



BN Products - USA, LLC

3450 Sabin Brown Road • Wickenburg, Arizona 85390
(800) 992-3833 • (928) 684-2813 • www.bnproducts.com

DBD-16X MINI REBAR BENDER

Tool Manual
DBD-Series 0-180 degree Rebar Benders



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NOTE: When using electric tools, basic safety precautions should always be followed to reduce the risk of electric shock and personal injury, including the followings items:

READ ALL INSTRUCTIONS AND SAVE THEM FOR FUTURE REFERENCE

1. Keep hands away. From all moving parts and rollers while operating.
2. Dress properly. Loose clothing or jewelry can get caught in moving parts. Wear sturdy boots with non-skid soles. Steel toed boots and safety glasses are recommended.
3. Keep children and bystanders away. Distractions can cause you to lose control.
4. Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
5. Stay alert. Watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs or alcohol. A moment of inattention while operating power tools may result in serious personal injury.
6. Do not exceed the maximum number of bars that can be bent at one time. Please refer to specifications on page 3 -4.
7. When positioning the bar between rollers, make sure to lay it flat on the machine surface. Failure to do so may cause the rebar to fly out.
8. Do not expose tool to rain or use in damp locations.. Do not use tool in presence of flammable liquids or gases. Keep work area well lit. If the tool is used outdoors, keep it covered when not in use and protect it from rain or water.
9. Do not try to bend materials harder than “Grade 60 or 600N/mm²” as they will either crack and fly out or cause machine failure.
10. Disconnect tool from receptacle when not in use. Disconnect when servicing or changing rollers to prevent accidents.
11. Keep tool clean at all times for best and safest performance. Follow instructions for lubricating and changing parts. Keep hands dry and free of oil or grease. Inspect switches, tool cords periodically and have them repaired or replaced by an authorized service center if damaged. Check moving parts for alignment and binding as well as for breakage and improper mounting. Damaged parts should be repaired or replaced by an authorized service facility unless otherwise indicated in this instruction book.

READ ALL INSTRUCTIONS AND SAVE THEM FOR FUTURE REFERENCE

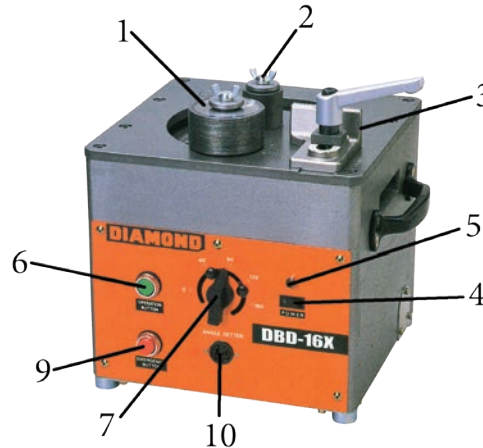


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DBD-16X Mini Rebar Bender

1. Moving bending roller
2. Center roller
3. Adjustable stopper
4. Main switch
5. Pilot lamp
6. Operation button On/Off
7. Angle setter (dial type)
8. Angle stopper (two)
9. Emergency stop button
10. Plug-in for foot switch
11. Roller set
12. Foot Operated Switch



SPECIFICATIONS

Model	DBD-16X
Max. Bending Capacity	5/8" (#5) (16 mm) Grade 60 Rebar
Bending Angle	0-180°
Bending Speed	5 seconds for 180° bend
Electric Power Supply	115 Volts, 50/60Hz, 10 amps, 1050 watts
Dimensions L x W x H (mm)	16.6" x 12.5" x 16.2" (425) x (320) x (415)
Weight (Kg)	90 lbs. (40.8)

DBD-16X REBAR BENDER ROLLER SELECTION CHART

Rebar Diameter Size	Center Roller	Moving Roller	# of Grade 60 Rebar Bent
# 3 (3/8") (10mm)	# 5 (1.88" diameter)	# 6 (4.11" diameter)	3 pieces at one time
# 4 (1/2") (13 mm)	# 3 (2.50" diameter)	# 4 (3.19" diameter)	2 pieces at one time
# 5 (5/8") (16 mm)	# 1 (3.00" diameter)	# 2 (2.44" diameter)	1 piece at one time



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WARNING: ALWAYS UNPLUG THIS TOOL BEFORE ATTACHING OR REMOVING ROLLERS OR ACCESSORIES.

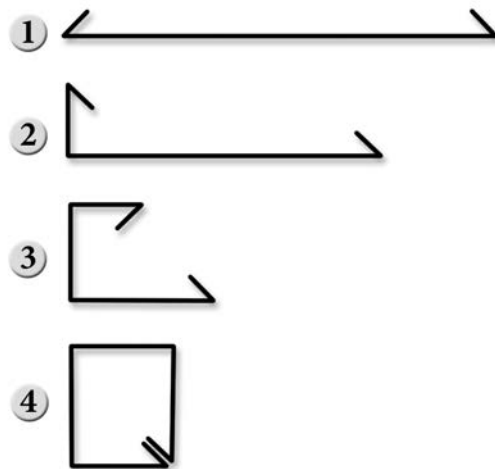
1. Select and set the correct rollers for the bars to be bent. See the table.
2. Plug the electrical power cord into an appropriate outlet.
3. Lay the bar on the machine surface between the center roller and bending roller. Adjust the stopper so that the bar is parallel to the front edge of the machine.
4. Turn the main switch on and check that the pilot lamp has lit up.
5. Set the angle and make a test bend. If the bent angle is not exact, adjust the angle setter slightly to the right or left. Lock in the angle stoppers to duplicate the same angle each time.
6. Push the operation button or foot switch. The moving bending roller will automatically return to the start position once the bend has been completed.
7. If it is necessary to stop the machine in an emergency, push the emergency stop button or release your foot from the foot operated switch. The bending roller will return to the start position automatically.

BENDING ANGLES CAN BE PRESET

1. Set the angle setter to 135° then tighten the right angle stopper to lock the 135° position.
2. Set the angle setter to 90° then tighten the left angle stopper to lock the 90° position.
3. Set the angle setter to 135°. Push the operation button to make your first bend.
4. Slide the rebar to the desired length and set the angle setter to 90°. Push the operation button to complete your second bend.

For stirrups, cut your rebar to the desired length before bending. Then make both bends for your turn-downs. Finally make your (3) 90° bends to connect your ends together. See below.

WARNING: Never touch any moving parts or rollers while the rebar bender is being operated.





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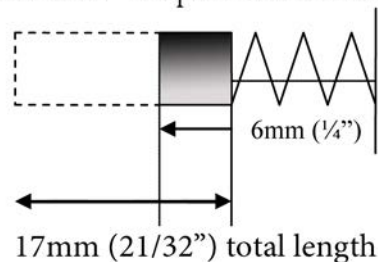
INSPECTION AND MAINTENANCE

WARNING: ALWAYS UNPLUG TOOL BEFORE PERFORMING MAINTENANCE.
DO NOT USE PARTS OR ACCESSORIES THAT ARE NOT
GENUINE DIAMOND BRAND from BN Products-USA

1. At least once a month remove the bottom plate and grease all the visible gears and pinions. At the same time, check the carbon brushes for wear or damage. Replace with new brushes if they are worn out.

1C1961A Carbon Brush

Wear Limit --> Replace Carbon Brushes

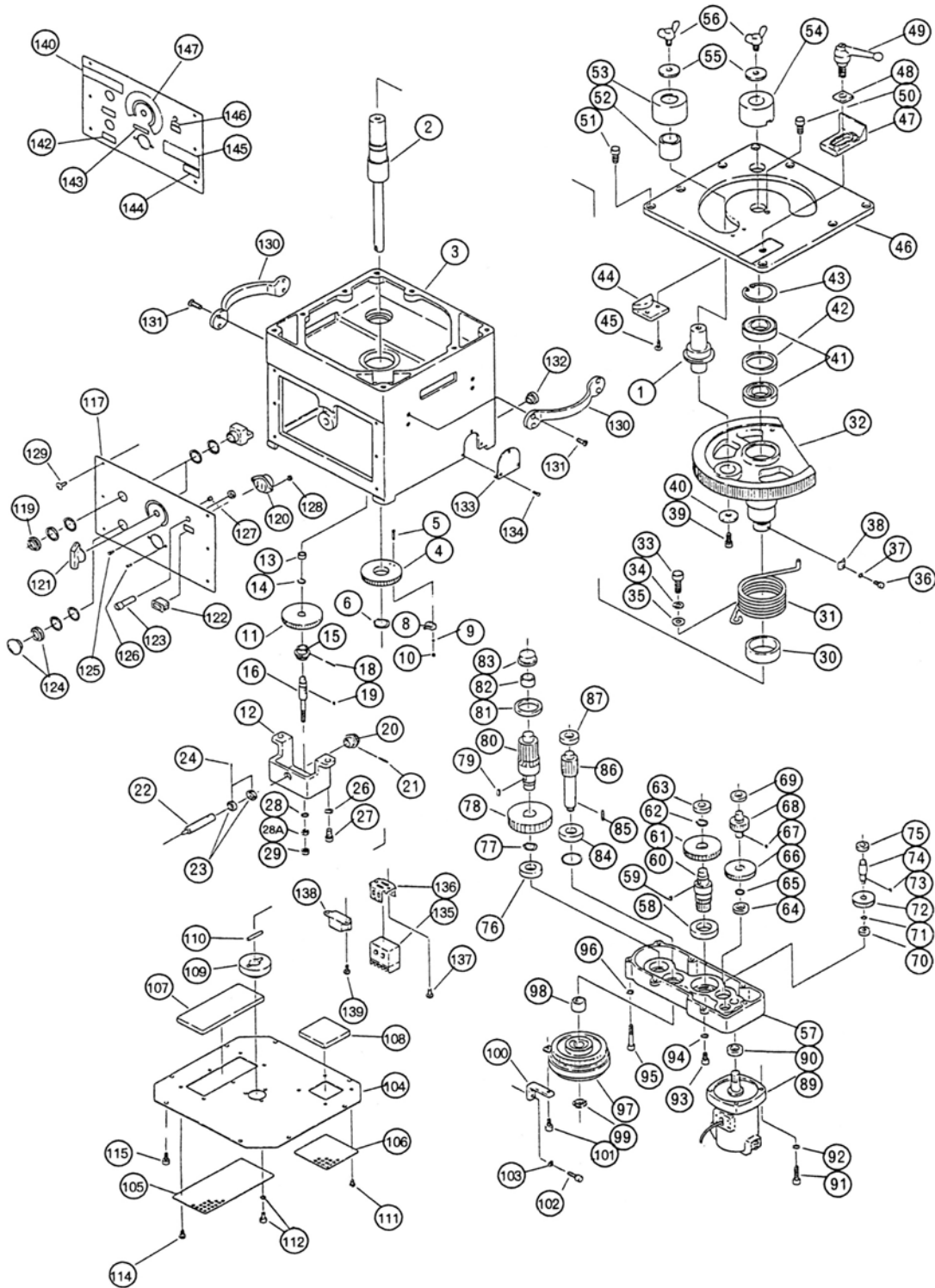


2. Check that there are no loose nuts and bolts before starting the operation.
3. After operation is completed, be sure to remove metal dust, dirt, oil, etc... adhering to the machine surface.
4. In order to empty the metal dust from the bender, (remove side cover DBD-25X and DBD-32X models) then tilt the machine to one side allowing the debris to fall out of the catch pan. Be sure to blow out any remaining dirt and dust with compressed air prior to using the tool again (wear safety goggles to block blowing debris).



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No.	Part No.	Part Name	Qty
1	1BL9402301	SWIVEL SHAFT	1
2	1BL9302100	MAIN SHAFT	1
3	1BL9100105	FRAME	1
4	1BL9404400	ANGLE GEAR (B)	1
5	7PB2.3025	TAPPING SCREW M2.3X25	2
6	7SRS30	SNAP RING S30	1
8	7SS5GL2	LIMIT SWITCH	1
9	7SW002.3	SPRING WASHER M2.3	2
10	7N002.3	NUT M2.3	2
11	1BL9404300	ANGLE GEAR (A)	1
12	1BL9303802	ANGLE STAND	1
13	7MB1010DU	DRIVE BUSH	1
14	7SRS12	SNAP RING S12	1
15	1BL9403900	NUT M10	1
16	1BL9404200	ANGLE SHAFT (B)	1
18	7SP04020	SPRING PIN	1
19	1BL9400601	KEY NO.1	1
20	1BL9403900	PLASTIC GEAR	1
21	7SP04020	SPRING PIN	1
22	1BL9404001	ANGLE SHAFT (A)	1
22A	1BL9405900	ANGLE SPRING	1
23	1BL9404100	ANGLE COLLAR	1
24	7SS04005	SET SCREW M4X5	1
26	7SW0008	SPRING WASHER M8	2
27	7CB08020	CAP BOLT M8X20	2
28	7WW0008	WAVE WASHER M8	1
28A	7PW0008	PLATE WASHER M8	1
29	7N0008	NUT M8	2
30	1BL9405801	SPRING COLLAR	1
30A	760102RS	BALL BEARING 60102RS	1
31	1BL9302601	RETURN SPRING	1
32	1BL9102000	SWIVEL GEAR	1
33	7CB08020	CAP BOLT M8X20	1
34	7SW0008	SPRING WASHER M8	1
35	7PW0008	PLATE WASHER M8	1
36	7CB05012	CAP BOLT M5X12	1
37	7SW0005	SPRING WASHER M5	1
38	1BL5403200	LS DOCK	1
39	7SW0010	SPRING WASHER M10	1
39A	7B10025	BOLT M10X20	1
40	1BL9402500	WASHER	1

No.	Part No.	Part Name	Qty
41	760/32ZZ	BALL BEARING 60/32ZZ	2
42	1BL9402200	BEARING COLLAR	1
43	7SRH58	SNAP RING H58	1
44	1BL9403000	ARM STOPPER	1
45	7FB06020	SCREW M6X20	2
46	1BL9102700	BASE PLATE	1
47	1BL9302802	STOPPER	1
48	1BL9402901	STOPPER HOLDER	1
49	7LDM1663SG	CLAMP LEVER	1
50	7CB06012	CAP BOLT M6X12	1
51	7CB08020	CAP BOLT M8X20	8
52	76206ZZ	BALL BEARING 6206ZZ	6
52A	7HSL06	NEEDLE BEARING HSL06	1
52B	7BR47	SNAP RING BR47	1
53	1BL9405301	ROLLER 10	1
	1BL9405301	ROLLER 13	1
	1BL9405501	ROLLER 16	1
	1BL9405601	ROLLER 19	1
54	1BL9405000	COLOR 13	1
	1BL9405100	COLOR 16	1
	1BL9405200	COLOR 19	1
55	1BL9402500	WASHER	2
56	7WB10015	WING BOLT M10X15	2
57	1BL9100202	GEAR CASE	1
58	760/28ZZ	BALL BEARING 60/28ZZ	1
59	1BL9401201	KEY NO. 3	1
60	1BL9401100	PINION NO. 2	1
61	1BL9401000	GEAR NO. 2	1
62	7SRS20	SNAP RING S20	1
63	76002ZZ	BALL BEARING 6002ZZ	1
64	76001ZZ	BALL BEARING 6001ZZ	1
65	7SRS16	SNAP RING S16	1
66	1BL9400702	GEAR NO. 1	1
67	1BL9400901	KEY NO. 2	1
68	1BL9400801	PINION NO. 1	1
69	76001ZZ	BALL BEARING 6001ZZ	1
70	7698ZZ	BALL BEARING 698ZZ	1
71	7SRS10	SNAP RING S10	1
72	1BL9400402	COUNTER GEAR	1
73	1BL9400601	KEY NO. 1 (4X4X6)	1
74	1BL9400500	COUNTER SHAFT	1



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No.	Part No.	Part Name	Qty
75	76900ZZ	BALL BEARING 6900ZZ	1
76	76004ZZ	BALL BEARING 6004ZZ	1
77	7SRS25	SNAP RING S25	1
78	1BL9401702	GEAR NO. 3	1
79	1BL9401901	KEY NO. 5	1
80	1BL9401800	PINION NO. 4	1
81A	7V40S	V RING 40S	1
81B	1BL9408200	PINION COLLAR	1
82	7TLA2016Z	NEEDLE BEARING	1
83	1BL9405700	BEARING BOSS	1
84	76004ZZ	BALL BEARING 6004ZZ	1
85	1BL9401501	KEY NO. 4	1
86	1BL9401401	PINION NO. 3	1
87	76202ZZ	BALL BEARING 6202ZZ	1
89	1C1961DBD	MOTOR ASSEMBLY	1
90	76902ZZ	BALL BEARING 6902ZZ	1
91	7CB06030	CAP BOLT M6X30	4
92	7SW0006	SPRING WASHER M6	4
93	7CB06015	CAP BOLT M6X15	4
94	7SW0006	SPRING WASHER M6	4
95	7CB06050	CAP BOLT M6X50	5
96	7SW0006	SPRING WASHER M6	5
97	1BDL401162	CLUTCH TMC2.5KW	1
97A	1BDL400242	CLUTCH GEAR	1
97B	76904ZZ	BALL BEARING 6904ZZ	2
97C	7SRH37	SNAP RING H37	1
97D	1BDL400280	COLLAR	1
98	1BL9401300	CLUTCH COLLAR	1
99	7FU02SC	U NUT	1
100	1BL9401600	CLUTCH HOLDER	1
101	7CB05012	CAP BOLT M5X12	1
102	7CB05012	CAP BOLT M5X12	2
103	7SW 0005	SPRING WASHER M5	2
104	1BL9303202	BOTTOM PLATE	1
105	1BL9303600	FILTER COVER A	1
106	1BL9403700	FILTER COVER B	1
107	1BL9403400	FILTER A	1
108	1BL9403500	FILTER B	1
109	1BL9403300	BOTTOM CLAMP	1
110	7PP04040	PIN 4X40	1
111	7P204010	SCREW WITH WASHER M4X10	4

No.	Part No.	Part Name	Qty
112	7UB2W05012	SET BOLT WITH WASHER M5X12	3
114	7P204010	SCREW WITH WASHER M4X10	4
115	7UB2W06012	SET BOLT WITH WASHER M6X12	8
117	1BL9204902	CONTROL PANEL	1
119	7BN25F10	ORERATION SWITCH	1
120	7S2701B01	SOCKET FOR FOOT SWITCH	1
121	1BL9401504	ANGLE SETTER	1
122	7AJ8101B	MAIN SWITCH	1
123	7LMS5BPO	PILOT LAMP	1
124	7BN25M01R	EMERGENCY STOP SWITCH	1
125	7YB05015	BUTTON SCREW M5X15	2
126	7P303010	SCREW WITH WASHER M3X10	2
127	1BL5404200	ANGLE PLATE	2
128	7N0003	NUT M3	2
129	7TS05010	SCREW M5X10	6
130	7A691BK	HANDLE	1
131	7FB08015	SCREW M8X15	1
132	7DDB1520	BUSH	1
133	1BL9403100	BRUSH COVER	1
134	7P204010	SCREW WITH WASHER M4X10	3
135	7G7J4AT	RALAY	1
136	7R9904	RALAY CLAMP	1
137	7P204015	SCREW WITH WASHER M4X15	2
138	7ORM0309H	CLUTCH TERMINAL	1
139	7P204015	SCREW WITH WASHER M4X15	2
		"AMERICAN ROLLERS"	
	1BL9419330	ROLLER NO.1	
	1BL9419340	ROLLER NO.2	
	1BL9419350	ROLLER NO.3	
	1BL9419360	ROLLER NO.4	
	1BL9419370	ROLLER NO.5	
	1BL9419380	ROLLER NO.6	