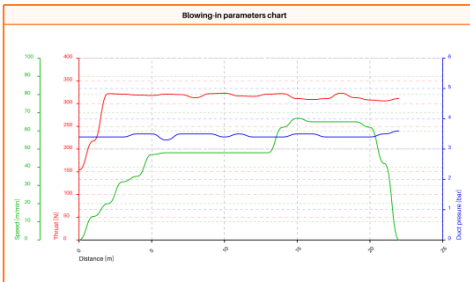




MAH-4 ELECTRONIC



Manufacturer: ZP JAKI MAL-MET ul. Powstancow Włocławskich 22b 86-061 Broczno Bydgoska www.mal-met.com.pl			
Company Name: BEYON WILSHIRE BOULEVARD BEVERLY HILLS, CA, CALIFORNIA Postal Code: 90210, 18205		Camera Connector: Cable Blowers GmbH ul. Dr. Philipp Taglitzky 45 10119 Berlin, Deutschland	
Route Name	Experimental field	Date	2019-12-06
Route section	Test track no.8	Operator	Stefan
Duct Parameters		Cable Parameters	
Manufacturer	Egeplast	Manufacturer	Corning
Duct Type	SNR 10x1.0 (100)	Cable Type	A-DZNY 1x36
Outer Diameter	10 mm	Amount of Fibers	36
Wall Thickness	1 mm	Cable Diameter	5,2 mm
Inner surface	Smooth	Feed method	Spool
SNR Duct ID	A1	Cable meter markers	Start: 20 m End: 42 m
SNR Color	2x Green	Oil separator	<input checked="" type="checkbox"/>
Arrangement	OK	Air cooler	<input checked="" type="checkbox"/>
Calibration	OK	Cable blowing cap	<input type="checkbox"/>
Comment	All OK		



Summary			
Crash test performed	<input type="checkbox"/>	Max. permissible thrust setting in the ambient conditions listed below	
Route length	22 m	Weather	21.8°C, 42.45RH, 1024hPa
Start time	10:30:20	Stop time	10:40:13
		GPS Position	53.05052, 18.01636
		Total time	00:01:53

FIBER OPTIC DIAMETER: 3-17mm

HDPE DIAMETER : 0-50mm

MAX DISTANCE: 4500m

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Machine specifications:

- 12V power supply (18Ah battery)
- Working pressure 6-15 bar
- Gear motor operating pressure 0.63 MPa
- Operating pressure in the head 6-15 bar
- Gear motor air consumption 55 m³ / h
- Blowing speed 0-70 m/min
- Air consumption in the head 1-11 m³ / min
- Weight 60kg
- Dimensions 810mm x 530mm x 480mm
- Number of bearings 32 pieces
- Number of rollers 8 pieces
- HDPE sizes \varnothing 0-50mm
- Fiber optic sizes \varnothing 3mm-17mm

- 1) Smart intuitive touch screen controller**
- 2) GPS**
- 3) Readings of atmospheric conditions such as: temperature, pressure, humidity, date, time, time shifts**
- 4) Three languages: Polish, English, German**
- 5) Wireless connectivity and remote updates**
- 6) Possibility to observe process parameters online on a phone or tablet**
- 7) Automatic counter that has many functions**
- 8) Automatic operation**
- 9) Manual work**
- 10) Introducing limits such as: insertion force, distance limit, selection of calibration and individual diameters, adjustment of measurement sensitivity in [%]**
- 11) Smooth speed regulation**
- 12) Registration of all blowing parameters saved in the form of a report to a *.PDF file: cable insertion force, carrying pressure, blowing speed, distance, weather conditions parameters**
- 13) Intuitive data entry interface using a web browser**
- 14) Adjustment of controller parameters and settings both locally and remotely**
- 15) Cable stop system – a system that recognizes whether the fiber optic cable is moving in the tube or not**
- 16) Cable test - checking at what pressure the cable will be damaged**

The blowing machine is equipped with:

- Equipment for blowing one diameter of optical fiber (profile rollers, head insert, supports)
- Fixings for three diameters of HDPE tubes
- User manual
- CE Declaration of Conformity
- Tool box
- A set of tools for operating the machine
- Pneumatic gun for cleaning
- Suitcase with battery and power cable
- Transport case

The most modern model of fiber optic blowing machines. **MAH-4 ELECTRONIC** model is intended for longer routes and for fiber optics with larger diameters from 3mm to 17mm. The automation in our blowing machines means continuous control over the optical fiber. It is characterized by the fact that by entering appropriate data into the controller, the machine takes measurements on the cable and, depending on the forces acting on the fiber optic route, regulates the pressure in Newtons so as not to exceed the parameters set by the operator. If the limit point is reached, the process will be stopped to prevent damage to the cable. Thanks to such innovative and modern technology, the operator's work is made much easier, and with the registration option purchased, he can watch the entire process on an online graph via Wi-Fi on e.g. a phone or tablet. The report after work can be printed or saved in the machine's memory. The fiber optic cable is inserted through a set of aluminum-rubber profile rollers depending on the external diameter of the cable. Each roller has its own mechanical drive, which is transmitted by gears and a chain. The rubber part of the roller is designed to prevent the cable from slipping due to resistance that occurs on long sections and bends of fiber optic routes. The groove in the rubber part of the roller, profiled to match the cable diameter, wraps the optical fiber by 90%, which increases the force of inserting the optical fiber into the microduct tube. The driving force of the mechanical system of the roller set is a pneumatic gear motor. The head into which compressed air is fed plays an important role in supporting the process of blowing optical fiber into the microduct tube. The air head is designed so that the compressed air fed to the duct pipe is properly shaped and lifts the cable, minimizing cable friction against the internal walls of the duct. Thanks to less friction, it is possible to feed the cable over much longer distances.



Z.P.H.U. MAL-MET


Powstańców Wielkopolskich 23 b

tel. +48 (52) 381 05 56

86-061 Brzoza Bydgoska, POLAND

NIP: 953-113-09-06

Owner: Marek Malak

phone: +48 602 153 516 

e-mail: marek@mal-met.com.pl

Production manager: Łotocki Piotr

phone: +48 606 468 977  

e-mail: lotocki@mal-met.com.pl

www.mal-met.com.pl