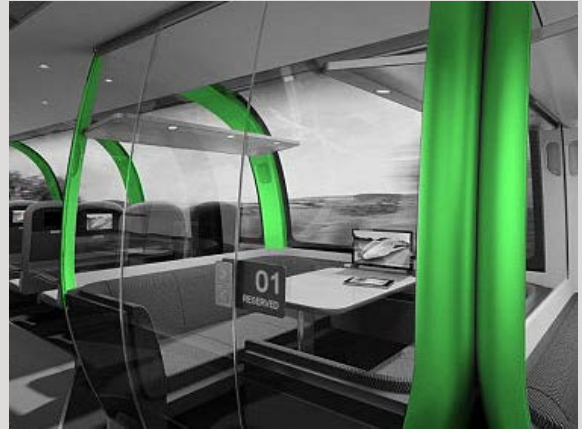
- Automatic positioning of parts
- Automatic location of part for bending
- 4 bends per bar



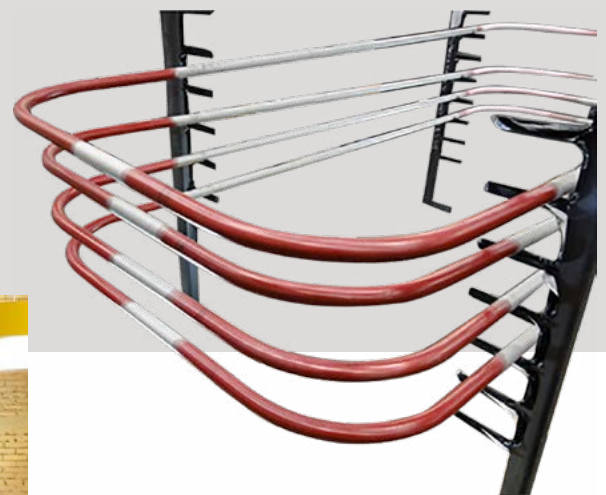
- Part rotation
- Die pressure control
- Die clamping and releasing
- Simple to use

# Example bends and markets

- All sizes of window profiles can be curved
- Thermal break and bead sections formed accurately
- Multi part window sections formed
- Transoms formed without deformation
- Inductaflex Bio-filler system available to eliminate distortion of complex profiles
- On-site training courses available
- Powder coated sections curved free from marking and damage
- Virtually any system extrusion can be curved



Transport frames can be accurately and consistently formed



Lighting



FL-1e - CNC BENDING MACHINE





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#### Opening soon

#### GCC countries

Dubai - UAE



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