



E-BEND

EQUIPPED WITH POWER
SAVER TECHNOLOGY



CNC SERVO ELECTRIC PRESS BRAKE



SUKRITE MACHINE TOOLS

ABOUT US



OUR MISSION

Advancing excellence in CNC press brake manufacturing through innovation and precision. Saving energy and reducing carbon footprint.



OUR VISION

Forging a path to industry prominence by delivering innovative solutions and demonstrating steadfast dedication to excellence.



OUR VALUES

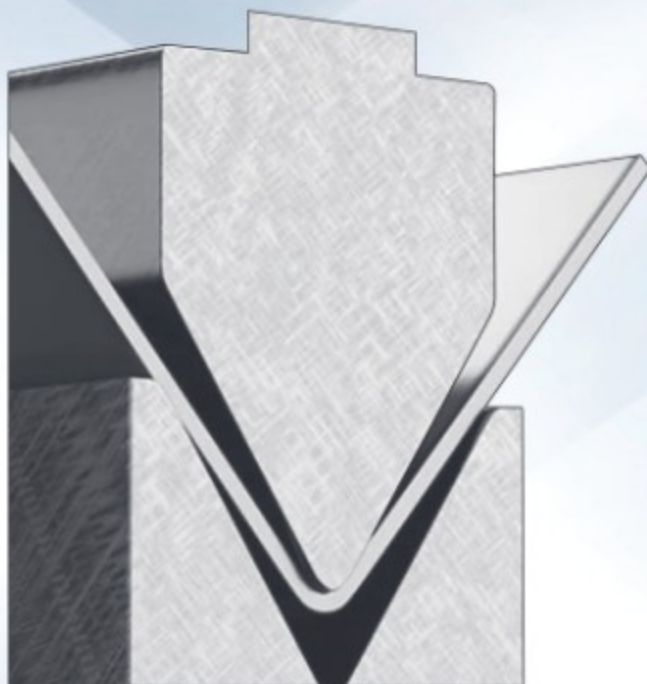
We prioritize open communication, transparency, and a strong sense of integrity in all our dealings. These values guide our efforts as we shape the future of metal fabrication technology.



SERVO ELECTRIC

PRESS BRAKE

Experience cutting-edge bending technology with Sukrit Machine Tools' Servo Electric Press Brake series. Our diverse range of models and tonnages ensures tailored solutions for your specific needs.



Committed to a sustainable future, we prioritize environment-friendly presses for a greener world

Reliability, durability, and precision define our machines, designed to withstand potential user errors. With a focus on 'Industry 4.0' our series seamlessly integrates with intelligent manufacturing processes, offering speed, efficiency, and high energy savings.

Choose Sukrit Machine Tools for quality production, exceptional service support, and a glimpse into the future of metal bending.



HYDRAULIC PRESS BRAKE

VS

ELECTRIC PRESS BRAKE



Hydraulic press brakes employ hydraulic cylinders to generate force, utilizing fluid pressure to generate force for bending.

More Noise Due To Hydraulic Oil Pumping

Hydraulic systems consume energy continuously, even when the machine is not actively bending.

More Complex ,Requires regular maintenance of oil system

Hydraulic fluid in the system can heat up during operation, especially when machine is used continuously.

Slower ram acceleration and deceleration into positioning because of the oil-powered motor cause less output.

The complex hydraulic system limits the potential for advanced features and scalability, hindering adaptability to evolving manufacturing needs.

Hydraulic press brakes typically exhibit lower positioning accuracy posing a disadvantage in precision-sensitive

Force Generation

Electric press brakes use an electric motor linked with ball screw or belt drive to convert rotary motion into linear force for bending.

Noise Level

Less Noise as it doesn't use hydraulic oil

Energy Efficiency

Consume less energy ,only use electricity when the ram is moving

Maintenance

Simple as fewer moving parts, easier maintenance

Heat Generation

Generate less heat because they use electric motors to drive the ram, and energy is consumed primarily during the actual bending process.

Output

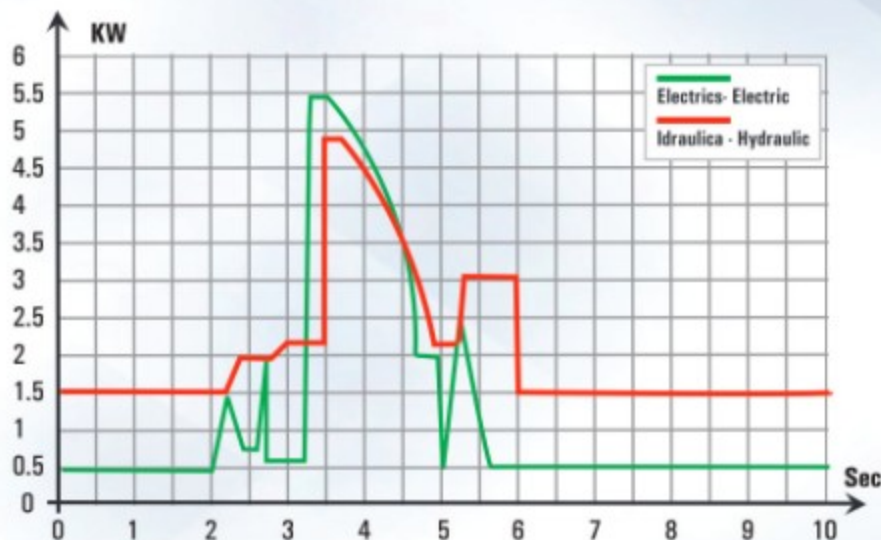
Electric press brakes are generally faster in terms of ram movement, contributing to quicker cycle times increase the output.

Automation

Electric press brake systems feature compact software & hardware designs, optimizing space efficiency in manufacturing environments.

Positioning Accuracy

Electric press brakes offer superior positioning accuracy enhancing precision in metal bending operations.

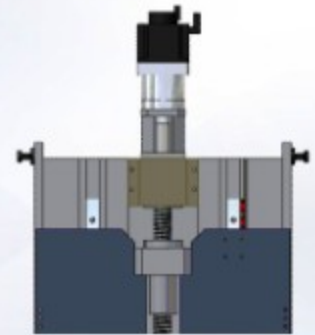


Results obtained with bending force of 22 Ton and cycle duration of 6 - 8 sec. As can be seen from the above graph the Green (EB) machine has lower Power consumption of more than **50%**

MACHINE WORKING

A screw-driven press brake utilizes a ball screw mechanism to control the downward movement of the ram or upper beam. As the screw is rotated, it translates linear motion into vertical displacement, allowing precise and controlled bending of metal sheets or plates. This design offers accuracy in bending angles and is suitable for various metal forming applications.

Eco Drive Ball Screw + Gear Box & Servo Motor



STANDARD FEATURES

- Complete machine with all electricals.
- Touch screen Controller.
- CNC X - Axis Backgauge.
- Two Backgauge Fingers
- Z axis manual on LM guide
- Sliding side safety doors
- Electricals 415 volt +/- 5% 50 Hz
- Foot pedal Control.
- Emergency Switch.



EB-40160
40 Ton 1600 mm



EB-2290
22 Ton 900 mm












EB-0645
06 Ton 450 mm

E - Brake Screw Drive Servo Electric Press Brake Machine

SUKRIT

Realizing Your Ideas Into Machines

Advantages:

-  **Limited power** during idle time - 50% less than Hydraulic Press Brake.
-  **Less power** during bending stroke as servo drives are more energy efficient.
-  **More accuracy** with high repeatability as ram positioning via servo motors + ball screw is more precise than hydraulic cylinders.
-  **Eco friendly** as no hydraulic oil.
-  **High on productivity** as servo drives have high acceleration and deceleration with quick change of moving direction.
-  **Low-on maintenance** as has very fewer parts compared to hydraulic press brake
-  **Works quietly**, hence noise pollution free.
-  **High on performance** with no hydraulic oil to cool, the heat generation is eliminated.
-  **High repeatability** even after long use as Hydraulic Press Brake is prone to internal leakage , hydraulic deteriorates over time/use
Economical in bending small parts.



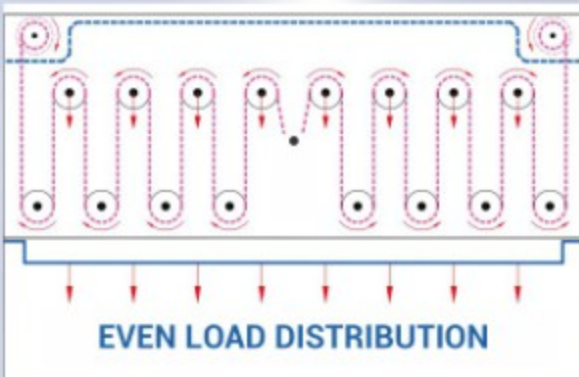
EB-22125
22 Ton 1250 mm



EB-32125
32 Ton 1250 mm

MACHINE WORKING

The E-Series Belt Driven Servo Press Brake features a belt and pulley movement system driven by two synchronized servo motors. It utilizes an O-Type body system, preventing deformation in high-force applications and ensuring precise bending results.

**BELT DRIVE ADVANTAGES**

- 40 % Higher & Faster Productivity
- Consumes 50% Less Energy Make Cost Effective
- Backgauge used across the full working length
- High Degree of Noise reduction
- Eco friendly as no harmful hydraulic oil
- High Repeatability
- Low maintenance due to fewer parts



E - Brake Belt Drive Servo Electric Press Brake Machine

SUKRIT

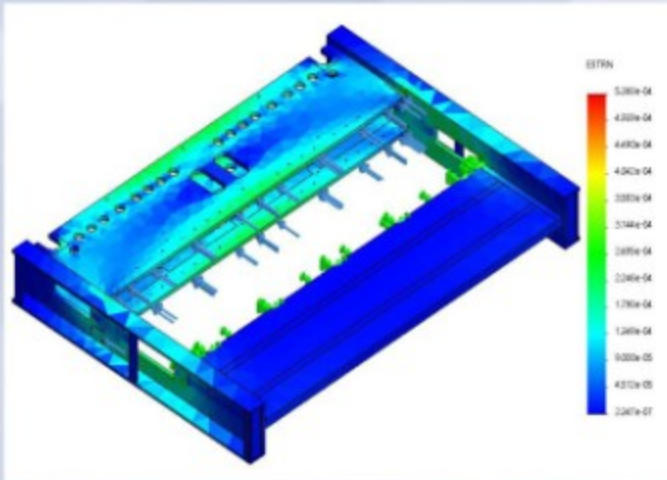
Realizing Your Ideas Into Machines

STANDARD FEATURES

- Touch Screen Controller
- Y1, Y2, X, R, & Crowning CNC 5 Axis
- 300mm stroke, Throat Depth 'O' -Type
- Standard Punch Tools
- Sliding Front Sheet Support Arm
- Quick Clamp Promecam Punch Tool Holder
- Optical Linear Scale
- LED Lighting
- Double Switch Foot Pedal



Body Structure



Heavy duty body frame with O-Type or C-Type Frame Is machined in single setup on CNC machines to achieve perfect surface accuracies & dimensions to get desired results.

Heavy duty frame is fabricated from high quality tested steel to achieve strength and minimum deflections under full load conditions.

The frame structure has been optimized after various studies on different full load conditions. The frame is stress relieved to overcome welding stresses to achieve better frame accuracy and life under full load applications.

Backgauge Configuration

In servo-electric press brake machines, the backgauge is a crucial component that aids in positioning the workpiece accurately during the bending process.

Depending on the geometry of the parts to be bend and their complexity, all backgauge options are available.

EB series press brake is standard available with CNC X axis with Servo drive on ball screw guided over LM guides with accuracy upto 0.1 mm.

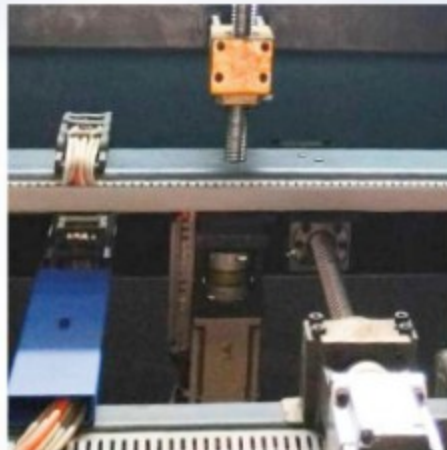
Retraction is the standard feature to minimize wear & tear of fingers while bending and to assist in reverse bends.



- X+ Manual R
- X+ R axis
- X+ R + Manual Z1, Z2 axis
- X+ R + Z1 + Z2 axis
- X1 + X2 + R1 + R2 + Z1 + Z2 axis



CNC X & manual R axis
manual Z1, Z2 on LM guide

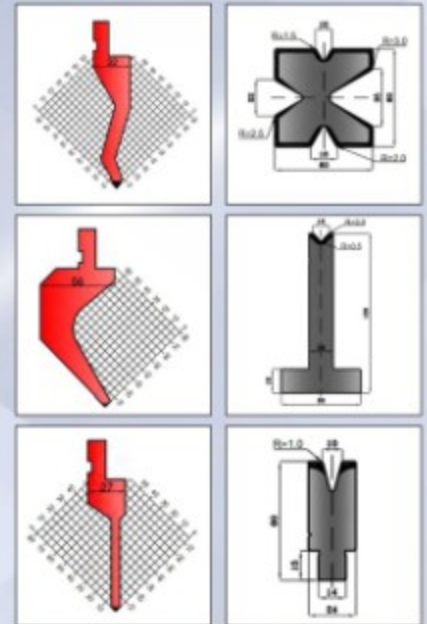
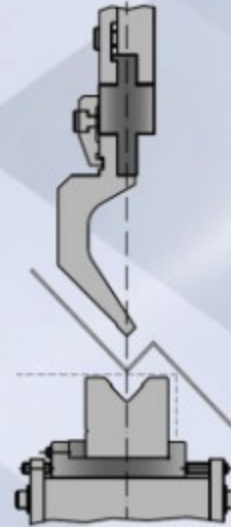


CNC X & R axis
manual Z1, Z2 on LM guide



CNC 6 axis backgauge
X1 + X2 + R1 + R2 + Z1 + Z2 axis

EB series press brake is offered with Amada-Promecam style Toolings.



STANDARD FORMULAS FOR SELECTING A V-OPENING
 MATERIAL THICKNESS: 2.6mm OR LES = T x 6
 3.0mm - 8.0mm = T x 8
 9.00mm-12.00mm = T x 10
 14.00mm & THICKER = T X 12

AIR BENDING FORCE CHART METRIC



V-(mm)	4	6	7	8	10	12	14	16	18	20	22	25	32	40	50	63	80	100	125	160	200	250	
MF	2.8	4.2	4.9	5.6	7.0	8.6	10.1	11.5	13.0	14.4	15.8	18.0	24.0	30.0	37.5	47.3	60.0	75.0	96.3	123.2	154.0	192.5	
IR	0.7	1.0	1.2	1.3	1.7	2.0	2.3	2.7	3.0	3.3	3.7	4.2	5.3	6.7	8.3	10.5	13.3	16.7	20.8	26.7	33.3	41.7	
THICKNESS																							
0.5mm		4.5	2.8																				
0.6mm		6.0	4.2	3.3	3.2																		
0.8mm			8.0	7.2	5.6	4.4																	
1.0mm			11.0	10.0	9.0	7.0	5.5																
1.2mm				14.0	13.2	10.8	8.4	7.5	6.6														
1.4mm					15.4	14.0	12.6	9.8	8.8	7.7													
1.6mm						16.0	14.4	11.2	10.0	8.8													
2.0mm	T					22.0	20.0	18.0	16.0	14.0	12.5	11.0											
2.3mm	O						25.3	23.0	20.7	18.4	16.1	14.4	12.7										
2.6mm	N							28.6	26.0	23.4	20.8	18.2	14.3										
3.0mm	S								33.0	30.0	28.53	27.8	21.0	16.5									
3.2mm										35.2	31.9	28.8	22.4	17.6	14.4								
3.5mm	P										38.5	35.0	28.0	21.9	15.8	14.0							
4.0mm	E											44.0	36.0	28.0	22.0	18.0							
4.5mm	R												45.0	36.0	28.1	20.3							
5.0mm														55.0	45.0	35.0	26.3	22.5					
6.0mm	M														60.0	54.0	37.5	31.5	24.0				
7.0mm	E																56.0	43.8	31.5	28.0			
9.0mm	Y																	72.0	56.3	40.5			
10.0mm	E																	90.0	70.0	52.5	45.0		
12.0mm	R																		108.0	84.0	63.0	54.0	
16.0mm																			0	144.0	112.0	84.0	72.0
19.0mm																			0	152.0	118.8	99.8	
22.0mm																				0	152.0	118.8	99.8
25.0mm																						225.0	175.0
30.0mm																							270.0

T = MATERIAL THICKNESS V = V - OPENING MF = MINIMUM FLANGE LENGTH IR = INSIDE RADIUS

above are based on mild steel with a tensile strength of 45-50 kilograms per square millimeter. To calculate the approximate bending force (tonnage) requirements for other materials, please use the multipliers listed.

Soft Brass..... Tons Per Meter 50%
 Soft Aluminium..... Tons Per Meter 50%
 Heat Treated Aluminium Alloys..... Tons Per Meter 100%
 Stainless Steel..... Tons Per Meter 150%

Note: Based on bending to an included angle of 88 degrees. This dimensions will increase when bending to an included angle of less than 88 degrees.

Technical Specification

MODEL	UNIT	SUKRIT SCREW DRIVEN MODELS				
		EB-0645	EB-2290	EB-22125	EB-32125	EB-40160
Bending Length	MM	450	900	1250	1250	1600
Bending Force (TON)	TON	06	22	22	32	40
Max. stroke (S)	MM	150	125	125	200	175
Throat Depth (T)	MM	135	225	225	225	225
Daylight (D)	MM	370	340	340	450	400
Approach Speed	MM/SEC	150	150	150	150	150
Bending Speed	MM/SEC	0.1-25	0.1-25	0.1-25	0.1-25	0.1-25
Return Speed	MM/SEC	150	150	150	150	150
Main Motor	KW	3	5.5	5.5	5.5X2	5.5X2
Width	MM	825	1000	1450	1475	1800
Height	MM	2075	2600	2600	2200	2700
Length	MM	625	1000	1150	1250	1300
Weight	KG	1000	2200	2800	3600	4200

MODEL	UNIT	SUKRIT BELT DRIVEN MODELS		
		EB-110300	EB-130300	EB-200400
Bending Length	MM	3000	3000	4000
Bending Force (TON)	TON	110	130	200
Max. stroke (S)	MM	300	300	300
Throat Depth (T)	MM	O TYPE	O TYPE	O TYPE
Daylight (D)	MM	580	580	580
Approach Speed	MM/SEC	100	85	80
Bending Speed	MM/SEC	0.1-25	0.1-25	0.1-25
Return Speed	MM/SEC	100	85	80
Main Motor	KW	11.5	11.5	20.0
Width	MM	1700	1700	1800
Height	MM	2500	2500	2600
Length	MM	4000	4000	5000
Weight	KG	7300	8200	10200

Servo Electric Press Brake

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Realizing Your Ideas Into Machines

Industrial Segments we serve



RAILROAD INDUSTRY



ELECTRICAL PANEL INDUSTRY



AUTOMOTIVE INDUSTRY



AEROSPACE INDUSTRY

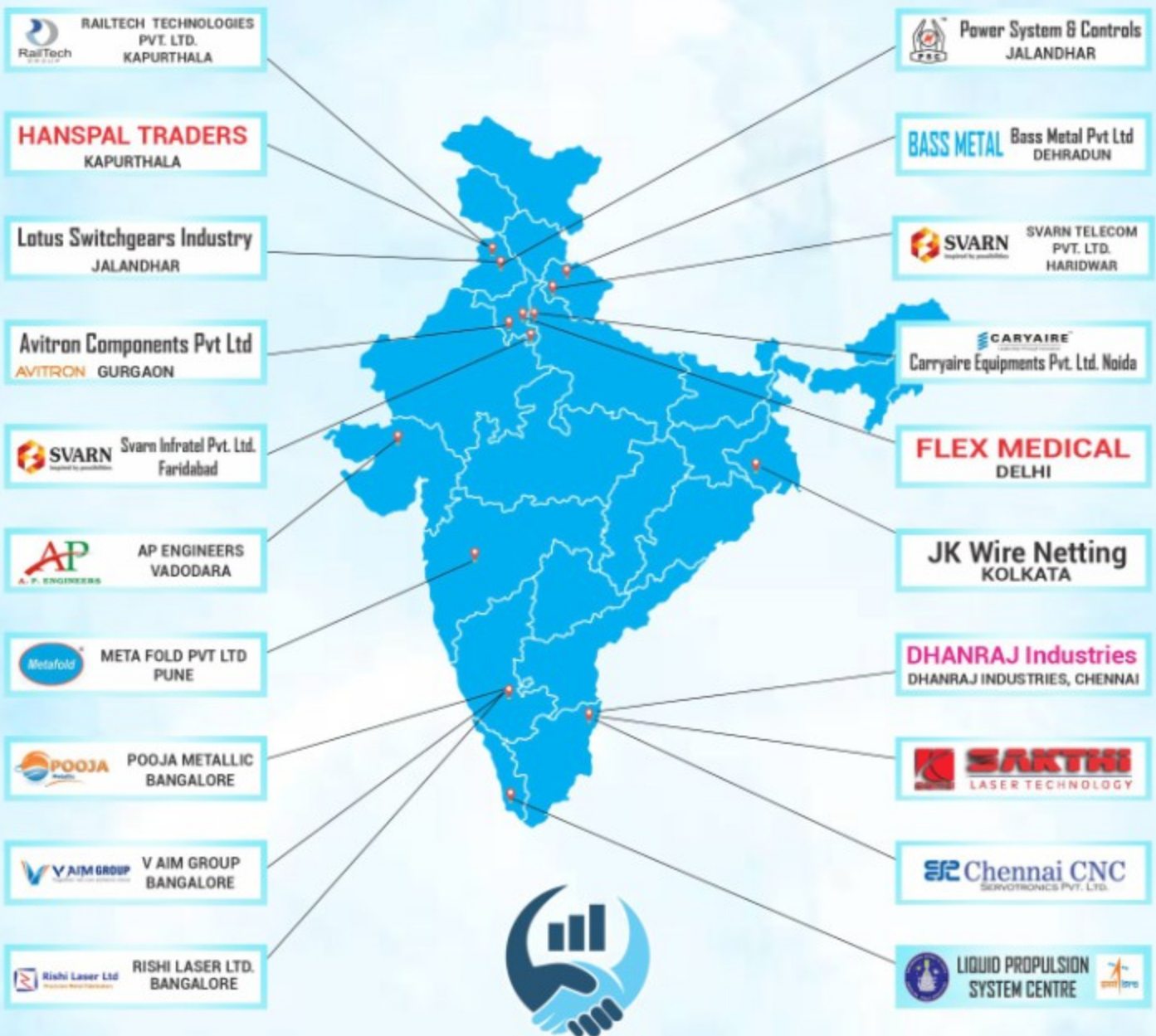


GENERAL METAL FORMING INDUSTRY



APPLIANCE MANUFACTURING

Million of Strokes and Counting The bending Machine has been working to our entire satisfaction since 2018 and are also satisfied by after sales support being provided by Sukrit Machine Tools.



OUR PRESTIGIOUS CLIENTS



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