

## INSTRUCTIONS MANUAL



### PM18F-9J



### PM16-8J

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## CAUTION

Dies Sets Required to be installed Clockwise 1 2 3 4  
5 6 7 8 if you look in front of the crimping machine.  
Die number 1 could install to any master die, but the  
following die number 2 should be beside the die number  
1 and clockwise. Especially for the die number under  
under 16 mm . This is important to keep the ferrule  
crimped with good roundness.

# **1**INTRODUCTION

**Do not unpack or operate the crimping machine until you have thoroughly read this manual.**

**All who operate the crimping machine must read this manual.**

This manual provides necessary information for safe use of this machine. This manual is the result of continual development, testing and technical evaluations that are registered and verified by us according to 2006:42/EG, 2004:108/EG, 2006:95/EG, EN614-2, 97/23/EG.

This information is intended only for specialized operators who can operate the machine without risk to themselves, other persons, property, the machine, or the environment. The operator should have fundamental knowledge in trouble-shooting methods, perform machine inspections and simple maintenance according to the information provided in this manual and according to local legislation for protection of health and safety.

This manual does not explain disassembly or comprehensive maintenance in detail. These may only be performed by an authorized service technician.

It is necessary to store the manual and keep it in good condition for future use. Contact your closest authorized supplier for a replacement manual or additional information if necessary.

This manual should be preserved and stored for the length of the machine's lifetime or at least ten(10) years in a well-known, easily accessible location together with other machine documentation.

We are not liable for injury/damage to persons/machine or property as a result of improper use, having made prohibited modifications to the machine or misinterpreting this manual's safety instructions.

## SAFETY RULES<sup>2</sup>

Always ensure that the minimum standards for safety, installation and operation are complied with before operating the machine. Observe the surrounding environmental conditions such as temperature, humidity, lighting, vibrations, dust and other conditions at the machine operation site.

Never remove the machine's information or warning plates. Ensure that they remain clearly readable. Contact an authorized service workshop for replacement plates if they become unreadable.

The use of any spare parts that deviate from this manual's specifications, any other changes/manipulations (however insignificant) made to your machine releases us from any liability for consequences that arise due to the machine's performance, level safety for nearby persons and / or personal property.

**Disassembling or side-stepping safety devices or rules is extremely hazardous and absolutely prohibited. Refusal to follow these requirements puts others at severe risk of injury!**

Always dispose of operation waste according to current local laws and regulations.

**!Note!**

All maintenance not described in this manual must be performed by an authorized service technician.

## EQUIPMENT<sup>3</sup>

The machine PM18F9J only consists of a chasis and a pump . It is dellivered with a 700 bar 2 mtrs lentgth hose asembly to join head and pump.

The machines PM16-SPEED8J & PM16-8J consists of a chassis, crimping head and a pump are delivered ready to use, packed in a wooden box on a pallet.

## WARRANTY

The warranty lasts one (1) year from purchase and only under the strict condition that the manual instructions have been followed. The warranty covers defected material/parts and flawed workmanship, replacing defected parts cost.

The warranty dose not cover improper use or normal wear. Travel costs, time for repair and shipping costs are not covered by the warranty. Repairs under the warranty are to be made only by us or an authorized service technician approved by us. Lost income or extra costs that may arise for any reason are not covered by the warranty.

### Note!

Ensure that the machine is undamaged and that the all of the described items are present upon arrival or shortly after. We are not liable for incorrect or missing parts that are not reported within eight (8) days after delivery.

## IMPORTANT

PM18F, PM16-SPEED8J & PM16-8J are designed manufactured and made safe for crimping hydraulic hose in dimensions 3/16"-1". Any other use of this machine is considered improper and we are not liable for injury or damage to persons, property or the machine. The machine shall only be used for crimping hydraulic hose according to specification. Our instructions for operating conditions and limitations for use/operation as well as health and safety regulations must be complied with.

## WARNING!

### Pinch point!

Keep hands and all other body parts away from the red-indicated are while crimping.



## IDENTIFICATION

The machine can be identified by the CE-label with the following information located on its backside:

Manufacturer  
Serial number  
Manufactured year

### Note!

It is absolutely prohibited to remove or damage the identification plate.  
Contact an authorized service workshop for new plates if they become damaged and unreadable.

Always provide the following information and technical explanation of the machine's problem when contacting the authorized service workshop.



# 4START-UP

## MACHINE PLACEMENT

Place the machine on a stable and flat surface.

## SELECTING DIES

Determine the crimping dimensions for the current operation and select the die set with the correct interval that corresponds to the crimping measurement. For example: A crimping measurement of 17mm requires the die size nr 16 (since it covers the 16-19 mm interval).

Always select the die set within the correct interval to achieve the best crimping results. Every die is marked with the smallest crimping measurement in the interval.

### Note!

Crimping any measurements outside the table crimping measurement interval is not recommended. Using dies that are too small risk the ferrule becoming oval.

## P18 DIES

DIE SET	CRIMPING AREA
16-10	10-12mm
16-12	12-14mm
16-14	14-16mm
16-16	16-19mm
16-19	19-23mm
16-23	23-27mm
16-27	27-31mm
16-31	31-39mm
Base Die	39-45mm



## SETTING CRIMPING MEASUREMENTS

With the machine is a die set table packed that indicates the correct crimping measurement interval for every die set. Crimping measurements that lie outside of the interval are not recommended.

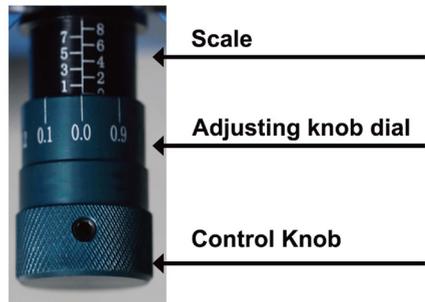
Turn the adjusting knob so that the zero (0) on the dial is lined-up with the zero (0) on the scale. If zero (0) is set, the machine will crimp the smallest diameter provided in the interval. Every revolution of the knob increases the value on the scale with one unit. One turn clock-wise corresponds to 0.1mm on the crimping measurement. The measurement shall be added to the least-specified diameter in the interval.

For example: Crimping 16 mm hose requires die nr 16 with the adjusting knob set to zero (0) and lined up with zero (0) in the window. Crimping 22,2 mm hose recommends die nr 19 with the adjusting knob turned 3 (three) clock-wise rotations until 3 (three) on the scale and the 2 (two) on the dial is lined up with the zero (0) line on the scale.

The set crimping measurement values can differ slightly from the actual crimping measurement because of the machine's die expansion and retraction. Compensate this by adjusting the setting.

**DIE SET**

	0 turn	1 turn	2 turn	3 turn	4 turn	5 turn	6 turn	7 turn		
16-10	10	11	12	<b>USE NEXT SIZE!</b>						
16-12	12	13	14							
16-14	14	15	16							
16-16	16	17	18						19	
16-19	19	20	21						22	23
16-23	23	24	25						26	27
16-27	27	28	29						30	31
16-31	31	32	33	34	35	36	37	38		
Masterdies	39	40	41	42	43	44	45	46		



## CHANGING DIE SETS

1. Retract the dies completely by turning the return valve one turn.
2. Remove the die set by turning it in either direction or pulling it straight out (radially).
3. Ensure that the 8-segment die set is clean, undamaged and that all are marked with the same number.
4. With the die marking numbers facing you, insert each die clicking the die pins in their holes in the crimping head.
5. Ensure that all dies are correctly inserted in the machine.

## CRIMPING

1. When the die set is inserted in the machine and the crimping measurement set, place the hose/pipe application between the dies. Ensure that all dies are correctly inserted in the machine.
2. The crimping diameter is reached when the light in red become light.
3. Make sure that the crimping was correct and make adjustments if necessary.



# MAINTENANCE<sup>5</sup>

## LUBRICATION

The machine should be cleaned and lubricated every eight (8) operation hours. Retract the dies to lubricate.

Use a small brush to lubricate the cone shaped surfaces in the cylinder. Better to lubricate sparingly and more often than seldom and excessively. Without lubrication, the machine loses power and you will damage the sliding surfaces.

Use only the lubrication recommended by us: Optimol viscogen 4.

## CALIBRATION

If the actual crimping measurement differs too much from the set crimping measurements then calibrate the machine.

1. Contract (press) the dies together completely.
2. Set the dial to - 0.2.
3. Loosen the side covers.
4. Loosen the locking nut (nr 1).
5. Turn the adjustment dial (nr 2) so that the end surface of the set screw (A) align with the face of the ring.
6. Tighten the locking nut (nr 1).
7. Calibration is complete.
8. Check Repeat the procedure if the actual crimping measurement differs from the set crimping measurement.



# 6 TROUBLE SHOOTING

Problem	Reason	Solution
Low crimping force	<ol style="list-style-type: none"> <li>1. Insufficient lubrication</li> <li>2. Return valve not closed</li> <li>3. Leakage</li> <li>4. Pump leakage</li> </ol>	Lubricate Close the valve  Repair Replace seals
Crimping measurement is inconsistent	<ol style="list-style-type: none"> <li>1. Insufficient lubrication</li> <li>2. Adjusting Inob lost its position</li> </ol>	Lubricate Calibrate

## BATTERY AND OIL

Products will have the oil and battery included, so they are ready to used.



**Please read the instructions and the limits of use of this machine carefully.**

## MAIN TECHNICAL SPECIFICATIONS

	<b>PM16</b>	<b>PM16SPEED</b>	<b>PM18F</b>
Opening without dies	65	65	65
Crimping range (mm)	4-45	4-45	10-64
Crimping power (KN)	100	100	120
Die set	PM16	PM16	PM16
Master dies legth (mm)	64	64	64
Control	manual	manual	manual
pump pressure (bar)	630	630	630
Color	blue/black	blue/black	black
Weight (Kg)	25	25	28
Dimensions (mm) Depth/width/height	180x230x270	180x230x270	190x180x310