

INTERLUBE

Auto Grease pump for Breaker

1. Photo
2. Dimension
3. Specification
4. Principle
5. Features and benefits
6. Effect
7. Installation
8. Grease refilling
9. Adjustment
10. Patent



1. Photo

MODEL : HL11CU-400

Cartridge Capacity : 400cc

Mounting Direction : Up
(Cartridge Up Type)



MODEL : HL11CU-300

Cartridge Capacity : 300cc

Mounting Direction : Up
(Cartridge Up Type)



MODEL : HL11CD-400

Cartridge Capacity : 400cc

Mounting Direction : Down
(Cartridge Down Type)



MODEL : HL11CD-300

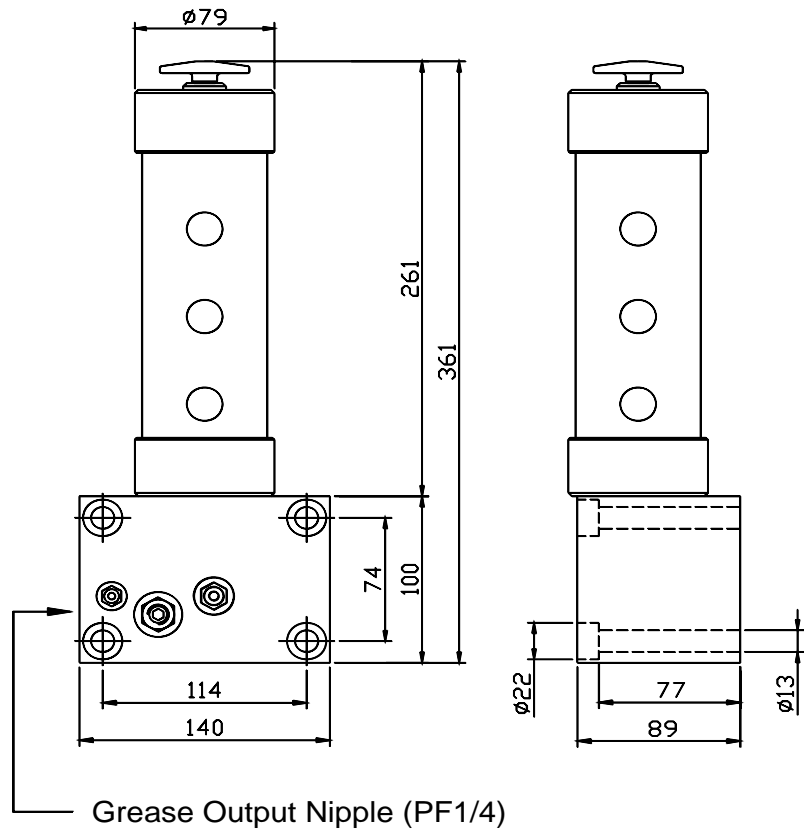
Cartridge Capacity : 300cc

Mounting Direction : Down
(Cartridge Down Type)

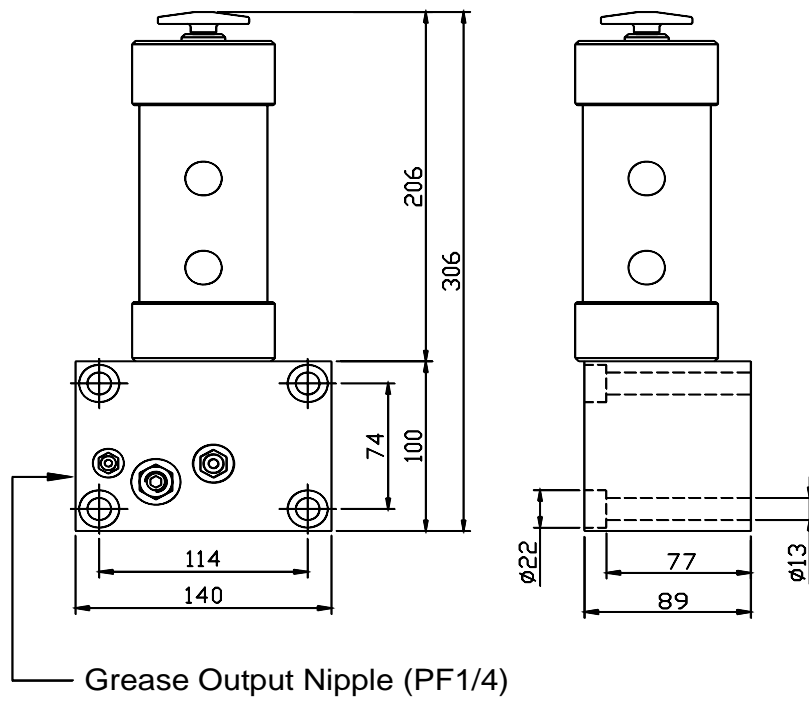


2. Dimension

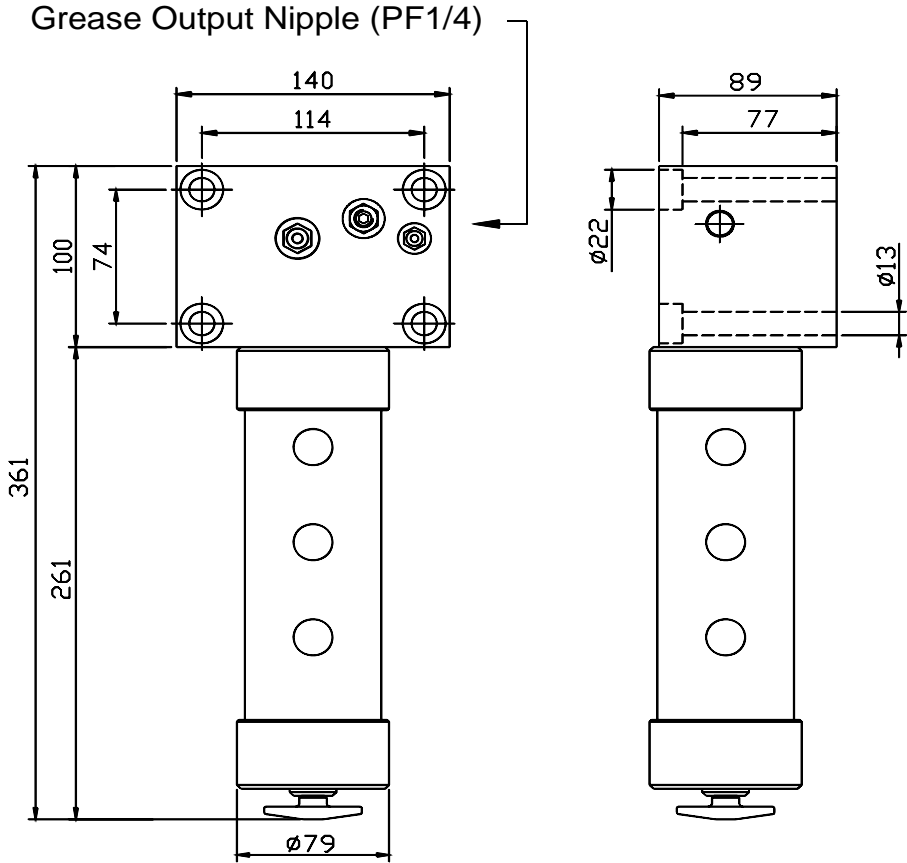
HL11CU-RC400



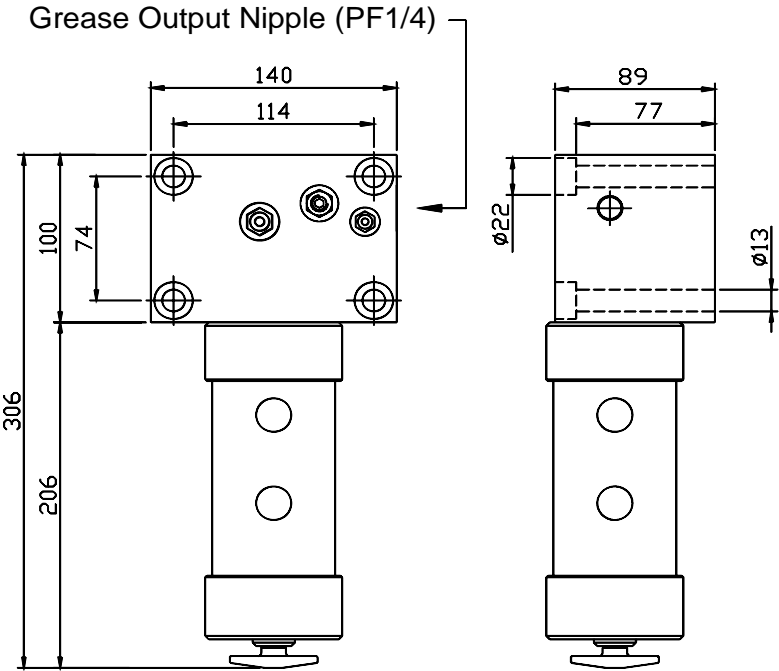
HL11CU-RC300



HL11CD-RC400



HL11CD-RC300



3. Specification

MODEL : HL11CU-400 , HL11CD-400

OutPut Pressure	about 10bar
Cylinder Capacity	400 ml
Exterior Size	140mm x 89mm x 361mm
Weight (Without Grease)	5.2 Kg
OutPut Port	PF 1/4"
Output Quantity	0.2cc ~ 1cc / 1min 12cc ~ 60cc / 1hour
Recommend Grease	MO2 Grease NLGI NO.2 (Normal Conditon) NLGI NO.1 (Under 10℃) NLGI NO.0 (Under 0℃)
Available temperature range	-10℃ ~ 50℃
Permissible main body temperature	-20℃ ~ 90℃

MODEL : HL11CU-300 , HL11CD-300

OutPut Pressure	about 10bar
Cylinder Capacity	300 ml
Exterior Size	140mm x 89mm x 306mm
Weight (Without Grease)	5.0Kg
OutPut Port	PF 1/4"
Output Quantity	0.2cc ~ 1cc / 1min 12cc ~ 60cc / 1hour
Recommend Grease	MO2 Grease NLGI NO.2 (Normal Conditon) NLGI NO.1 (Under 10℃) NLGI NO.0 (Under 0℃)
Available temperature range	-10℃ ~ 50℃
Permissible main body temperature	-20℃ ~ 90℃

4. Operating Principle

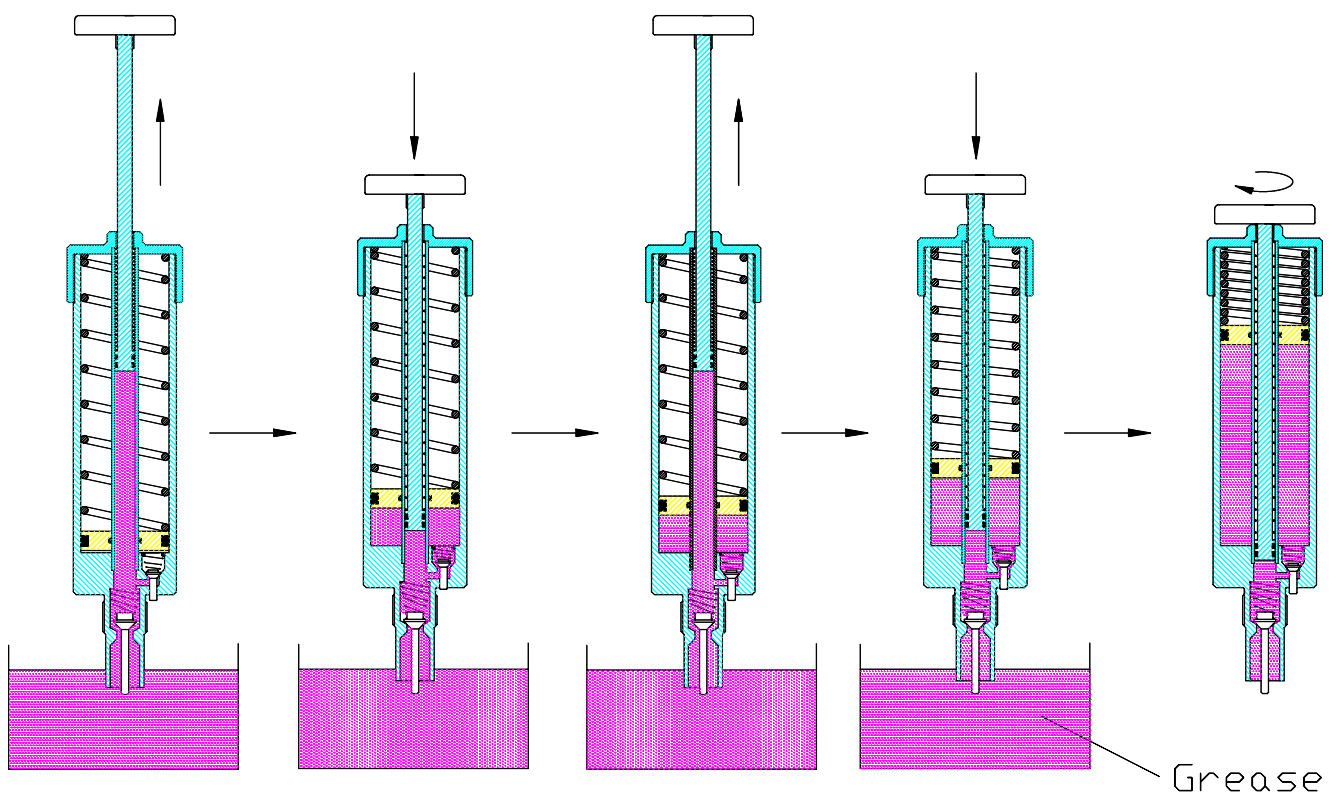
The repulsive power of spring which has been compressed during rechargement is the energy of this Auto grease pump.

The vibration – switch of the pump is operated while the breaker is working, and this switch controls a spout of grease.

Grease filling procedure

Compression cylinder (duplicate cylinder structure) sucks grease as per the following illustration.

Then, grease is compressed by the spring.

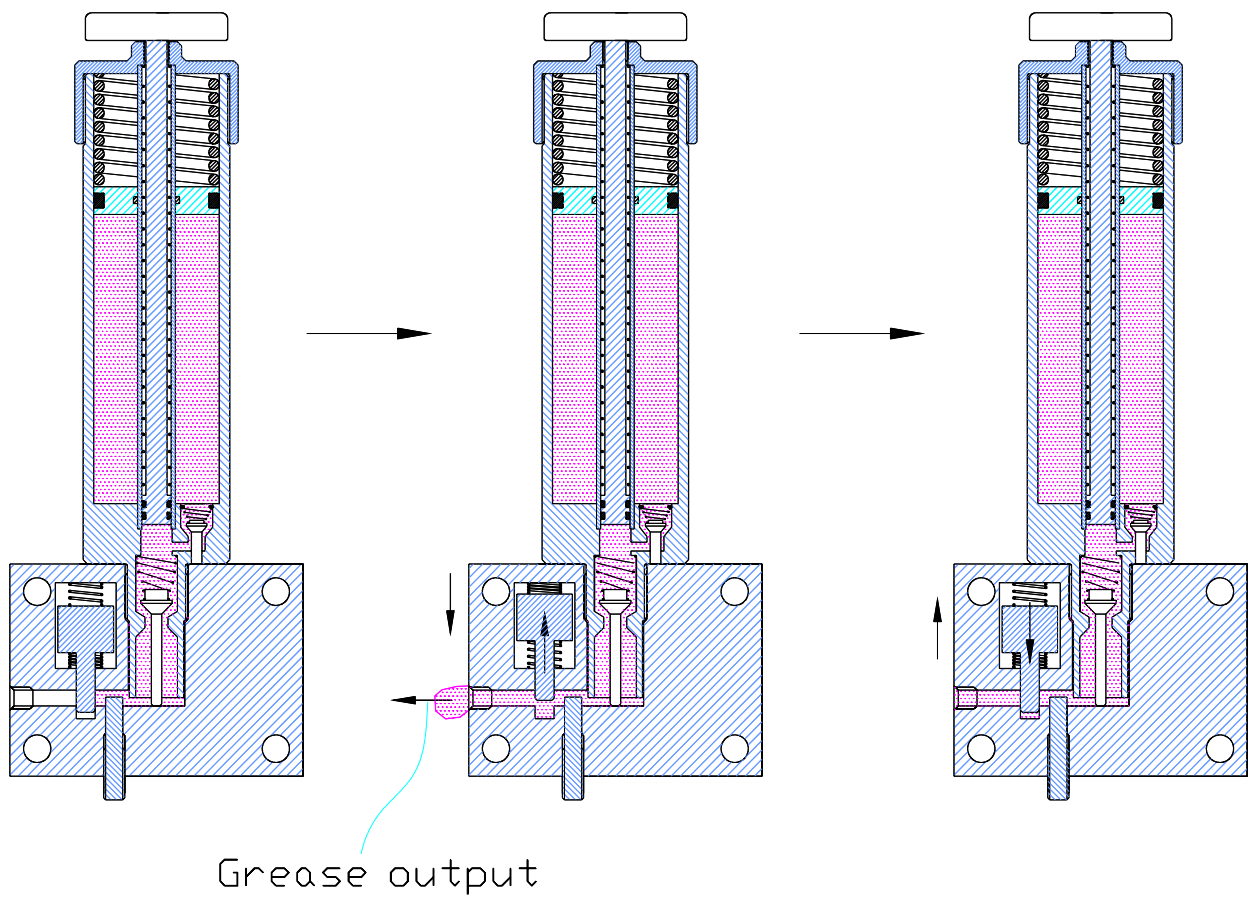


Grease filling procedure

Spouting of charged grease.

The charged cylinder is installed on the pump main body, then the check valve of the cylinder is open and grease is spouting out.

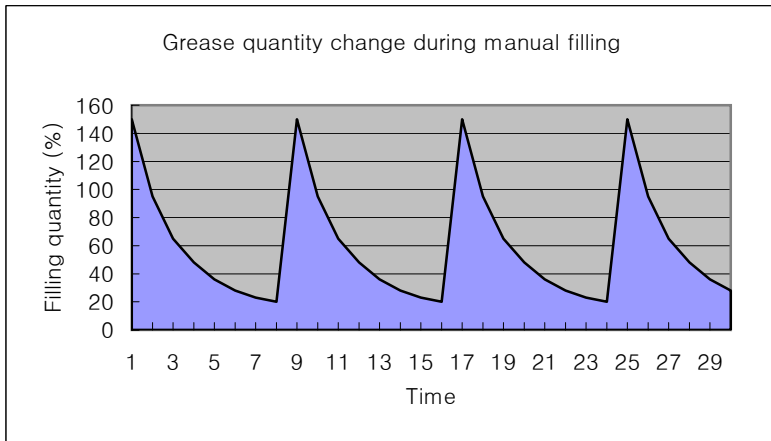
The grease is spouted regularly by the vibration switch during the breaker is operating only.



5. Features and benefits

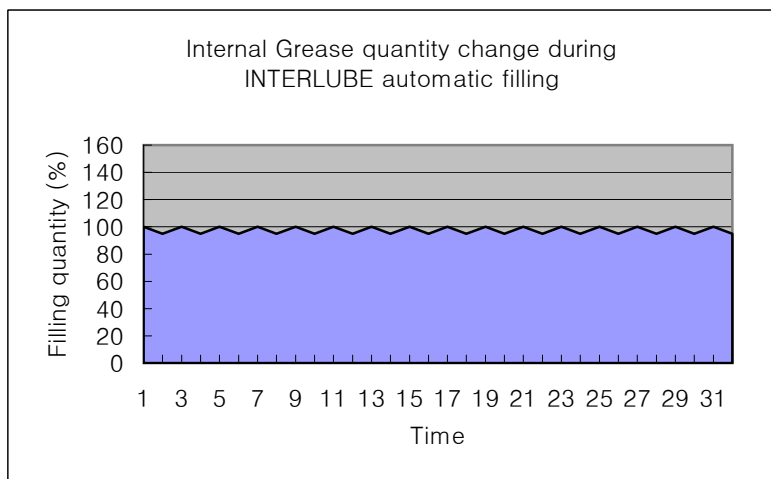
INTERLUBE AUTO GREASE PUMP	Other Companies' products
Using rechargeable cartridge, economical maintenance cost	Requires much higher maintenance cost
Easy installation No need to install separate hydraulic lines No need to use separate accessories to hydraulic lines	Needs extra hydraulic line due to its working system, so extra money and difficult installation job requires
Intensive durability As cartridge and main body are made up of aluminum alloy they keep internal parts safe from external impacts	Frequent break-down at the connection of the cartridge Complicated hydraulic hose installation job requires. If hose gets damaged, hydraulic oil will be lost
Ideal performance for hydraulic breakers Designed to fit best into hydraulic breakers Freely adjust output quantity from 0.2cc to 1cc per minute	Poor performance comes from bad condition of the hydraulic line set-up
Do not affect the function of Breakers INTERLUBE output greases through a powerful spring that has been compressed rechargement, it does not affect the operation of breaker	Affects the function of the breaker due to using part of the hydraulic oil for the breaker as a power source
Market shows a tendency that customers require an automatic grease pump for the hydraulic hammers, as well as people, who have used other product before, now return to take INTERLUBE product instead	Much more expensive product price due to its complicated structure & distribution structure

6. Effect



◇ Manual filling

1. Inconvenience of Drivers Time
2. Excessive injection or deficient filling
3. Shortened device's longevity
4. Environment pollution

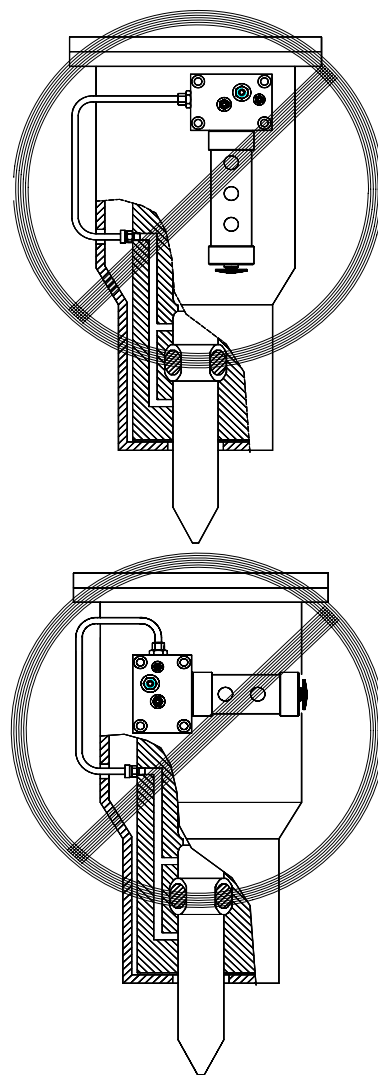
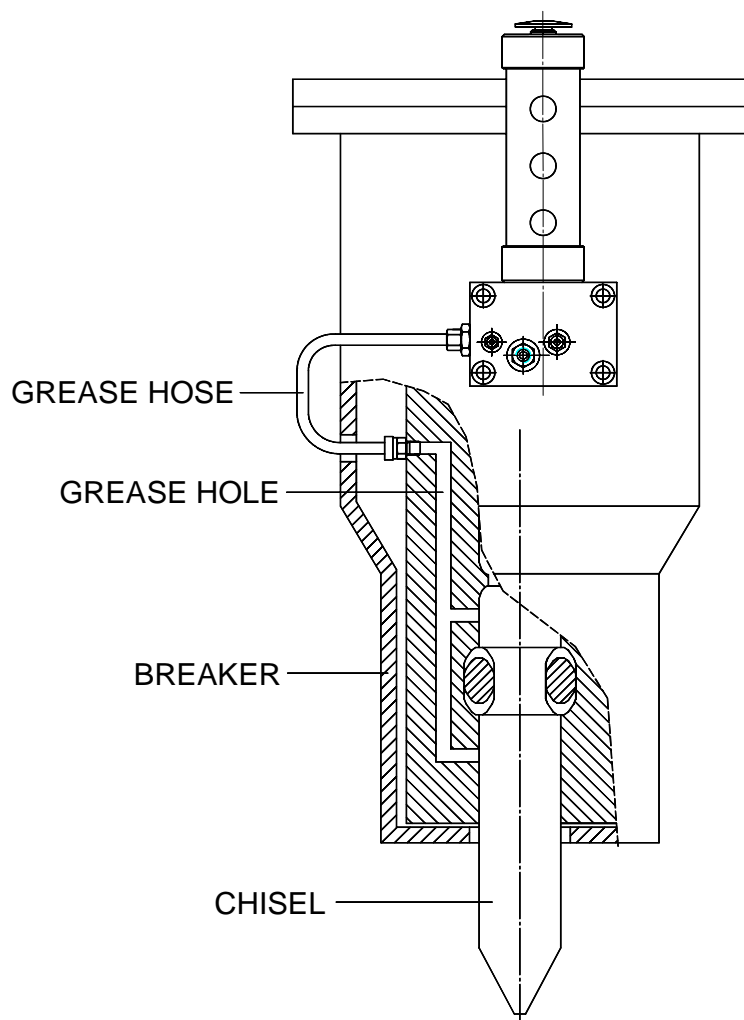


◇ INTERLUBE automatic filling

1. Convenience of Drivers
2. Ideal filling
3. Longer device's longevity
4. Environment protection

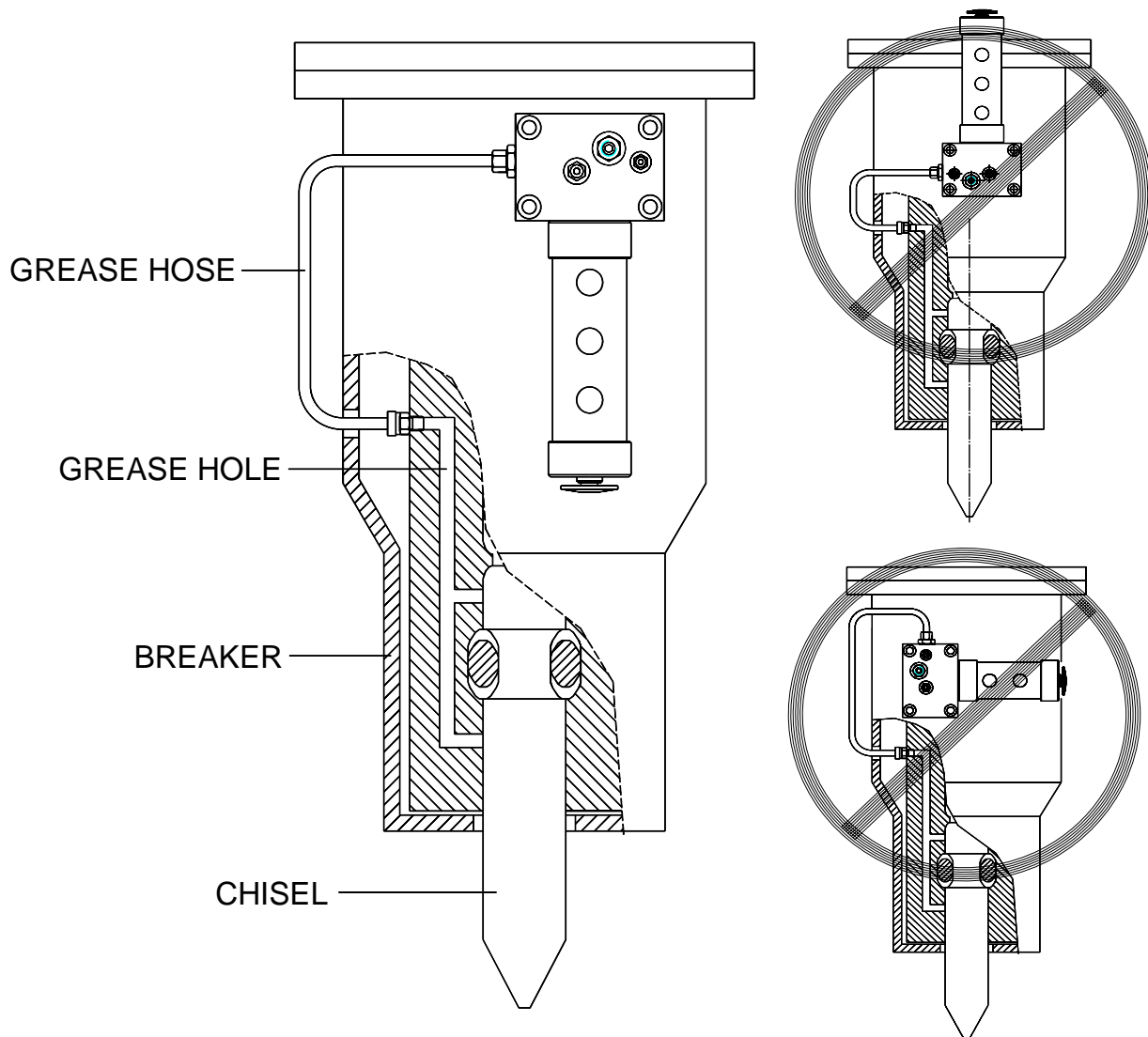
7. Installation

MODEL : HL11CU



Must to be installed parallel with
Breaker's tool direction

MODEL : HL11CD



Must to be installed parallel with
Breaker's tool direction

Actual Photo

HL11CU Type



HL11CD Type



8.1 Grease refilling-1



1. Insert an injection port into the Grease



2. Pull the Handle and wait for 2 seconds
(Grease gets into the inside of Pump)



3. Insert the Handle
(Grease becomes compressed
in the refilling cartridge)



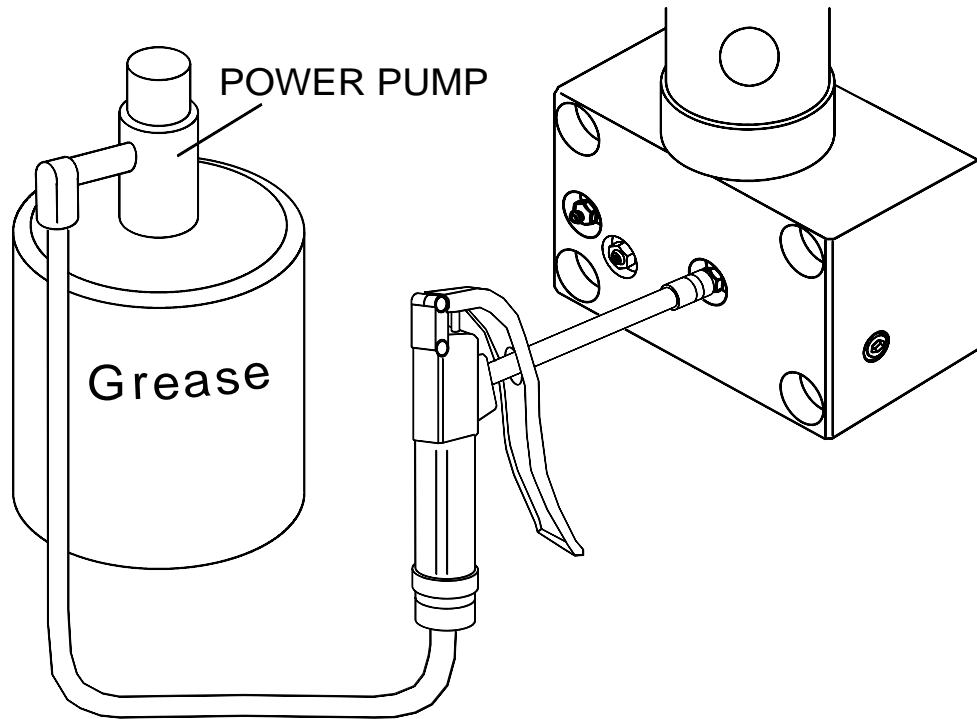
When grease is sufficiently filled
fasten the handle by turning it clockwise

Repeat 2, 3

8.2 Grease refilling-2

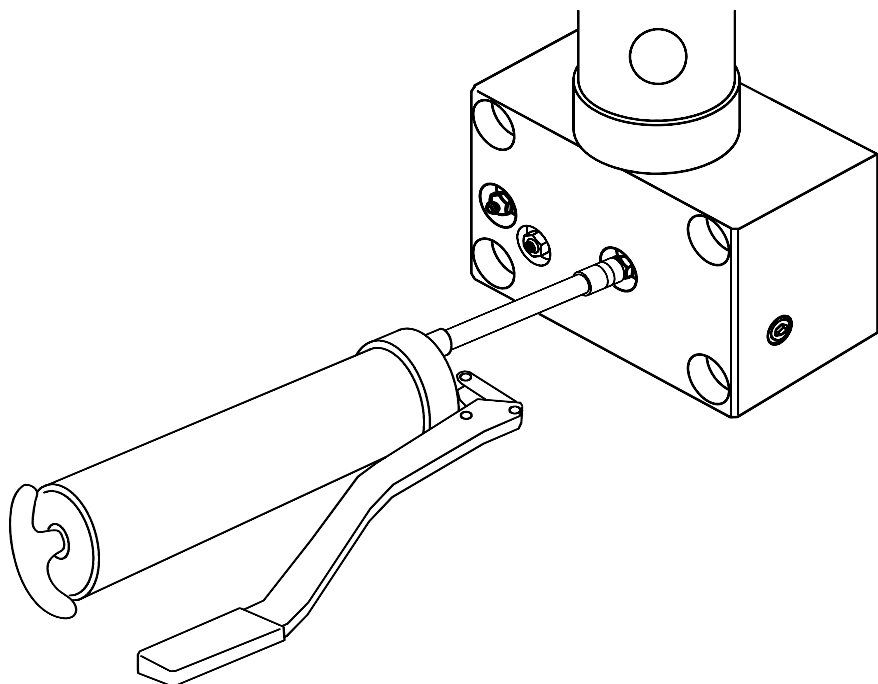
Grease refill by Power Grease Gun

It can without reassemble cartridge



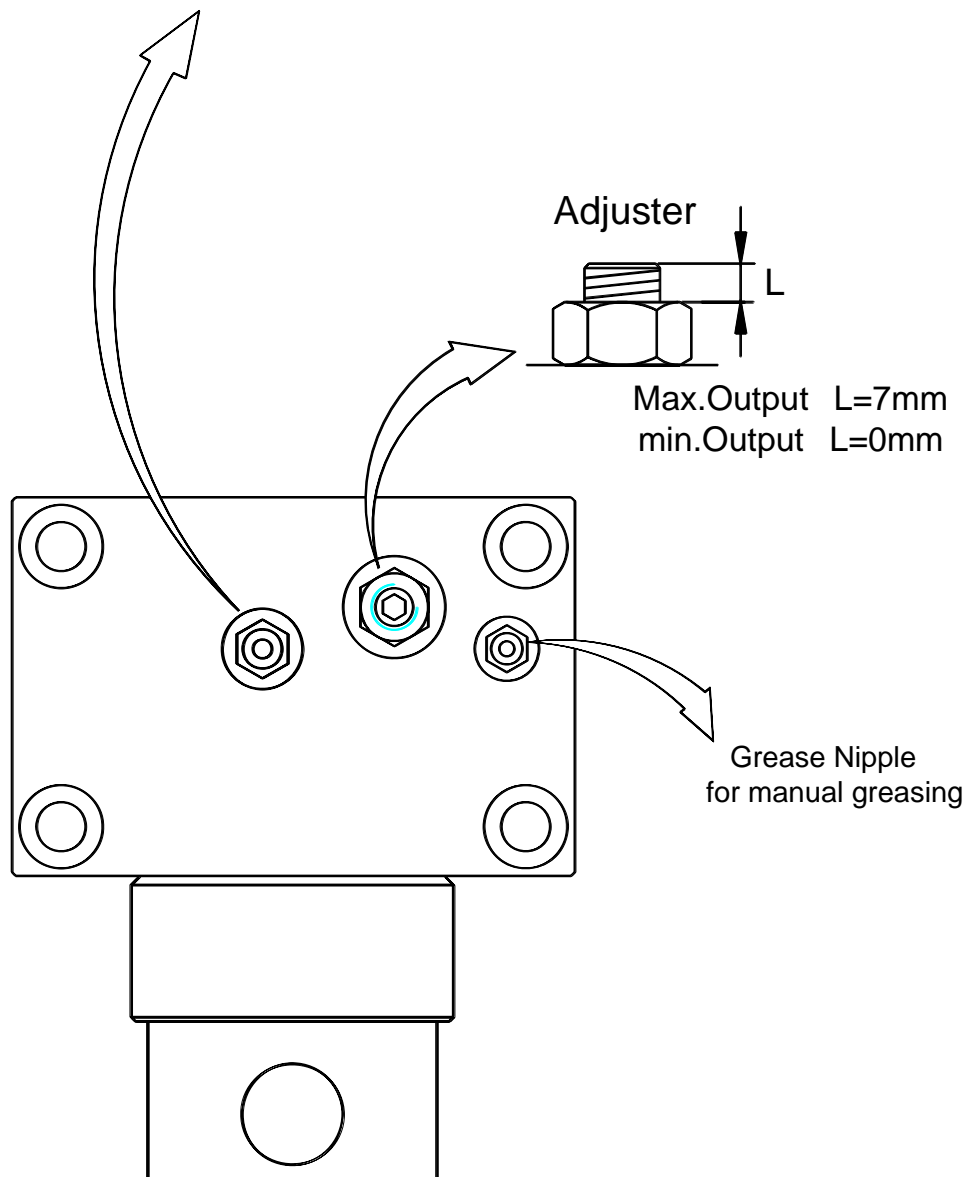
Grease refill by Manual Grease Gun

It can without reassemble cartridge



9. Adjustment & Grease Refilling

Grease Nipple
for grease refilling
This Port is grease refilling port for Power grease gun
it can refill without reassemble cartridge



10. Patent



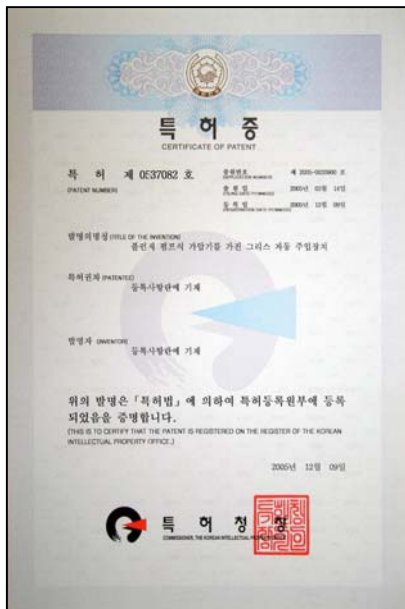
Patent No. 0457009
(An automatic Lubricant feeder for construction machinery)



Patent No. 0460984
(An automatic Lubricant feeder for hydraulic breakers)



Patent No. 0460985
(An automatic Lubricant feeder for hydraulic breakers)



Patent No. 0537082
(An automatic grease feeder with plunger pump type Pressurizer)



International patent application
No. PCT/KR2005/000673
(An autolubricating device)