

CUTTING & BENDING MACHINE

TBC-16RBII

D10-D16



From feeding to cutting and bending by one machine
Advanced model reducing manpower and processing time drastically

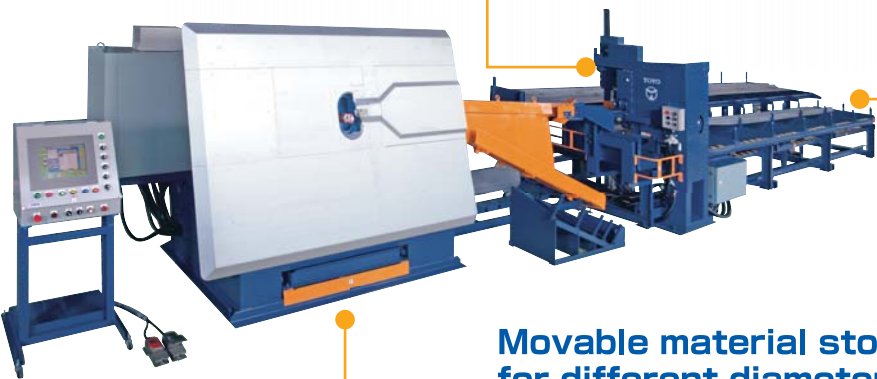
Automatic feeding



Pick up a rebar

Supply to the pinch rollers

Pick up next rebar



Equipped with scrap collecting tray



Movable material storage for different diameters



Machine & Processing Specifications

Specifications	TBC-16RBII (9m)			
Required breaker capacity	75A			
Processable material length	4,000~9,000mm			
Max. q'ty loadable on the material plat form	D10:400pcs.,D13:220pcs.,D16:140pcs.			
Bending angle	Upward 5°~135° Downward 5°~180°			
Bending unit revolution	MAX 187.0 rpm(50/60Hz)			
Feeding speed	MAX 155.0 m/min(50/60Hz)			
Total motor capacity	20.9kW (including air compressor)			
Dimensions (L×W×H)	13,400×2,105×2,200mm			
Total weight	5,300kg			

Simultaneous Max. processing Quantity (pcs.)

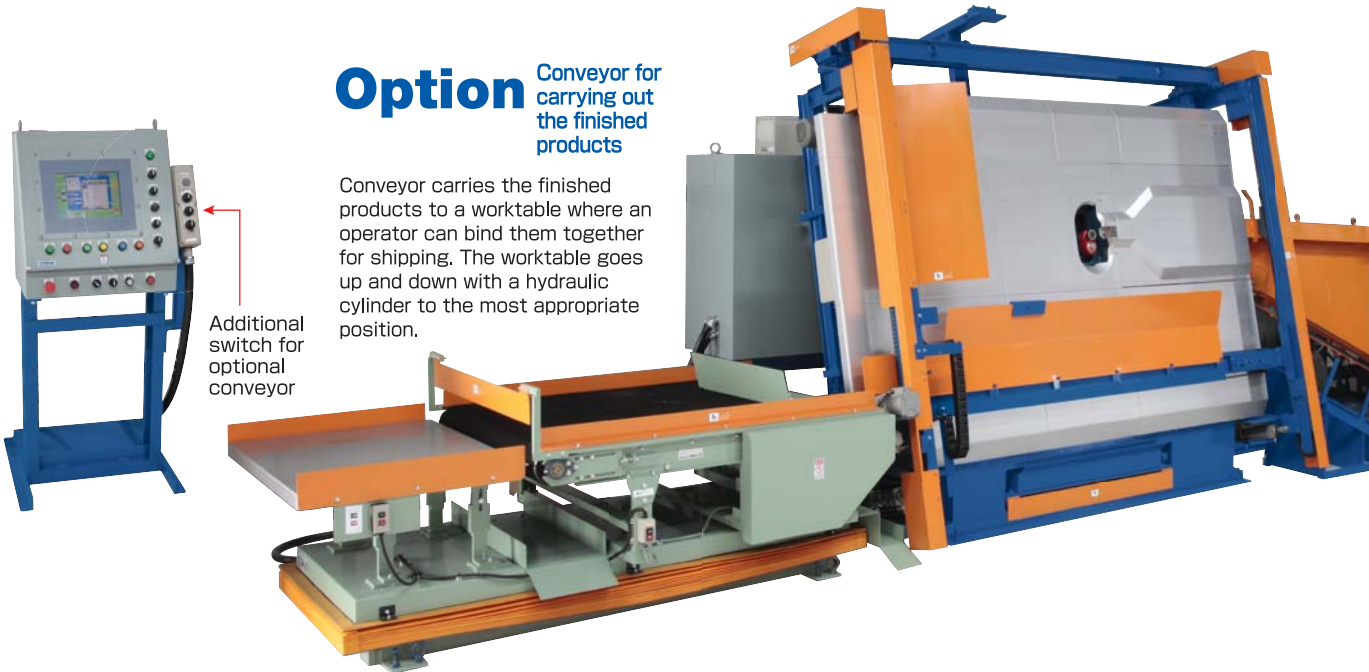
Rebar diameter	D10	D13		D16
Fulcrum roller dia.	φ35	φ35	φ39	φ48
SD345	1	1	1	1
SD390	1	1	1	—

Option

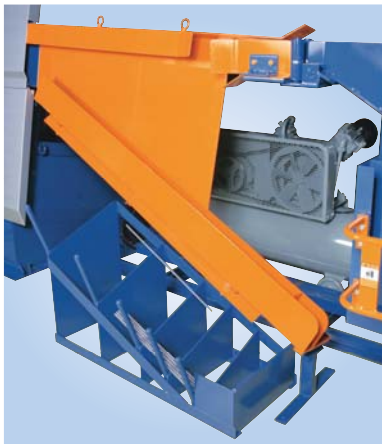
Conveyor for carrying out the finished products

Conveyor carries the finished products to a worktable where an operator can bind them together for shipping. The worktable goes up and down with a hydraulic cylinder to the most appropriate position.

Additional switch for optional conveyor

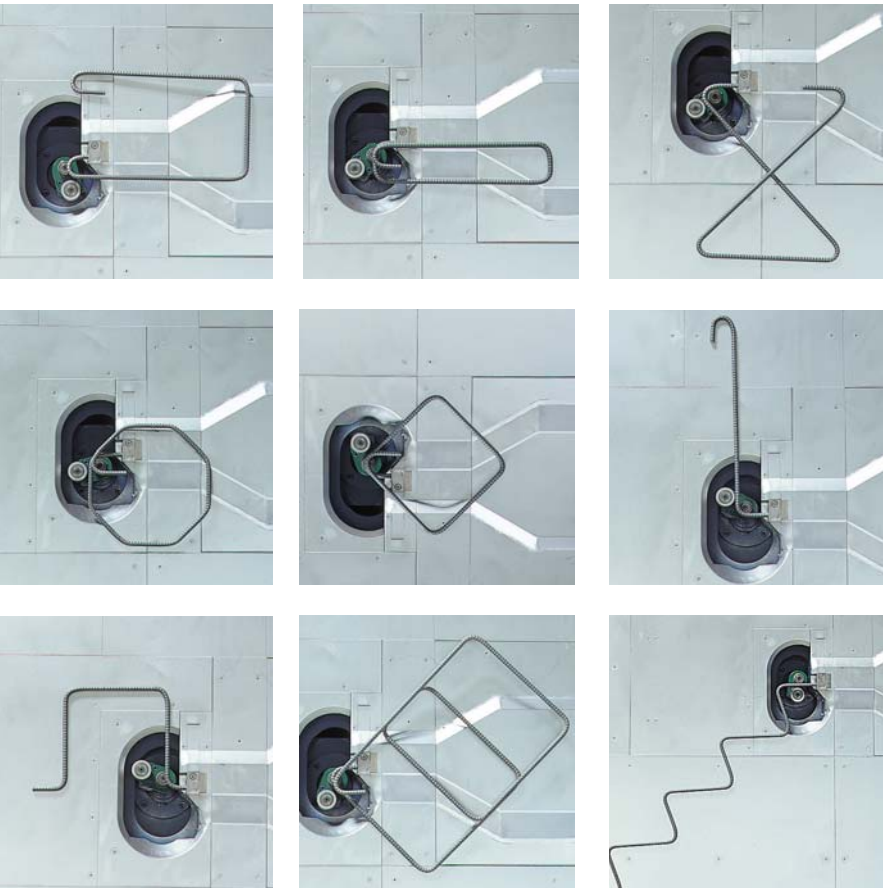


Eco-friendly machine making efficient use of rebars



Remnant materials are cut to the length for reuse

Bending shape examples



Rebar to be used for reinforced-concrete structure

There is Japanese Industrial Standards (JIS). In JIS, regarding the round steel bar and deformed steel bar manufactured by hot rolling, the round steel bar (2 kinds) and deformed steel bar (4 kinds) shown in the following list are regulated as reinforced-concrete steel bar.

Category	Material marking	Yield Point (N/mm2)	Tensile Strength (N/mm2)
Round steel bar	SR245	235 or over	380~520
	SR295	295 or over	440~600
Deformed steel bar	SD295A	295 or over	440~600
	SD295B	295~390	440 or over
	SD345	345~440	490 or over
	SD390	390~510	560 or over
	SD490	490~625	620 or over

Weight list per one piece of rebar (JIS G 3112) (Unit: kg)

Diameter Length	D6	D10	D13	D16	D19	D22	D25	D29	D32	D35	D38	D41	D51
1.0	0.249	0.56	0.995	1.56	2.25	3.04	3.98	5.04	6.23	7.51	8.95	10.5	15.9
3.5	0.872	1.96	3.48	5.46	7.88	10.6	13.9	17.6	21.8	26.3	31.3	36.8	55.6
4.0	0.996	2.24	3.98	6.24	9.00	12.2	15.9	20.2	24.9	30.0	35.8	42.0	63.6
4.5	1.12	2.52	4.48	7.02	10.1	13.7	17.9	22.7	28.0	33.8	40.3	47.2	71.6
5.0	1.24	2.80	4.98	7.80	11.2	15.2	19.9	25.2	31.2	37.6	44.8	52.5	79.5
5.5	1.37	3.08	5.47	8.58	12.4	16.7	21.9	27.7	34.3	41.3	49.2	57.8	87.4
6.0	1.49	3.36	5.97	9.36	13.5	18.2	23.9	30.2	37.4	45.1	53.7	63.0	95.4
6.5	1.62	3.64	6.47	10.1	14.6	19.8	25.9	32.8	40.5	48.8	58.2	68.2	103
7.0	1.74	3.92	6.96	10.9	15.8	21.3	27.9	35.3	43.6	52.6	62.6	73.5	111
7.5	1.87	4.20	7.46	11.7	16.9	22.8	29.8	37.8	46.7	56.3	67.1	78.8	119
8.0	1.99	4.48	7.96	12.5	18.0	24.3	31.8	40.3	49.8	60.1	71.6	84.0	127
8.5	2.12	4.76	8.46	13.3	19.1	25.8	33.8	42.8	53.0	63.8	76.1	89.2	135
9.0	2.24	5.04	8.96	14.0	20.2	27.4	35.8	45.4	56.1	67.6	80.6	94.5	143
9.5	2.37	5.32	9.45	14.8	21.4	28.9	37.8	47.9	59.2	71.3	85.0	99.8	151
10.0	2.49	5.60	9.95	15.6	22.5	30.4	39.8	50.4	62.3	75.1	89.5	105	159
10.5	2.61	5.88	10.4	16.4	23.6	31.9	41.8	52.9	65.4	78.9	94.0	110	167
11.0	2.74	6.16	10.9	17.2	24.8	33.4	43.8	55.4	68.5	82.6	98.4	116	175
11.5	2.86	6.44	11.4	17.9	25.9	35.0	45.8	58.0	71.6	86.4	103	121	183
12.0	2.99	6.72	11.9	18.7	27.0	36.5	47.8	60.5	74.8	90.1	107	126	191

Bending standard (JASS5 : 2010)

List 1 Bending shape & dimension in the edge of rebar

Bending angle	Pictures	Rebar material	Classification by rebar dia.	Inner diameter of bending rebar
180° 135° 90°		SR235, SRR235	under dia.16mm	3d or over (1)
		SR295, SRR295B SD295A, SD295B	under dia.16mm under D16	3d or over
		SDR295, SD345, SDR345	dia.19mm D19~D38	4d or over
			D41	5d or over
		SD390	D16~D41	5d or over

Remarks : (1) d indicates diameter for round bar and nominal dia. for deformed bar.
(2) Over 4d is acceptable for extra length used for the upper-end bar in cantilevered slab and free edge in wall.

List 2 Bending shape & dimension in the middle of rebar

Bending angle	Pictures	Name depending on the position of rebar	Rebar material	Classification by rebar dia.	Inner diameter of bending rebar
under 90°		hoop stirrup spiral slab wall	SR235, SRR235 SD295A, SD295B SDR295, SR295 SRR295, SD345, SDR345	under dia.16mm under D16	3d or over (1)
				dia.19mm D19	4d or over
		Main bar for column, beam wall, slab footing beam	SD295A, SD295B SDR295, SD345, SDR345 SD390	under D16 D19~D25 D29~D41	4d or over 6d or over 8d or over

Remarks : (1) d indicates diameter for round bar and nominal dia. for deformed bar.