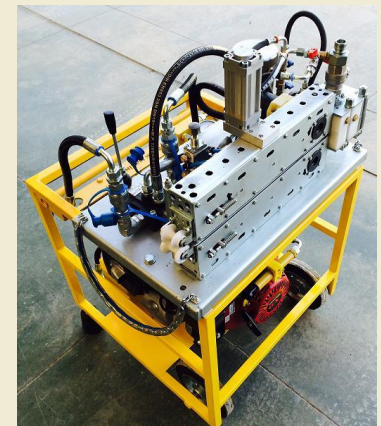
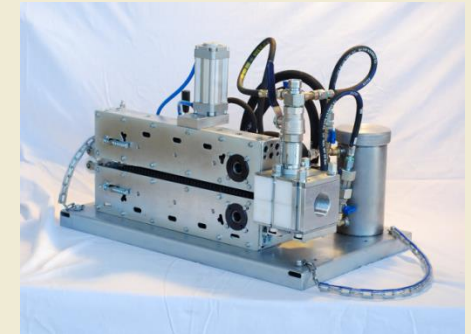
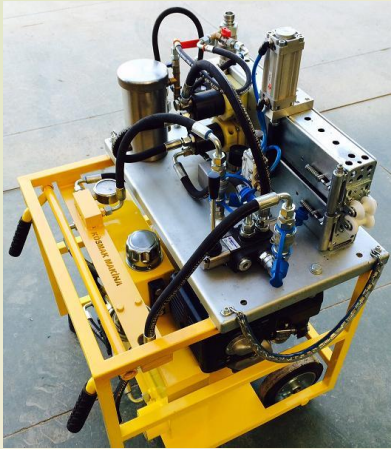


# KOSMAK MACHINE

## HIDROFOK

(Cable & Tube Blowing Machine with Hydraulic Power Unit)



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# GENERAL DESCRIPTION

**Hidrofook is designed to blow cable and tubes in ducts.**

**You need to change palette group and some parts to modify machine from tube blowing to cable blowing or reverse.**

**Hidrofook is working with hydraulic power unit because motors on hidrofook are working with pressurized hydraulic oil.**

**Hydraulic motors are making Hidrofook more powerful than Fok design, because hydraulic motors are more powerful than air motors in FOK also in Hidrofook all air is sending in duct but in Fok some air is using in air motor.**

**These specifications makes Hidrofook more efficient than Fok machine.**

**HIDROFOK can blow bigger diameter cables and lot's of tubes together.**

**There are some disadvantages of Hidrofook by the side of Fok design.**

**Hidrofook is using with hydraulic power unit but in Fok machine you do not need to use hydraulic power unit only compressor is enough to blow cable.**

**Hidrofook is heavier and bigger than Fok.**

## TECHNICAL PROPERTIES

<b>HIDROFOK</b>	: Hydraulic Fibre Optical Cable & Tube blowing machine
<b>CONTROL</b>	: By technician
<b>NEEDED AIR</b>	: 12 bar 10 m <sup>3</sup> /min.(minimum)
<b>HYDRAULIC MOTORS</b>	: Double effective, 57 newton meter (2 pieces)
<b>NEEDED OIL FOR MOTORS</b>	: 20 liter/min.
<b>CABLE and TUBE BLOWING VELOCITY</b>	:15 meter / minute
<b>DIMENSIONS (width x length x height)</b>	:104cm*65cm* 69 cm (hidrofook and hidraulic power unit together)
<b>WEIGHT OF MACHINE</b>	: 118kg (hidrofook and hidraulic power unit together)

## MONTAGING DUCT TO THE MACHINE

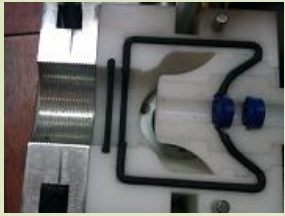


Figure 1



Figure 2



Figure 3

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

## SELECTION OF NUTRINGS



Figure 1



Figure 2



Figure 3

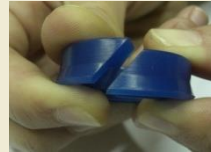


Figure 4

Firstly measure cable diameter with callipers (figure 1). The selected cable seal's inside diameter (figure 2) must be same with cable's outside diameter and it must work slippery on cable (figure 3) not to let air leakage. Cut cable seals as you see on figure 4.

**NOTE:** You must inform us your cable diameter that you will install with your FOK order.

Canals of the selected cable seals must locate to the installing way of cable. If not, you can not use compressed air productively (figure 5-1). Touch faces of black o-rings with cable seals must be cutted angular (figure 5-2)

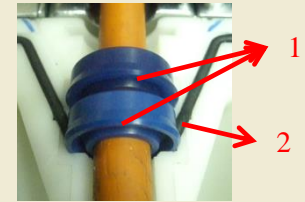


Figure 5

## GIVING AIR TO THE MACHINE & DUCT



Figure 1



Figure 2



Figure 3



Figure 4

Connect part a (1" air hose) which comes from air with part b (quick connection moving part) (figure 1).

Quick connection moving part is given with machine.

Make connection as hydraulic pipe connections to not to secede under air compression.

Quick connection main body (part c) is assembled on machine as you see on figure 2.

Connect part b with part c as in figure 3.

Open the vane as in the figure 4.

# SETTING AXIS FOR CABLE DIAMETER

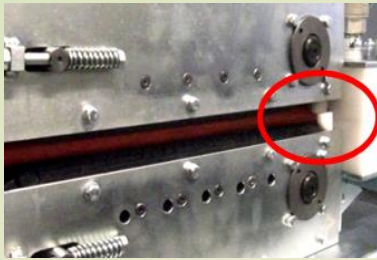


Figure 1

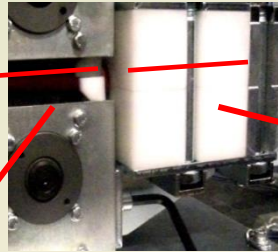


Figure 2

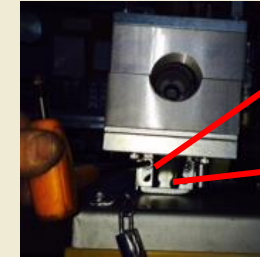


Figure 3

Axis of the machine need to be set, when the cable diameter is changed to make efficient blowing. Locate the cable into machine as you can see on figure 1. Loosen bolts (Number 3,4 ) and set on same level cable axis in machine (no:1) with faces (No:2) between up and down exit box parts. Then squeeze screw (3, 4, numbers on figure 3) to fix axis for your cable.

**NOTE:** If you inform our company about your cable 's diameter before you buy ing machine, machine axis will be setted by our company. When you will blow different cablediameter, you will have to set axis as we explained.

## PREPARING PULLEYS

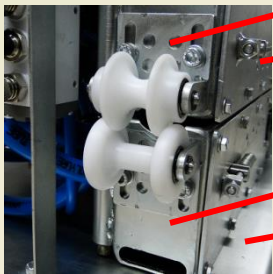


Figure 7

Pulleys on figure enable the cable to go into the machine on axis easily. Pulleys' distance is set by bolts (No:1,2 on Figure 7) for cable diameter. Pulleys' distance must be closed, if not, cable can get out from sides and break.

**NOTE:** Selecting cables, setting cable axis, preparing pulleys are done when the cable diameter is changed.

## STARTING MOTOR



Figure 1



Figure 2



Figure 3

- 1) Start the motor as in the figure 1.
- 2) There are two valves on figure 2. Upper valve is choke, bottom valve is for gasoline. Open bottom valve as in the figure 2. Move upper valve as in the figure 2.
- 3) Pull the rope as in the figure 3. If motor works and then stops, move the choke on the other side.



Figure 4



Figure 5

- \*Put hydroilic oil from the cover of the oil tank (figure 4-1)
- \*Put gasoline from the cover of the gasoline tank (figure 4-2)
- \*See the hydraulic oil pressure on the gauge (figure 4-3) and hydraulic oil level on figure 5-1.
- \*Change oil filter after filter is a little clogged (figure 5-2).

## USING MACHINE

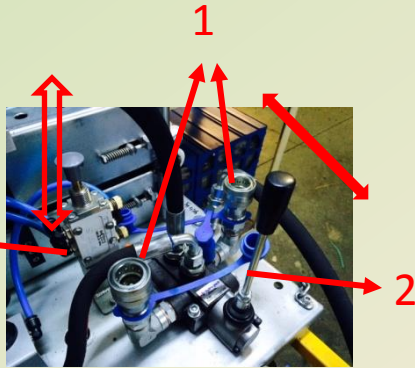


Figure 1

Give oil to the machine from the quick couplings on figure 1-1.  
Turn the pallettes back and forth by the valve on figure 1-2.  
Move upper pallette group up and down by the valve on figure 1-3. This valve is using to press cable between pallettes.

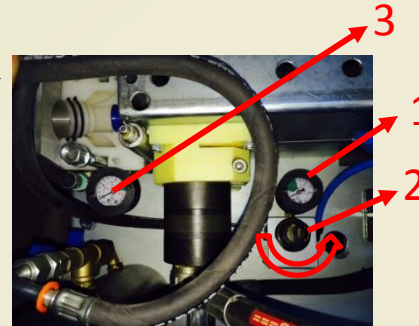


Figure 2

See the air pressure in duct on figure 2-3. It must be minimum 10 bar.  
Fiber optic cable is pressing between pallettes and you can regulate this pressure from the regulator on figure 2-2 also can see the value on the gauge (figure2-1).  
By this regulator you can prevent eroding cable between pallettes.

## Fibre Optic Cable Diameters;

You need to change palette group and some parts to change machines cable diameter range.

1) Diameter 9mm-14mm

2) Diameter 14mm-18mm

3) Diameter 19mm-25mm

## Tube Diameters and Quantity;

You need to give us information about diameter of tubes and quantity of tubes that you want to blow in one time.  
There are some samples below.

1) Tube Dia.=12mm / Quantity=4

2) Tube Dia.=10 mm / Quantity=5

3) Tube Dia.=10 mm / Quantity=7

## Duct Diameters;

In standart Hidrofok machine duct diameter is 50mm. We can produce tools for different duct diameters