

# ALLFETT®

CENTRAL LUBRICATION SYSTEMS & EQUIPMENT



**ALL-5 Two Line - Barrel AC  
ELECTRICAL GREASE PUMP**

## **INTRODUCTION AND USER MANUAL**

**VERSION 2.10**

## INTRODUCTION

All industrial machinery, equipments and vehicles are working under abrasive operating conditions. The wear between frictional parts become the most highest level at these conditions. Machinery expose bad weather, dust, dirt, rain, snow and heavy weight in most cases. Consequently unwanted breakdowns occur and by that way productivity loss is inevitable.

Using automatic lubrication system only increase your profitability. ALLFETT completely take over the work load spend on lubrication with a system which is bringing together a pump, control unit, distributors, tubes and couplings. Lubrication work is done by ALLFETT centralized lubrication systems in efficient time of machinery or vehicle which is while operating.

Lubrication is important for all frictional parts but using correct lubrication system and method only protect parts from wearing for a long time. Feeding lubrication points with correct dosage of lubricant at certain intervals while machinery is operating, provides lubricant film in place longer between parts. By ALLFETT lubrication systems life time of parts on your machinery and vehicles will be increased.

## ABOUT MANUFACTURER

With over 25 years experience of manufacturing Centralized Lubrication Systems ALLFETT is able to provide a wide professional approach to select the correct Centralized Lubrication System for industry and heavy machinery.

A highly accurate manufacturing process is involved in producing Centralized Lubrication Systems in order that systems meet the very tight quality procedures and state of the art processes are employed. ALLFETT is among the few companies whose products meet the exact technical and quality standards for a correct central lubrication. We present our high quality and advanced product design concept to our worldwide costumers through our strong brand.

ALLFETT creates new opportunities and innovative solutions. As a result of the satisfaction of our customers with our good quality lubrication systems we are continuing in growing in the local and international market and became one of the successful companies in the field.

## WARNINGS

Symbols and words shown below are meant to warn a particular risk to persons, material assets, or the environment. Please carefully read this manual before installing. Failure to follow the instructions and safety precautions in this manual could result in serious injury or property damage.



**Caution**



**Notice**



**Electricity**



**Prohibition**

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## PRODUCT DESCRIPTION

ALL-5 AC electrical grease pumps are manufactured only for lubrication purpose. Pump displacement is various to provide required lubrication needs. Pump system doesn't have lubricant reservoir. 16 and 20 liters grease buckets and also 180 liters grease barrels can be used as reservoir. Pump system can be manufactured for different bucket or barrel volume type.

ALL-5 AC pumps has 3 different type grease pistons. Each piston delivers different amount of grese to pump outlet. Also outlet pressure is variable.

Pump working principle is also variable to provide different requirements. ALL-5 AC standard type pumps are controlled with pressure switch. ALL-5 AC pumps can also work with by-pass system.

## GENERAL SPECIFICATIONS

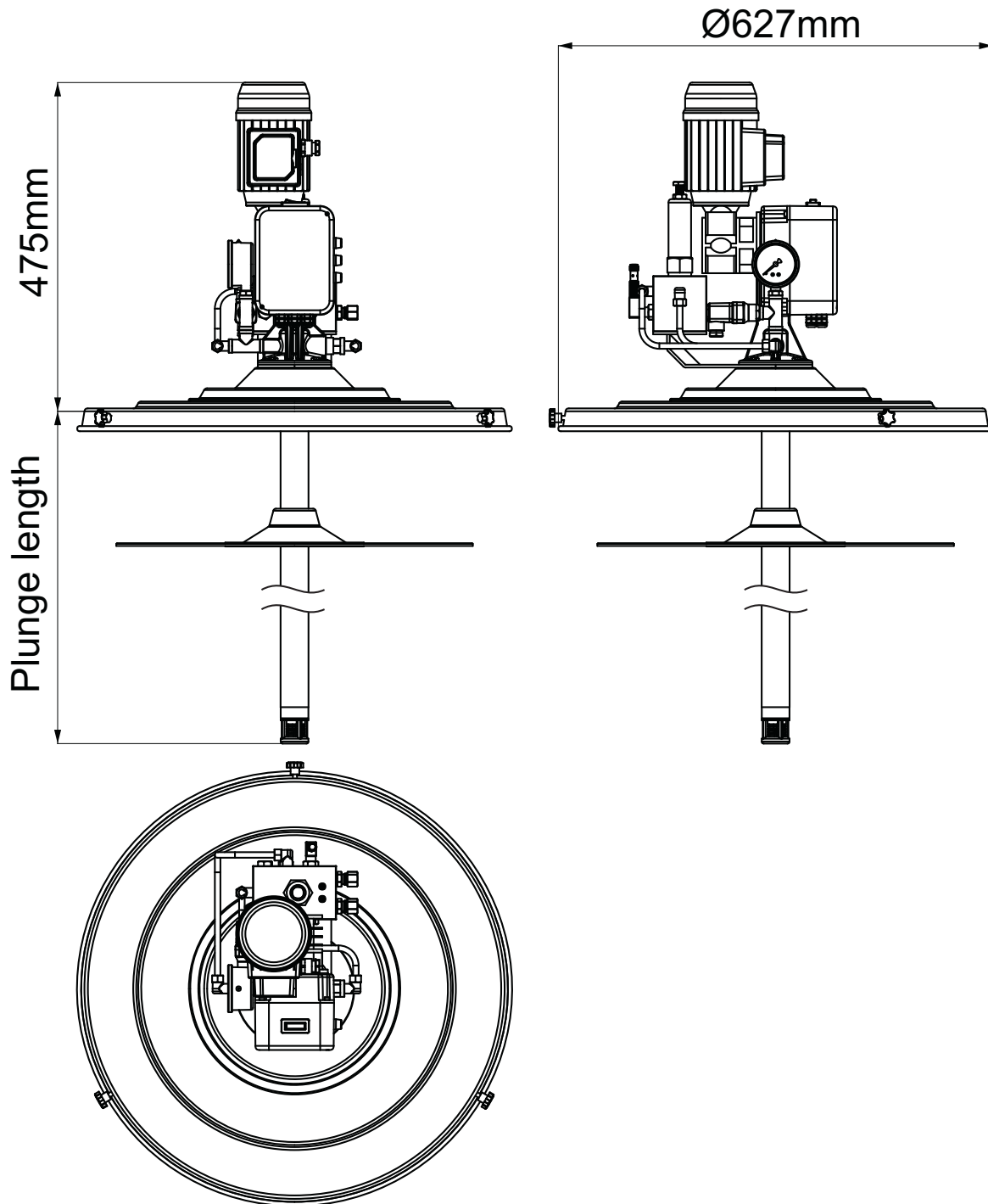
<b>Motor type</b>	: 380 V AC
<b>Maximum pressure</b>	: 200 bar.
<b>Motor protection class</b>	: IP 54
<b>Grease type</b>	: <b>NLGI 0</b> (-10°C) - (0°C) <b>NLGI 1</b> (0°C) - (10°C) <b>NLGI 2</b> (10°C) - (30°C)
<b>Working temperature</b>	: -25°C +80°C
<b>Pump outlet</b>	: 1 outlet
<b>Pump outlet thread</b>	: R 1/4
<b>Pump outlet displacement</b>	: <b>(Ø12)</b> 140 cm <sup>3</sup> / minute <b>(Ø16)</b> 250 cm <sup>3</sup> / minute <b>(Ø20)</b> 390 cm <sup>3</sup> / minute
<b>Two line component</b>	: Standard two line system direction valve integrated with pump unit



**ALL-5 pums are manufactured only lubrication purpose. It is not convenient to run these pumps more than 2 hours continuously.**

## GENERAL DIMENSIONS

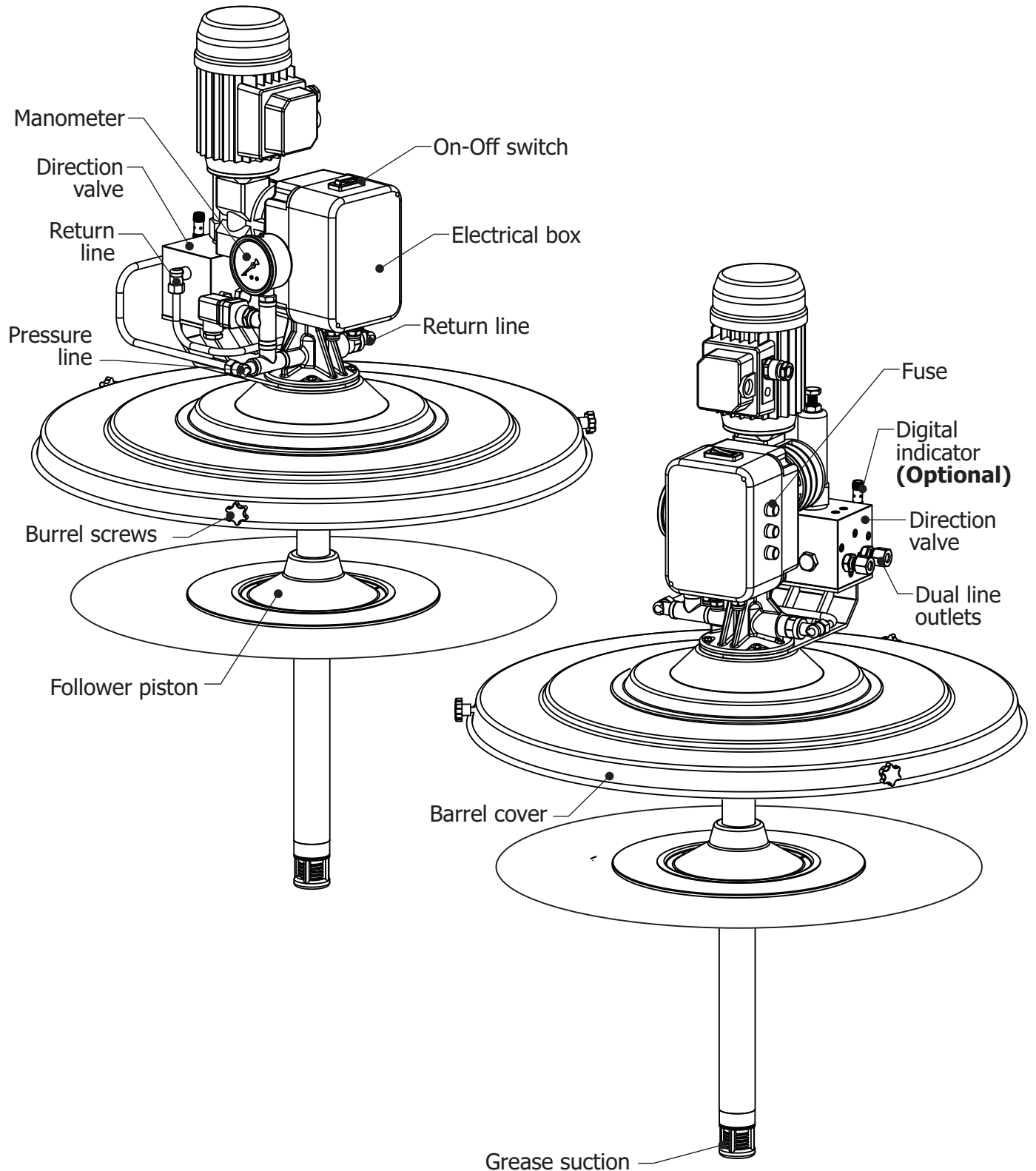
Drawings in this page represents the ALL-5 two line AC pumps which is used with grease barrels. Dimension unit is millimeter.



**ALL-5 pump plunge length can be produced for optional barrel sizes.**

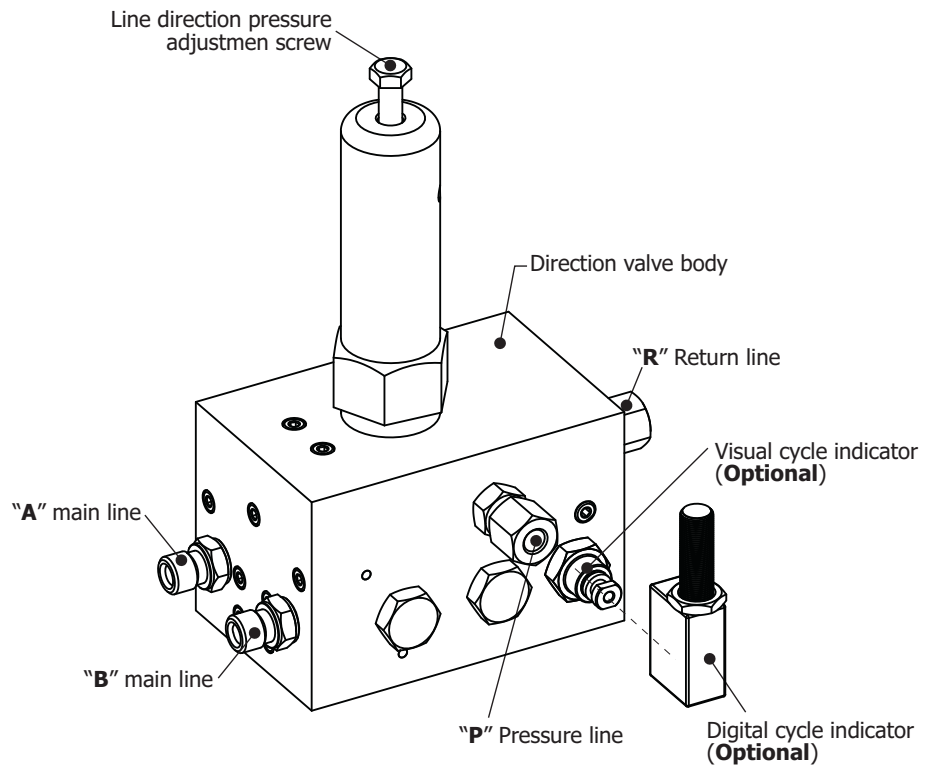
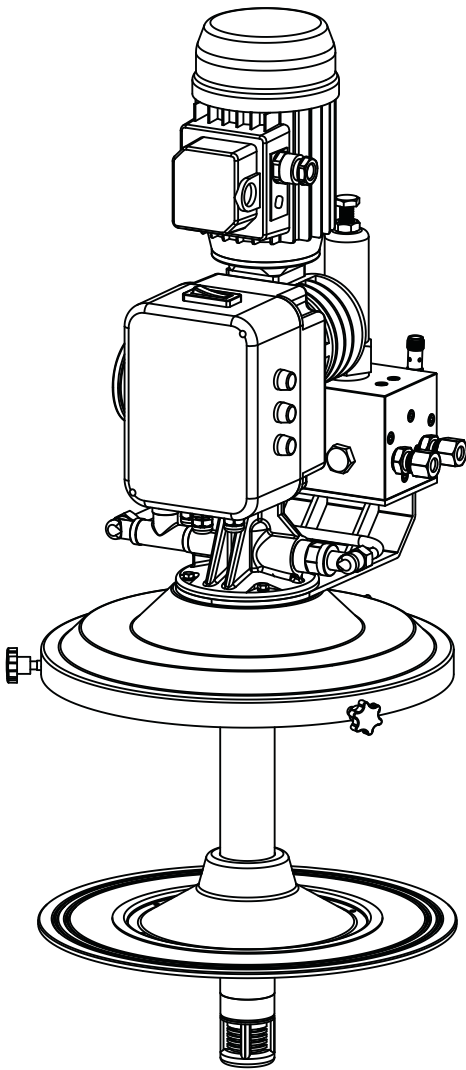
## PRODUCT COMPONENTS

Drawings in this page represents the ALL-5 two line AC pumps which is used with grease barrels. Optional specifications described separately.



## TWO LINE SYSTEM DIRECTION VALVE

Drawings in this page represents the two line system direction valve components. All standart and optional components are described.



**Outlet couplings are not included with distributor and direction valve orders. Outlet couplings must be ordered separately.**



**Unauthorized modifications to the units and the use of unauthorzied spare parts and aids prohobited and disqualify the warranty.**

## FUNCTIONAL DESCRIPTION OF DUAL LINE SYSTEM

Lubrication phase starts with electrical signal coming from electronic control box to pump. When pump starts to operate certain amount of grease (depends on which piston unit is used) is sent to direction valves pressure port.

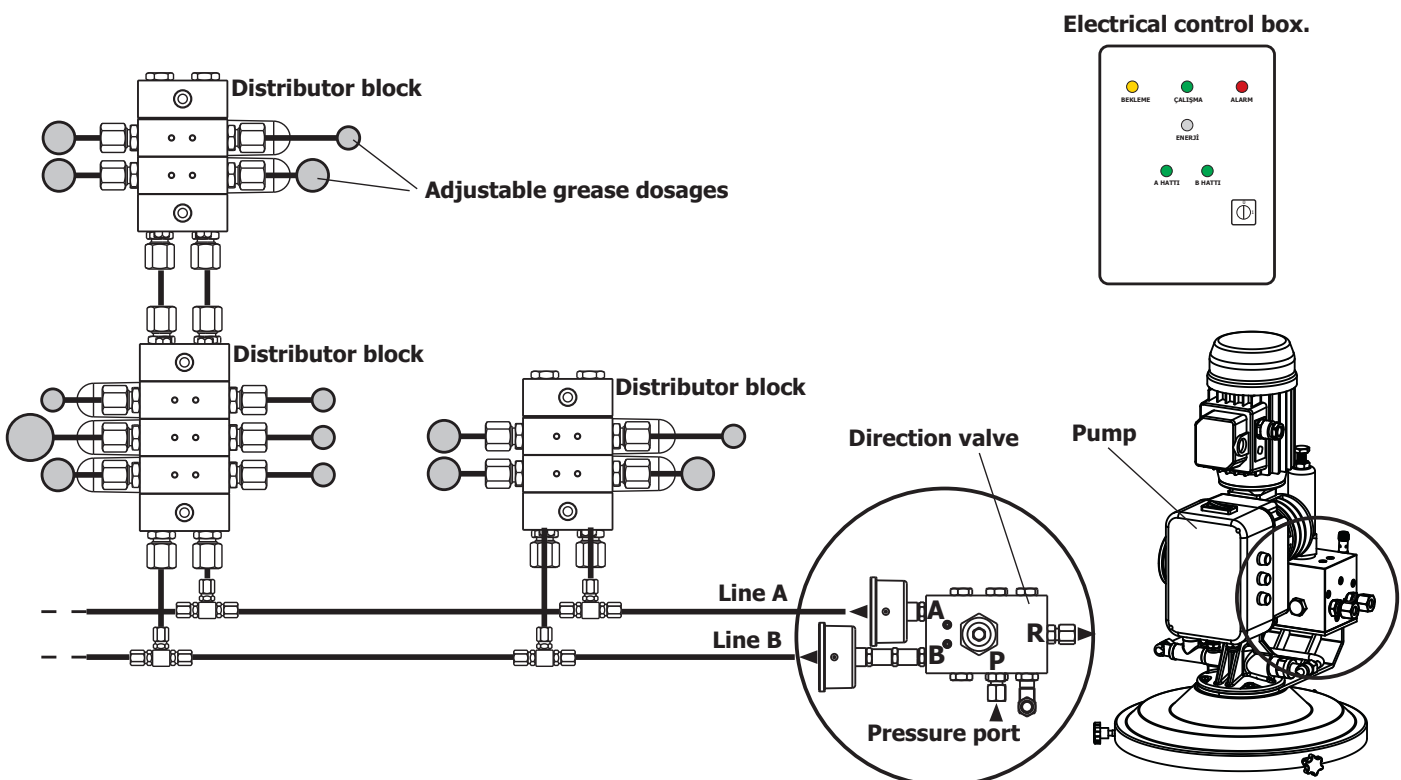
Grease coming from pump to direction valves pressure port will be directed to lubrication lines by turns. There are two main lubrication lines which described with line A and line B shown below.

Direction valve opens first line A port to fill distributor dosage volumes with grease coming from pump. When all dosage volumes (depends how many distributor is present) in line A are filled with grease direction valve opens line B port and closes line A port.

Port direction inside direction valve is controlled by pressure screw. This screw controls the pressure amount of directing. When any lubrication line (line A or Line B) is completely filled with grease, pressure will be increased. When pressure reaches to the adjusted port direction pressure, direction of the pressurized grease coming from pump is changed to other lubrication port.

According to dual line system working principle, lubrication in distributor to lubrication point is occurs while other lubrication line is filled with grease. That means while line A is started to fill with grease at the same time line B lubrication points is started to lubricate. Lubrication is completed when direction valve changes the port. When lubrication points connected to line A and line B are lubricated single lubrication period is done.

Lubrication period is controlled by ALLFETT electronic control card depends on the system needs. Optional cycle switches and pressure switches can be used to monitoring system.





## LUBRICANT INFORMATION

Lubricant specifications can be used with ALL-5 pumps are described below. Before using the pump please read carefully these informations.

ALL-5 electrical grease pumps use standard grease buckets or barrels as a reservoir. This buckets or barrels should be supplied separately.



**Grease packing (bucket or barrel) must be changed when empty with new one. Do not refill the packing.**

### Lubricant type can be used with pump - GREASE

NLGI classes can be used with ALL-5 pumps are described below. Because of the flow characteristics of grease the NLGI class range should be changed at different weather conditions and also temperature differencies.

for **NLGI 0** grease recomended working temperature is between -10°C and 0°C

for **NLGI 1** grease recomended working temperature is between 0°C and 10°C

for **NLGI 2** grease recomended working temperature is between 10°C and 30°C



**Lubricant will be used in the system must certainly be clean and any foreign materials must not enter while filling.**



**Only LITHIUM based and EP additive liquid greases must be used with in system.**

It is important that the grease will be used must resistant to high pressure. Make sure the liquid grease you are using is EP additive.



**To remind that lubricants has content which may hazardous to environment. It is important that the county specific regulations and laws on the use and disposal of lubricants must be observed.**



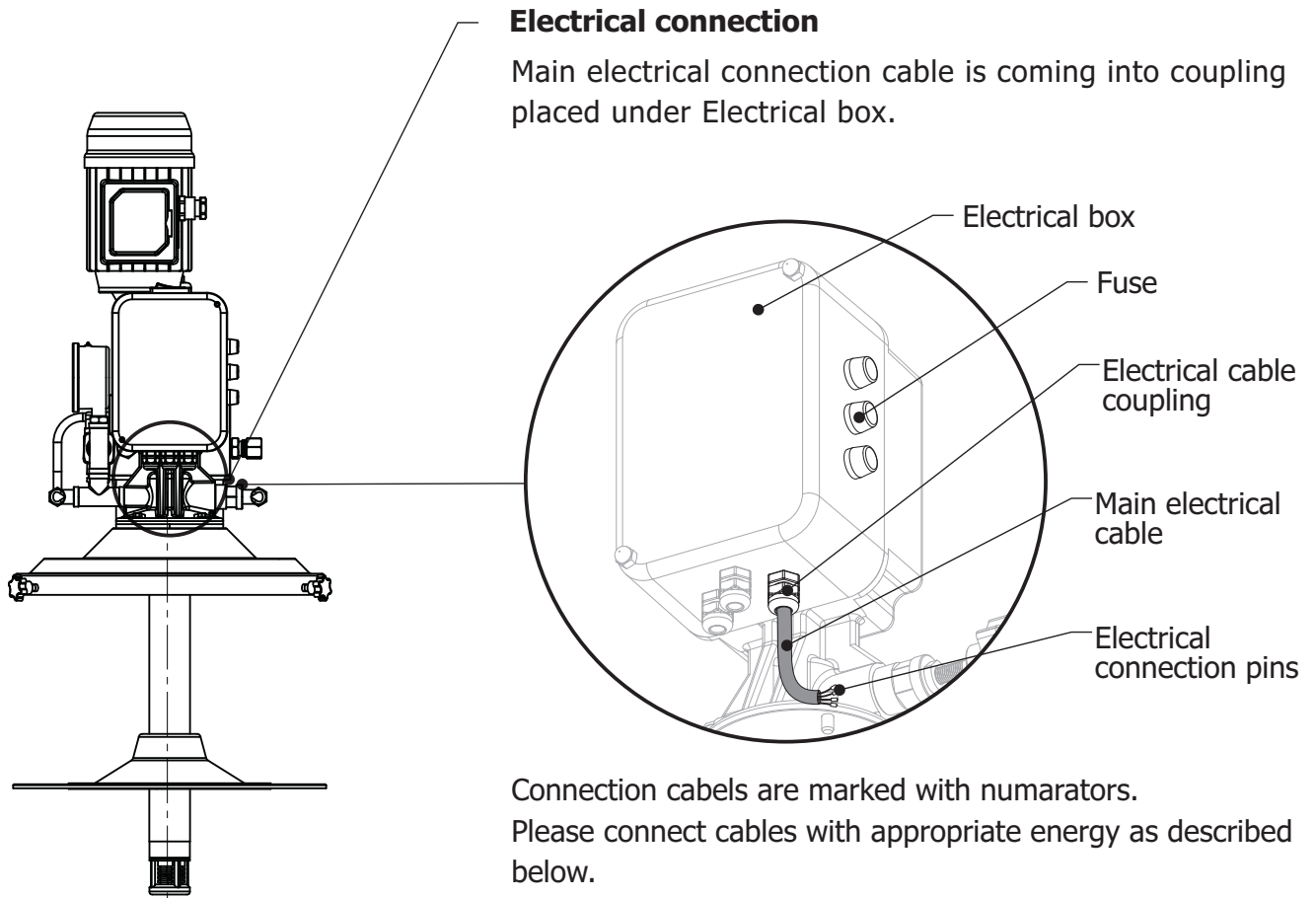
**ALL-5 pumps are designed to use with in centralized lubrication systems only. It is not suitable to use ALL-5 pump for lubricant tranfering or circulation purpose.**



**Do not use rubber based grease in system.  
Do not use grease types with graphite in system.**

## ELECTRICAL CONNECTION INSTRUCTIONS

ALL-5 standard and by-pass type pump series electrical connection principle is same. Please follow the instructions below to make connections.



**380 V AC connections**

R	S	T	N	⏚
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**220 V AC connections**

L	N	⏚
---	---	---



**ALL-5 AC series has 2 different motor version.**  
**380 V version operated by 380 V AC electrical motor.**  
**220 V version operated by 24 V DC motor with transformer inside electrical box.**



**Any maintenance on ALL-1 pumps under electrical voltage could lead to personal injury.**  
**Disconnect all electrical power before any maintenance .**



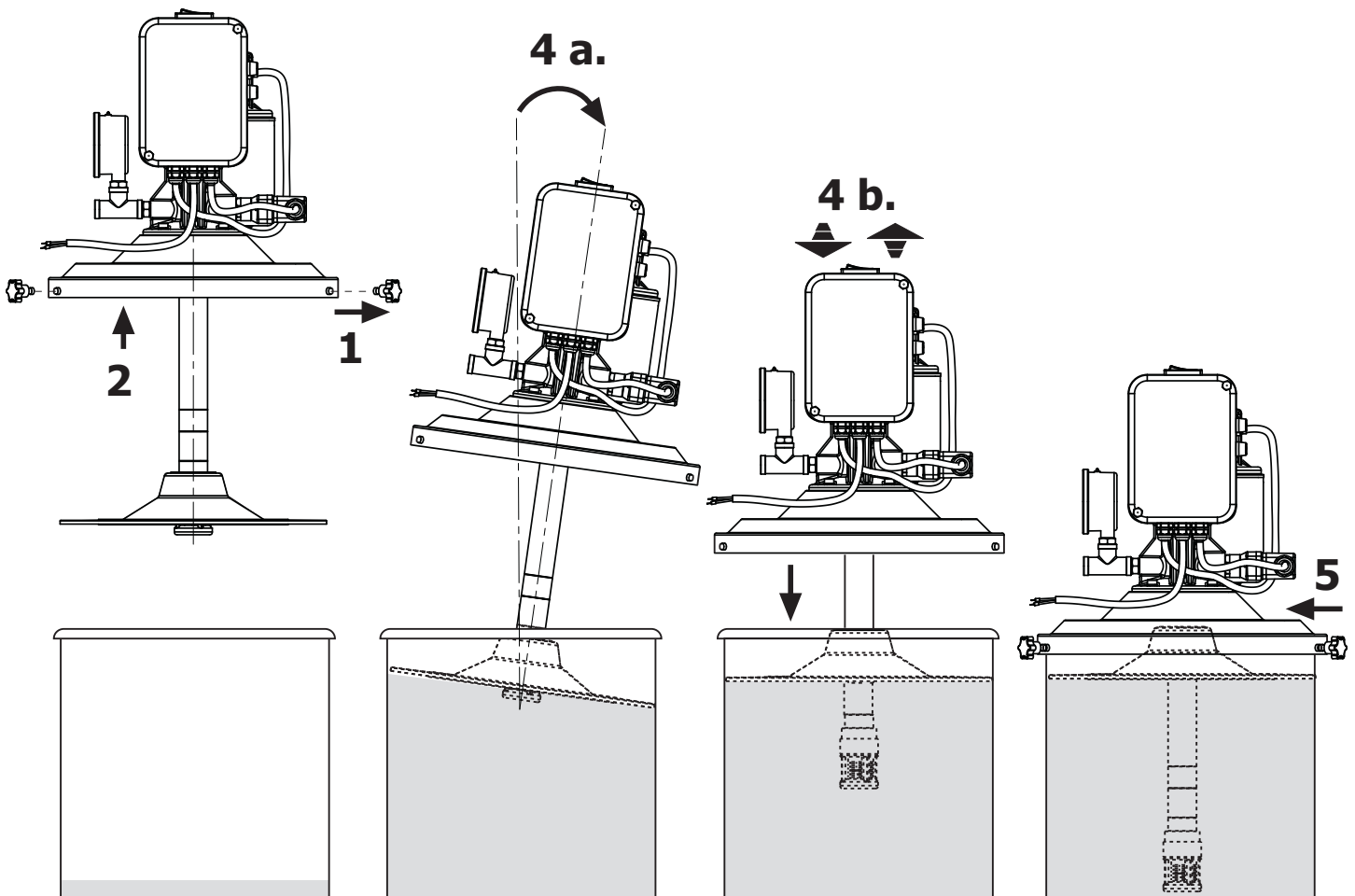
**Unauthorized modifications to the units and the use of unauthorized spare parts and aids prohibited also disqualify the warranty.**

## BUCKET / BARREL CHANGE INSTRUCTIONS

ALL-5 pumps doesn't have reservoir. 16 or 20 liters standard grease buckets or barrels are used as reservoir. To avoid contamination of lubricant and trouble free usage, grease bucket or barrel must be changed with new one when its empty. Follow the instructions below to change

1. Remove screws from cover.
2. Lift up the pump from bucket carefully by holding pump from cover.
3. Open grease bucket cover to ready to place pump.
4. **a.** Place the pump angled into buckets top as shown in schema below.  
**b.** Put the pump completely vertical position to bucket. Then push cover to down while moving pump forward and backward slowly. This movement avoids the pump take air.
5. Tighten the cover screws again.

Pump is now ready to operate.



**Bucket and barrel changing procedures are same. Pump should placed into grease without taking air.**

## **RULES TO COMPLY WHILE USING AND WARRANTY CONDITIONS**

- 1.** Damages occur while additional transports after delivering the goods from ALLFETT to the customer **DISQUALIFIES THE WARRANTY.**
- 2.** Pumps are produced to lubrication purpose only and are not convenient to work more than 2 hours continuously. Working under maximum pressure more than 2 hours will harm the system. Damages occur from this reason **DISQUALIFIES THE WARRANTY.**
- 3.** Washing of the pump with pressured water causes damage. Any damage occur from this reason **DISQUALIFIES THE WARRANTY.**
- 4.** Pumps have an electric driven motor. Electrical lines must be connected properly by qualified and instructed personel.
- 5.** All electrical connections and lines must be checked regularly for damage and to ensure that they are firmly in place.
- 6.** Damages coming from voltage fluctuation, wrong electricity installation, connecting wrong voltage to product **DISQUALIFIES THE WARRANTY.**
- 7.** Keeping an uncovered cable(s) during system assembly may cause fatal damages where high voltage is transformed to low voltage. Lines must be connected properly to prevent personal injury and damage to property.
- 8.** Transformer is necessary if there is no " 24 V DC " electrical source. Use minimum 30A current transformer.
- 9.** Only proper NLGI class lubricants must be used with in system. NLGI class must be changed according to weather conditions. Use NLGI 0 for cold weather, increase the NLGI class up to 3 towards hot weathers.
- 10.** Only LITHIUM based and EP additive lubricants must be used with in system.
- 11.** Rubber based lubricant types must not be used in the system. Damages or faults occur from this reason **DISQUALIFIES THE WARRANTY.**
- 12.** Lubricant will be used in the system must certainly be clean and any foreign materials must not enter while changing grease bucket or barrel.
- 13.** Any foreign materials, dirt or small particules lead to system units failing and possibly property damage to equipments. Damages or faults occur from this reason **DISQUALIFIES THE WARRANTY.**
- 14.** Disassembling or loosing any part while pump working is prohibited. Any damage coming from this reason **DISQUALIFIES THE WARRANTY.** Also any personal injury occur from this reason ALLFETT does not accept responsibility.
- 15.** Another goal of Centralized Lubrication Systems is to protect environment. So it is adviced to fill grease to the systems by mobile or hand pumps.
- 16.** Unauthorized modifications to the units and the use of unauthorzied spare parts and aids prohobited and **DISQUALIFIES THE WARRANTY.** Only maintenance may apply descibed in PAGE 14 - 15. ALLFETT Technical Service must be informed to any other possible troubles and necessary procedures must be performed.
- 17.** ALLFETT Mekanik ve Elektronik Sistemler SAN. TIC. LTD. STI and ALLFETT Pazarlama ve Dis Ticaret LTD. STI. does not accept responsibility for damages described in items above on equipments which ALLFETT systems are installed.

## PUMP MAINTENANCE

### 1. IF PUMP NOT STARTS

- a. Electrical connections of the pump may be loosen or broken. Check the electrical cables and connections of the system according to schemas on page 11.
- b. Connected electricity to pump may different then " AC " voltage. Connect the proper AC voltage.
- c. Pump is standard type and connected lubrication point is blocked ;
- d. Standard type ALL-5 pumps work with pressure switch. Pressure switch is adjusted to 200 bars limit pressure to stop the pump. If lubrication point is blocked, then pressure rise up and reaches to limit pressure. Remove the blockage of the lubrication point.
- e. If ALLFETT electronic control card is connected the system ;

Electronic control card may be in waiting period. Wait until working time starts.

If necessary control card pass to working period by pressing **ADDITIONAL CYCLE** button.

### 2. IF PUMP NOT SENDING GREASE

- a. Grease inside bucket or barrel is empty.  
Change the grease bucket or barrel according to items in page 16.
- b. Pump may take air due to work without grease ;

To take air out from pump system, remove the outlet coupling. Start the pump and continue to operate pump until grease without air coming from outlet. If grease is coming without air, stop the pump and put the outlet coupling again.

If no grease is coming from outlet or grease with air continue to come from outlet for long time ;

Please follof the steps on page 12. to re-place pump again the bucket or barrel.



**Any maintenance on ALL-1 pumps under electrical voltage could lead to personal injury. Disconnect all electrical power before any maintenance .**



**Unauthorized modifications to the units and the use of unauthorized spare parts and aids prohobited also disqualify the warranty.**

## ORDER INFORMATION

**Product name****Order number**

ALL-5 Two Line Bucket - 380 V AC - Ø12mm piston

**11 38 16 D1**

ALL-5 Two Line Bucket - 380 V AC - Ø16mm piston

**11 38 16 D2**

ALL-5 Two Line Bucket - 380 V AC - Ø20mm piston

**11 38 16 D3**

ALL-5 Two Line Bucket - 220 V AC - Ø12mm piston

**10 22 16 D1**

ALL-5 Two Line Bucket - 220 V AC - Ø16mm piston

**10 22 16 D2**

ALL-5 Two Line Bucket - 220 V AC - Ø20mm piston

**10 22 16 D3**

## OPTIONAL COMPONENTS

**Product name****Order number**

High pressure tube - Ø11,3xØ6,35 - 840 bar.

**51 00 05 05**

Barrel type follover plate

**20 00 20 00**

Barrel cover

**10 0687**

Grease gun

**10 GT 00 00**

"Z" Joint

**10 ZM 00 00**

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## SALES

**ALLFETT PAZARLAMA VE DIŐ TİCARET LTD. ŐTİ.**

Yeni Eyüp Bulvarı, Topçular Caddesi, Set Üstü, No:1 Demirkapı-Rami / İstanbul

Telefon: 0 212 501 32 01 (PBX)

www.allfett.net

Fax : 0 212 501 33 37

info@allfett.net

## WARRANTY

Utilisation of this warranty certificate has been permitted by The Republic of Turkey, The Ministry of Industrial and Commerce, The general Administration of Protection of Consumer Right and Competition, in accordance with the law numbered 4077 .

### PRODUCER COMPANY

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NAME : ALLFETT Mekanik ve Elektronik Sistemler  
San. ve Tic. Ltd. Şti.

CENTRAL ADRESS : Yeni Eyup Bulvari, Topcular Cad. Set Ustu, No:1 Demirkapı-  
Rami / İstanbul

TELEPHONE : 0212 501 32 01 (PBX)

FAX : 0212 501 33 37

### AUTHORISED PERSON

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SIGNATURE - STAMP : :

### PRODUCT

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TYPE : Electrical grease pump

BRAND : ALLFETT

MODEL : ALL-5 Standard

ALL-5 With by-pass

SERIAL NUMBER : .....

DELIVERY DATE / PLACE : .....

WARRANTY : 2 years

REPAIR TIME : 30 days

### SALER COMPANY

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NAME : .....

CENTRAL ADRESS : .....

TELEPHONE : .....

FAX : .....

BILL DATE / NUMBER : .....

## WARRANTY CONDITIONS

1. The warranty period is two years from the date of delivery.
2. The product including all its components is under the warranty of our company.
3. In case of defects within the warranty period the period spent in repairing is added to the warranty period. The repairing period is maximum 30 days. This period starts from the date of delivery of the product to the services centers or to the seller, the agency the representative, the importer or the manufacturer of the product respectively, in case there are service centers.
4. In case the product has material, workmanship or manufacturing defects, the product will be repaired free of charge and expenses of any sort including labor, the value of the parts replaced or any our charges.
5. The product will be replaced free of charge;
  - If the product permanently disfunctions due to repeating the same defect more than four times within the warranty period
  - If the maximum period for repairing is exceeded.
  - If it is determined that the defect cannot be repaired by report written by the service, or in the absence of service centers, by the seller, agency, representative, importer or manufacturer of the product respectively.
6. The present warranty does not cover damages resulting from importer handling by deviating from the instructions in the manual.
7. General administration of protection of consumer rights and competition in the ministry of industry and commerce may be applied for problems concerning the warranty certificate.





## DANGEROUS OR HARMFUL CONDITIONS TO ENVIRONMENTAL AND HUMAN HEALTH DURING USE

All ALLFETT systems are producing according to relevant provisions of security regulations. There is no risk for environmental and human health during use.



## TRANSPORT AND STORAGE

There are no restrictions on transportation by land, air and sea. In general, products should be stored in a dry and dust-free environment. The storage temperatures are between -10°C and +40°C.

All products are packed with paper based support material to reduce damage. Upon receiving the package please check the items for possible damage.

## QUALITY SYSTEM



This product is produced by **ALLFETT Mekanik ve Elektronik Sistemler San. Tic. Ltd. Sti.** company, which, is certificated by Bureau Veritas with certificate to compatible for ISO 9001:2008 standard and owner of the quality management system.







**ALLFETT MEKANİK VE ELEKTRONİK SİSTEMLER SAN. VE TİC. LTD. ŞTİ.**

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