



MG22BS - 220V DIGITAL
MG22BS - 220V MANUAL
MG22BS - 380V DIGITAL
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PORTABLE IRON BENDING MACHINE
USER'S AND MAINTENANCE MANUAL



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MAIN SAFETY INFORMATION

- This symbol is put before the articles giving warning explanations in order to draw attention of the trained operator to important functions.
- € This symbol is put before the articles giving warning explanations in order to draw attention of the trained operator to electrical issues.
-  This symbol is put before the sentences in order to draw attention of the trained operator to the master instructions and directive regarding to handling or safety.

TAGS USED ON THE MACHINE

	Trademark plate of manufacturer company
	Logo plate of manufacturer company
MG 22 BS	Model name tag of the machine
	CE norm conformity tag
	Plate on capacity and technical information of the machine
	Machine user's and maintenance manual tag
	Handling and carrying hook tag
	Electricity panel warning tag
	Grounding output tag

INTRODUCTION

"MG 22 BS Portable Iron Bending Machine " is made only with the purpose of steel material bending. Using other than the indicated purposes are prohibited. It is possible to mount various apparatuses on the machine optionally for bending in different shapes.

In order to obtain the best yield from the machine it should be in a situation so that it can be worked easily and in a position that more productivity might be obtained from the operator. Because of this the location where the machine is operated should be close to the iron stocks. Besides, it shall be more useful to cover top of the location where the machine is operated with a shelter. We suggest two workbenches to be located on two sides of the machine. Length of these workbenches should be as long as the longest iron that will be bended. Since the operator will be able to work without turning, lifting any kind of iron, it will enable the operator to work more effectively.



Important Warning !!!

- User's and maintenance manuals must be read.
- Machine should be operated by instructed workers.
- When adjustments such as controlling, maintaining, lubing are being made electricity of the machine must be cut off.
- All of the explanations given under user's and maintenance manual must be complied.

1. MAIN PARTS OF BENDING MACHINE

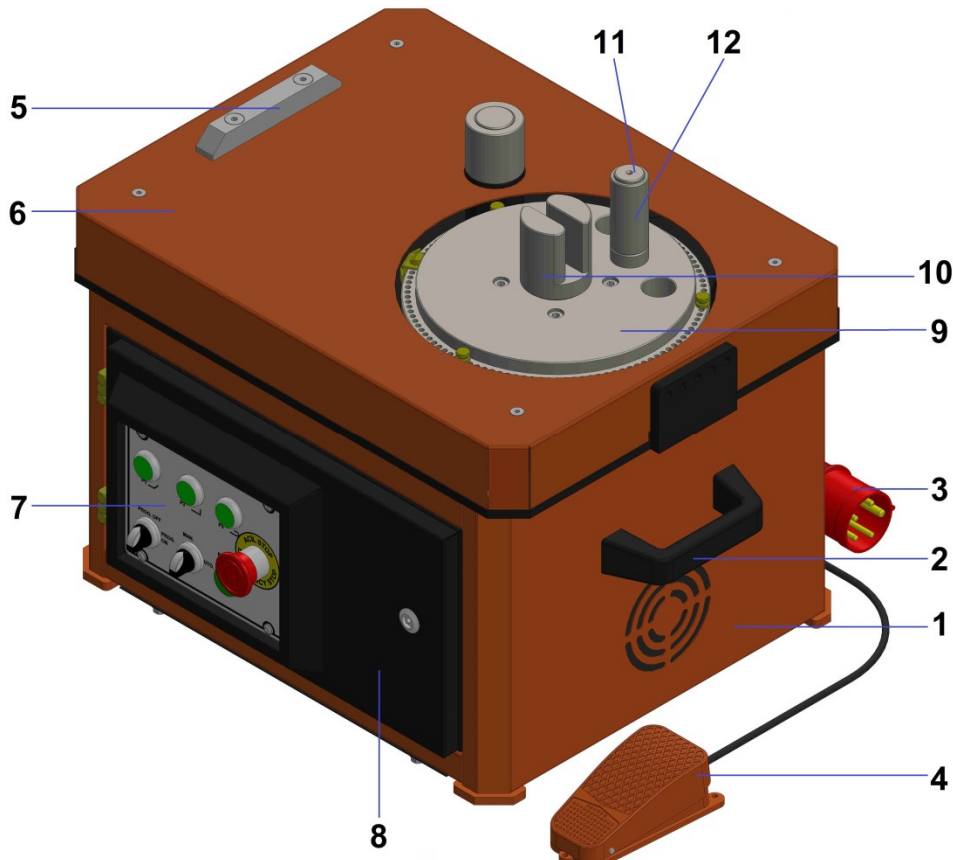


Figure 1: Main parts of bending machine

1	Machine Frame	4	Foot Pedal	7	Control Panel	10	Stirrup Head
2	Carrying Handle	5	Feeding Plate	8	Electricity panel	11	Straight Pin

3	Power Plug	6	Upper Casing	9	Bending Flange	12	Bending Sleeve
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2. MACHINE ASSEMBLY

- Machine should be leveled on a solid ground and fixed to the floor. (Figure:2)
- Electricity connection of the machine should be made by competent technicians.

Explanation:

Electricity Connection :

For main electricity connection plug should be connected to supply line with a 5x2.5 mm² isolated cable and then plugged into power outlet (approx. 25 m).

Grounding connection should be made for safety. Machine shouldn't be operated without making grounding connection.

Connection of Grounding Line:



The following procedures should be followed for this system.

Connect one end of the grounding to a copper wire (minimum 16 mm²) as it will enable electrical conductivity. The other end should be either connected with a pipe that has a conductivity capacity immersed into the ground (preferably into a humid ground) or the copper plate should be buried into the ground as much as deep.

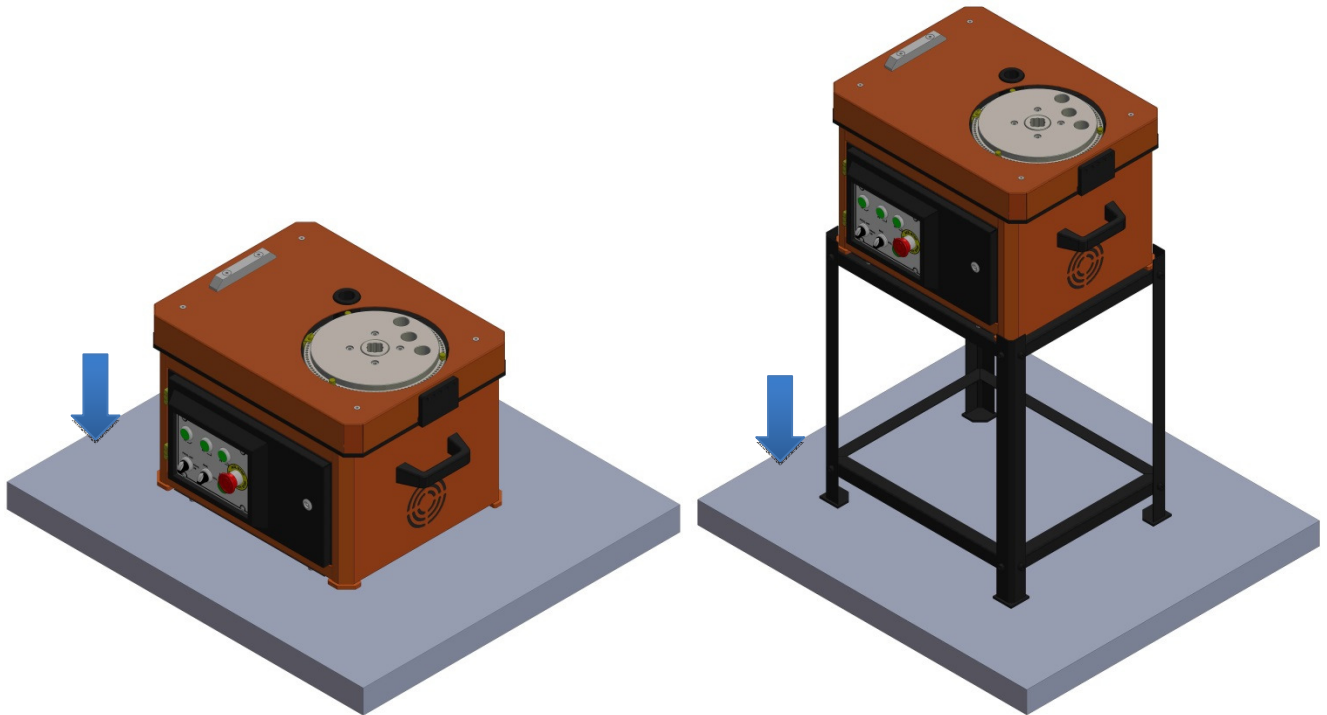


Figure 2: Leveling the machine on a solid ground

3. MACHINE RUNNING PROCEDURES ORDER

3.1. Powering on and Detecting the Rotation Direction:

- Be sure that the machine is assembled in conformance with the Machine Assembly procedures.
- If there is any object on the machine (including the bending apparatus) they must be removed.
- After the machine's power is plugged in (Figure:1 No:3) the electricity panel cover of the machine is opened (Figure:1 No:8) and main switch (Figure:3 No:14) is turned to position "1" from position "0" in order to run the machine. After this procedure for the digital models "ON-OFF" button is switched to position ON.
- After the machine is started ensure that for the manual models the power light is on and for the digital models the control panel lights are on.
- MAN AUTO switch on the control panel of the machine is turned to MAN position and machine turning direction should be confirmed by pressing on the foot pedal (Figure:1 No:4).
- Rotation direction is approved by taking the front of the machine as reference, clockwise of the bending flange in Figure:1 No:9 as right and counter-clockwise as left. Bending must be made on the machine with right rotation. If the bending flange is rotating to left when the machine is operated, it means electricity phases are coming to the main switch reversed. This situation doesn't effect the running system of the machine. In such cases change the LEFT-RIGHT positioning of your machine from control panel if your machine is digital or have competent electricians to change the direction of phases if your machine is manual.
- After fixing the direction of rotation bending adjustments should start.

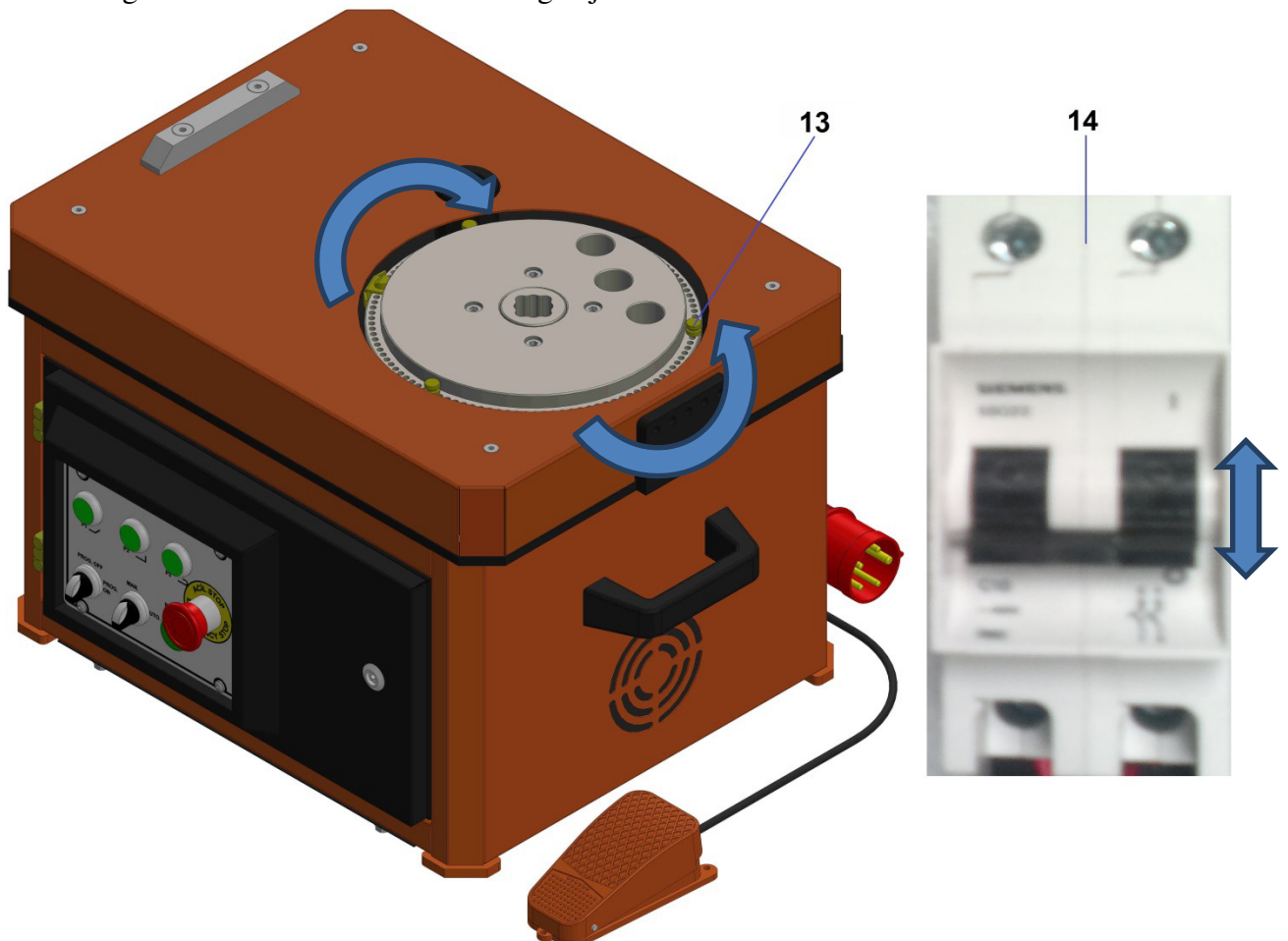


Figure 3: Detecting the rotation direction

13	Switch Pin	14	Main Switch
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3.2. Operating 380V Manual Machine:

- Connect the stirrup head, straight pin and bending sleeve (Figure:1 No: 10,11,12) fitting with the diameter of the iron you want to bend to their places on the bending flange.
- Adjust the angle you want to bend by using the holes around the bending flange with the switch pins (Figure:3 No:13) delivered with the machine.
- Press the compatible button choosing the desired bending type from the buttons on the machine's control panel (Figure: 4 No: 16, 17, 18).
- When making stirrup bending you can set max. 9 operations at once by switching the PROG. ON-OFF switch (Figure: 4 No: 19) "ON" position and you can use it at once according to the order you have set.
- After your settings are completed you can start serial bending by switching the MAN-AUTO switch (Figure:4 No:20) to AUTO position.
- You can stop the machine in emergency cases by pressing the emergency stop (Figure: 4 No: 22) button on the control panel. When you restart, the machine will return to the beginning of the operation where it had stopped.

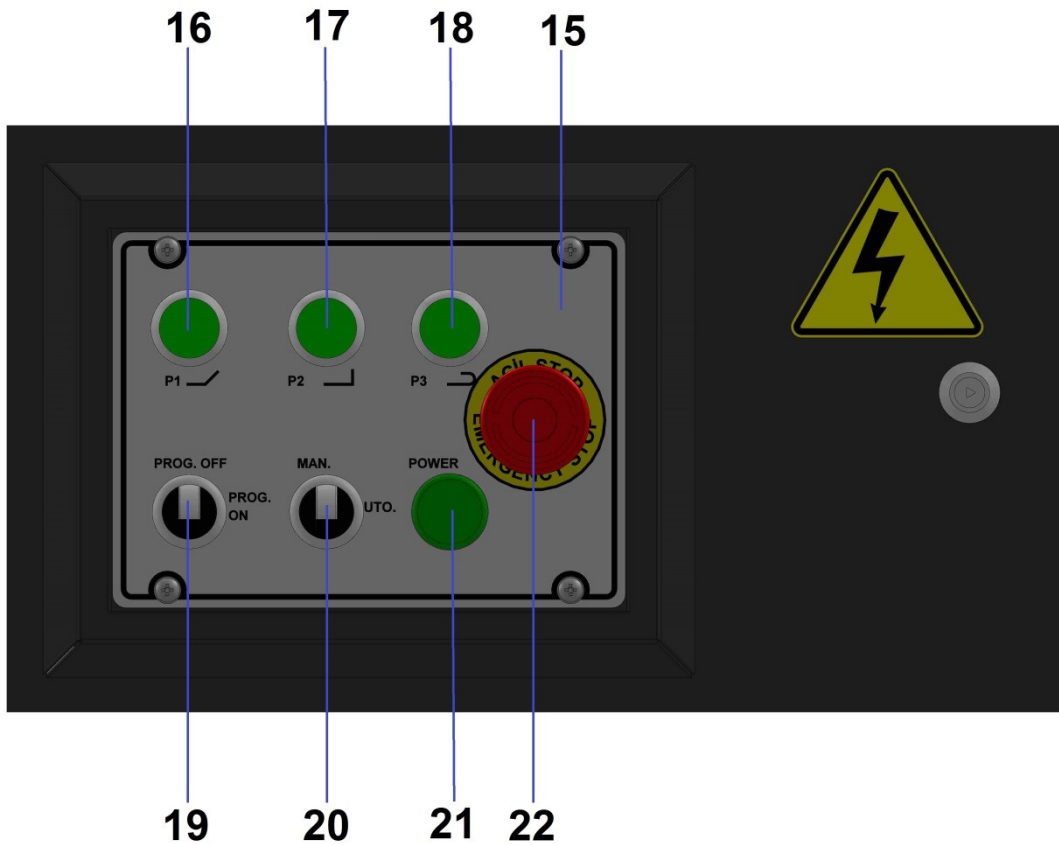


Figure 4: 380V Manual control buttons

15	Control Panel	17	P2 Button	19	Prog.On-Off	21	Power Lamp
16	P1 Button	18	P3 Button	20	Man-Auto Switch	22	Emergency Stop

3.3. Operating 220V Manual Machine

- Connect the stirrup head, straight pin and bending sleeve (Figure:1 No: 10,11,12) fitting with the diameter of the iron you want to bend to their places on the bending flange.
- Adjust the angle you want to bend by using the holes around the bending flange with the switch pins (Figure:3 No:13) delivered with the machine.
- Press the compatible button choosing the desired bending type from the buttons on the machine's control panel (Figure: 5 No: 24, 25, 26).
- Set the machine's operation rpm with the help of potentiometer (Figure: 5 No: 31). As the rpm decreases bending flange rotation speed will slow down and machine power will increase. As the rpm increases bending flange speed will be faster and machine power will decrease.
- When making stirrup bending you can set max. 9 operations at once by switching the PROG. ON-OFF switch (Figure: 5 No: 27) "ON" position and you can use it at once according to the order you have set.
- After your settings are completed you can start serial bending by switching the MAN-AUTO switch (Figure:5 No:28) to AUTO position.
- You can stop the machine in emergency cases by pressing the emergency stop (Figure: 5 No: 30) button on the control panel. When you restart, the machine will return to the beginning of the operation where it had stopped.

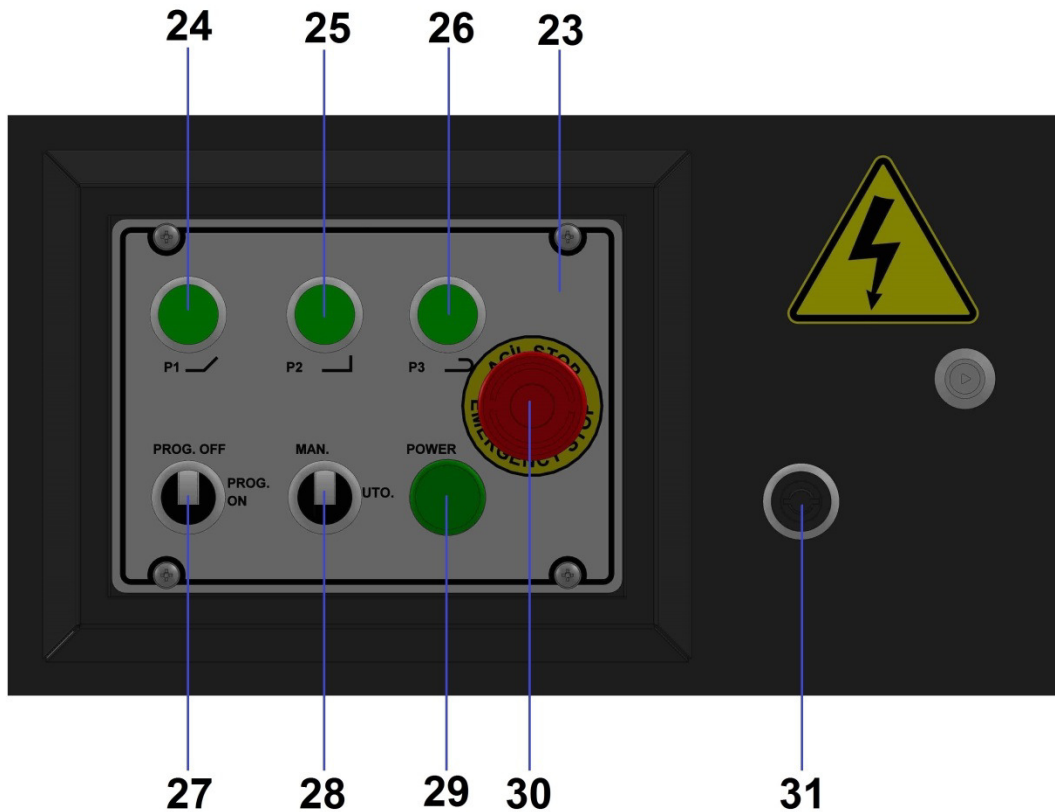


Figure 5 Manual control buttons

23	Control Panel	26	P3 Button	29	Power Lamp
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24	P1 Button	27	Prog.On-Off Switch	30	Emergency Stop
25	P2 Button	28	Man-Auto Switch	31	Potentiometer

3.4. Operating 380V Digital Machine:

- Connect the stirrup head, straight pin and bending sleeve (Figure:1 No: 10,11,12) fitting with the diameter of the iron you want to bend to their places on the bending flange.
- After pressing on SET button on the control panel, input the required set row values by pressing on PROG button. The required angel value is entered to angle indicator (Figure: 6 No: 37) with up and down arrow keys (Figure: 6 No: 39). Select the piece indicator (Figure: 6 No: 38) by pressing right arrow key and enter the number of pieces. After entering the angle and piece values, select the next SET row with down arrow key. After entering the values save the settings by pressing PROG button. Maximum 9 value might be entered in piece indicator for each set row.
- After your settings are completed you can start serial bending by switching the MAN-AUTO button (Figure:6 No:34) to AUTO position.
- The entered angle and the bent angle values might be different after the bending according to the quality of the iron, in such cases hold the up arrow key for 15 seconds. Angle indicator of Set3 row will show "100" or machine output setting "35" figures will be shown. You can recalibrate by pressing PROG button by changing the output value with the help of up and arrow keys as much as the angle difference.
- You can stop the machine in emergency cases by pressing the emergency stop (Figure: 6 No: 41) button on the control panel. When you restart, the machine will return to the beginning of the operation where it had stopped.

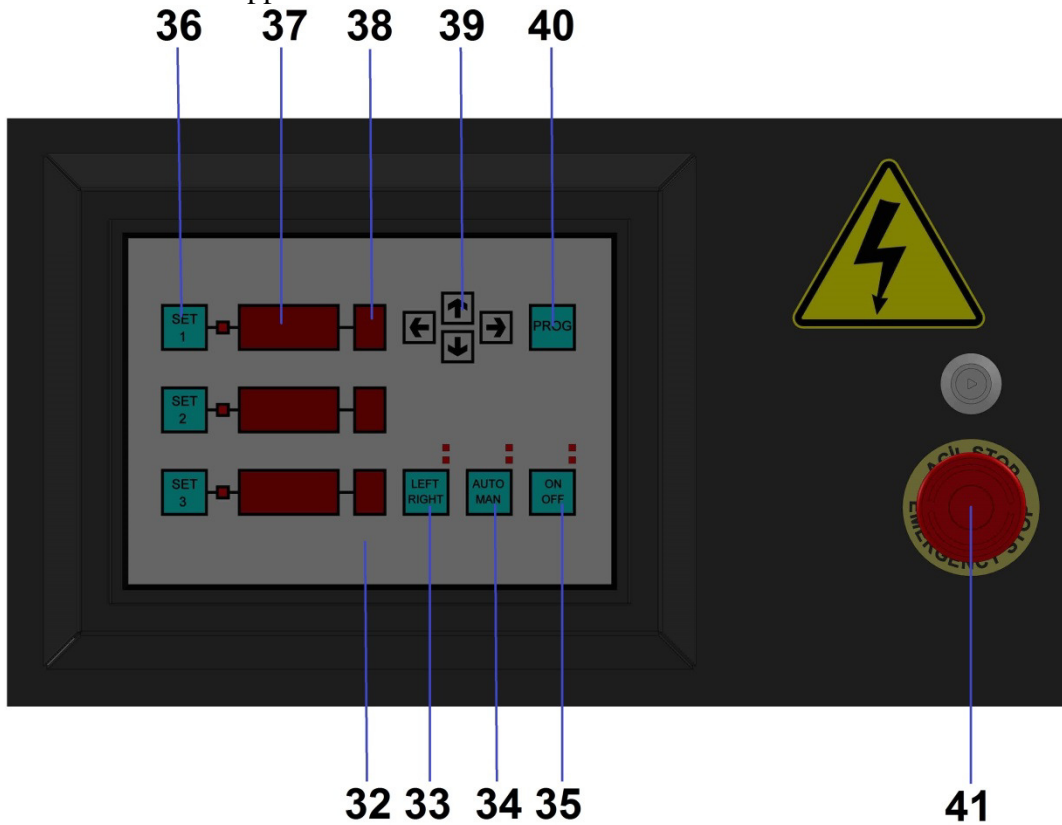


Figure 6 Digital control buttons

32	Control Panel	36	Set 1,2,3 Buttons	40	Prog. Button
33	Left-Right Button	37	Angle Indicator	41	Emergency Stop
34	Man-Auto Button	38	Unit Indicator		
35	On-Off Button	39	Other Direction Arrows		

3.5. Operating 220V Digital Machine:

- Connect the stirrup head, straight pin and bending sleeve (Figure:1 No: 10,11,12) fitting with the diameter of the iron you want to bend to their places on the bending flange.
- After pressing on SET button on the control panel, input the required set row values by pressing on PROG button. The required angel value is entered to angle indicator (Figure: 7 No: 49) with up and down arrow keys (Figure: 7 No: 47). Select the piece indicator (Figure: 7 No: 48) by pressing right arrow key and enter the number of pieces. After entering the angle and piece values, select the next SET row with down arrow key. After entering the values save the settings by pressing PROG button. Maximum 9 value might be entered in piece indicator for each set row.
- Set the machine's operation rpm with the help of potentiometer (Figure: 7 No: 52). As the rpm decreases bending flange rotation speed will slow down and machine power will increase. As the rpm increases bending flange speed will be faster and machine power will decrease.
- After your settings are completed you can start serial bending by switching the MAN-AUTO button (Figure:7 No:44) to AUTO position.
- The entered angle and the bent angle values might be different after the bending according to the quality of the iron, in such cases hold the up arrow key for 15 seconds. Angle indicator of Set3 row will show "100" or machine output setting "35" figures will be shown. You can recalibrate by pressing PROG button by changing the output value with the help of up and arrow keys as much as the angle difference.
- You can stop the machine in emergency cases by pressing the emergency stop (Figure: 7 No: 51) button on the control panel. When you restart, the machine will return to the beginning of the operation where it had stopped.

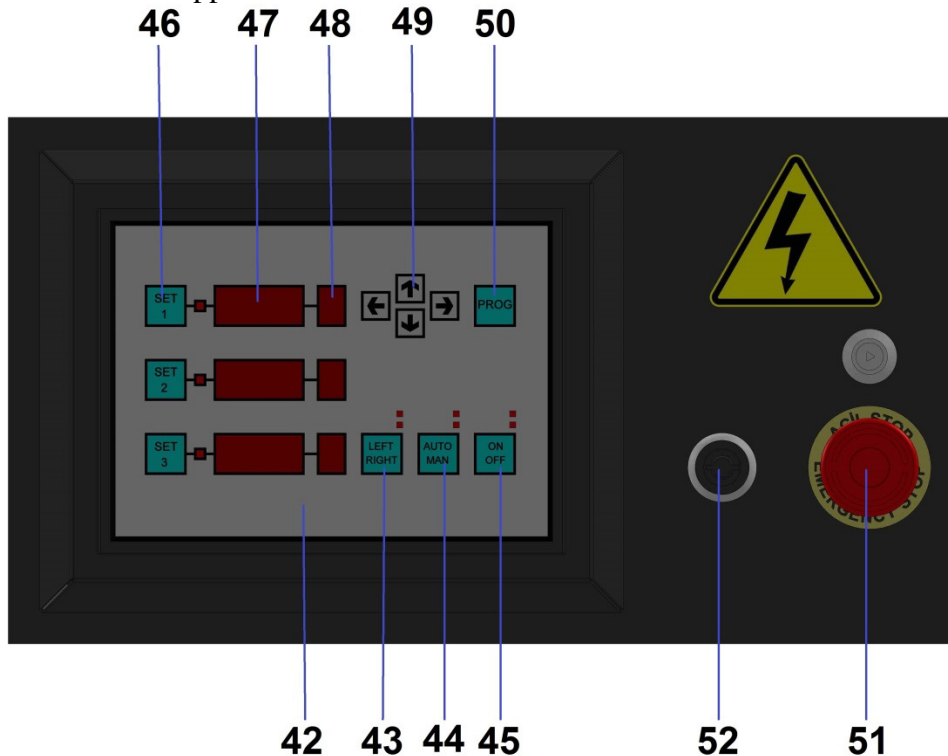


Figure 7 Digital control buttons

42	Control Panel	46	Set 1,2,3 Buttons	50	Prog. Button
43	Left-Right Button	47	Angle Indicator	51	Emergency Stop
44	Man-Auto Button	48	Unit Indicator	52	Potentiometer
45	On-Off Button	49	Other Direction Arrows		

4. TECHNICAL DATA

Machine Type : MG 22 BS
Machine Name : Portable Iron Bending Machine

4.1. Machine Bending Capacity:

Steel Quality	Diameter/Bending Capacity			
45 kg/mm ²	Ø 22x1	Ø 14x2	Ø 12x3	Ø 10x4
65 kg/mm ²	Ø 18x1	Ø 12x2	Ø 10x3	Ø 8x4
85 kg/mm ²	Ø 16x1	Ø 10x2	Ø 8x3	Ø 6x5

4.2. Machine Dimensions:

Length : 48 cm
Width : 60 cm
Height : 37 cm
Machine weight : 75 kg
Apparatus weight : 8 kg (including ruler)

Machine weight might have a max. difference of ± 2 kg according to the options 220 V or 380 V and Manual or Digital. The given value is an average value.

4.3. Machine Table Dimensions:

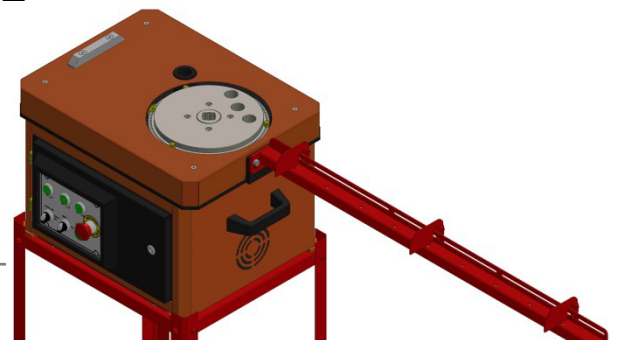
Length : 43 cm
Width : 52 cm
Height : 60 cm
Weight : 8 kg

4.4. Specifications of the Motor Used:

Motor Power : 1,5 kw
Motor RPM : 1450 rpm
Motor Voltage : 380/220 V
Motor Frequency : 50 Hz

5. EQUIPMENT SUPPLIED WITH MACHINE

Pin : 4 Pieces
Stirrup Head : 2 Pieces
Bending Sleeve : 4 Pieces

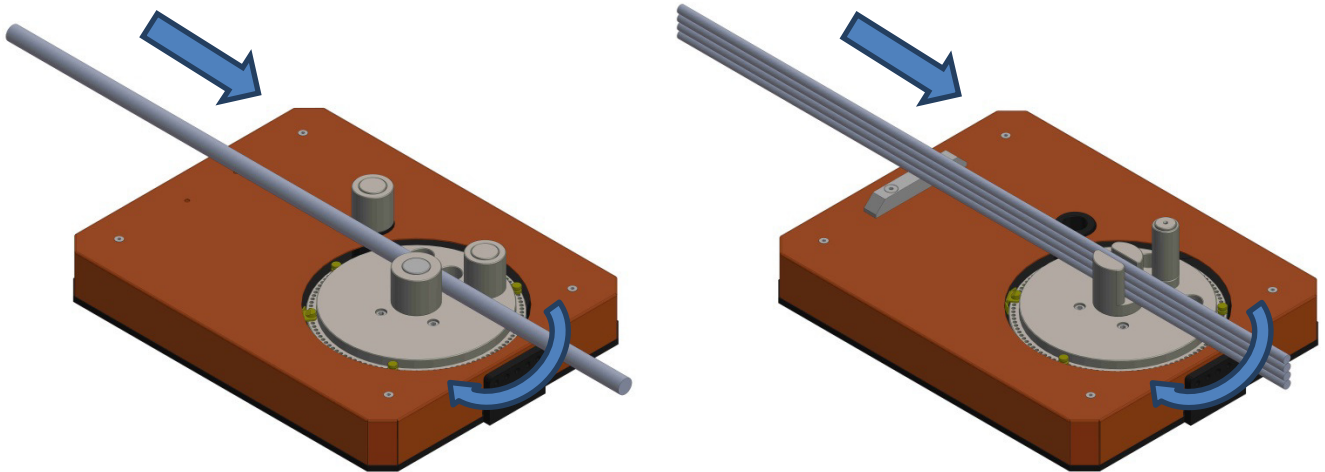


Switch Pin : 3 Pieces
 Machine Table : 1 Pc (optional)
 Ruler Docking : 1 Pc (optional)

Figure 8table and ruler docking

6. USING THE MACHINE

6.1. Correct Placement of the Iron to be bent on the machine

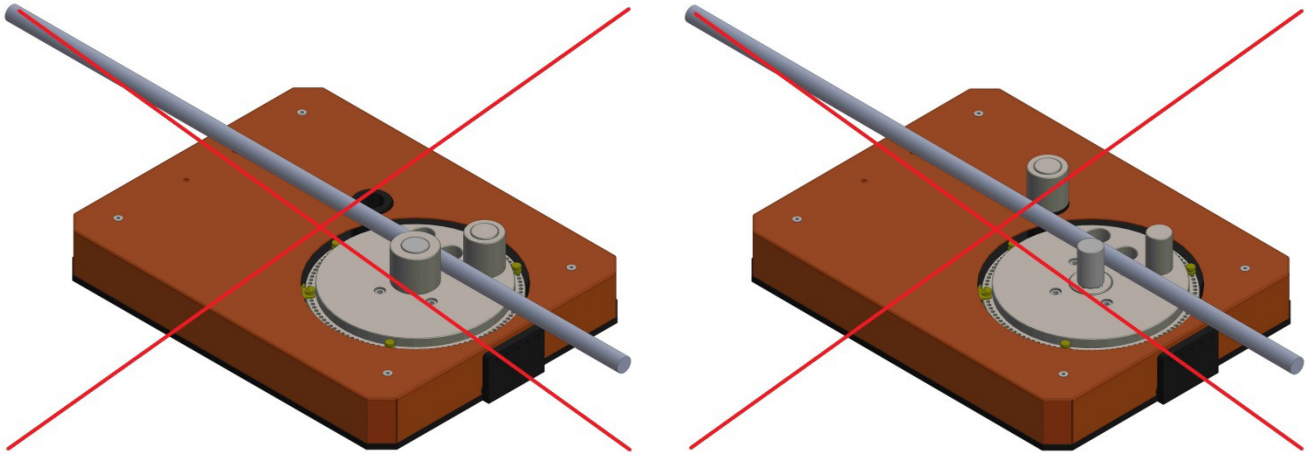


Correct fixing of iron on the machine with the help of bending apparatuses for single bending

Correct fixing of iron on the machine with the help of bending apparatuses for multi bending

Figure 9the irons on the machine correctly

6.2. Incorrect placement of the irons to be bent on the machine



Incorrect fixing of the iron on the machine without using retainer

Incorrect fixing of the iron on the machine without using bending sleeve

Figure 10placement of the irons on the machine

7. PROHIBITED USAGE ON THE MACHINE

- Machine mustn't be run when it is wet.
- No bending must be made other than the measurements, dimensions and units stated in the capacity.
- Machine mustn't be run when the electrical panel cover is open.
- Electrical settings made in the factory shouldn't be changed.
- Machine shouldn't be operated without making grounding connection.
- Machine shouldn't be operated when any part of the machine is dismantled.
- Machine should be operated by instructed workers.
- Machine never should be run unlubricated.
- Warning plates attached on the machine mustn't be removed.
- No other parts should be mounted to the machine other than the ones manufactured by Göçmaksan company.
- No bending must be made on the machine with skewed, deformed, cracked equipment.
- No wrong bending should be made on the machine. (Figure:10)
- Irons to be bent should be fixed on the machine correctly with the apparatuses. (Figure:9)
- Machine should be cleaned by air.
- In cases when electricity panel cover should be opened, the cap mustn't be opened without cutting the power of the machine from the main switch.
- When bending no one must stand around the machine and any one standing must be taken away.
- While the machine is running no any other construction material such as adze, hammer, meter, caliper etc. should be put between the bending apparatus other than the material that will be bent.

- During the multi bending number of irons stated on the capacity plate should be aligned one on top of the other. No any other bending should be made other than this.

8. SCOPE OF THE WARRANTY

Manufacturer acknowledges warranty and liability provided that complying with the following conditions.

- Protectors found on the machine should be used.
- Warning signs should be taken into account.
- Machine shouldn't be operated without making grounding connection.
- Parts manufactured by Göçmaksan company should be used in case it is required to replace a broken part.
- Conditions indicated under the safety measures should be taken into account.
- Prohibited usage should be taken into account.
- Machine should be assembled in conformance with the assembly conditions.
- Machine should be handled in conformance with the handling conditions.
- Machine should be used by informed and authorized person.
- Measurements, dimensions and steel quality stated in the capacity should be taken into account.
- Machine should be used in conformance with its manufacturing purpose.
- Electricity connection should be made by competent technicians.
- Machine shouldn't be used with any of the parts on it disassembled.
- Motor of the machine shouldn't be changed.
- Maintenance of the machine should be made in conformance with the maintenance conditions.
- Correct bending should be made with the machine. (Figure:9)

9. PROTECTORS TO BE USED WHEN WORKING WITH THE MACHINE

9.1. Protector apparel

- Helmet must be worn.
- Glasses must be worn.
- Boots with steel toe must be put on.
- Gloves must be worn.

The aforementioned protectors will be used. In case of not using these apparels there are risks of injury, cutting and trapping hands.

9.2. Work clothes:

Inappropriate clothes against snatch or grip while working with the machine are listed below and in case of not conforming with this list might cause risk of injury.

Long hair, dress with long arms, bracelet, uniform with long skirt, any ornament leaning out.

10. HANDLING THE MACHINE

It is possible to carry the machine with manpower. Forklift should be used only when the machine is inside the chest. In order to carry the machine inside the chest a wedge should be placed under the machine to prevent wheels touching to the floor of the chest. During the lifting operations experienced expert staff and subcontractors should be assigned.



- Machine should be moved without any vibration. Machine shouldn't be run in a wet environment. If there are any lost or damaged parts during the handling, they should be reported to the manufacturer.
- When using the lifting and carrying equipments their maximum loading capacities should be taken into consideration.
- During the lifting equipment's center of gravity should be taken into consideration.
- Warning signs on the carrier equipment should be taken into consideration.

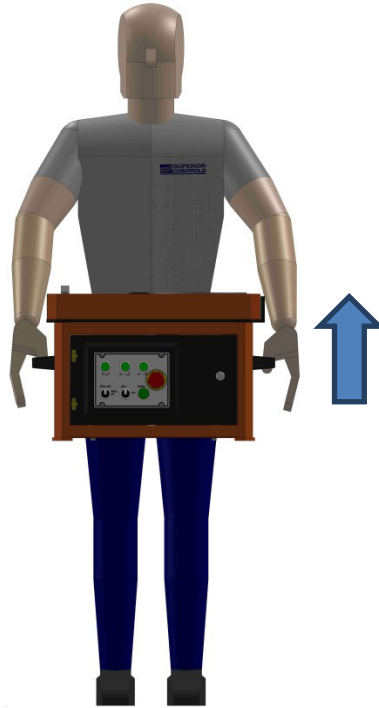


Figure 11: Handling the machine

11. CONTROLS AND SETTINGS ON THE MACHINE

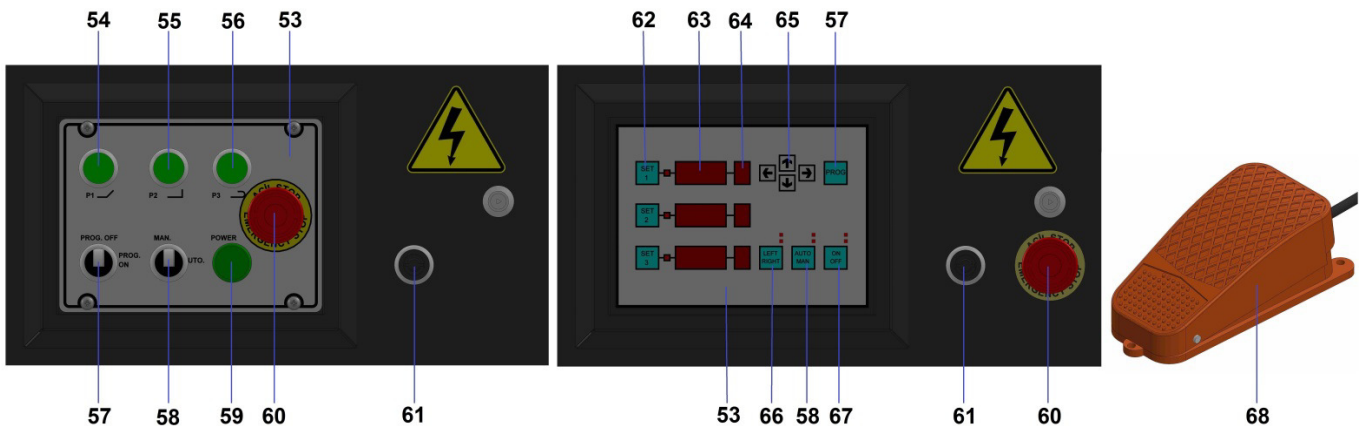


Figure 12 Machine control panel and functions

NO	BUTTON	FUNCTION
53	Control Panel	It is the panel where the electricity control equipment are located.
54	P1	It ensures settings for bent bar.

55	P2	It ensures settings for protector bending.
56	P3	It ensures settings for hook bending.
57	Prog. On - Off	It ensures to turn on and off stirrup mode.
58	Man - Auto	It provides machine to be controlled automatically or manually.
59	Power	It is turned on when electricity is supplied to the system when on button is pressed.
60	Emergency Stop	It stops the running system in emergency cases.
61	Potentiometer	It sets the machines rpm and power.
62	SET 1-2-3	They are the rows where bending values are entered. It is the same function with P1-P2-P3.
63	Angle Cell	The section where the bending angles are determined.
64	Quantity Cell	The section where the quantity of irons to be bent is determined.
65	Function Arrows	It ensures moving between the functions and inputing the numerical values.
66	Left - Right	It changes machine's rotation direction to left or right.
67	On - Off	It provides machine system to engage or disengage.
68	Foot Pedal	Electrical machine part ensuring movement of bending flange.

11.1. Thermal flow setting range and motor protection switch:

The machine is adjusted according to 10,2 A' which is appropriate for 1,5 kw 1450 rpm by the manufacturer from factory taking the appropriate criteria as basis by considering the bending feature. It isn't favorable for user to change the settings made.

Motor protection switch is mounted to the machine in order to prevent damage on the system by cutting the electricity current when excessive current is drawn by the system. If the switch is tripped switch should be turned on by turning the button to position "1". Motor protection switch should never be disassembled in any other case. (Figure:13)

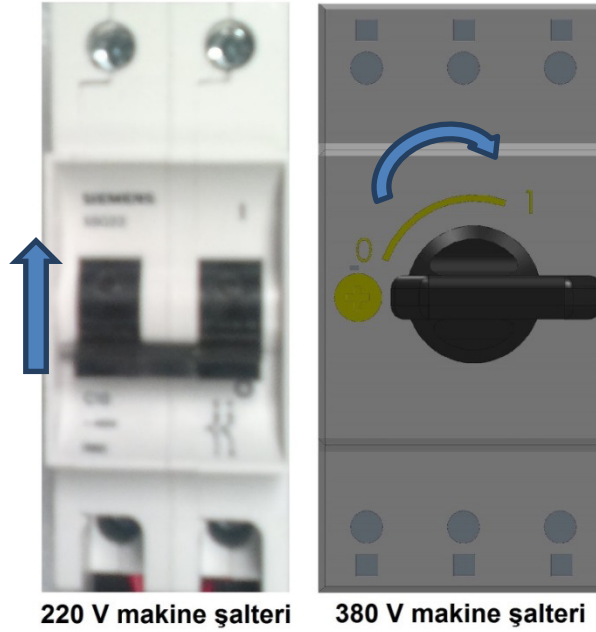


Figure 13: Motor protection switch

11.2. Hook Bending Settings (P3)

Rotation direction should be checked by taking the machine to MAN position. After completing these controls, there are three SWITCH setting pins with same height on the bending flange. In order to make hook bending on the machine, appropriate bending angle should be set by moving the SWITCH pin on the bending flange backward and forward in the setting holes. (As the SWITCH pin gets closer to the sensor the bending angle decreases, and it increases as the pin moves far away.) Press the P3 button on the control panel. PROG button should be pressed on the digital models after entering "180" value to angle cell and "1" value to the quantity cell in SET1 row. After the setting is completed mount the suitable stirrup head on the center of the shaft where bending flange is mounted. Place one of the appropriate bending sleeves on the pin by mounting the straight pin into the holes over the bending flange by ensuring the appropriate space according to the thickness of the iron you will bend. Place the iron to be cut on the machine. Lastly when the bending flange returns after bending the iron it should be mounted on the stirrup head with suitable channel for safety to prevent any injury due to movement of the iron. For serial bending machine should be taken to AUTO position afterwards bending should be made. (Figure:9-14)

EXPLANATION: When the machine is at the MAN position the bending disk revolves, after bending is completed and the machine is on the holding position it stops. When the machine is at the AUTO position bending disk stops at holding position by completing the bending just pressing the Foot Pedal only once. Furthermore when the machine is at the AUTO position, Bending Disc might be stopped by holding the Foot Pedal pressed when returning after the bending process is completed.

When the foot pedal is released it restarts to move on the direction it stopped and stops at the zero point. To change settings by pressing P1-P2-P3 buttons the cases when settings needed to be changed, bending process of the machine should be completed and then the machine should be stopped and after that the required button should be pressed to change settings. Otherwise you cannot change settings when the buttons are pressed.

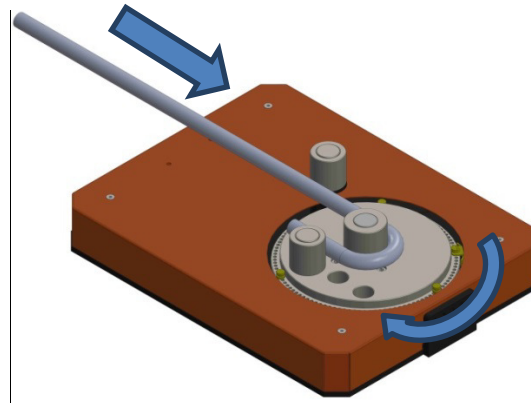


Figure 14 Hook bending settings

11.3. Protector Bending : (P2)

It should be made with the same method carried out in hook bending by pressing the P2 button on the control panel.

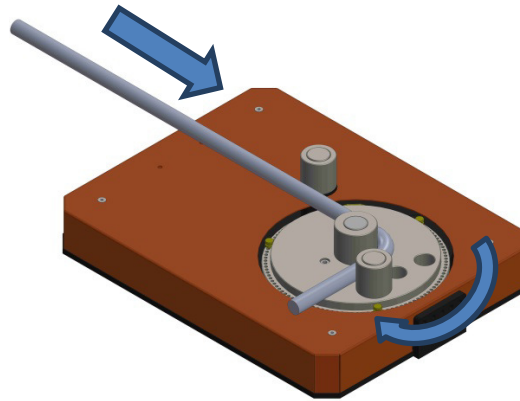


Figure 15: Protector bending setting

11.4. Bent Bar Bending: (P1)

It should be made with the same method carried out in hook bending by pressing the P1 button on the control panel.

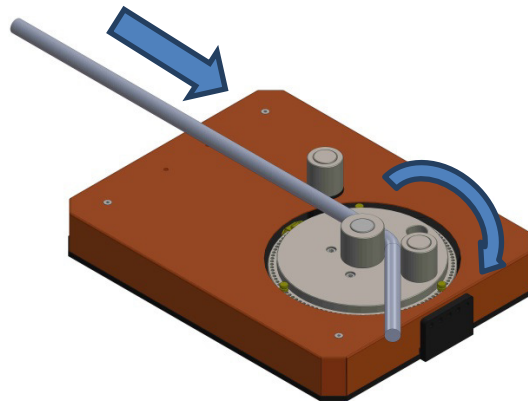


Figure 16: Bent bar bending setting

11.5. Stirrup Bending :

On manual models, the first setting should be made for tip bending of the iron that will be made stirrup with a bending angle of 135° via setting method in the hook bending by pressing P3 hook bending button on the control panel. Afterwards the second bending setting should be made with a bending angle of 90° by pressing P2 protector bending button. Afterwards, Prog On-Off switch is positioned to ON and respectively press one time to P3 button three times to P2 button and again one time to P3. For digital models press PROG button after entering the values 135 to the angle cell, 1 to the unit cell on Set1 row, 90 to the angle cell, 3 to the unit cell on Set2 row, 135 to the angle cell 1 to the unit cell. After the setting procedure is completed (Figure: 17) bending order is followed and stirrup bending should be completed.

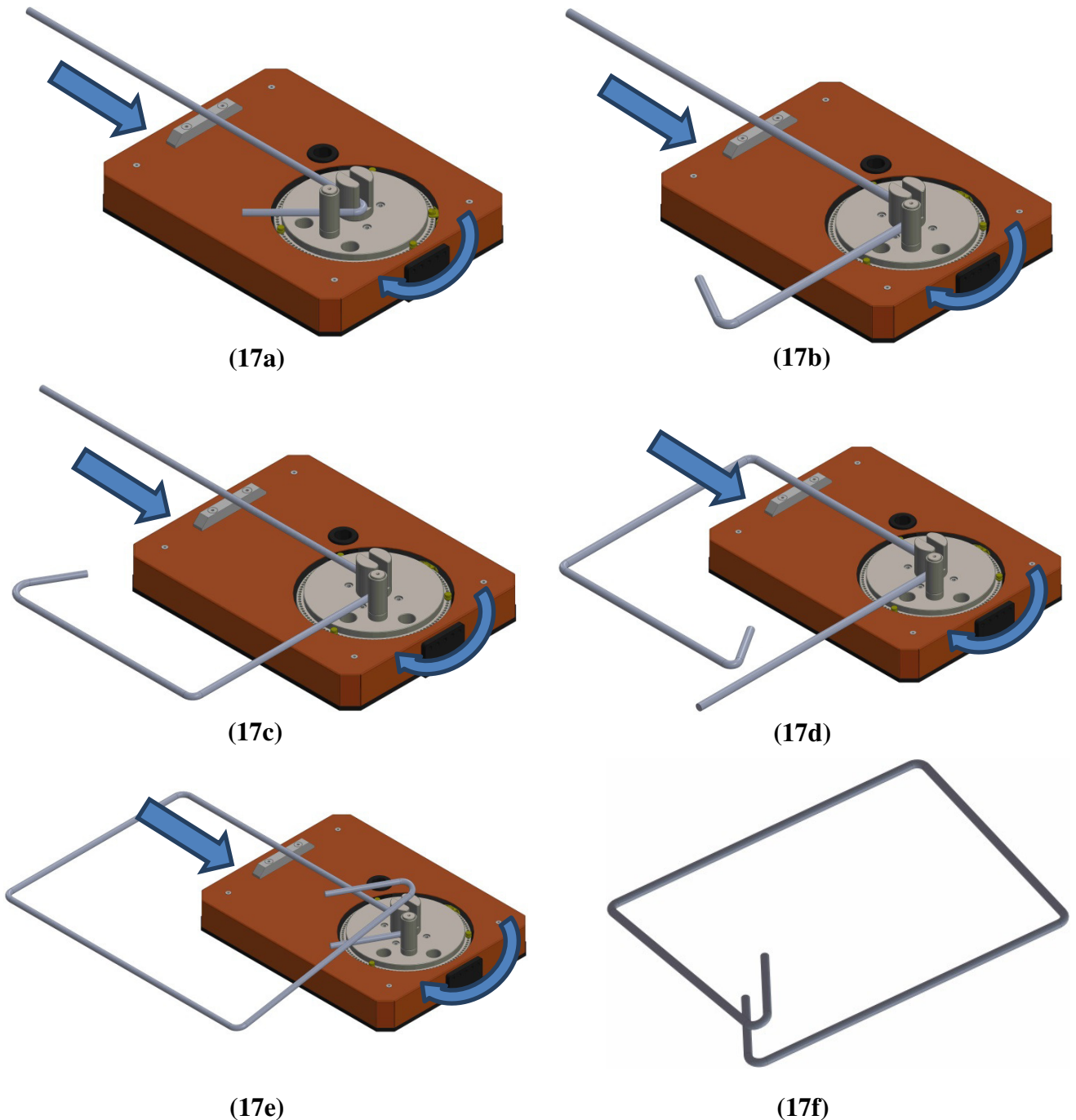


Figure 17 Stirrup bending setting

12. MAINTENANCE AND LUBRICATION INSTRUCTIONS

It is important to make maintenance correctly in order to extend service life of the machine and to ensure safe bending. We suggest for each user to set up a secure system for control and maintenance of the machine. The following descriptions are given for reference. Grease oil is used in machine's reductor unit.

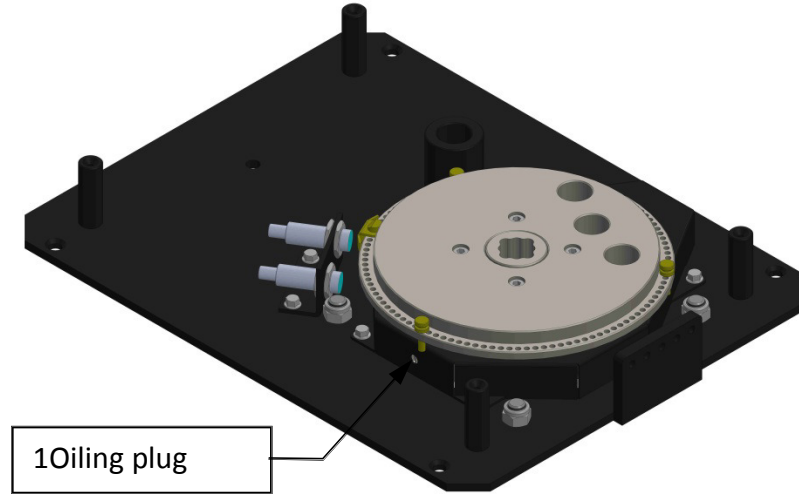


Figure 18: Maintenance and lubrication of machine

12.1. Daily maintenance of the machine:

- Clean dust and scales on the machine with a brush.
- If the machine is running outdoors it must be protected from rain water when raining.
- Machine should be checked if there is extraordinary voice or not.

12.2. Weekly maintenance of the machine:

- Machine should be lubricated after cleaning the bending apparatuses and moving parts.

12.3. Monthly maintenance of the machine:

- Bending apparatuses should be checked and any cracked or skewed parts mustn't be used.
- Reductor should be checked if there is oil leakage or not.
- Machine's sensor display should be checked if it has dirt on it or not and also the lamp behind it should be checked if it is working or not.

12.4. Semi-annual maintenance of the machine:

- All the bolt connections of the machine should be checked.

12.5. Annual maintenance of the machine:

- Oil of the machine should be changed.
- If it is out of order seals and bearings should be changed.
- Any skewed, cracked, worn parts should be checked and replaced.

13. FAULTS AND SOLUTION OFFERS

Any faults those might arise when running the machine, and their causes and solutions are given in the table below.



WARNING!!!

In order to fix the faults and determine the electricity malfunction if it is required to open the power panel power connection of the machine should be turned off by switching the main switch to "0" positions and competent technicians should make the maintenance.

NO	FAULT	DESCRIPTION	SOLUTION
1.	Machine isn't running:	<ol style="list-style-type: none"> 1. Missing phase might come to the electric supply system where the machine is connected. 2. Emergency stop button might be pressed. 3. Motor protection switch might be blown. 4. LEFT STOP RIGHT switch might be turned off. 5. Electrical Panel Cover might be open or not closed completely. 6. STOP SLOW FAST switch might be in STOP position. 	<ol style="list-style-type: none"> 1. Check the phases. 2. Check the button. If it is pressed open it by turning to the direction of the arrow on the button. 3. Check the motor protection switch. If the switch is blown turn it to the position 1. 4. Check the switch. If it is on stop position turn it to right or left positions. 5. Check the Electrical Panel Cover. 6. Check the switch, if it is off turn it to SLOW or FAST position according to your preferences.
2.	Motor protection switch is blowing continuously.	<ol style="list-style-type: none"> 1. Motor might be blown. 2. If the machine is bending iron over its bending capacity: 3. Missing phase might come to the electric supply system. 4. Transformer might be blown. 5. There might be short circuit or wearing on the cables. 	<ol style="list-style-type: none"> 1. Check the motor. 2. Check the bent iron according to the material type and measurements on the capacity plate. 3. Check the phases on the electricity network. 4. Check the transformer. 5. Check the cable and connections.
3.	Machine is not running although the foot pedal is pressed.	<ol style="list-style-type: none"> 1. The plug might be displaced. 2. Pedal SWITCH might be out of order. 3. Contactors in the electricity network might be out of order. 	<ol style="list-style-type: none"> 1. Check the plug. 2. Check the SWITCH. Change them if they are out of order. 3. Check the contactors.
4.	Emergency Stop is not running.	<ol style="list-style-type: none"> 1. Emergency stop contact might be out of order. 2. Cable Connections might be unplugged. 	<ol style="list-style-type: none"> 1. Change the emergency stop button. 2. Check the cable connections.
5.	Machine is making noise.	<ol style="list-style-type: none"> 1. Bearings might be broken down. 2. Motor's propeller cap might be rubbing. 3. Gears might be broken down. 4. There might be no oil in the reductor. 5. Missing phase might come to the electric supply system which the machine is connected. 6. Machine might having difficulty over its capacity. 	<ol style="list-style-type: none"> 1. Check the bearings. 2. Check the propeller cap. 3. Check the gears. (In the reductor and gear group) 4. Check the reductor oil. 5. Check the phases in the network. 6. Check the bent iron according to the capacity plate. 7. Oil must be added inside the reductor

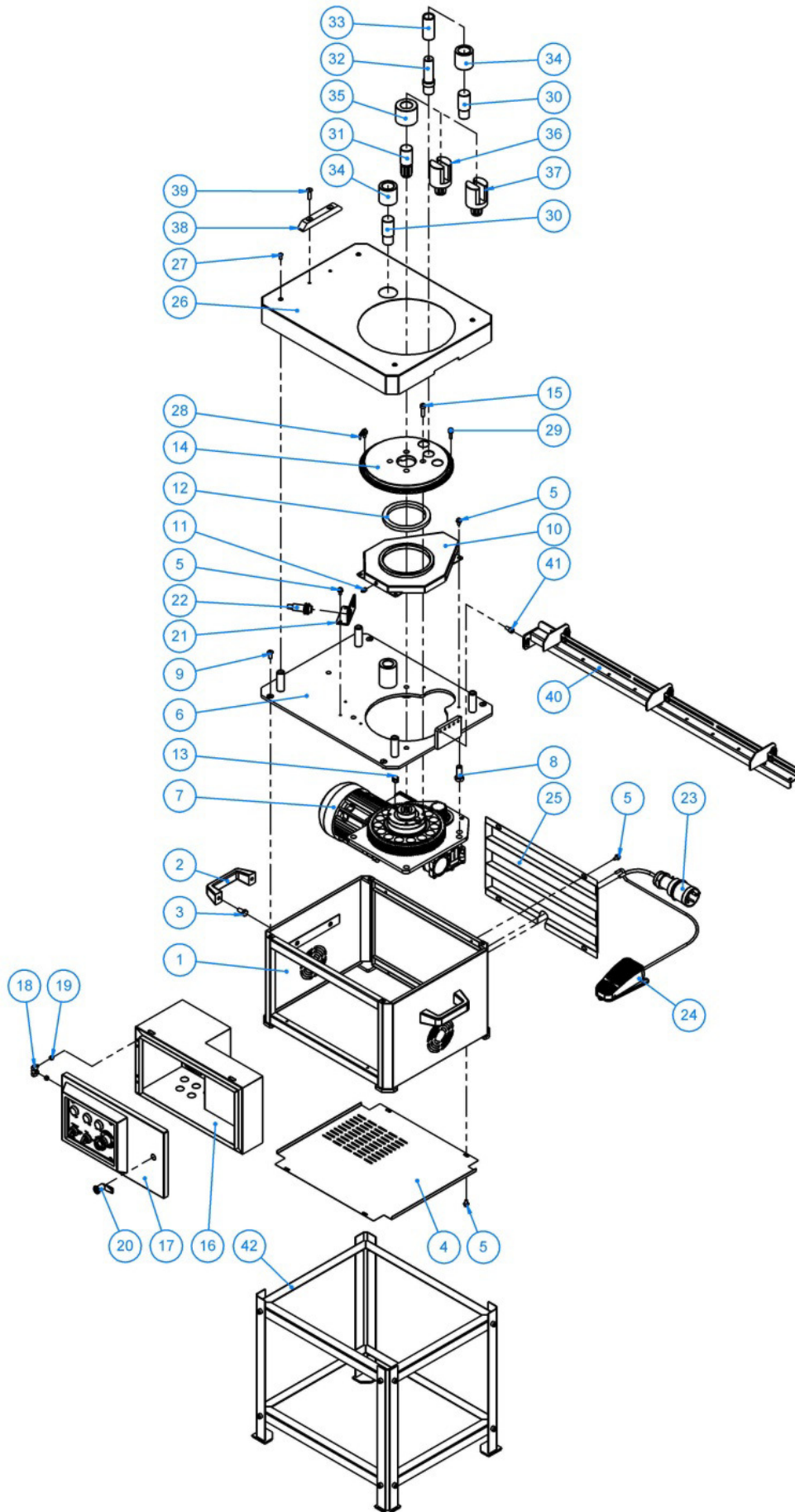
		7. Gears might be unlubricated.	
6.	Machine is leaking oil.	1. Motor seal might be leaking oil. 2. Reductor connection bolts might be loose.	1. Check the motor from the propeller side. If there is oil, change the motor seal. 2. Check the connection bolts and if loose screw.

14. MACHINE EQUIPMENT LIST

NO	PART NUMBER	PART'S NAME	PIECE
1	MG22BS-01	MACHINE FRAME	1
2	MG22BS-02	CARRYING HANDLE	2
3	MG22BS-03	M10X20 AA BOLT	4
4	MG22BS-04	LOWER CASE COVER	1
5	MG22BS-05	M6X12 CAP SCREW	18
6	MG22BS-06	UPPER FRAME	1
7	MG22BS-07	ADDITIONAL REDUCTOR	1
8	MG22BS-08	M14X35 AA BOLT	4
9	MG22BS-09	M8X20 FLUSH SCREW	4
10	MG22BS-10	GEAR CASING	1
11	MG22BS-11	3/8" GREASE CUP	1
12	MG22BS-12	Ø130XØ105X10 SEAL	1
13	MG22BS-13	WEDGE 12X12X15	2
14	MG22BS-14	BENDING FLANGE	1
15	MG22BS-15	M8X30 INBUS BOLT	4
16	MG22BS-16	ELECTRICAL PANEL	1
17	MG22BS-17	ELECTRICAL PANEL CAP	1
18	MG22BS-18	HINGE	2
19	MG22BS-19	M6 NUT	6
20	MG22BS-20	COVER LOCK	1
21	MG22BS-21	SENSOR ANGLE	1
22	MG22BS-22	SENSOR	2
23	MG22BS-23	POWER PLUG	1
24	MG22BS-24	FOOT PEDAL	1
25	MG22BS-25	BACK MAINTENANCE COVER	1
26	MG22BS-26	UPPER CASING	1
27	MG22BS-27	M6X15 FLUSH SCREW	4
28	MG22BS-28	ZERO PIN	1
29	MG22BS-29	SWITCH PIN	3

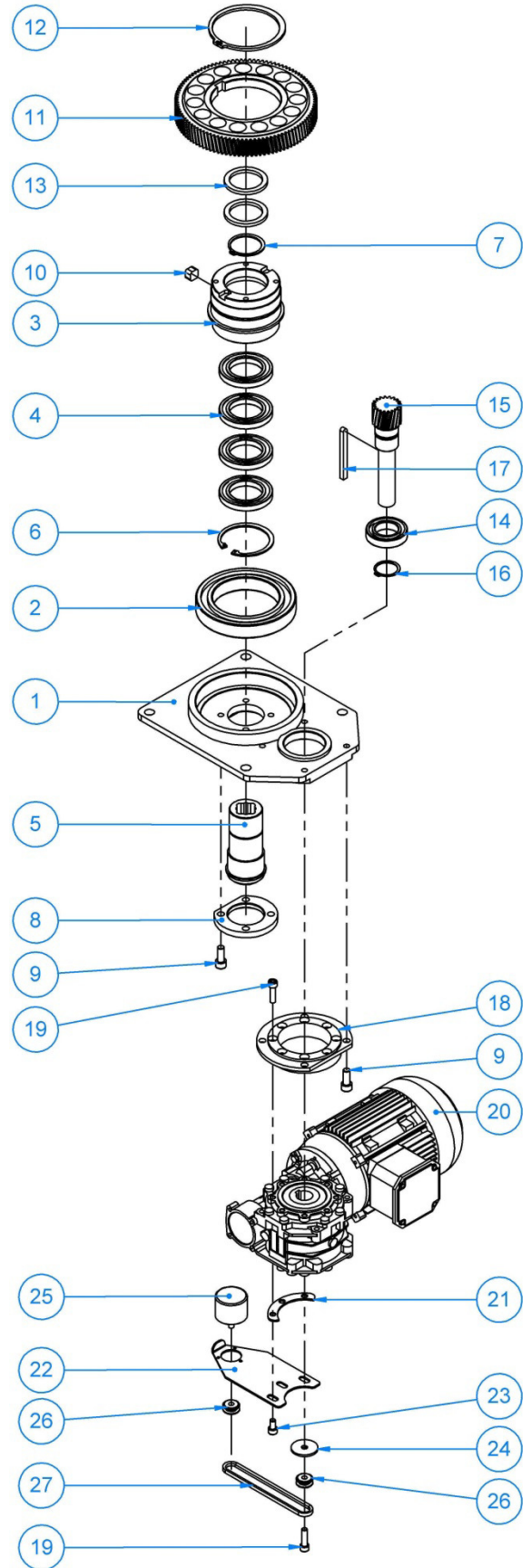
30	MG22BS-30	PİN	2
31	MG22BS-31	STİRRUP PİN	1
32	MG22BS-32	STRAİHT PİN	1
33	MG22BS-33	Ø32 BENDING SLEEVE	1
34	MG22BS-34	Ø50 BENDING RİNG	2
35	MG22BS-35	Ø60 BENDING RİNG	1
36	MG22BS-36	8mm STİRRUP HEAD	1
37	MG22BS-37	10mm STİRRUP HEAD	1
38	MG22BS-38	IRON FEEDİNG PLATE	1
39	MG22BS-39	M8X30 FLUSH SCREW	2
40	MG22BS-40	RULER DOCKING	1
41	MG22BS-41	M8X16 INBUS BOLT	2
42	MG22BS-42	MACHINE TABLE	1

15. MACHINE ASSEMBLY



16. REDUCTOR PART CATALOGUE

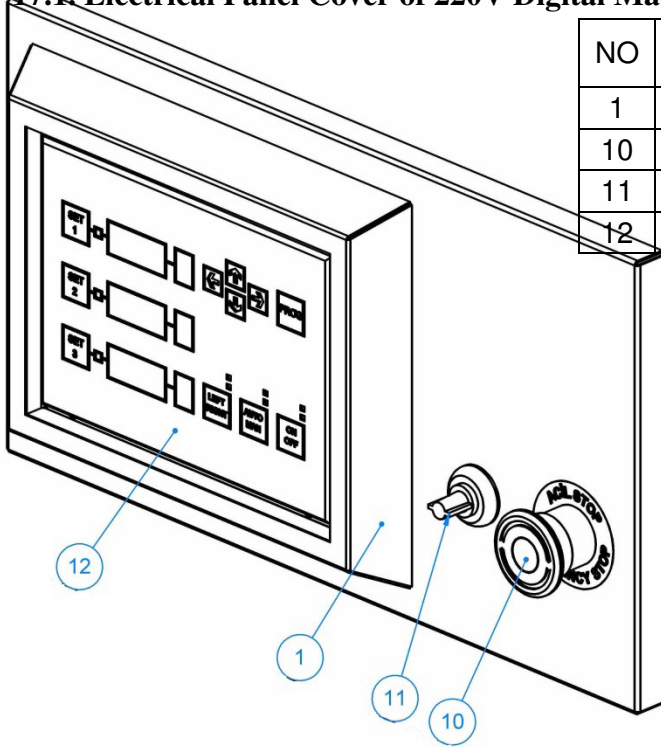
NO	PART NUMBER	PART'S NAME	PIECE
1	MG22BS-07-01	REDUCTOR TABLE	1
2	MG22BS-07-02	BEARING 6020	1
3	MG22BS-07-03	GEAR SHELL	1
4	MG22BS-07-04	BEARING 16010	4
5	MG22BS-07-05	OUTPUT SHAFT	1
6	MG22BS-07-06	Ø80 RING-C	1
7	MG22BS-07-07	Ø50 ROD RING	1
8	MG22BS-07-08	FIXING CAP	1
9	MG22BS-07-09	M10X25 INBUS BOLT	8
10	MG22BS-07-10	GEAR WEDGE	1
11	MG22BS-07-11	HELİS GEAR	1
12	MG22BS-07-12	Ø105 ROD RING	1
13	MG22BS-07-13	Ø50XØ65X8 SEAL	2
14	MG22BS-07-14	6007 BEARING	1
15	MG22BS-07-15	CONICAL GEAR	1
16	MG22BS-07-16	Ø35 ROD RING	1
17	MG22BS-07-17	8X7X100 WEDGE	1
18	MG22BS-07-18	REDUCTOR CONNECTION FLANGE	1
19	MG22BS-07-19	M8X30 INBUS BOLT	9
20	MG22BS-07-20	WORM REDUCTOR	1
21	MG22BS-07-21	REAR WASHER	1
22	MG22BS-07-22	ENCODER PLATE	1
23	MG22BS-07-23	M8X15 INBUS BOLT	3
24	MG22BS-07-24	CENTRAL WASHER	1
25	MG22BS-07-25	ENCODER	1
26	MG22BS-07-26	ENCODER SHAFT	2
27	MG22BS-07-27	6X360 BELT	1



* PARTS 21,22,23,24,25,26,27 ARE USED FOR DIGITAL MODELS.

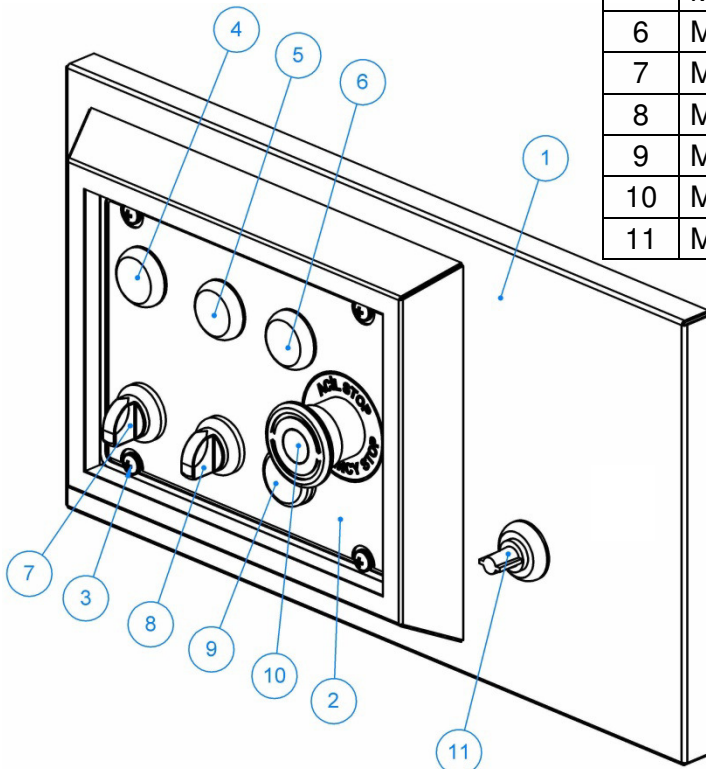
17.ELECTRICAL PANEL COVER PART CATALOGUE

17.1. Electrical Panel Cover of 220V Digital Machine:



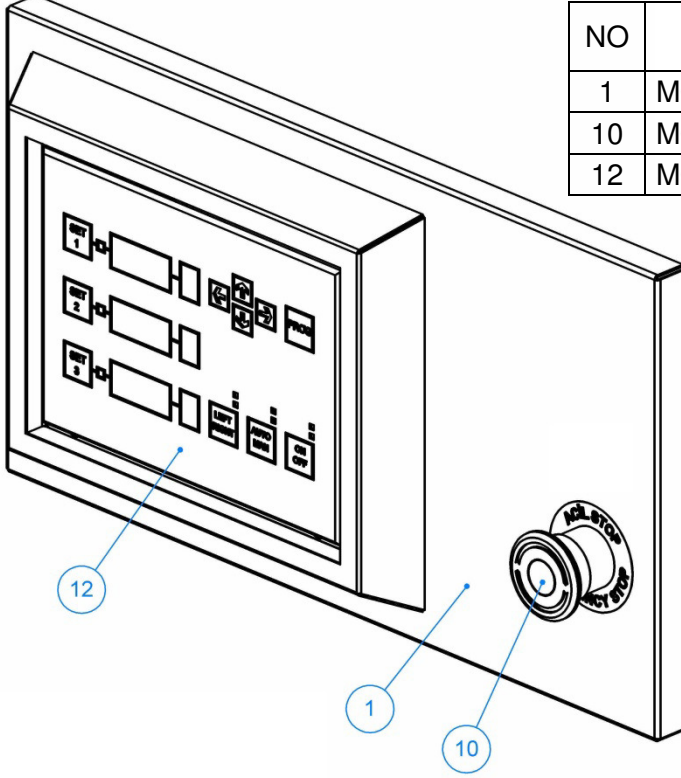
NO	PART NUMBER	PART'S NAME	PIECE
1	MG22BS-17-01	COVER BODY	1
10	MG22BS-17-10	EMERGENCY STOP	1
11	MG22BS-17-11	RPM SETTING BUTTON	1
12	MG22BS-17-12	CONTROL PANEL	1

17.2. Electrical Panel Cover of 220V Digital Machine:



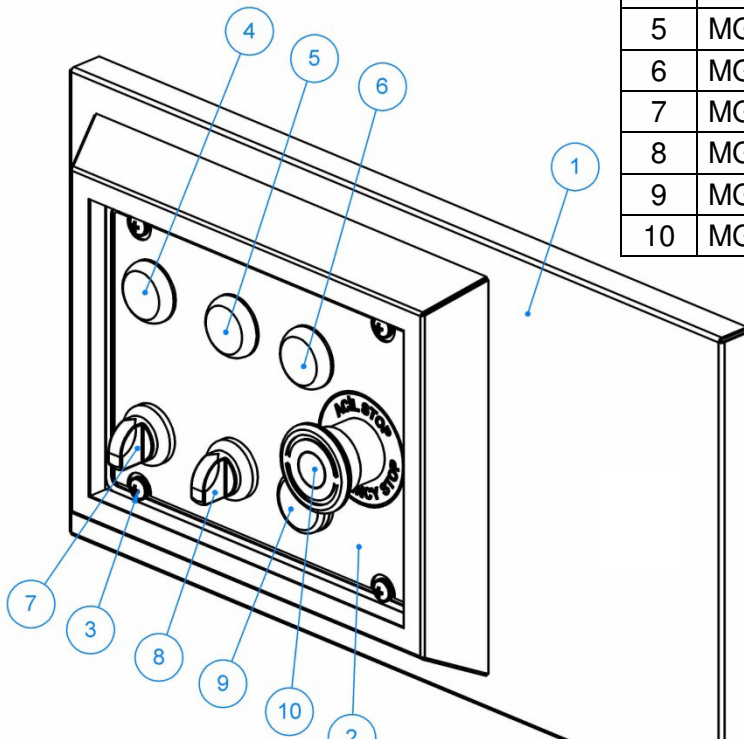
NO	PART NUMBER	PART'S NAME	PIECE
1	MG22BS-17-01	COVER BODY	1
2	MG22BS-17-02	PANEL SHEET	1
3	MG22BS-17-03	PANEL BOLT	4
4	MG22BS-17-04	P1 BUTTON	1
5	MG22BS-17-05	P2 BUTTON	1
6	MG22BS-17-06	P3 BUTTON	1
7	MG22BS-17-07	PROG ON-OFF SWITCH	1
8	MG22BS-17-08	MAN-AUTO SWITCH	1
9	MG22BS-17-09	POWER LAMP	1
10	MG22BS-17-10	EMERGENCY STOP	1
11	MG22BS-17-11	RPM SETTING BUTTON	1

17.3. Electrical Panel Cover of 380V Digital Machine:



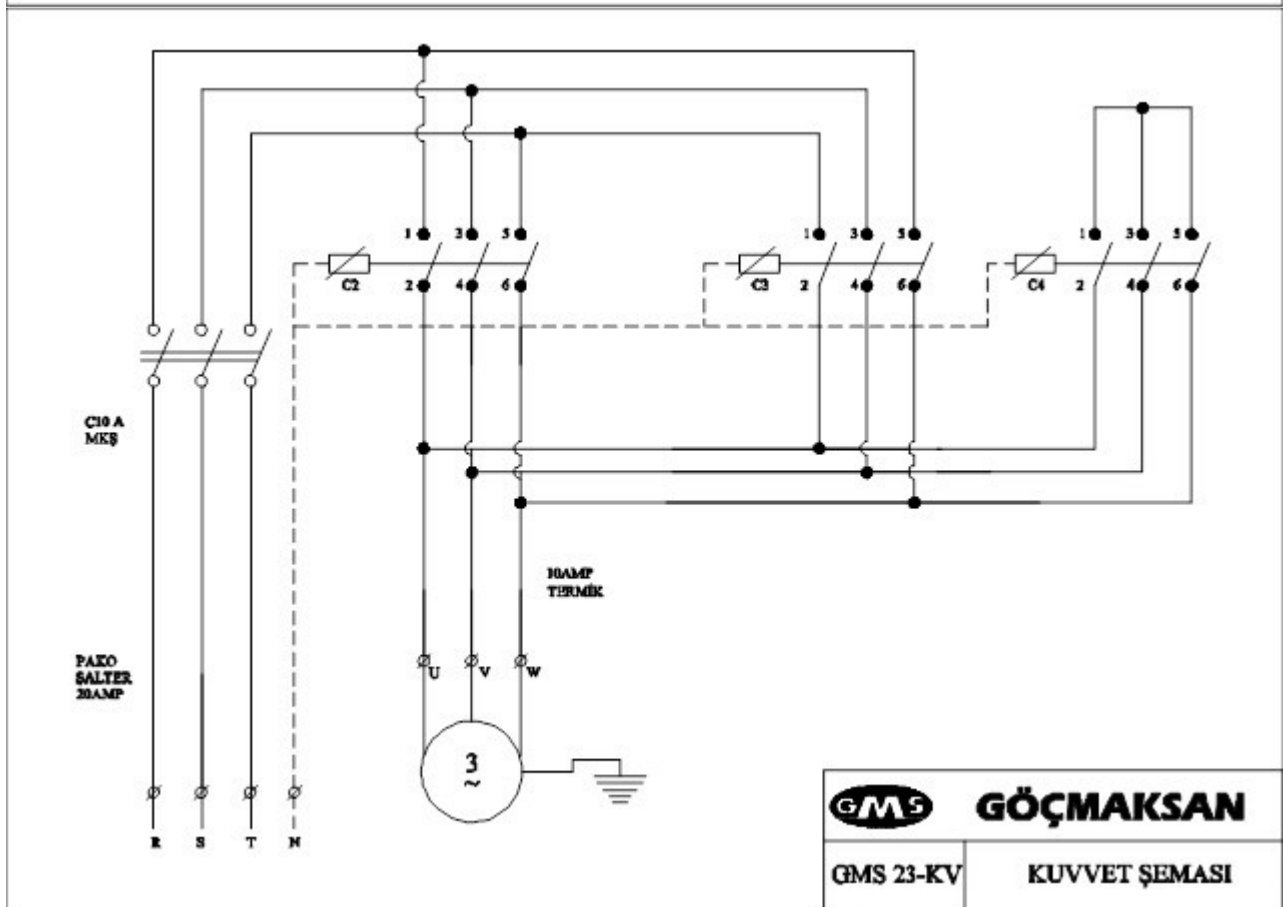
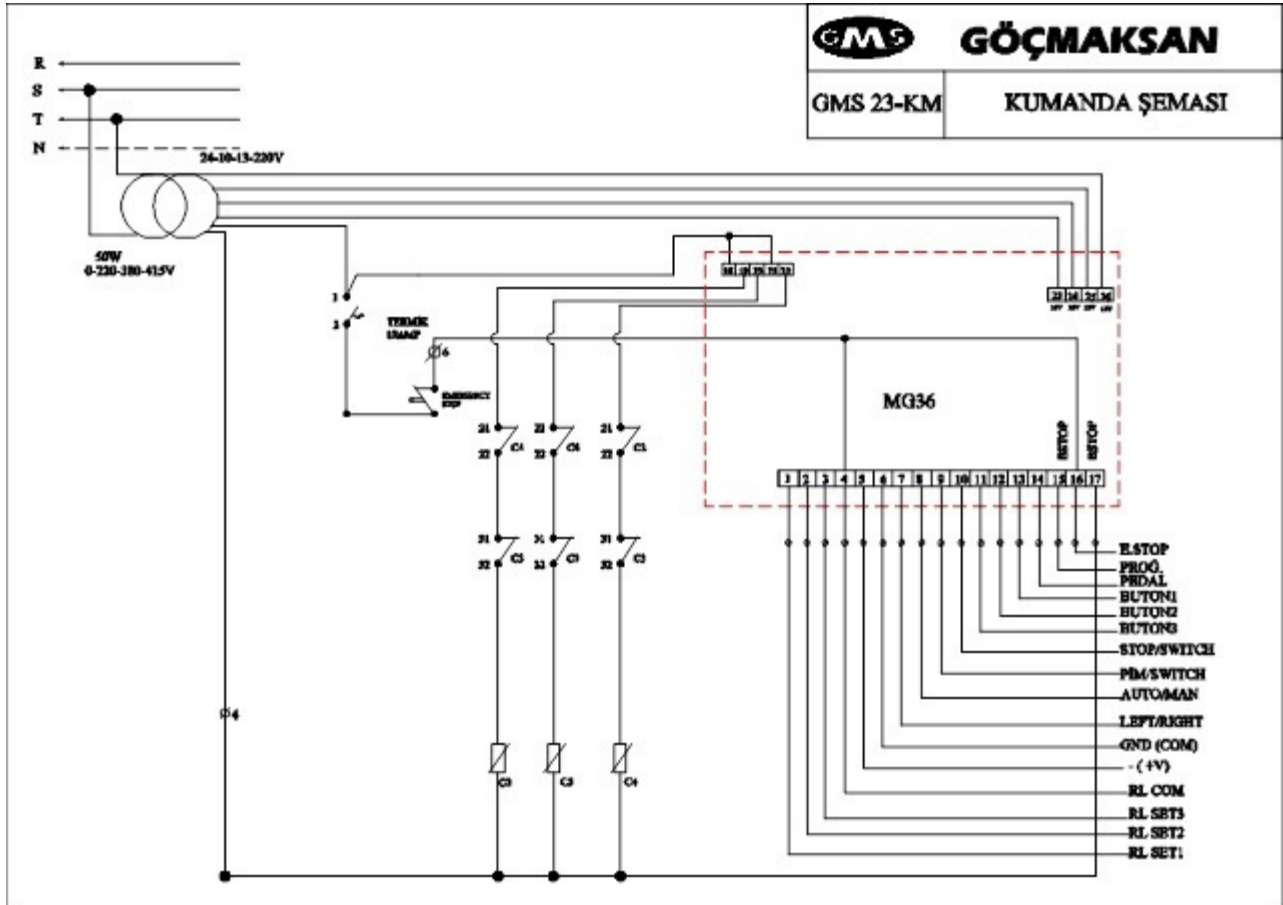
NO	PART NUMBER	PART'S NAME	PIECE
1	MG22BS-17-01	COVER BODY	1
10	MG22BS-17-10	EMERGENCY STOP	1
12	MG22BS-17-12	CONTROL PANEL	1

17.4. Electrical Panel Cover of 380V Digital Machine:



NO	PART NUMBER	PART'S NAME	PIECE
1	MG22BS-17-01	COVER BODY	1
2	MG22BS-17-02	PANEL SHEET	1
3	MG22BS-17-03	PANEL BOLT	4
4	MG22BS-17-04	P1 BUTTON	1
5	MG22BS-17-05	P2 BUTTON	1
6	MG22BS-17-06	P3 BUTTON	1
7	MG22BS-17-07	PROG ON-OFF SWITCH	1
8	MG22BS-17-08	MAN-AUTO SWITCH	1
9	MG22BS-17-09	POWER LAMP	1
10	MG22BS-17-10	EMERGENCY STOP	1

18. MACHINE ELECTRICITY SCHEME



19. ABOUT COMPANY



GöçMAKSAN

HAKKIMIZDA | ABOUT US



Göçmaksan 1960 yılından itibaren inşaat sektöründe hizmet vermektedir. İnşaat demiri bükme ve inşaat demiri kesme makinaları çeşitli inşaatçı el aletlerinin üretim, satış, servis, yedek parça ve tasarımını yapmaktadır. Türkiye’de bu alanda ilk olarak üretime başlayan firmamız 45’i aşkın farklı tip ve kapasitede 6mm-60mm arası inşaat demiri kesme ve bükme makinaları üretir hale gelmiştir. Bu başarıya teknolojinin gelişen imkanlarını kullanıp AR-GE çalışmaları ve deneyimli personelleri ile ulaşmıştır. İnşaat sektörünün demir bükme alanında eksik duyulan yönlerini araştırıp bu sorunları çözümlen makina kumanda sistemleri ve redüktörler geliştirip Türk Patent Enstitüsü’nden Faydalı Model ve Endüstriyel Tasarım Tescil belgesini almıştır. Dünyada, inşaat demiri kesme ve bükme makinaları üretimi konusunda lider olmayı amaçlayan firmamız, ISO 9001:2000 kalite sistemi belgeli, TSEK belgeli, GOST-R, Ukr SEPRO belgeli ve 98/37/AT Makine Emniyet yönetmeliğine uygun, CE belgeli olarak makine üretimleri yapmaktadır. Türkiye’de lider ve rakipsiz olan firmamız kaliteli ürünlerini tüm dünyaya ihraç etmektedir.

Göçmaksan Machinery Co. Ltd. serves in construction sector since 1960. Our company manufactures construction steel bending machines, construction steel cutting machines and produces construction hand tools. We provide technical service, maintenance and spare parts as well Göçmaksan is a pioneer in construction sector in Turkey and improves its status with new designs. More than 45 variety of construction steel bending and cutting machines are being produced in our factory which have capacities changing from 6mm to 60mm. Our success comes from our experienced staff, research and development and using high tech facilities. After researching the gaps in bending sector, we developed machine control systems and reducers to provide solution to these gaps and took their Beneficial Model and Industrial Design Registration Certificate from Turkish Patent Institutr. Our company which targets to become a leader ,in producing construction steel cutting and bending machines in the world, is producing proper to ISO 9001:2000 quality system, TSEK, GOST-R, CE, Ukr SEPRO certifications and 98/37/AT machine security regulation. As a leader and rivalled company in Turkey we export our high quality products to whole world.

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