

Hose Crimping Machine Operation Manual



THE MACHINE HAS BEEN DESIGNED FOR CRIMPING HOSE FITTINGS.
THE MACHINE HAS BEEN DESIGNED TO OPERATE IN ROOM TEMPERATURE, IN DRY
INDOOR CONDITIONS AND IN SUFFICIENT ILLUMINATION. USING THE MACHINE FOR ANY
OTHER PURPOSE IS NOT ALLOWED WITHOUT WRITTEN CONSENT FROM THE FACTORY.

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GENERAL

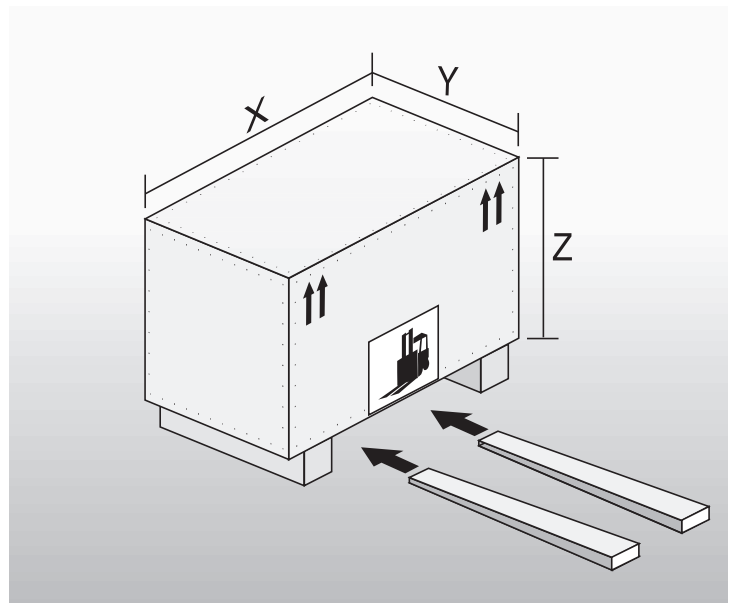
A crimping machine is an electric hydraulic crimping machine used for hydraulic hose components. Crimping machines are usually equipped with three-phase motors. According to requirements, it can be equipped with a single-phase motor.

Transport

The packed machine is transported on a pallet, which is easy to move and lift by a fork-lift truck. After unpacking, the machine can be lifted using a hoisting belt.

Size of package for other models:

x = 84 y = 88, z = 87 cm.



Storage

The manufacturer protected this machine
Prevent corrosion by using Zerust method.
The machined parts have been processed
Axxatec 77C protective agent. Zerust Steam
The capsule has been placed in the electrical box,
The machine has been packed into the bag

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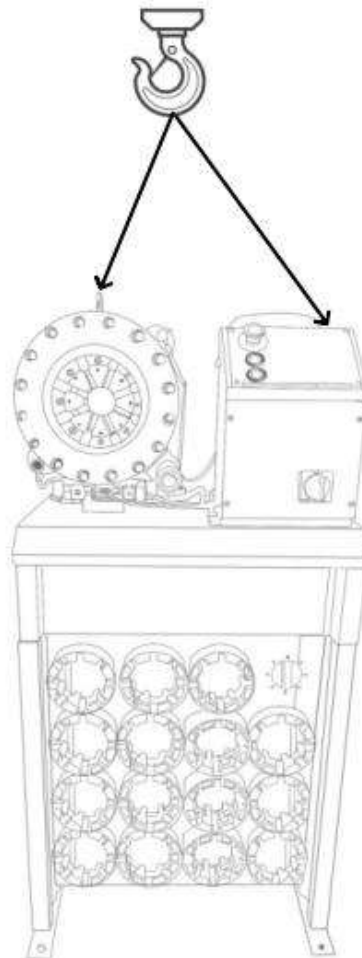
Mounting

The image next to it shows a suitable one
The method of lifting the machine

It is recommended to install the machine on a flat surface. Before installation, it must be fixed to the floor with four M12 screws. Floor drilling: Ø 12
The depth is 55 millimeters.

The crimping device cannot be installed on other tables
Even though it is sturdy and wide, it must be fixed to the floor!

P32:x=625, y=560



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General

The machine is intended for professional use. It is to be operated only by a trained operator who has

understood the dangers involved in the operation.

Openings between the dies exceed 6 mm, thus being large enough to let fingers go between the dies and

get crimped. It is, therefore, ABSOLUTELY necessary to follow operating instructions and warnings

indicated by the stickers on the machine when changing dies and crimping fittings.

Danger zones



WARNING 1

Do not put your hands inside the dies while the motor is running!



WARNING 2

When crimping a fitting, hold the hose far enough to avoid crimping your hand!

WARNING 3

Dies open and close by depressing the hand emergency push-buttons at both ends of the valve. Do not touch these push-buttons during normal operation!

WARNING 4

High voltage.

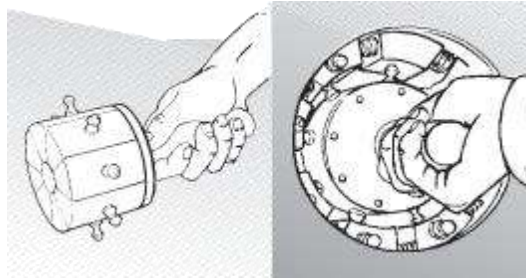
The electric box is to be opened only by a professional electrician!



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WARNING 6

When replacing, quick replacement can cause damage to the tool, as shown in the following figure, grip the handle middle. Make sure your hands are not stuck between the molds!



COMMISSIONING

Oil fill

Fill the oil tank to centre line of the indicators in the dipstick with hydraulic oil like Shell Tellus T46 or equivalent. Volume of the tank is 55 litres

It is recommended to pump the oil into the tank through a 20 μ filter, because new oil in drums is not pure.

Electrical connection

CAUTION! Check if the machine voltage (see nameplate or ask dealer) is equal to the power supply voltage. To install correctly according to local regulations, please consult a licensed contractor.

Thread the power cord through the hole on the side panel of the electrical box. Secure the cable with an aviation plug.

Three phase: Connect the phase wires to the corresponding L1, L2, and L3 terminals in the power disconnect device

Attention: Three phases must be connected to the neutral wire!

Check that the motor rotation is parallel with the arrow on the tank close to the motor. In case the motor rotates in wrong direction, two phase conductors in the supply disconnecting device must be interchanged.

1 - **phase:** Connect the phase and the neutral to the respective terminals in the supply disconnecting device. Connect the earth connection to the ground terminal on the fixing plate.

with crimping diameter range for each die set and corresponding dial adjustment values.

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The main operating area of the machine is in front of the controls.

Selecting the die set P32

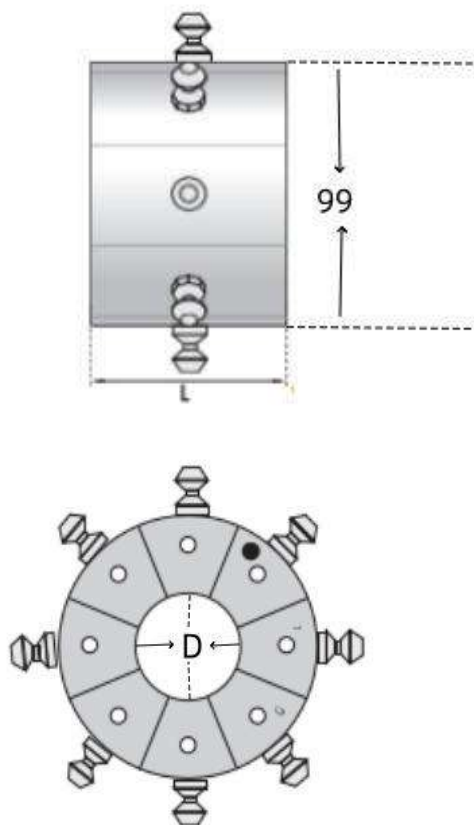
Use only original die sets in crimping machines.

Refer to the fitting manufacturer's specifications for proper crimping diameter for the fitting. Each die set has its own crimping range. Follow it to assure the roundest possible crimping result. The minimum crimping diameter **D** is marked on each die set.

Example: with die set No 18506/10 the minimum crimping diameter is 10 mm.

Die Set 32-series

D	L	Die set No	Crimping range
06	55	2301/06	06...10mm
10	55	2301/10	10...12mm
12	55	2301/12	12...14mm
14	55	2301/14	14...16mm
16	55	2301/16	16...19mm
19	55	2301/19	19...22mm
22	70	2301/22	22...26mm
26	70	2301/26	26...30mm
30	70	2301/30	30...34mm
34	75	2301/34	34...39mm
39	90	2301/39	39...45mm
45	90	2301/45	45...51mm
51	100	2301/51	51...57mm
57	100	2301/57	57...63mm
63	100	2301/63	63...69mm
69	100	2301/69	69...74mm
74	100	2301/74	74...78mm
78	100	2301/78	78...87mm



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Installing the die set

Quickly replacing the tool base can store the mold set under the machine. The mold set can be installed one set at a time into the main mold using quick change tools.

- . Before installing dies, make sure that the master dies are clean.
- . **STOP THE MOTOR PRIOR TO CLEANING DIES.**
- . Afterwards, start the motor, select the mold changing mode, and open the mold to its maximum retraction.
- . Insert the pins of the tool into the die set in the die table, turn the tool clockwise and pull the whole set out (Fig. 1, next page).
- . Hold the handle of the quick change tool as shown in figures 1 and 2, and make sure your hand will not get between the dies.
- . Mount the die set between master dies (Fig. 2) and start closing the dies.

TO AVOID DAMAGING MASTER DIES, MAKE SURE THAT ALL DIE SET PINS HIT IN THEIR HOLES.

- . Close the master dies completely until the pins are locked in their places (Fig. 3). Remove the tool. The dies are now ready for use (Fig. 4).
- . Die set is removed from the master dies in reverse order: close the dies, insert the tool into the die set, open the master dies and place the set back in the die table.

Fig. 1



Fig. 2

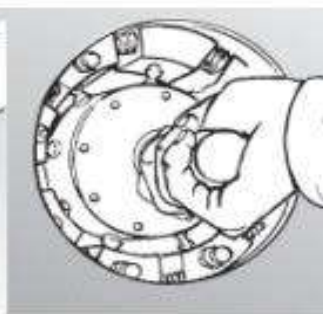
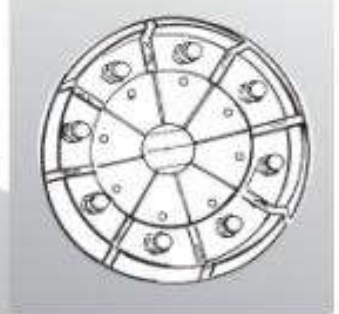


Fig.3



Fig. 4



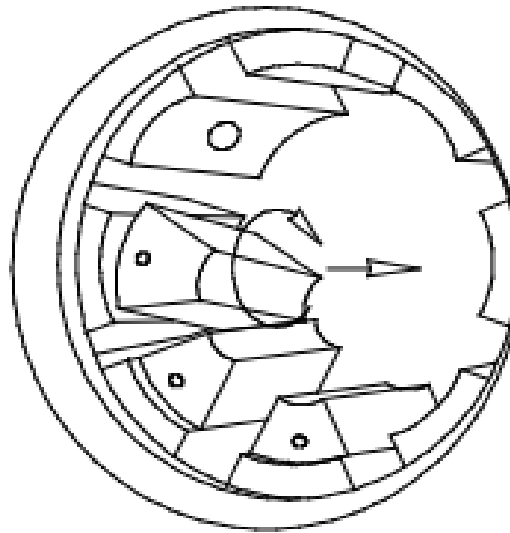
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CHANGE OF A SINGLE DIE P32

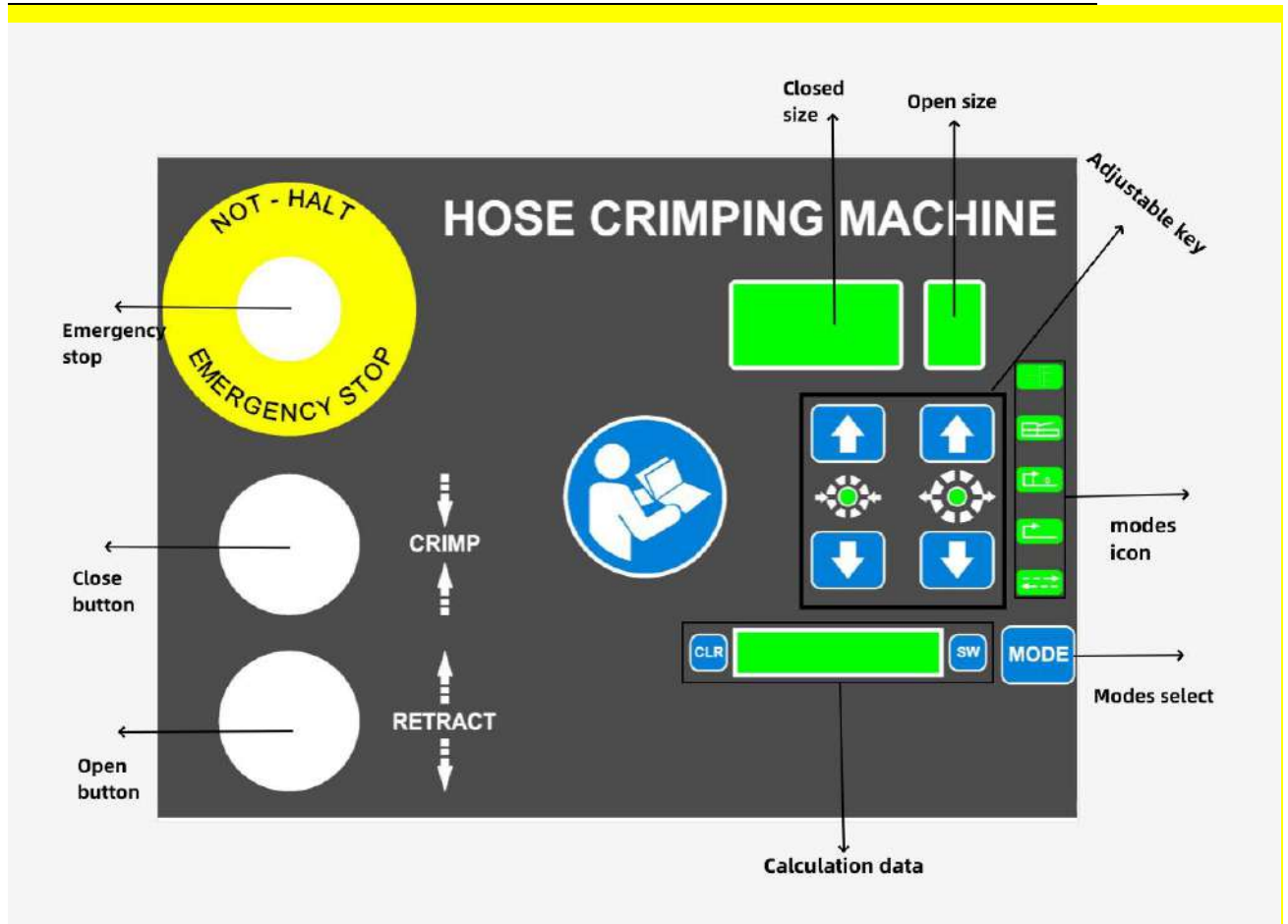
- . Start the motor and depress the retraction button until maximum retraction is reached. Stop the motor.

CAUTION ! THE MOTOR SHALL ALWAYS BE STOPPED DURING INSTALLATION OF DIES.

- . Prior to installing dies, clean the contact surfaces of both the die set and master dies properly to avoid damaging the surfaces.
- . Insert the die with the die set pin into the master die, die number always towards you.
- . After installing all the dies, make sure they are straight and properly seated in the master dies.
- . Remove the die by turning it round the die set pin and pulling it parallel to the die set pin, so that the die set pin comes out of the hole.



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Function Instruction:

- ❖ **Closed size:** to display the closed diameter of die base
- ❖ **Open size:** to display the open diameter of die base
- ❖ **Adjust key:** to adjust and select the dimension for close or open
- ❖ **Emergency stop:** to stop the device for emergency
- ❖ **Modes icon:** to display all the modes of the machine
- ❖ **Mode select key:** mode selection
- ❖ **Close button:** to close the die base
- ❖ **Open button:** to open the die base
- ❖ **Calculation data:** Display total count and stage count

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Modes instruction:

 **Manual mode:** run the machine manually.

 **Semi-automatic mode:** when clicking the close button, the machine will run to finish a crimp-retract cycle and then stop.

 **Time delay mode:** under this mode, the closed or open data means the time that you want to delay, you can set them by adjustable key. The icon is light continuously when the delay time is set, or it won't light.

 **Foot pedal mode:** In this mode, the foot switch replaces the close button

 **Quick change mode:** under this mode, the closed size and open size are preset, operator can change dies by quick change tool fast and safely.

Note: quick change tool is optional tool.

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Trial operation control

Start the motor.

Set the leftmost value on the screen to 0.0.

During the first curling cycle, the air in the cylinder may cause the piston/mold to move irregularly at high speeds. Press repeatedly until the action becomes even.

To avoid accidents, please ensure that there are no foreign objects between the molds.

If the mold does not move in any direction, the motor will rotate in the wrong direction. Correct by replacing the two-phase wires in the power disconnect device.

Setting the crimping diameter MS

DIE SET NO										
	Ø min	+1 mm	+2 mm	+3 mm	+4 mm	+5 mm	+6 mm	+7 mm	+8 mm	+9 mm
32-10	10	11	12	13						
32-12	12	13	14	15						
32-14	14	15	16	17						
32-16	16	17	18	19	20					
32-19	19	20	21	22	23					
32-22	22	23	24	25	26	27				
32-26	26	27	28	29	30	31				
32-30	30	31	32	33	34	35				
32-34	34	35	36	37	38	39	40			
32-39	39	40	41	42	43	44	45	46		
32-45	45	46	47	48	49	50	51	52		
32-51	51	52	53	54	55	56	57	58		
32-57	57	58	59	60	61	62	63	64		
32-63	63	64	65	66	67	68	69	70		
32-69	69	70	71	72	73	74	75	76		
32-74	74	75	76	77	78	79	80	81		
32-78	78	79	80	81	82	83	84	85	86	87

CHECK
NEXT
DIE SIZE

From the crimping diameter table on the electrical box door, you can see the mold number and corresponding crimping range. The upper part of the chart displays the position of the dial corresponding to each bead diameter in each column. (The digital version will be displayed on the screen, with the crimping diameter on the left and the retraction position on the right.)

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It is not recommended to use the crimping diameter in the gray area of the chart.

The crimping diameter has been calibrated at the factory, so when the curl size is adjusted to 00.0, the obtained diameter will be the minimum diameter of the installed mold group, that is, using the 32-16 mold group, the crimping diameter will be 16 mm, and the diameter of the 32-19 mold group will be 19 mm, etc. Whenever the size adjustment increases by 1, it will increase the crimping diameter by 1 mm.

EXAMPLE:

The manufacturer has specified a crimping diameter of 20.6 mm for the joint. Select molds 20-19 based on the mold chart (minimum crimping diameter 19 mm). Adjust the curl value through the up and down arrows, 016. This setting will result in a rolled edge diameter of 20.6 mm (19+1.6 mm).

The machine has been calibrated at the factory with 40 bar pressure. This means that when you are crimping a fitting requiring 40 bar pressure, the measuring scale of the crimping diameter dial provides an accuracy of $\pm 0.1\text{mm}$ (possible elastic recovery of the fitting not regarded).

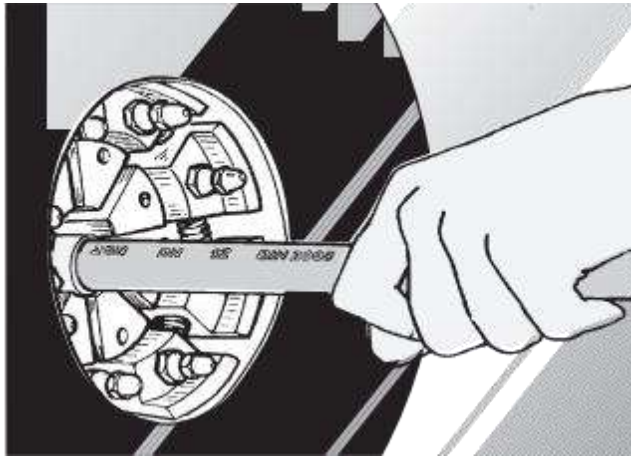
When fittings requiring higher pressure are crimped, the crimping diameter may become larger than the value on the scale due to machine deflections. Then the crimping diameter has to be corrected by changing the scale value.

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Crimping MS -control

WHEN CRIMPING A FITTING, HOLD THE HOSE FAR ENOUGH TO AVOID CRIMPING YOUR HAND !

- . After installing the proper die set and adjusting the crimping diameter, insert the hose and fitting between the dies.
- . Depress and hold down the crimping push-button until the preset diameter has been reached.
- . Press the shrink button until it stops, then press the open button to remove the crimping component.
- . Check the result and measure the diameter. If necessary, correct the scale value and crimp again.

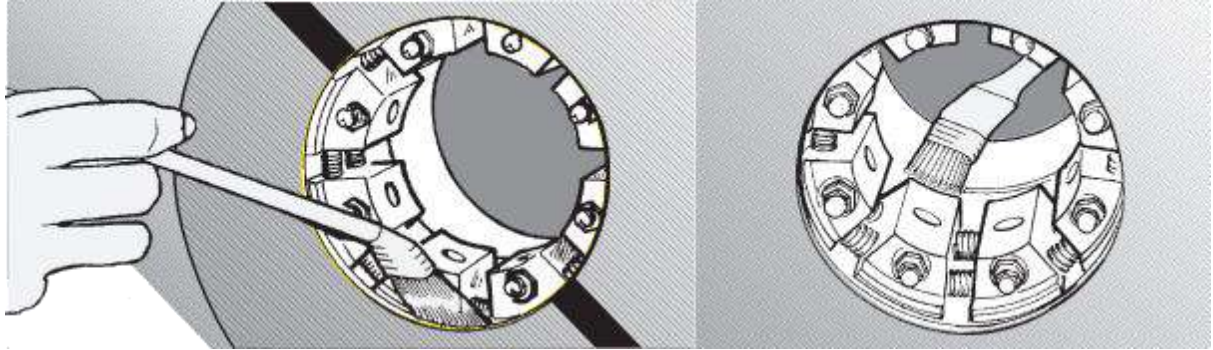


PREVENTIVE MAINTENANCE

- . The following maintenance operations can be performed by the operator according to the instructions below. However, electrical works and repairs like changing seals or the pump must only be carried out by a qualified specialist.
- . **PRIOR TO ANY SERVICING OPERATION, TURN THE SUPPLY DISCONNECTING DEVICE TO POSITION 'OFF'.**
- . **BEFORE CHANGING THE MOTOR CIRCUIT BREAKER OR UNDERVOLTAGE TRIP, DISCONNECT THE PLUG OR SUPPLY CABLE FROM THE MAINS !**
- . Open the dies to maximum retraction before servicing.
- . Lubricate the inner surface of the conical flange with pressure resistant grease or equivalent products every day. (For models such as 140, butter is injected onto the surface of the machine through the butter nozzle using a butter tool.)

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- . Use a small brush to apply lubricating grease to the conical surfaces before and after the mold. (P32/20 model)
- . Lubricate often with a small amount of grease rather than seldom with much grease.
- . Do not grease the piston rod. (P32/20 model)



Oil change

- . Drain the fuel tank through the drain plug on the side of the tank.
 - Handle the waste oil according to law.
 - Fill the tank to centre line of the indicators in the dipstick of the filling cap.
- Recommended oil: Shell Tellus T46 or equivalent.
- Change hydraulic oil after the first 500 hours of operation and every 1000 hours thereafter.
- It is recommended to pump the oil into the tank through a 20 μ filter, because new oil in drums is not pure.
- If any oil has run out on the floor, wipe it away.

Troubleshooting is to be carried out by a serviceman.

GUARANTEE

The machines produced by are guaranteed against defects in material and manufacture. Within the limits of the guarantee, the defective part will be replaced with a new one, or when possible, repaired free of charge.

The validity period of this guarantee is 12 months after commissioning.

The guarantee does not compensate for damage due to improper use, overload, neglect, or normal wear. Working and travelling costs as well as freight charges caused by guarantee repairs are not covered by the guarantee.

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Warranty repairs should be carried out at Chinese factories or authorized service agencies. If warranty is required, the customer must prove that the machine is within the warranty period

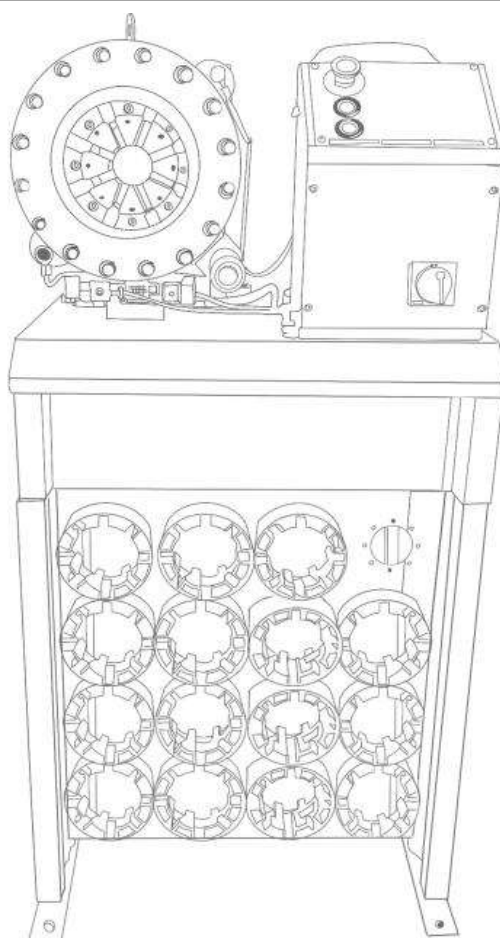
. In case guarantee repair is demanded, the customer has to prove that the machine is under guarantee.

DO NOT WARRANT FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, OR FOR ANY OTHER LOSS, DAMAGE OR EXPENSE OF ANY KIND, INCLUDING LOSS OF PROFITS.

Technical data P32

		3-phase	1-phase
Capacity	in	2	2
Crimping diameter range *)	Ø (mm)	4...87	4...87
Max opening	mm	33	33
Pump	l/min	12	2.8
Max pressure	bar	275	275
Crimping force	kN	2000	2000
Theoretical production capacity	per hour	850	200
Sound pressure level	dB(A)	71	71
Enclosure class		IP 54	IP 54
Closing speed of master dies	mm/s	2.7	0.6

Weight 260 kg, excluding oil.



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**READ THE INSTRUCTIONS THOROUGHLY TO SECURE
CORRECT OPERATION OF THE MACHINE!**