



# Comprehensive Catalogue of Shear Equipment for Fixed Length Steel and Steel Bend Forming Equipment

General Catalogue

DARHUNG



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- 1. Shear Equipment for Fixed Length Steel
- 2. Automatic Steel Bend Forming Equipment
- 3. Production Plant Optimization Solution
- 4. Production Management of Steel Processing and Distribution
- 5. Automatic Redar Friction Welding Machine



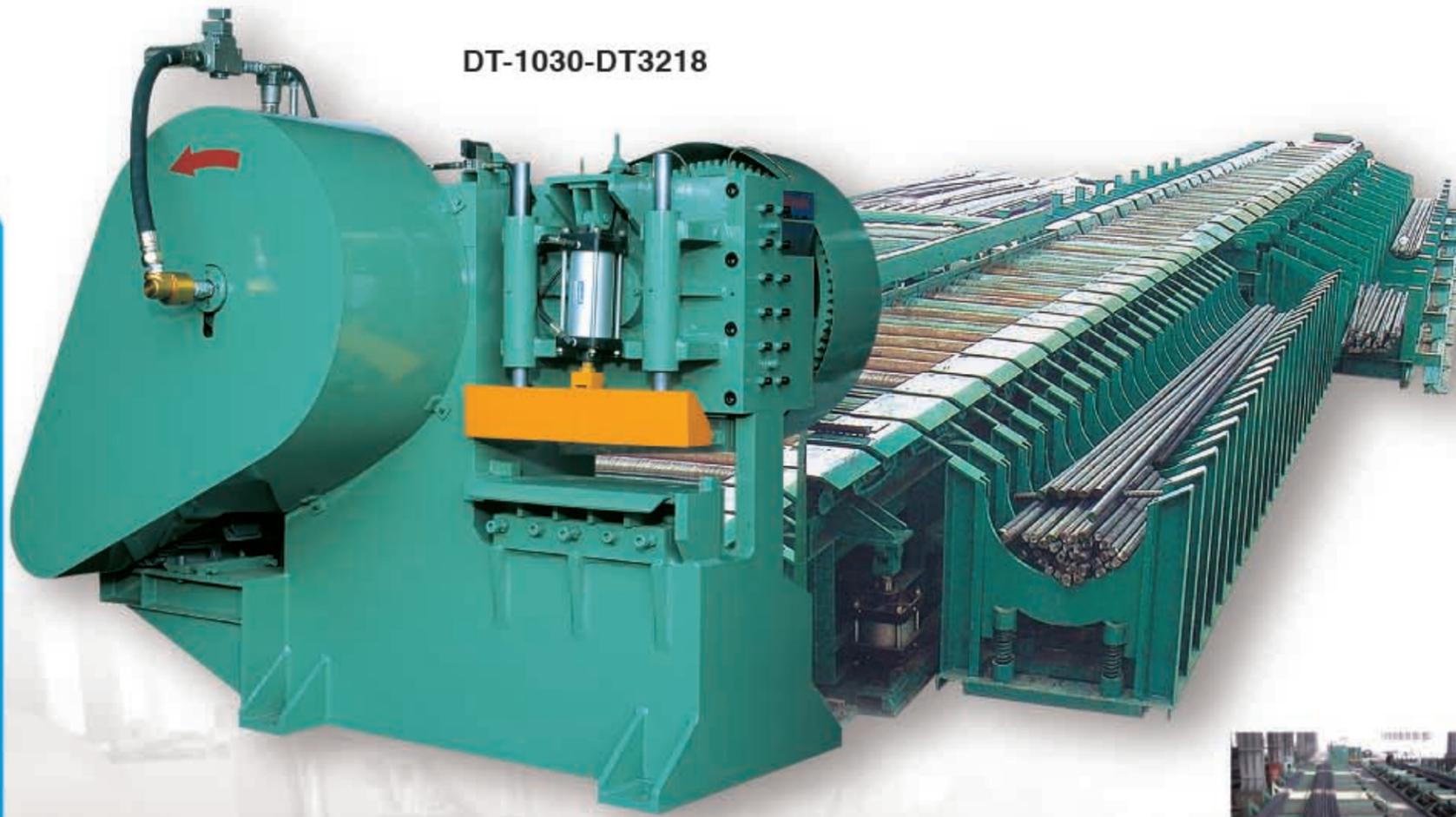


達鴻機械股份有限公司（原達鐵機械）創立於1972年，迄今已歷時40余載。一直以來秉持着不斷研發，客戶至上的原則，相繼開發出許多相關產業的鋼筋加工設備，產品遍佈全台灣、大陸、東南亞等地，本公司不僅秉持着創新研發、品質第一、持續進步的理念，更為世界的每一位客戶做最好的產品與服務。本公司所有產品皆為自主研發，產品性能穩定，成品年產量高，並且提供全方位的整廠規劃服務，為客戶量身訂造高產量的鋼筋配送工廠。

DARHUNG Inc. (original from DARTIEE Inc) was founded in 1972 and headquartered in Taichung, Taiwan. DARHUNG's main products include Deformed Bar (Rebar) Cutting and Bending Equipment, and steel equipment related products. Anticipated the trend of the industry, We have developed products including 「Deformed Bar (Rebar) Auto Bending Equipment」, 「Auto Cutting Production」, etc.. We've also received excellent feedbacks from customers. Other than manufacturing and selling products, we also provide solutions to our customers Based on customers' needs, we analyze and propose the best solutions to customers.

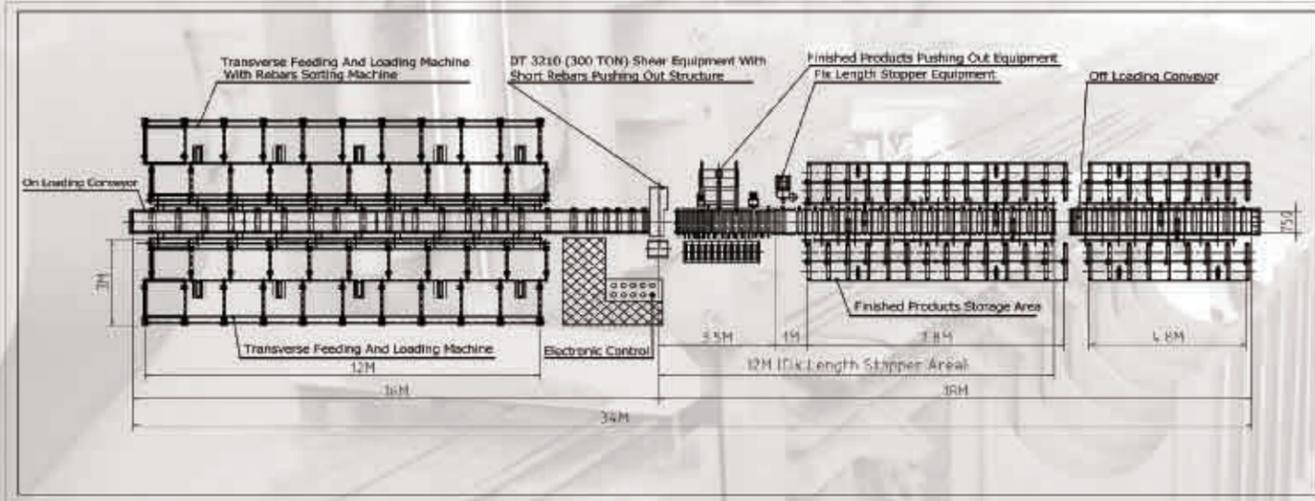


DT-1030-DT3218



BAR COLD SHEAR CUTTING CAPACITY (SD420)

Type	DT1030	DT1818	DT2018	DT2515	DT2810	DT3210	DT3218
Diameter	PCS						
mm							
D10	30	42	50	70	80	110	180
D13	16	26	30	45	50	75	110
D16	10	19	23	28	30	45	75
D19	6	13	18	23	25	30	46
D22	4	9	12	18	20	25	38
D25	3	5	8	15	16	20	30
D29	2	4	5	8	10	16	24
D32	1	3	4	5	7	12	18
D39	-	1	2	3	4	7	13
D51	-	1	1	2	2	3	5



Spec. Type	DT1030	DT1818	DT2018	DT2515	DT2810	DT3210	DT3218	DT3218W
Cutting force	∅10X30 <sup>P</sup>	∅18X18 <sup>P</sup>	∅20X18 <sup>P</sup>	∅25X15 <sup>P</sup>	∅28X10 <sup>P</sup>	∅32X10 <sup>P</sup>	∅32X18 <sup>P</sup>	∅32X18 <sup>P</sup>
Theory force	80TON	100TON	150TON	200TON	250TON	300TON	600TON	600TON
HP	7½ HP	15HP	20HP	40HP	40HP	50HP	75HP	75HP
Weight	2500kg	4000kg	5600kg	9000kg	10500kg	16500kg	22000kg	23000kg
Blade Width	400	500	500	600	800	800	800	1000
Edge Height	570	570	740	850	850	930	930	930



Transverse Feeding and Loading Machine Steel Bar Sorting Machine Off Loading Conveyor Off Loading Conveyor



Electronic Control Cutting Line Off Loading Conveyor Off Loading Conveyor

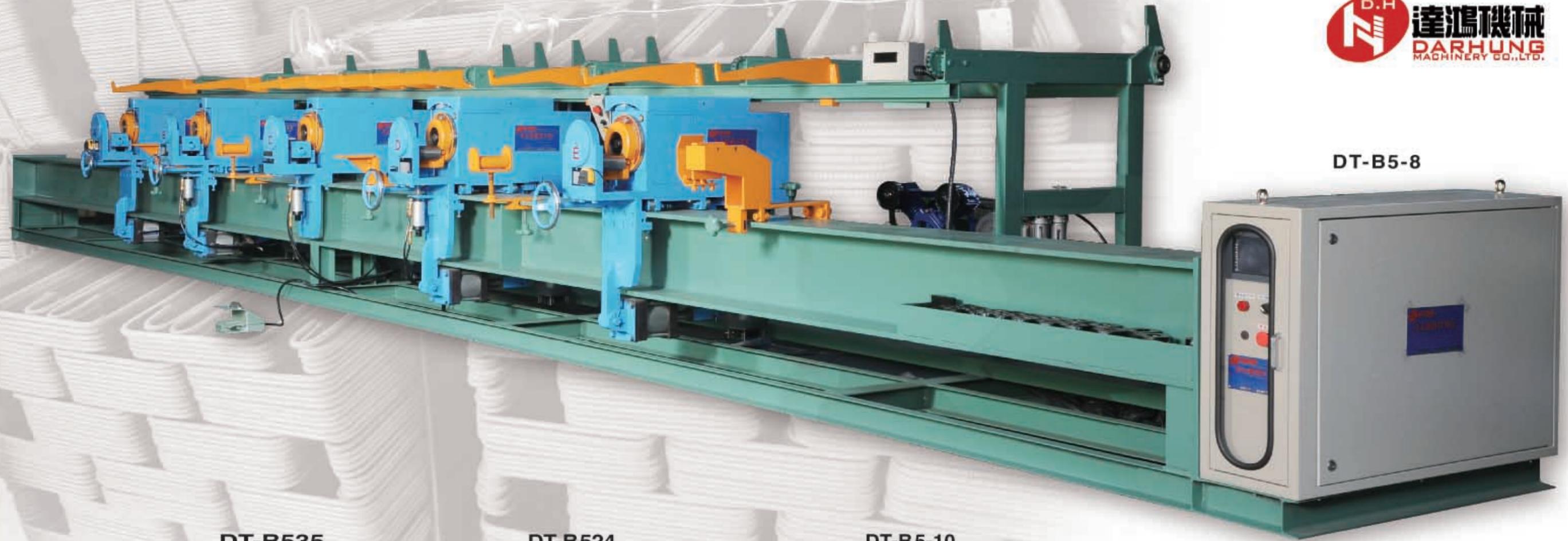


Electronic Control Finished Products Storage Area Fixed Length Stopper Equipment Finished Products Pushing Out Equipment



Shear Equipment Shear Equipment Transverse Feeding and Loading Machine On Loading Conveyor

DT-B5-8



DT-B535

DT-B524

DT-B5-10

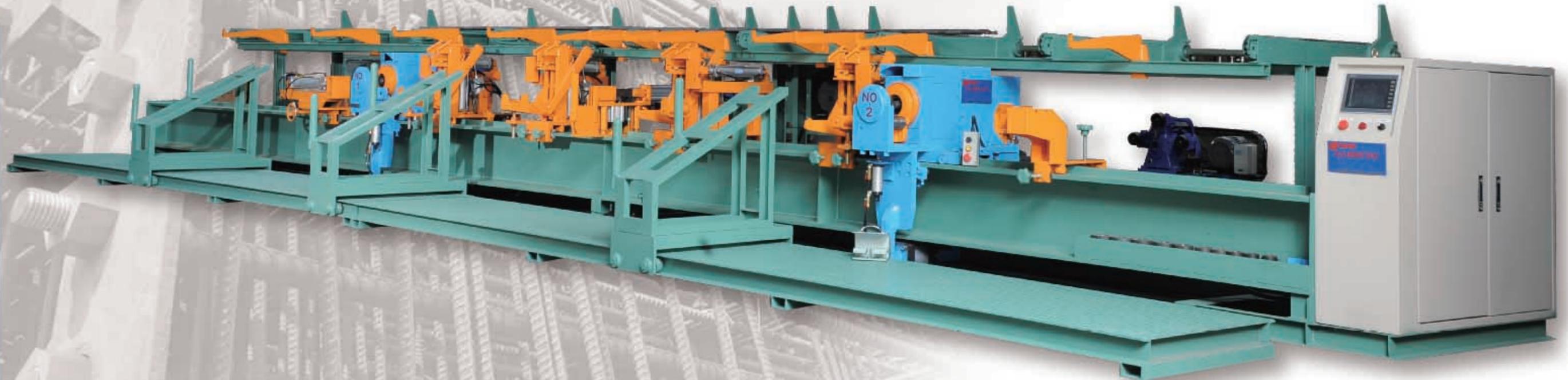


- Touch Panel Control
- Easy to adjust the length and angle
- Daily quantity: 8000 bars per man



Spec.	Type	DT-B535	DT-B5-8	DT-B5-10	DT-B524(624)
Diameter for the bending steel		3"4"5" D10 mm -D16 mm	D10 mm - 25 mm	D10 mm - 32 mm	D8 mm - 14 mm
Number of bending steel in one time		size D10 D13 D16 (SD280) Qty 7 5 2	size D10 D13 D16 D19 D22 D25 (SD280) Qty 9 7 5 3 2 1	size D10 D13 D16 D19 D22 D25 D32 (SD280) Qty 9 7 5 3 2 2 1	size D8 D10 D12 (SD280) Qty 8 6 4
Maximum bending length		180mm~8000mm	310mm~9000mm	330mm~11000mm	170mm~8000mm
Bending angle		0° ~ 180°	0° ~ 180°	0° ~ 180°	0° ~ 180°
Bending direction		Clockwise 3 sets(left side) Counterclockwise 2 sets(right side)	Clockwise 3 sets(left side) Counterclockwise 2 sets(right side)	Clockwise 3 sets(left side) Counterclockwise 2 sets(right side)	Clockwise 3 sets(left side) Counterclockwise 2(3) sets(right side)
Bending speed		60° /1 second	55° /1 second	55° /1 second	90° /1 second
Horse power of motor		1.5KW X 5Bend/1.5KW X 1Air compressor/0.75KWConveyer	2.25KW X 5Bend/1.5KW X 1Air compressor/1.5KWConveyer	3.7KW X 5Bend/1.5KW X 1Air compressor/1.5KWConveyer	1.5KW X 5(6)Bend/1.5KW X 1Air compressor/1.5KWConveyer
Power supply		3 phase 220V 60Hz air 6kg/cm <sup>2</sup>			
Machine size (L*W*H)		8600 X 1900 X 1500	10300 X 2100 X 1350	12060X 2240 X 1385	6400(8400)X 2050 X 1380
Weight		3500kg	5450kg	8150kg	3500kg

DT-BD2-8L With Automated Feeding and Discharge Mechanism



DT-B235A(Automatic)

DT-BD2-11A

DT-B3205(Automatic)



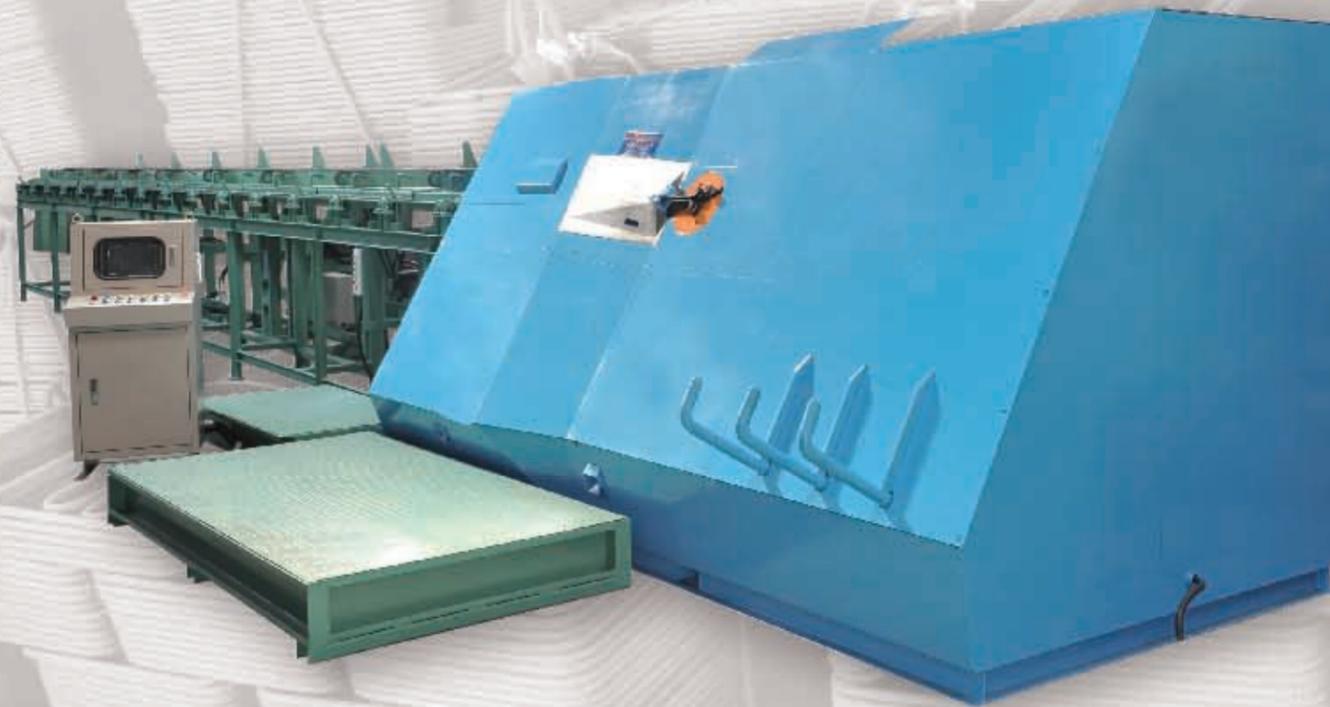
Operation Characteristic

- More function - Easy setup - Easy operation - Fast Forming
- Easy adjust the length and angle
- High efficiency. Average daily machine quantity : 5000 bars per man.
- High accuracy. Lower down the labor cost.

Spec.	Type	DT-BD2-8L	DT-B235A(Automatic)	DT-BD2-11A	DT-B3205(Automatic)
Number of Bending Steel in One Time	Size	D10 D13 D16 D19 D22 D25 (SD280)	Size D10 D13 D16 (SD280)	Size D10 D13 D16 D19 D22 D25 D32 D36	Size D10 D13 D16 D19 D22 D25 D32 (SD280)
	Qty	9 7 5 3 2 1	Qty 7 5 2	Qty 11 8 6 5 4 4 2 1	Qty 18 14 11 9 8 7 5
Bending Angle		0°-180°	0°-180°	0°-180°	0°-180°
The Minimum to the Maxium Bending Length		310mm-7000mm Finishing Length	90mm-6000mm(8000mm) Finishing Length	1000mm-11000mm Finishing Length	1000mm-12000mm Finishing Length
Patterns of Bending					
Bending Speed		55° /1 Second	60° /1 Second	35° /1 Second	40° /1 Second
Horsepower of Motor		2.2KW X 2	1.5KW X 2	7.5KW X 2	11.5KW X 2
Machine Size (LxWxH)		8000X2100X1350	6400(8400)X2100X1470	14370X2750X1690	14000X4000X1750
Weight		5850Kg	3000Kg	12000Kg	20000Kg



DT-BD16L (Stock Rebar)



DT-BD16A (Coil Rebar)



Spec.	Type	DT-BD16A (Coil Rebar)			DT-BD16L (Stock Rebar)			
Number of Bending Steel in One Time	Size	D10	D12	D16	Size	D10	D12	D16
	Qty	2	2	1	Qty	2	2	1
Bending Angle		0°-180° 2 Ways			0°-180° 2 Ways			
The Minimum to the Maximum Bending Length		70-12000mm Finishing Length			70-12000mm Finishing Length			
Patterns of Bending		All type			All type			
Bending Speed		1000° / Second			1000° / Second			
Max Pulling Speed		1M / 1.5 Sec			1M / 1.5 Sec			
Horsepower of Motor		15KWX2			15KWX1			
Length Tolerance		± 3mm			± 3mm			
Machine Size (LxWxH)		13500X3000X2700mm			17254X3210X2115mm			
Weight		6580Kg			4436Kg			



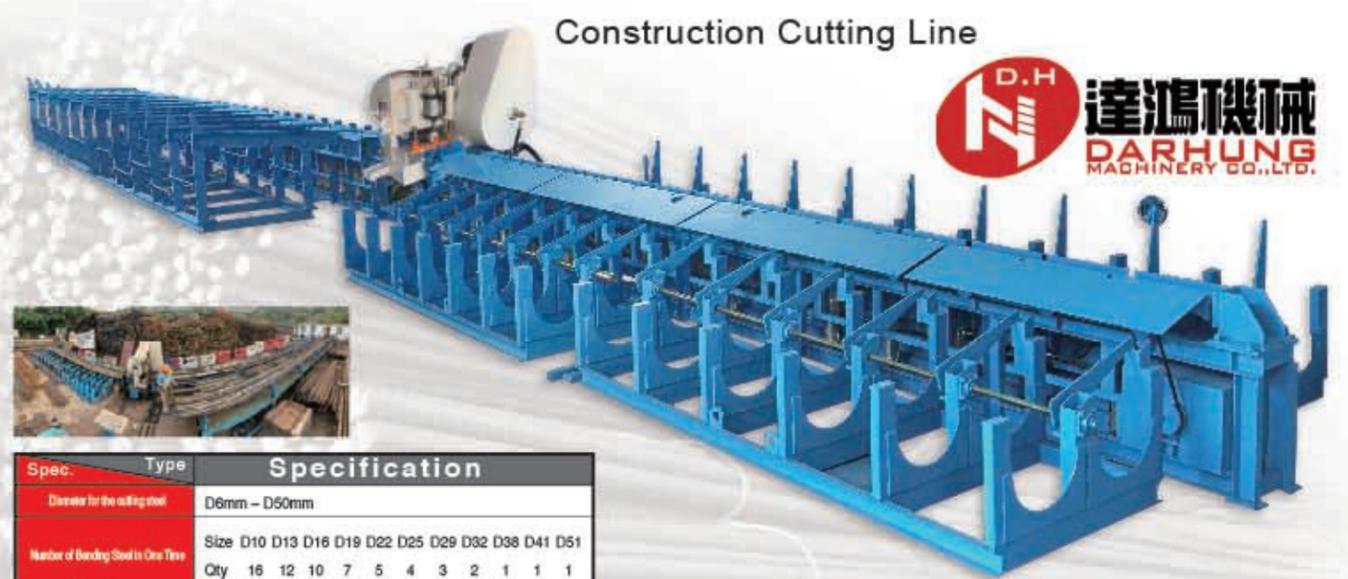
### DH8-12 Wire Straightening Machine



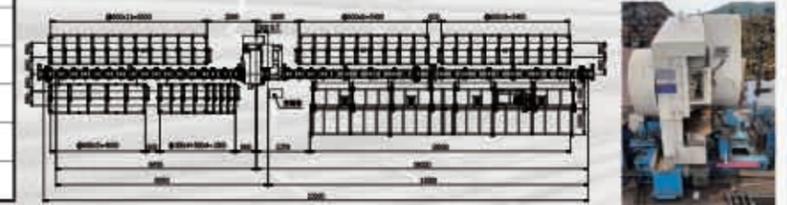
Spec.	Type	DH5-12W	DH5-12Q	DH5-12A
Raw material		Cold drawn, hot rolled, smooth or ribbed wire (yield strength-500N/mm <sup>2</sup> )		
Production capacity		Cold rolled wire, wire rod: 85-812mm Hot rolled ribbed wire: 85-810mm		
Feeding speed		Max. 130(m/min)	Max. 130(m/min)	Max. 130(m/min)
Straightening system		Rotor type	Rotor type	Rotor type
Cutting system		Servo-motor	Servo-motor	Servo-motor
Cutting length		800-12,000mm	800-12,000mm	800-12,000mm
Length setup		Manual	Manual	CNC
Straightness tolerance		2 mm/m	2 mm/m	2 mm/m
Length tolerance		±1 mm	±1 mm	±1 mm
Installed power		48kW	49.5kW	53.9kW



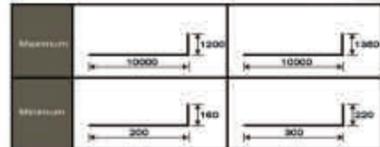
### Construction Cutting Line



Spec.	Type	Specification
Diameter for the cutting steel		D6mm - D50mm
Number of Bending Steel in One Time		Size D10 D13 D16 D19 D22 D25 D29 D32 D38 D41 D51 Qty 16 12 10 7 5 4 3 2 1 1 1
Cutting Speed		1 cut / 0.5 second
Blade Width		190 x 100 x 30
Conveying Speed		76 m /min
Collecting Pockets nos.		2 * 2
Cutting Length		750mm - 7500mm



### DT-20(DT-32) Single Arm Bending Machine



( ) This is the minimum dimension for the D10 steel space **SD-280**

Spec.	Type	DT-20	DT-32
Diameter for the bending steel		SD 3"-4"5"6" D10mm -D19 mm	SD 3"-10" D10mm-D32mm
Number of bending steel in one line		Size D10 D13 D16 D19 Qty 20 15 13 7	Size D10 D13 D16 D19 D22 D25 D32 Qty 24 27 13 11 9 6 5
Maximum bending length		10000mm	10000mm
Bending angle		0° ~ 180°	0° ~ 180° (0° ~ 90° )
Bending direction		Counterclockwise 1 sets(right side)	Counterclockwise 1 sets(right side)
Bending speed		46° /1 second	35° /1 second
Horse power of motor		5.6KWx1Bender / 2.2x2KWConveyer	15KWx1Bender
Power supply		3 phase 220V 60Hz air 6kg/cm <sup>2</sup>	3 phase 220V 60Hz air 6kg/cm <sup>2</sup>
Machine size (LxWxH)		12380x 2970 X 1420	2340 x 2140 x 1100 (Bender only)
Weight		6350kg	3000kg (Bender only)



### DT-BD2-8

Bending Machine with waterproof

Spec.	Type	DT-BD2-8
Diameter for the bending steel		SD D10- D25 mm
Number of Bending Steel in One Time		Size D10 D13 D16 D19 D22 D25 Qty 9 7 5 3 2 1
Bending Angle		0°-180°
The Minimum to the Maximum Bending Length		310-4000 Finishing Length
Patterns of Bending		
Bending direction		Clockwise 1 sets (Left side) Counterclockwise 1 sets (Right side)
Bending Speed		55° /1 Second
Horsepower of Motor		2.2 KW x 5(6) Bend / 2.2KW conveyer
Machine Size (LxWxH)		5000 x 2100 x 1350
Weight		2500kg



## FW SERIES Friction welding machine

DH-FW30/45/60

- Fully automated production line
- Increase production
- Reduce manpower
- After welding, the strength is higher than that of the base metal, and suitable for all kinds of connectors continued
- 5 times faster than compared to traditional machine
- With high friction at the contact surface, and No need electrode or extra heating and welding.
- Widely used in infrastructure construction, High-tech factory building, Skyscrapers, etc.

### Machine specifications

Machine specifications		DH-FW30	DH-FW45	DH-FW60	
Welding ability	Round rod diameter	Ø9 - Ø25	Ø9 - Ø36	Ø9 - Ø60	
	Pipe fittings	Ø16	Ø48.3	Ø88.9	
	The Max. length of the rotating side	300mm	300mm	300mm	
	The length of the fixed side	9m	9m	9m	
Maximum thrust	Frictional heating time	8,000 Kg	10,000 Kg	12,000 Kg	
	Forging pressurization	16,000 Kg	20,000 Kg	25,000 Kg	
Spindle	Number of spindle rotation	50Hz	3000 rpm	2250 rpm	1780 rpm
		60Hz	2500 rpm	1780 rpm	1570 rpm
	Clutch	Direction	Oil Actuated Multi-Disc Clutch and Brake		
		Torque	800 (N.m)	800 (N.m)	1600 (N.m)
	Brakes system	Direction	Oil Actuated Multi-plate hydraulic Brake		
		Dynamic torque	800 (N.m)	800 (N.m)	1600 (N.m)
Braking time		0.3 sec	0.3 sec	0.3 sec	
Spindle fixture		Hydraulic three-jaw 6" / (Hydraulic pressure)	Hydraulic three-jaw 8" / (Hydraulic pressure)	Hydraulic three-jaw 10" / (Hydraulic pressure)	
Slide speed	Rapid traverse rate	20 m/min	20 m/min	20 m/min	
	Machine Processing speed	1~1000 mm/min	1~1000 mm/min	1~1000 mm/min	
	The Max. moving distance	150 mm	200 mm	250 mm	
Work piece clamping manner	Vise splint method	Horizontal double-open synchronous fixture			
	Clamping force	8,600 Kg	17,000 Kg	25,000 Kg	
Processing Methods	Size adjustment	0 - 100 mm	0 - 100 mm	0 - 100 mm	
	Time adjustment	0 - 999 s	0 - 999 s	0 - 999 s	
Motor power	Spindle	22 kw	30 kw	37 kw	
	Hydraulic pressure	5 kw	9 kw	9 kw	
	Servo motors	7 kw	9 kw	11 kw	
	Hydraulic oil temperature cooling system	1.5T / 1.1 Kw	2T / 2 Kw	2T / 2 Kw	
Dimension	Machine Dimensions	2750 x 2800 x 2000	2750 x 3100 x 2000	2750 x 3400 x 2000	
	Machine weight	6,000 Kg	6,800 Kg	7,300 Kg	



Collet Chuck



Power Chuck

### FW series advantages

- 01 Using the latest servo drive, shift more accurate
- 02 Freedom of movement and can quickly shift speed
- 03 Full touch panel can be flexible modifier, the degree of freedom
- 04 Fully automated production, increase production, reduce manpower
- 05 Using the famous brand parts of best countries, Accuracy is more accurate
- 06 5 times faster than compared to traditional machine
- 07 Does not affect the oil temperature
- 08 Friction welding with Automatic cutting device



▲ Full touch panel control system



▲ Servo motor



▲ Servo motor



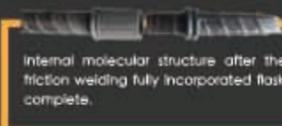
▲ Oil Actuated Multi-plate hydraulic brake

### Welding process

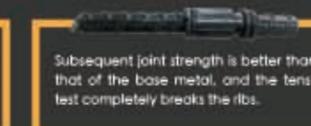
1. Positioning the work pieces on both sides, clamping the work piece with the slide table, and starting friction welding
2. After the welding is completed, the fixture is released and the work piece is removed.
3. High-speed rotation on both sides of the pressure, so that the two parts are closely integrated

### Pull test

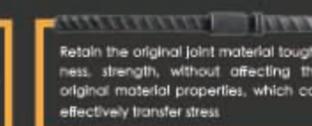
Using the CNC system to generate heat energy from frictional motion. The axial pressure applied in the hot state under vacuum resumed plastic composite connectors and steel base metal.



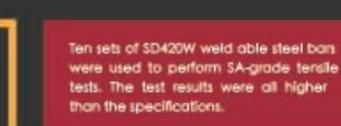
Internal molecular structure after the friction welding fully incorporated flask complete.



Subsequent joint strength is better than that of the base metal, and the tensile test completely breaks the ribs.



Retain the original joint material toughness strength, without affecting the original material properties, which can effectively transfer stress



Ten sets of SD420W weldable steel bars were used to perform SA-grade tensile tests. The test results were all higher than the specifications.

### FW series

Improve the two major shortcomings of previous welding:

[ Splashes ]

When scattering of arc welding gas and electricity fine particles. They cause defects in the coating and adversely affect the quality. In the welding, it is often seen that a large amount of spatter scatters, which weakens the pressure of the electrode and causes poor welding quality.

[ Smoke ]

Metal vapors that occur during the welding process and condense into fine particles.

Prolonged inhalation of smoke can because symptoms called metal fume fever. Other symptoms include coughing, chest tightness, thirst, and fever, which can sometimes cause pulmonary edema.



▲ Activity jaws  
Replaceable jaws



▲ Reinforced splicer