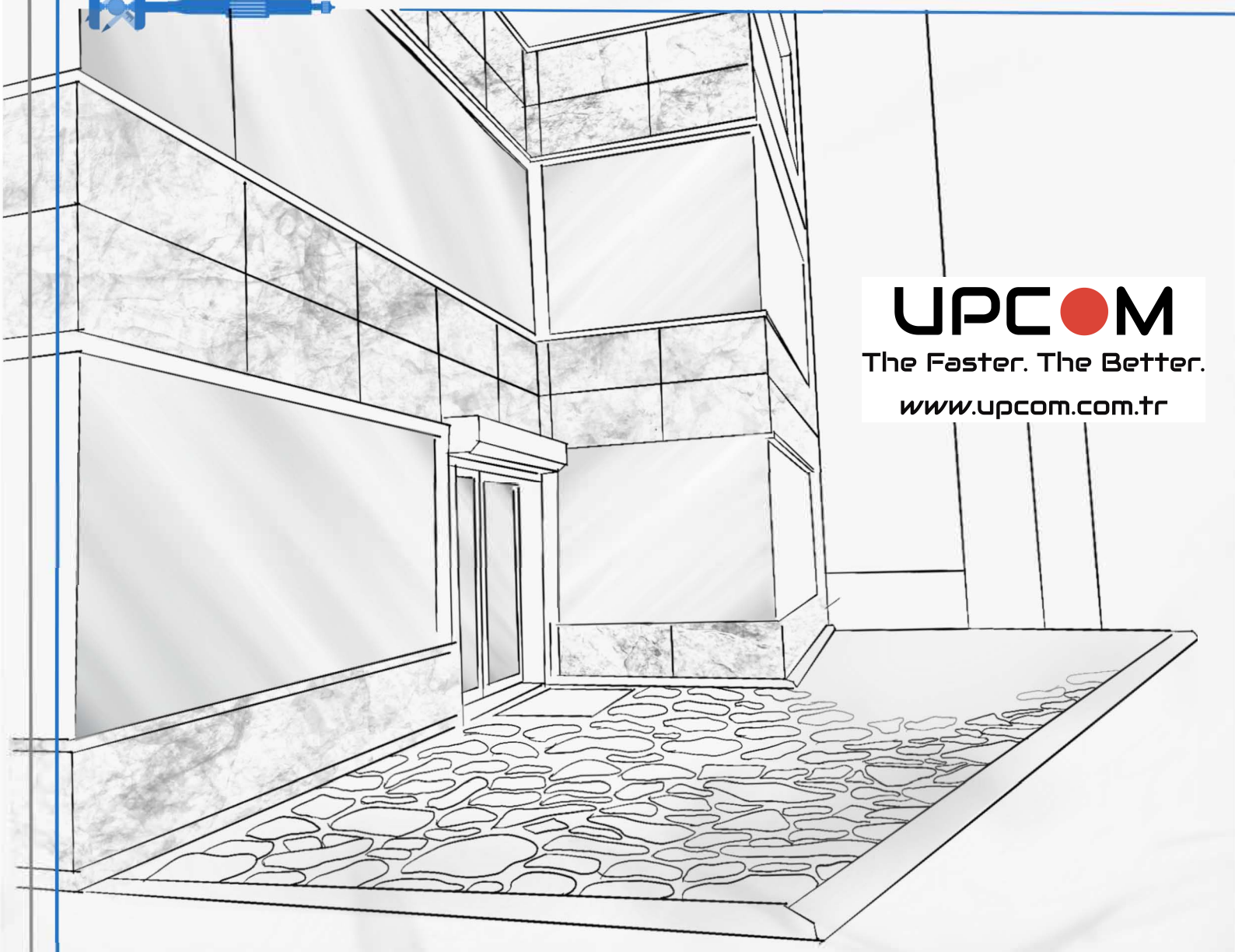

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Minifok

MINIFOK

Mini Fiber Optic Cable Blowing Machine

KOSMAK MACHINE HISTORY

Our company has been in the machinery and machinery spare parts manufacturing sector since 1994. Since 1999, almost all of the fiber cable blowing works in Turkey have been done using fiber optic cable blowing machines produced by KOSMAK MAKiNA.

It continues its R&D activities on fiber blowing machines and revisions are made according to customer requests.

Fiber optic cable blowing machines produced by Kosmak Makina are used in many countries of the world, especially in Italy, the Netherlands, Uruguay, Holland, Germany, England, African Countries, Canada, USA, Syria, Iraq, Romain, Bulgaria, Kazakhistan, Libya and Suudi Arabia.

OUR UNDERSTANDING OF QUALITY

Based on the principle of customer satisfaction first, our focus is to fully perceive customer demands and expectations and provide complete products and services accordingly,

To achieve this goal;

-Continuously improving product quality, reducing costs while increasing product qualities, -To fully meet technological infrastructure and personnel information needs,

-Aiming for continuous improvement as a whole with the participation of employees.

OUR MISSION

To be the first choice of our customers with our products, solutions, after-sales services, reliability and high business ethics.

OUR VISION

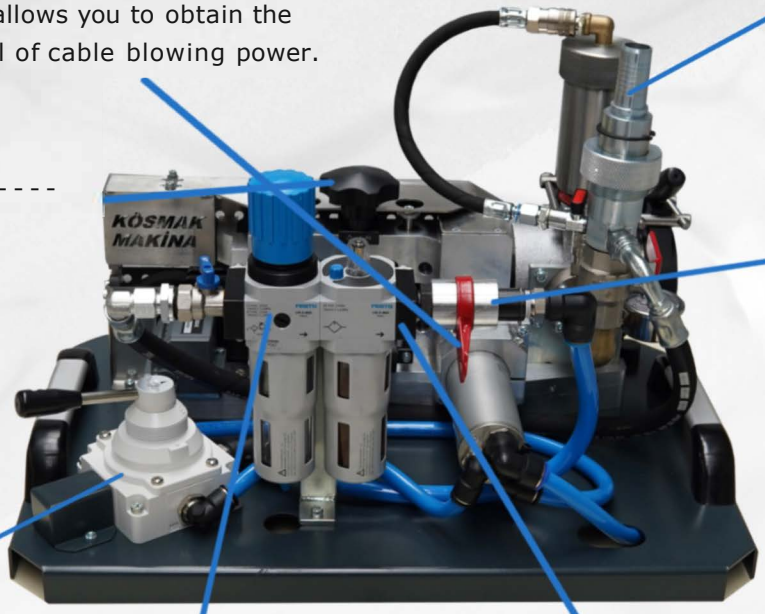
To be a leader in its country and a preferred company in the world with its organization that that makes makes a name for itself in the technological developments in the sector in which it produces products and services, adds value to the lives of its customers and the society in which it operates, is admired for its performance in the solution partnerships it establishes with its customers, and adopts sustainable development as its working culture.

THE UNITS MINIFOK MACHINE

Thanks to the quick coupler, the compressor hose can be easily connected and removed from the machine.

1 air motor allows you to obtain the desired level of cable blowing power.

Thanks to the manually adjusted pallet pressure system, you can adjust the pressure between the pallets and the cable at the desired level.



Thanks to the emergency stop button, the machine can be stopped by quickly cutting off the air flow in sudden situations.

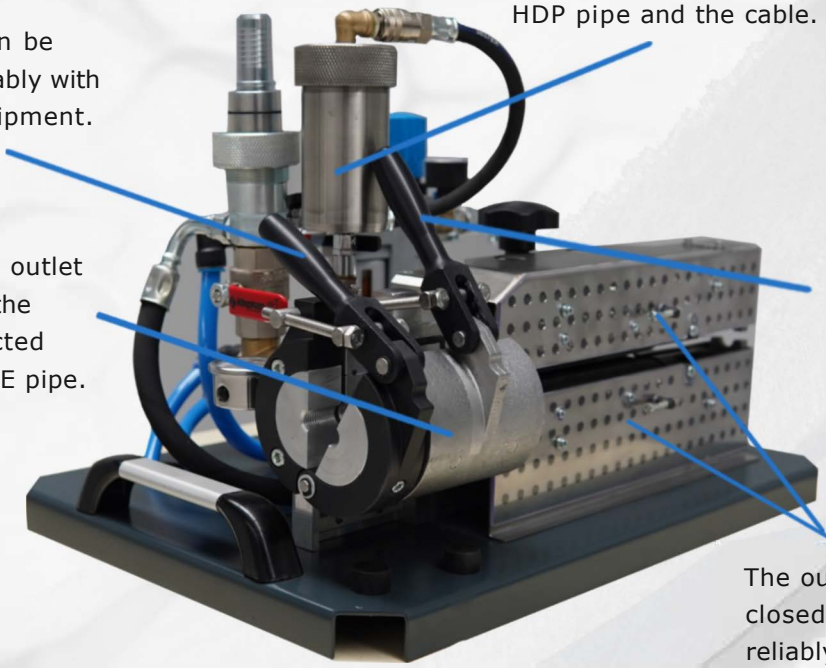
With directional control valve; You can specify the cable blowing direction and speed.

This festo lubricating system takes the moisture in the compressed air coming from the compressor and gives oil into the air, so that the inside of the air motor is constantly lubricated.

With the Festo brand conditioner, you can adjust the engine of the machine according to the desired air pressure and run it.

By using the shock lubrication system, you can introduce lubricant oil into the HDP pipe, which will reduce the friction between the HDP pipe and the cable.

Fixing of HDP pipe can be done quickly and reliably with quick connection equipment.



You can easily blow cables even in muddy terrain with specially produced pallets protected by stainless steel sheets.

The specially designed outlet chamber ensures that the compressed air is directed efficiently into the HDPE pipe.

The outlet chamber is closed quickly and reliably with the speed connection equipment.

MINIFOK

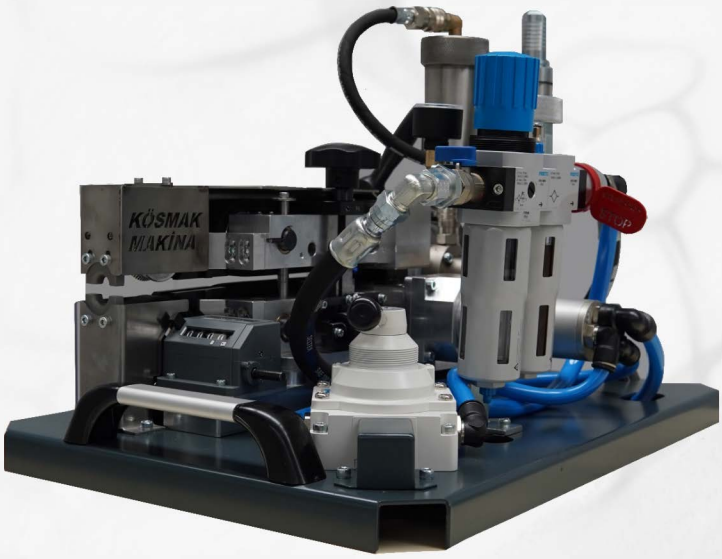
Mini-FOK fiber optic cable blowing machine; It offers a complete solution with KOSMAK quality for fiber optic cable blowing by providing users with an excellent range of use and compact design.

The Mini-FOK Classic is designed for blowing telecommunication cables or fiber optic cables into HDP pipes previously laid underground. Mini-FOK blows fiber optic cables into HDPE pipes with the power obtained from a single air engine using compressed air.

It greatly increases work capacity with its high efficiency. The belt drive system allows for a firm cable grip. At the same time, it increases cable blowing performance with the use of quality products. The parts of the machine are designed to meet all the requirements of the customers and manufactured in Turkey in accordance with international standards.

MINIFOK Machine; It can work in the range of cable diameter 04-016mm and HDPE (pipe) diameter 07-050mm.

You can easily blow your cable even in muddy fields with our specially designed straps. Cable blowing power is not reduced. You can adjust the cable blowing speed and direction with the directional control valve. The specially designed outlet chamber ensures that compressed air is efficiently directed to the pre-connected HDPE pipe. The quick air connection makes your work easier with its easy installation method. Festo brand air lubrication system; It dehumidifies the air coming from the compressor and provides continuous lubrication for the air motors. Minifok is equipped with a mechanical distance meter to track the work done.



MINIFOK CONTENT

INCLUDING WITH MACHINE

1 set Rubber Palettes

1 pcs Air Lubrication System

1 pcs Air Motor

1 set Blue Nutrings

2 meters Black Rubber 0-Ring

1 pcs Ouick Insert Air Jack

1 pcs Box for Plastic Tools

1 pcs Operator Guide

1 pcs Cable Inserts

1 set Duct Inserts

1 set Cable aligning parts 1 pcs Wooden Case

1 set Tool Kit

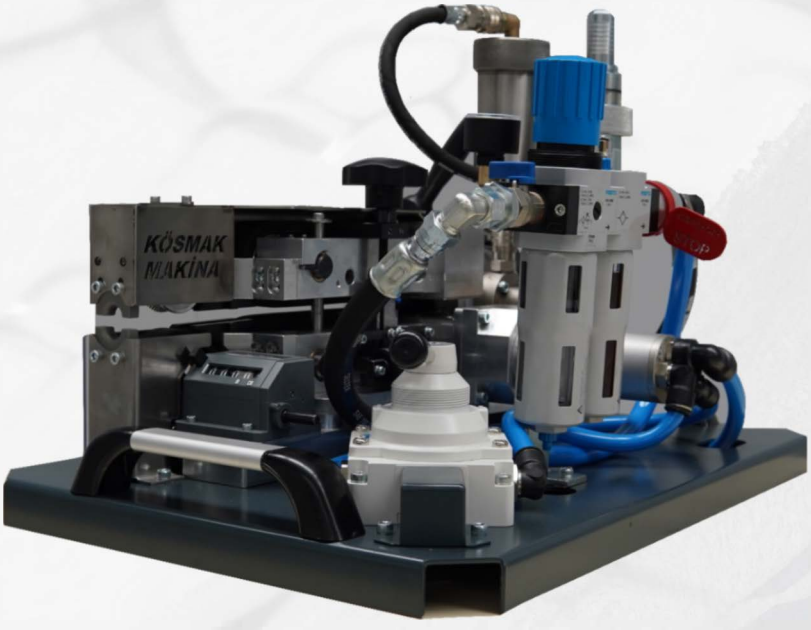
1 pcs Duct Lubrication System

NOT INCLUDING WITH MACHINE

Air cooler

Lubricant Oil

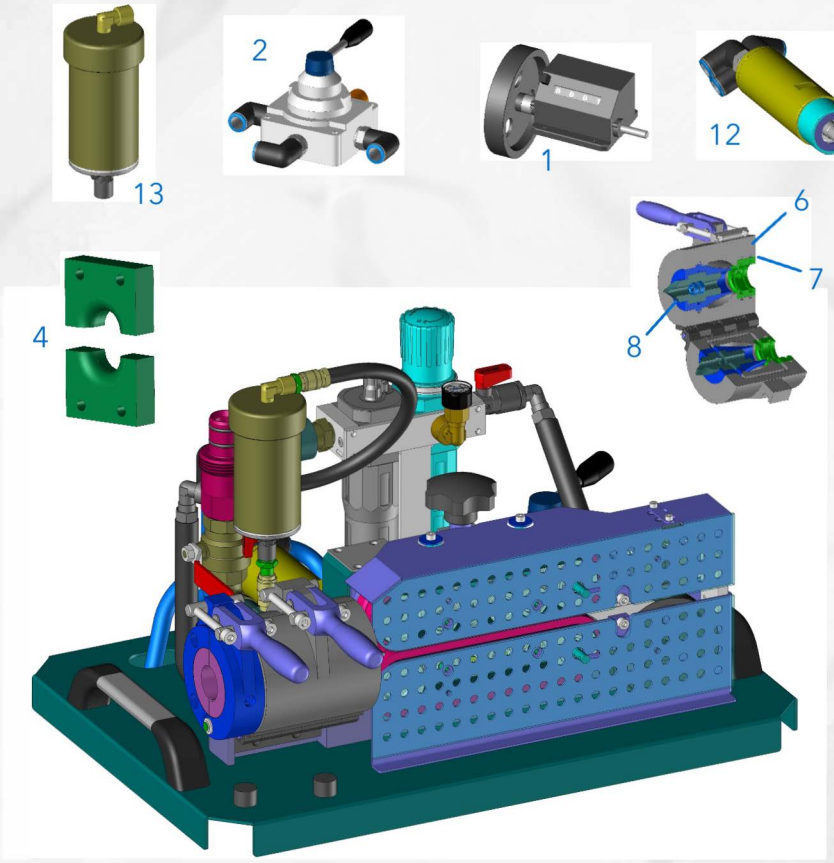
Air Compressor



TECHNICAL DATA

Standart version	1 pcs of pneumatic motor drive
Type	MINIFOK
Cable Dia. [mm]	04-016
Rubber Palettes	04-8 I 08-12 / 012-16
Duct O D [mm]	07-050
Drive Unit	Pneumatic
Max air consumption of 1pcs of motor [m3/min]	1,5m3/min (at 6 bar)
Torque Nm. - Max Power	8,5 Nm x 1 piece
Max speed [m/min]	80
Max at a time blowing distance [ml	1500
Max. Air pressure [bar]	12
Dimensions of Machine witch case [cm]	62x47x42
Weight of Machine [kg]	36
Total Weight (with case and accessories) [kg]	47

MINIFOK MACHINE PARTS



1) Mechanical Meter Measurement
2) Direction Control Valve
3) Festo Air Filter and Lubricant System
4) Mechanical Numerator Aligning Parts
5) Cable Aligning Parts
6) Exit Box
7) Duct Insert
8) Nutring Seal
9) Rubber Palettes
10) Duct Connection Tool
11) Quick Pipe Connection
12) Air Motor
13) Duct Lubricant Tank

MINIFOK

ACCESSORIES

Rubber Palettes Set (mm)

P1: 04-08
P2: 08-012
P3: 012-016

Cable Aligning Tools (mm)

C1: 02-03
C2: 04-06
C3: 07-09
C4: 010-012
CS: 013-016

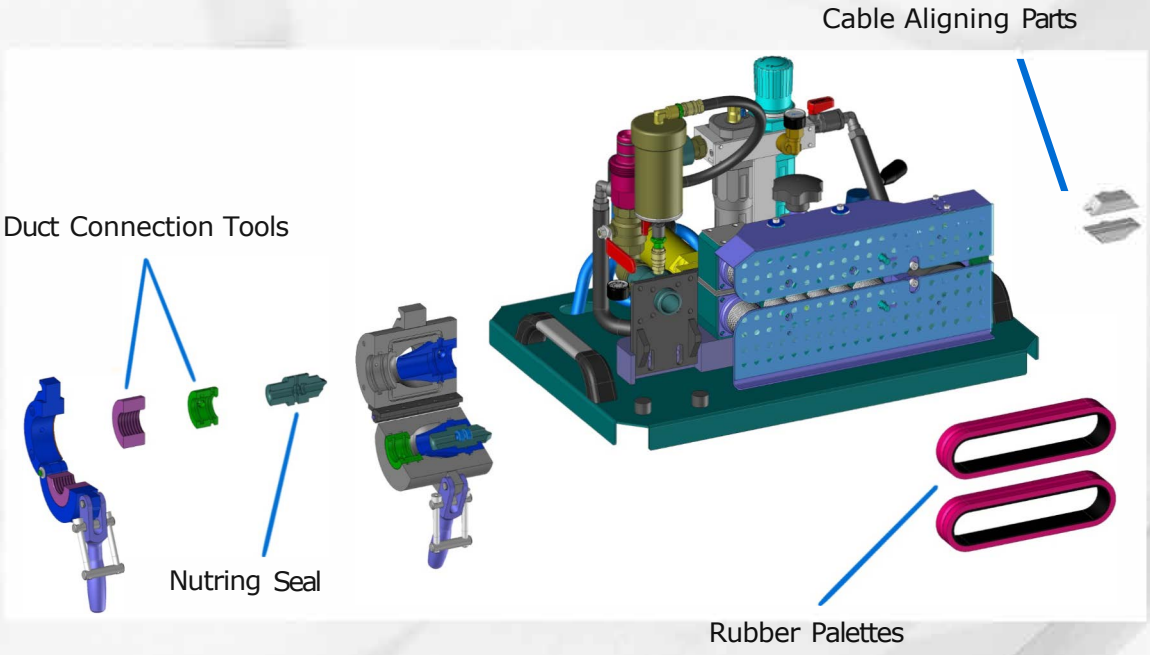
Nutring Seals & Nutrings(mm)

N1: 02-03
N2: 04
N3: 05
N4: 06
NS: 07
N6: 08
N7: 09
N8: 010
N9: 011
N10: 012
N11:013
N12: 014
N13: 015
N14: 016

Duct Connection Tools (mm)

D1: 07
D2: 010
D3: 012
D4: 016
DS: 020
D6: 032
D7: 050

1 set of Palettes+ 1 set of Cable Aligning Tool + 1 set of Nutring Seals+ 1 pcs Duct Connection Tool is included.



MINI FIBER OPTIC CABLE BLOWING MACHINE USER'S BOOK

Selection Nutring

Establishing Cable

Establishing Duct

Giving Air to the Machine and Cable

Giving Motion to the Cable

Setting Axis Line of Exit Box for Different Cables

Changing Palettes

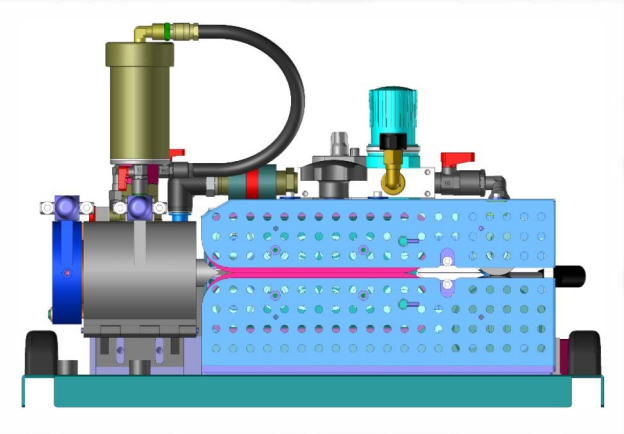
Air Pressures

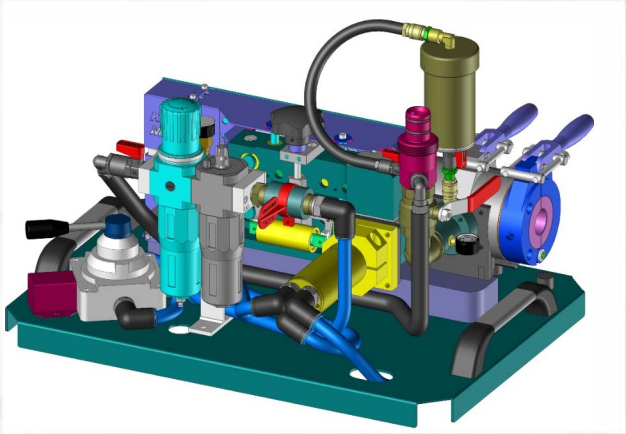
Air Filter and Lubriant Group

Usage Tips

Tools Given with Machine

Safety Instructions





Operation Manual

1) Selection Nutring

Figure 1

Figure 2

Figure 3

Figure 4

Figure 5

First measure cable diameter with callipes (figure **1**). The inside diameter of cable's seal's (figure 2) must be same with cable's outside diameter also cable seal need to work slippery on cable (figure 3) to not to make air leakage.Cut cable seals as you see on figure 4 to not to make air leakage.

Note: You need to inform us cable diameter with machine order.
Canals of the selected cable seals must locate to the installing way of cable. If not ,you can not use compressed air productively (figureS-1).Touch faces of black o-rings with cable seals must be cutted angular (figureS-2

2) Establishing Cable

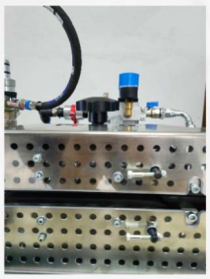


Figure 6

Figure 7

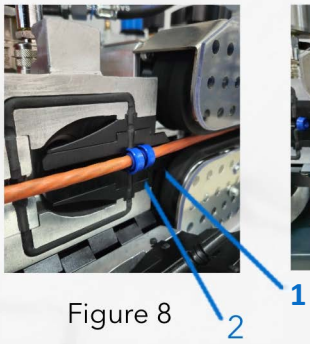


Figure 8

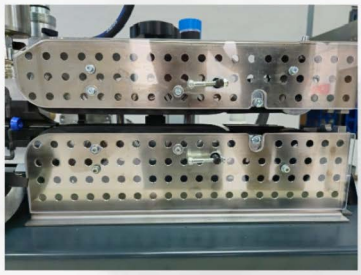


Figure 9

1) First turn the black handling part in the direction of red arrow to move up palette.
2) Change the parts on the figure 7-1 figure 8-1 and figure 8-2 as your cable diameter.
3) Then see the cable is straight as in the figure 9.If cable is not straight you need to move exit box up or down.

3) Establishing Duct

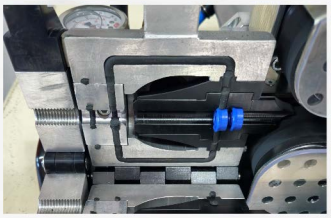


Figure 10

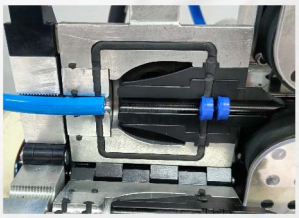


Figure 11

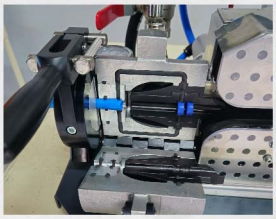


Figure 12

1) Orings must be established well to not to have air leakage.
2) Duct must be placed as inthe figure **11.**
3) Press the duct with aluminium part and tighten the nuts to not to shoot out duct under air compression.

4) Giving Air to the Machine and Duct

Figure 13

Figure 14


Figure 15

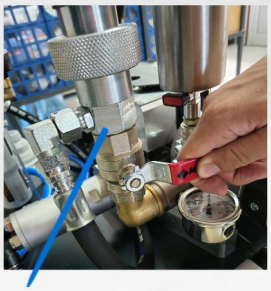


Figure 16

Figure 17

Connect 1 inch air hose (figure 13-a) with quick air connection part (figure 13-b).
Quick air connection part is given with machine.
Make connection as hydraulic pipe connections, not to get out under pressure.
Quick connection main body is assembled on machine as you see on figure 14- c.
Connect part b with part c as in figure 15.
Open the vane as in figure 16 -d to give air to the duct.
Open the vane as in figure 17 -e to give air to the motors of machine.

5) Giving Motion to the Cable

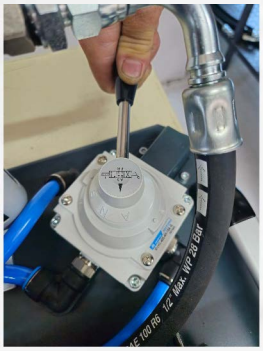


Figure 18

You can regulate blowing direction (right or left) and speed (0-60m/min) of cable by moving direction control valve.

Note:You must use stop position when you are changing the direction.If you pass the opposite direction directly and don't stop on stop position this will damage the gears of air motors.

6) Setting axis line of exit box for different cables


Figure 18


Figure 22

1) Take out air pipe (part 1) on the figure 18.
2) Loosen the bolts (two bolts on figure 22) and move exit box up or down to set axis line.

7) Changing Palettes

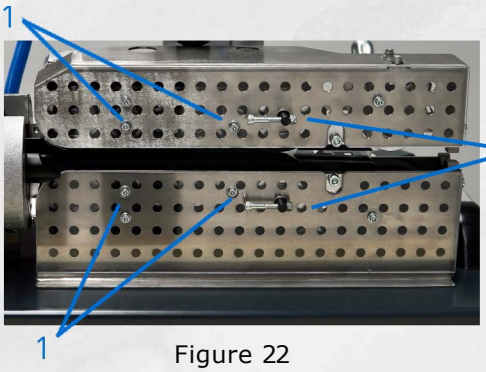


Figure 22

1) You need to take out chrom guard to change pallettes.Loosen four bolts (figure 22 part1) then take guard out side.

2) Turn two metal black parts on figure (figure 22 part 2) on the direction of arrows then you can take out pallettes by turning pallettes with hand.

8) Air Pressures

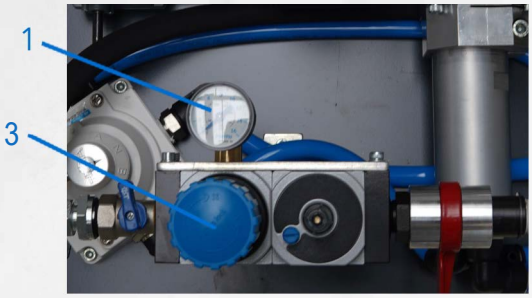


Figure 23

You can see the air pressure on motors on the gauge (figure 23 part 1).It must be between 6 and 7 while machine is working.Turn blue handle (part 3) to increase and decrease air pressure.

You can see the air pressure in duct on the gauge (figure 23 part 2).The pressure in the duct must be between 10 and 12 bar while cable blowing.

9) Air Filter Group

Figure 24

Figure 25

<u>To maintain air motors, OP-en oil set screw until end (Figure 24-1) and run motors 30-35 secs on this P-Osition. This OP-eration SUP-.P-lies bearing lubrication for air motors and P-arts.</u>

This operation must be repeated in every evening after the work ends, if not the moisture collected in motors will cause the bearings to rust.

The foreign objects entering into reservoir (figure 24-2) causes to the filter (figure 25-1) be blocked.This changes its colour and its shape.You must change this filter before this case occurs ,if not air pressure yield will be less and you will have problems about the machine.

You can see the demontaging of air filter on figure 25.Firstly open reservoir (figure 25-3) then open nut (figure 25-2) then you can take air filter (figure 25-1)

When machine is running, check oil drop value that you need for air motors on air lubricant (2-3 drops/min).

USAGE TIPS

If your machine can not catch cable and palettes skids on cable, it means that your palettes are damaged and needs to change or palette pressure is low.

If cable exit box squeeze cable it means that cable seals are false chose correct cable seals. If there is oil or air leaking on exit box palettes side it means that your cable seals are false or montaged false direction.

If there is air leaking on exit box, clean surfaces of exit box and change o-rings.

If you machine is working hardly while you are blowing cable, it means that your ducts air pressure can be less, you nede to increase your air pressure which is coming from compressor.It must be minimum 12 bar/10.5 metercup/minute.

If your cable blowing machine is working but you can not blow cable in ducts is means that your ducts can be plugged. You need to solve the problems in ducts.

If palettes of cable blowing machine is not turning it means that bearings are damaged because of slogging or bearing are rusted because of being in wet situation. You must send machine for maintenance.

If your air motor is not not turning it means that bearing of air motor are damaged you need to send machine to maintenance.

If your air motor is not not turning it means that gears are damaged you need to change gears. You must send machine for maintenance.

If your air pressure on motors are reducing while you are cable blowing it means that your air filter is plugged or damaged you need to change it.

TOOLS GIVEN WITH MACHINE

1) Stationary Knife	1 Oty
2) Screw Driver (3*100)	1 Oty
3) 10-11 mm Open-End Wrench	1 Oty
4) 2,5mm HEX Key	1 Oty
5) 3mm HEX Key	1 Oty
6) 4mm HEX Key	1 Oty
7) 5mm HEX Key	1 Oty
8) 6mm HEX Key (tall)	1 Oty
9) 016 Air Pipe 50cm	1 Oty
10) 014 Air Pipe 2mt	1 Oty
11) 06 0-Ring 1mt	1 Oty
12) 03,5 0-Ring 50cm	1 Oty
13) Wooden Case	1 Oty

Note: We set axis line of MINIFOK with the information of cable diameter before sending the machine. We send 10 pieces cable seals, 1 piece cable slot and 3 pieces of nutrings with machine for your cable diameter. You can see cable diameter group on Accessories Page, but if you inform us your cable diameter this will be better.

SAFETY INSTRUCTIONS

1) With compressed air, small parts around the machine may fly. This may cause personal injury. Always use personal protective equipment.

2) Make sure there are no personnel at the other end of the HDPE pipeline. If found, serious personal injury may occur.

3) Never open the outlet chamber while under pressure.

4) Only authorized, fully trained personnel should operate the air compressor.

5) Read and understand the operation and maintenance manual supplied with the machine. Keep it in a convenient place for future reference.

6) Keep children and untrained personnel away from the machine while it is operating.

7) Keep all guards and safety devices in place. Do not operate the machine with guards removed or damaged.

8) Keep your hands, feet and loose clothing away from moving parts, especially at cable entry points.

9) Check the machine for worn or damaged parts before starting. Make sure all nuts and bolts are tightened.

10) When the machine remains unattended, ensure that all precautions are taken against unauthorized use.

11) Never leave the machine unattended while in use.

12) Be careful with hot surfaces, the machine uses compressed air.

13) Always wear safety glasses, hard hat, safety shoes and leather gloves when operating the machine.

WORKING LAND TERMS

CONDITIONS FOR MINIFOK MACHINE PRODUCED BY KOSMAK MACHINE BUILDING, INDUSTRY & TRADE CP. THAT YOU HAVE TO CHECK ON WORKING AREA BEFORE YOU START TO WORK.

1) DUCT CONTROL

USE NATURAL GAS PIPE (DIA:25MM LENGTH:1.5m) BOTH SIDE CLOSED TO CONTROL DUCT.TH IS PIPE MUST PAS ALL ALON NG IN YOUR DUCT

2)MACHINE CONTROL

MONTAGE THE MACHINE TO PIPE AND LET PRESSURIZED AIR IN,AFTER YOU CHECKED THE SUITABILITY OF YOUR DUCT. WHEN PRESSURIZED AIR WENT OUT FROM THE END OF DUCT, YOU MUST SEE THESE VALUES:

AIR MOTOR PRESSURE:6 BAR/// DUCT PRESSURE :10.5 BAR (COMP. PRESSURE).

(MACHINE AXIS MUST BE SET TO RUN)

3)WORKING CONTROL

YOU MUST TRY TO STAY IN SAME LEVEL AS FAR AS POSSIBLE DUCT, MACHINE AND FIBER OPTIC CABLE.

YOU MUST HAVE THESE VALUES WHEN YOU ARE RUNNING MACHINE:

AIR MOTOR PRESSURE: 6 BAR/// DUCT PRESSURE: 10,5 BAR (COMP. PRESSURE)

CHECK OIL DROP VALUE THAT YOU NEED FOR AIR MOTORS ON AIR LUBRICANT(2-3 DROPS/MIN)

YOU MUST LEAVE INSIDE OF AIR MOTORS OILY AFTER YOU USE THE MACHINE. TO DO THIS: LOOSEN THE OIL SET SCREW ON PREPERATION AIR LUBRICANT AND INCREASE THE SPEED OF OIL FLOW AND RUN MACHINE 3-4 MINS IN THIS POSITION.