

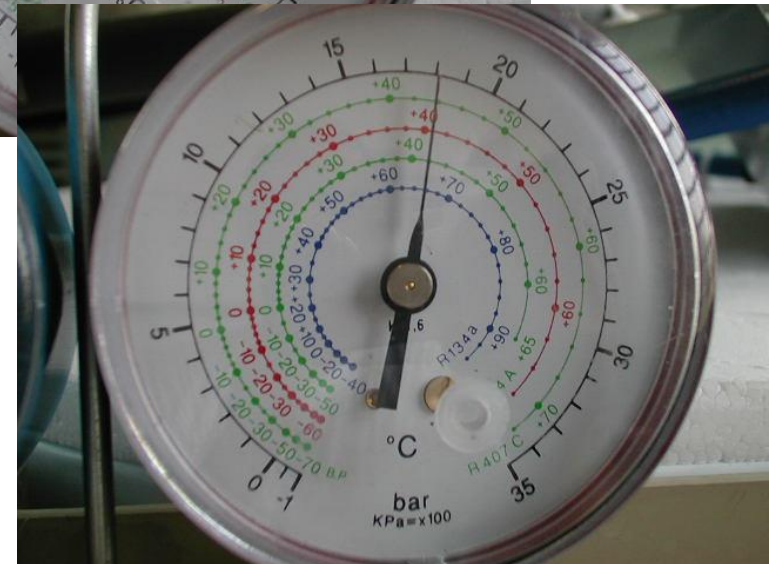


SPR – SPN SERIES

SERVICE ANALYSIS

If no ice is produced check
for:

- Refrigerant charge. High
side pressure must be
between 17÷18 bar
(240÷250 PSI)..... (R404A)

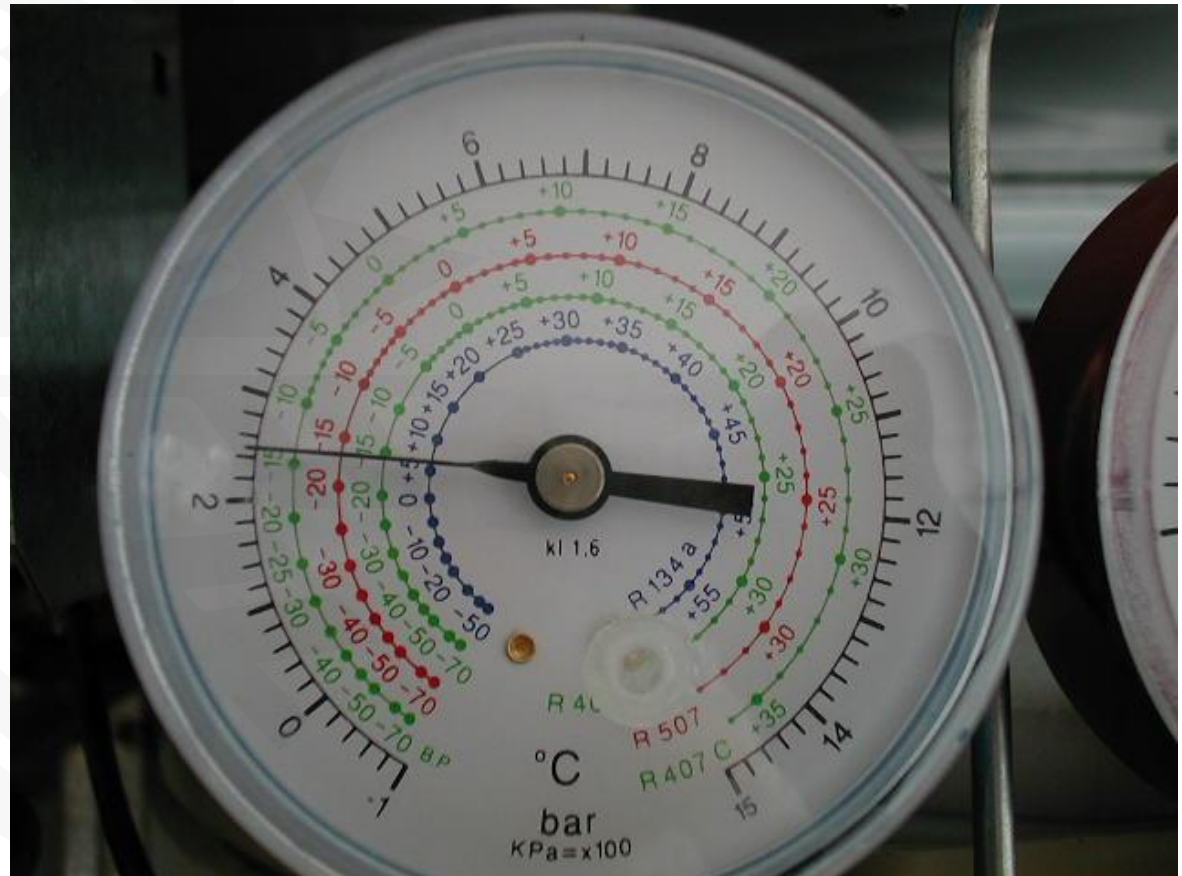




SPR – SPN SERIES

SERVICE ANALYSIS

.....while suction
pressure must be 2.5
bar (35 PSI) (R404A)





SPR – SPN SERIES

SERVICE ANALYSIS

If no ice is produced
check for:

- Refrigerant charge
- Operation of Compressor



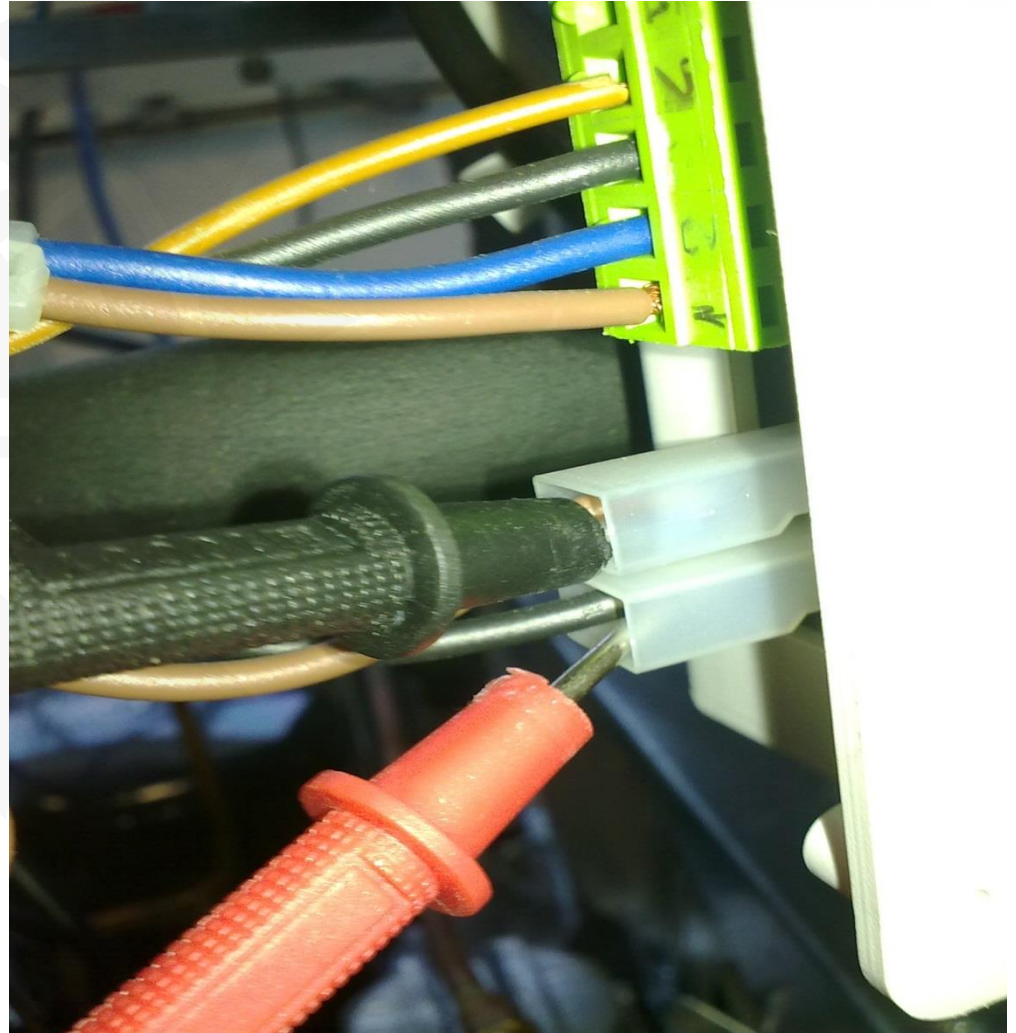


SPR – SPN SERIES

SERVICE ANALYSIS

If no ice is produced
check for:

- Refrigerant charge
- Operation of Compressor
- Power out on spade connectors of the PC Board





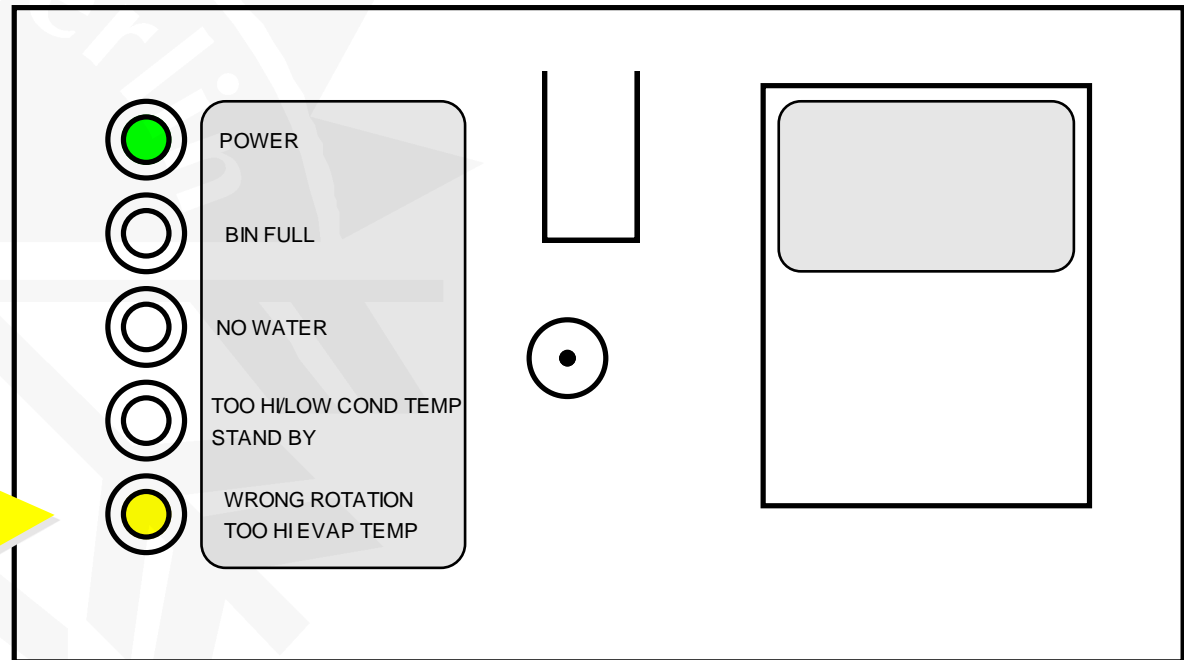
SPR – SPN SERIES

SERVICE ANALYSIS

**NO ROTATION
OF DRIVE MOTOR**

Wrong rotation/ Too Hi
Evap. Temp. YELLOW
LED

ON STEADY



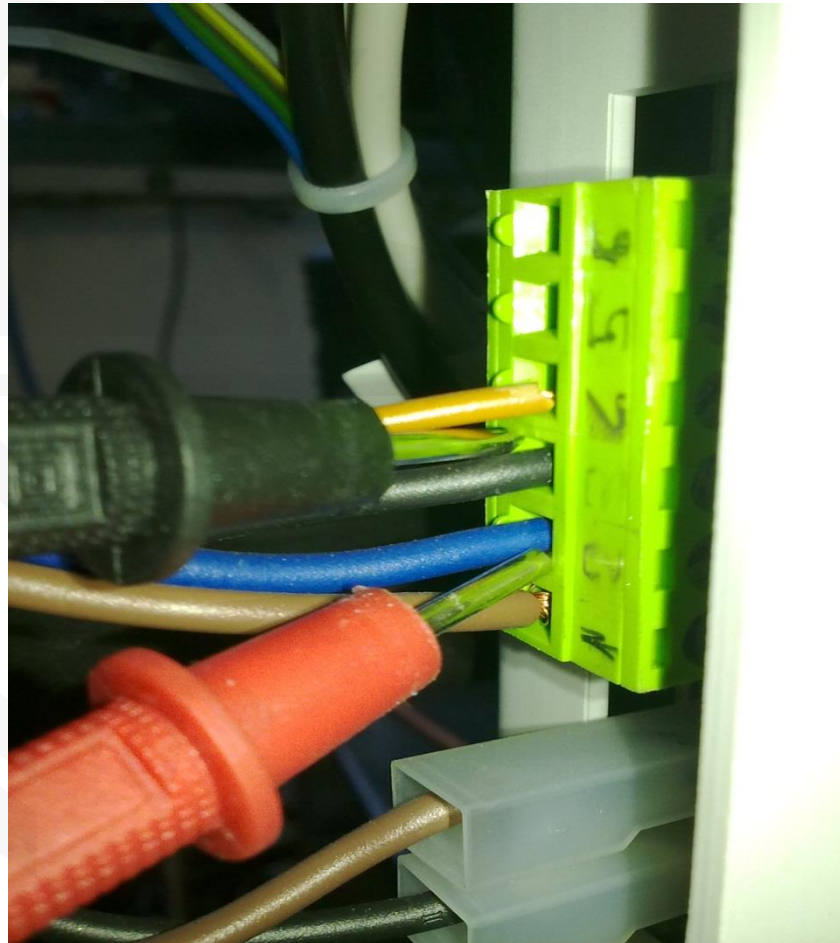


SPR – SPN SERIES

SERVICE ANALYSIS

If the drive motor
doesn't turn check
for:

- Power out on the
contacts 2 and 3 of
the PC Board





SPR – SPN SERIES

SERVICE ANALYSIS

If the drive motor
doesn't turn check
for:

- Power out on the
contacts 2 and 3 of
the PC Board
- Drive motor with
open winding





SPR – SPN SERIES

SERVICE ANALYSIS

If the drive motor doesn't turn check for:

- Power out on the contacts 2 and 3 of the PC Board
- Drive motor with open winding
- Drive motor capacitor worn-out





SPR – SPN SERIES

SERVICE ANALYSIS

If the drive motor doesn't turn
check for:

- Power out on the contacts 2 and 3 of the PC Board
- Drive motor with open winding
- Drive motor capacitor worn-out
- Looked rotor



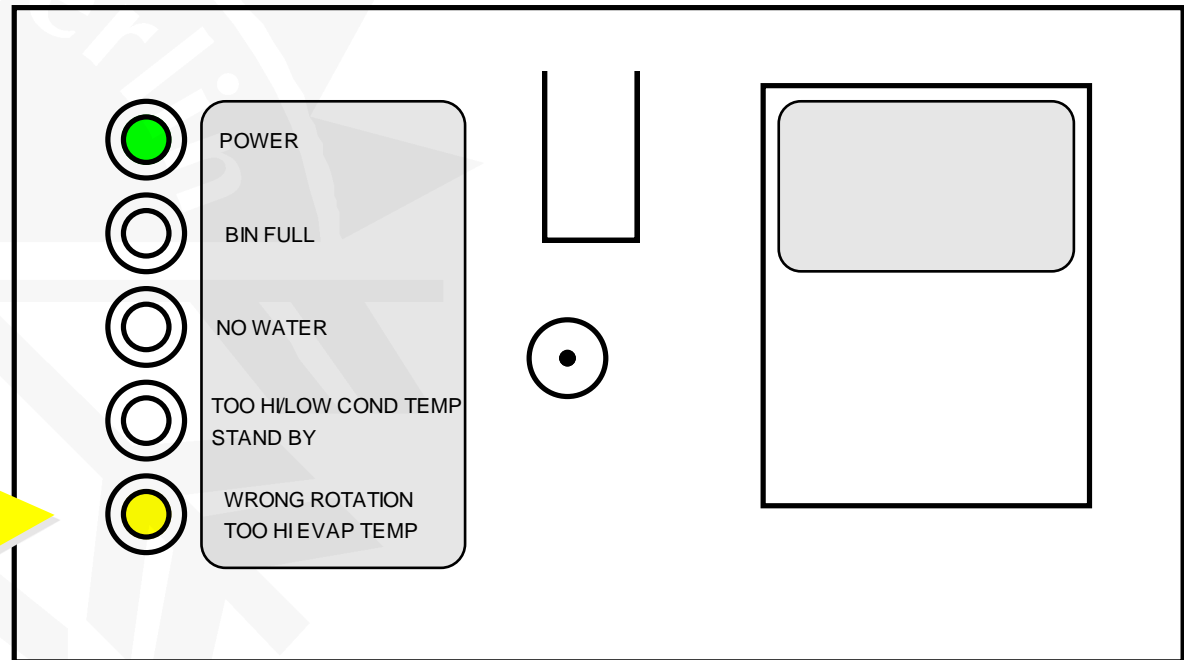
SPR – SPN SERIES

SERVICE ANALYSIS

**SLOW ROTATION
OF DRIVE MOTOR
(<1200 rpm/min)**

Wrong rotation/ Too Hi
Evap. Temp. YELLOW
LED

ON STEADY



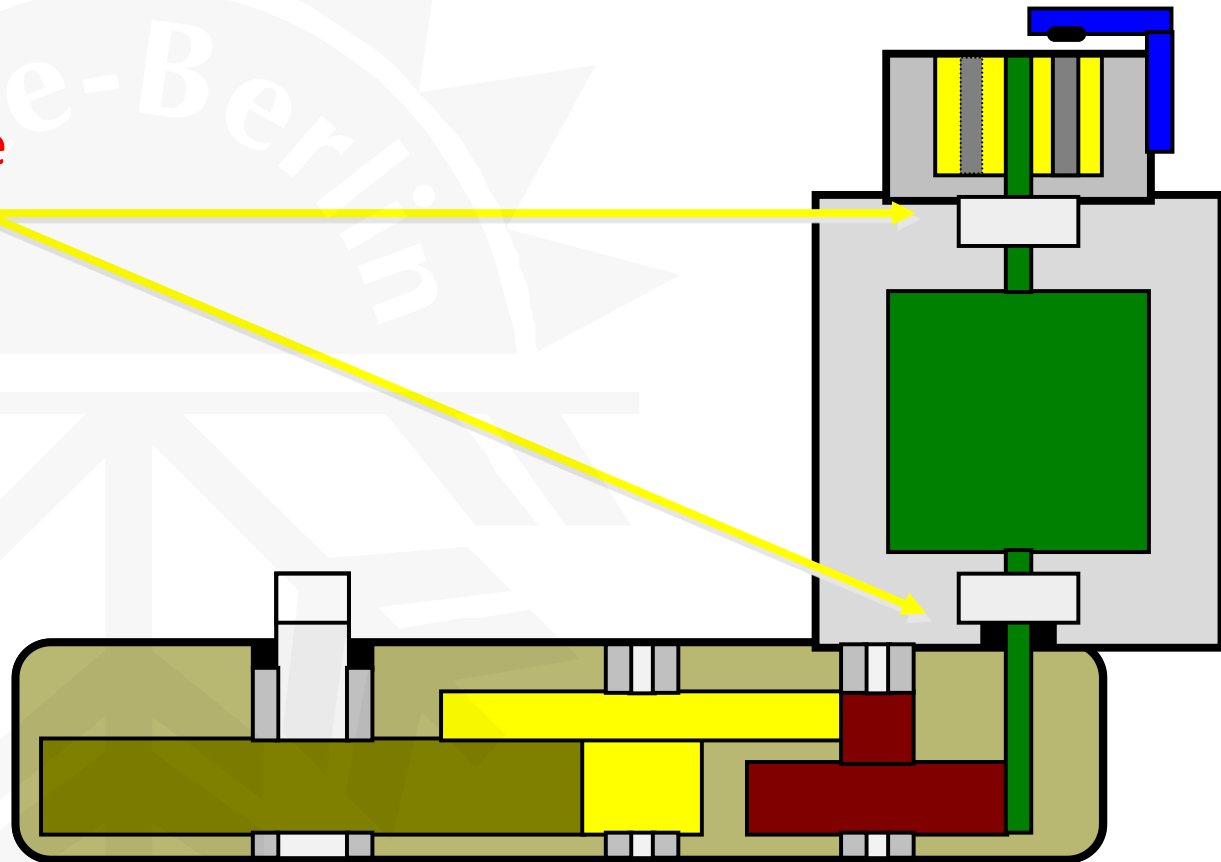


SPR – SPN SERIES

SERVICE ANALYSIS

Check for:

- Worn out drive motor bearings



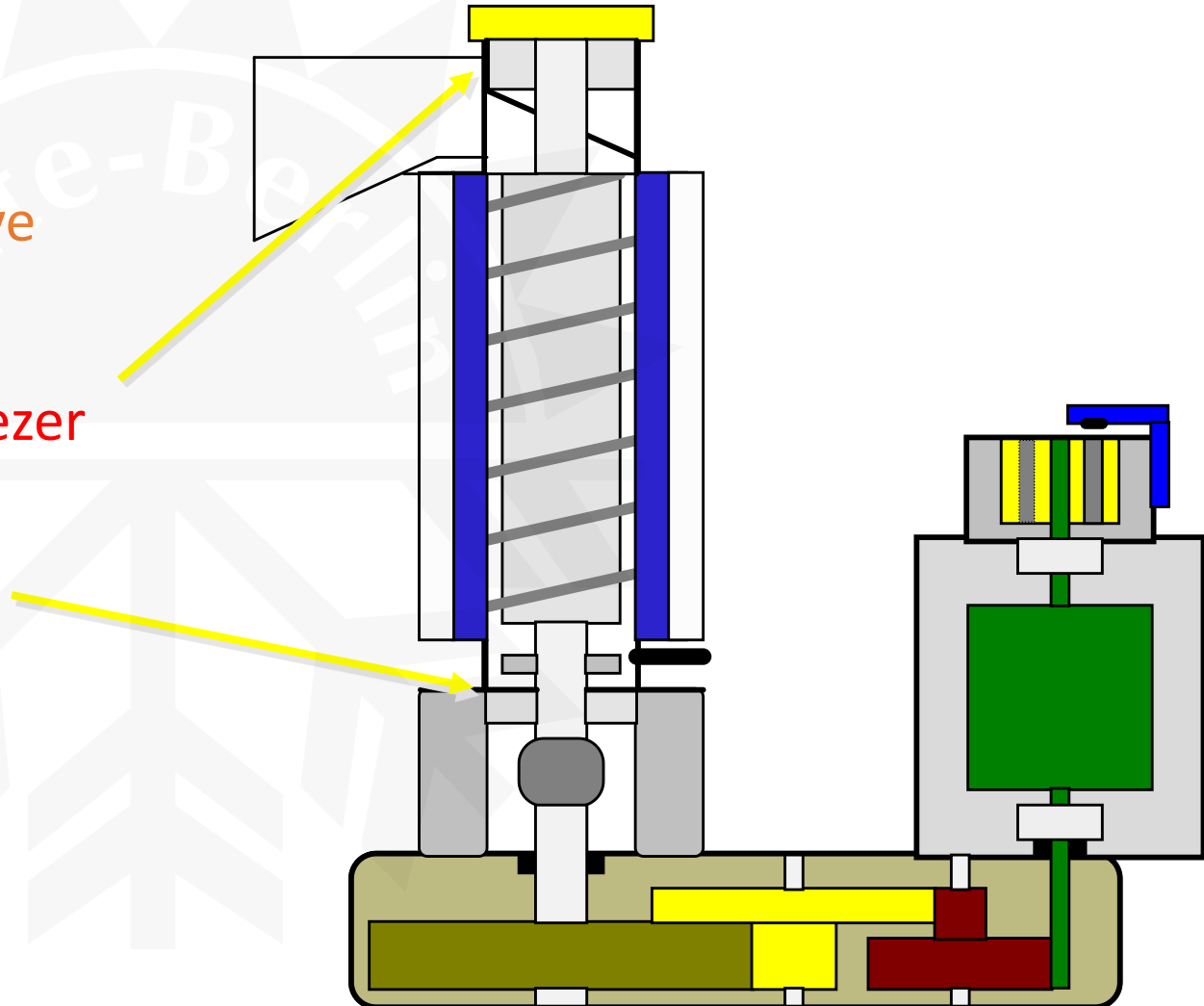


SPR – SPN SERIES

SERVICE ANALYSIS

Check for:

- Worn out drive motor bearings
- Worn out freezer top or bottom bearings





SPR – SPN SERIES

SERVICE ANALYSIS



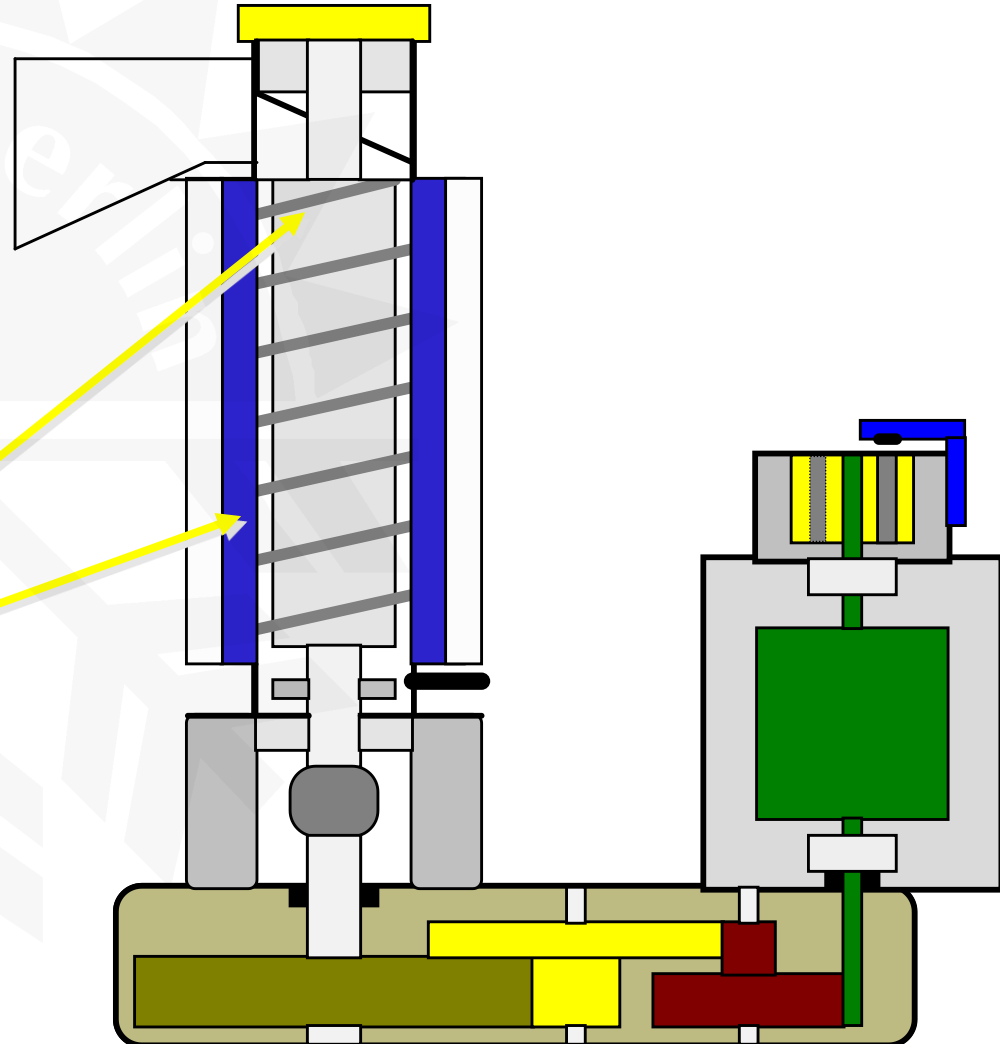


SPR – SPN SERIES

SERVICE ANALYSIS

Check for:

- Worn out drive motor bearings
- Worn out freezer top or bottom bearings
- Worn out auger/freezer

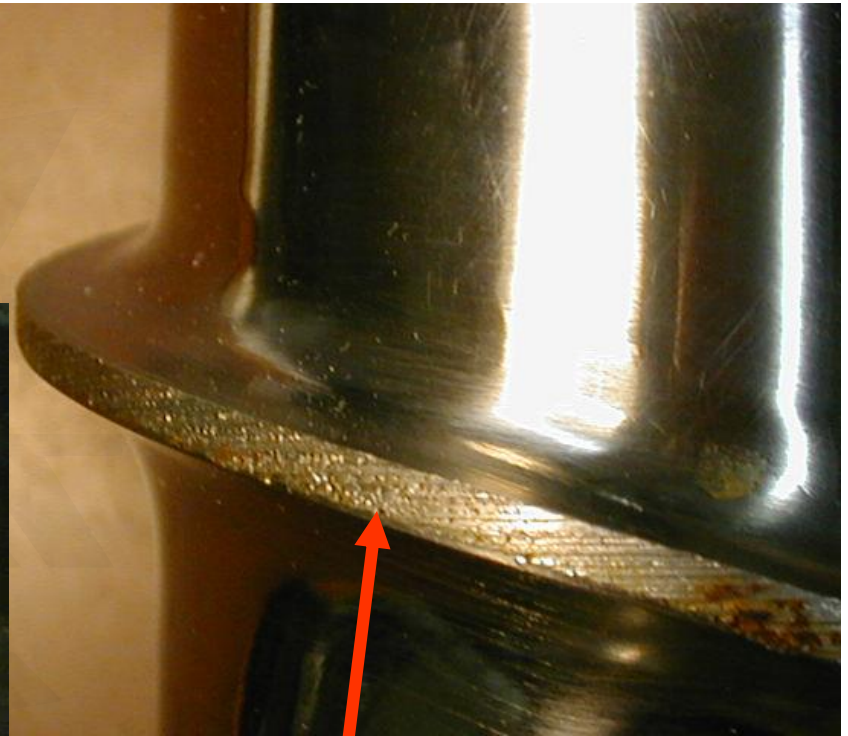




SPR – SPN SERIES

SERVICE ANALYSIS

OK!



KO!

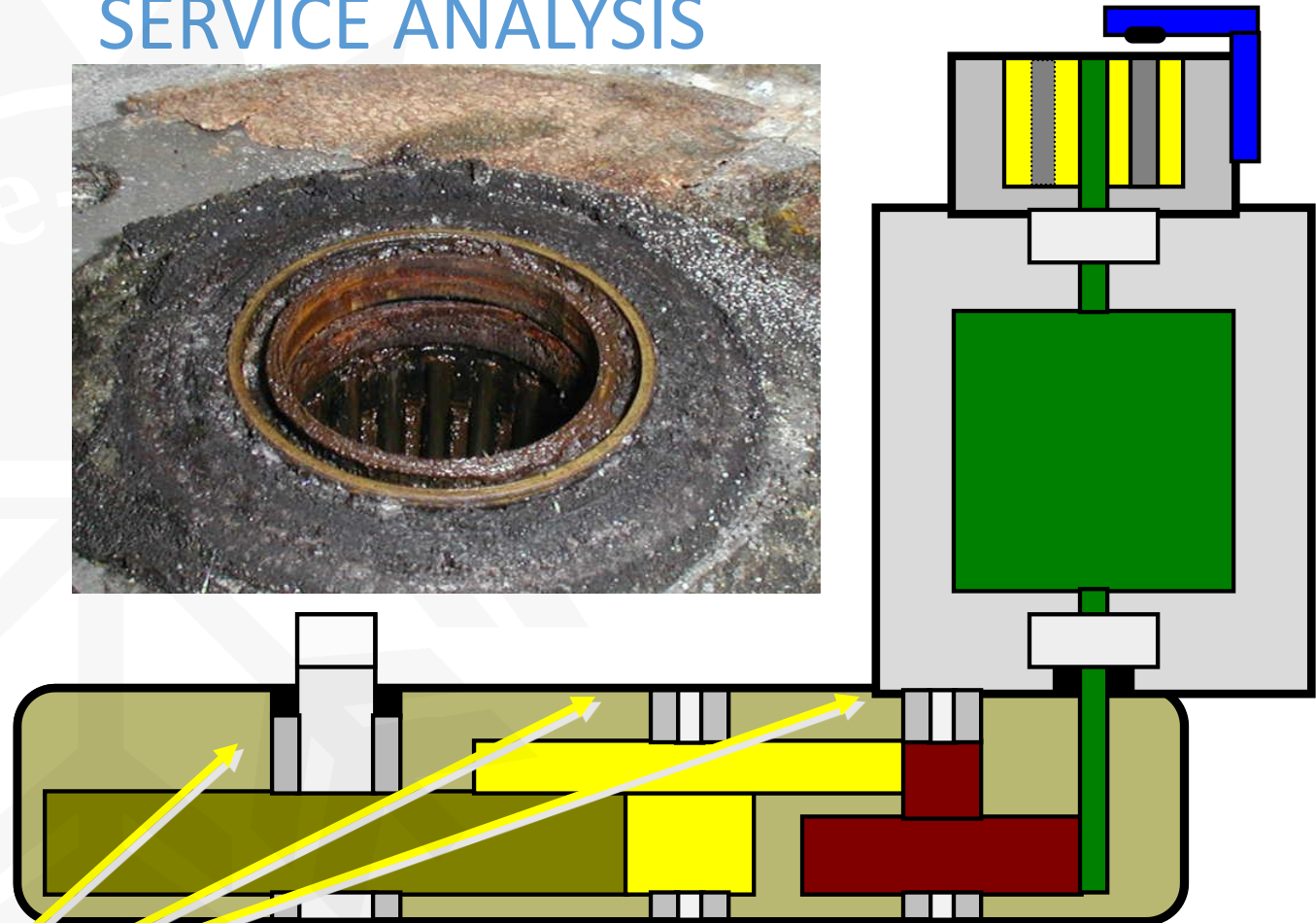


SPR – SPN SERIES

SERVICE ANALYSIS

Check for:

- Worn out drive motor bearings
- Worn out freezer top or bottom bearings
- Worn out auger/freezer
- Worn out gear box bearing/gears





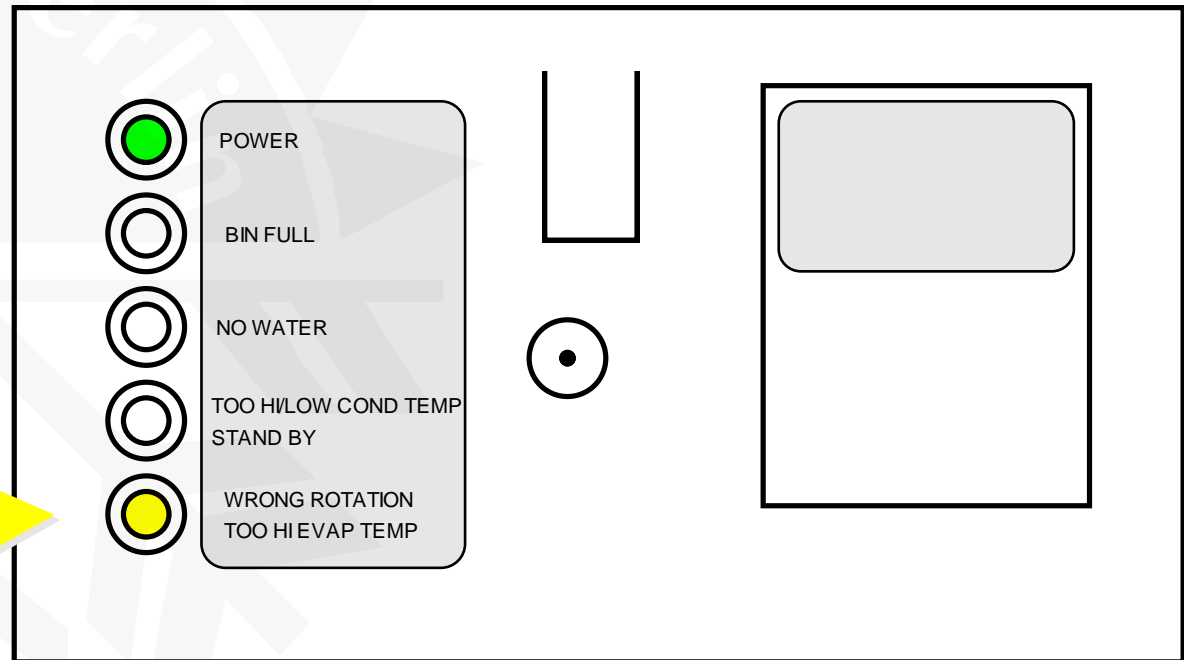
SPR – SPN SERIES

SERVICE ANALYSIS

**WRONG ROTATION
OF DRIVE MOTOR
(opposite direction)**

Wrong rotation/ Too Hi
Evap. Temp. YELLOW
LED

ON STEADY





SPR – SPN SERIES

SERVICE ANALYSIS

Check for:

- Correct wires connection to the drive motor capacitor (ONLY ON THE OLD VERSION)





SPR – SPN SERIES

SERVICE ANALYSIS

Check for:

- Correct wires connection to the drive motor capacitor
- Drive motor capacitor worn-out





SPR – SPN SERIES

SERVICE ANALYSIS

Check for:

- Correct wires connection to the drive motor capacitor
- Drive motor capacitor unloaded
- Freeze up of the evaporator



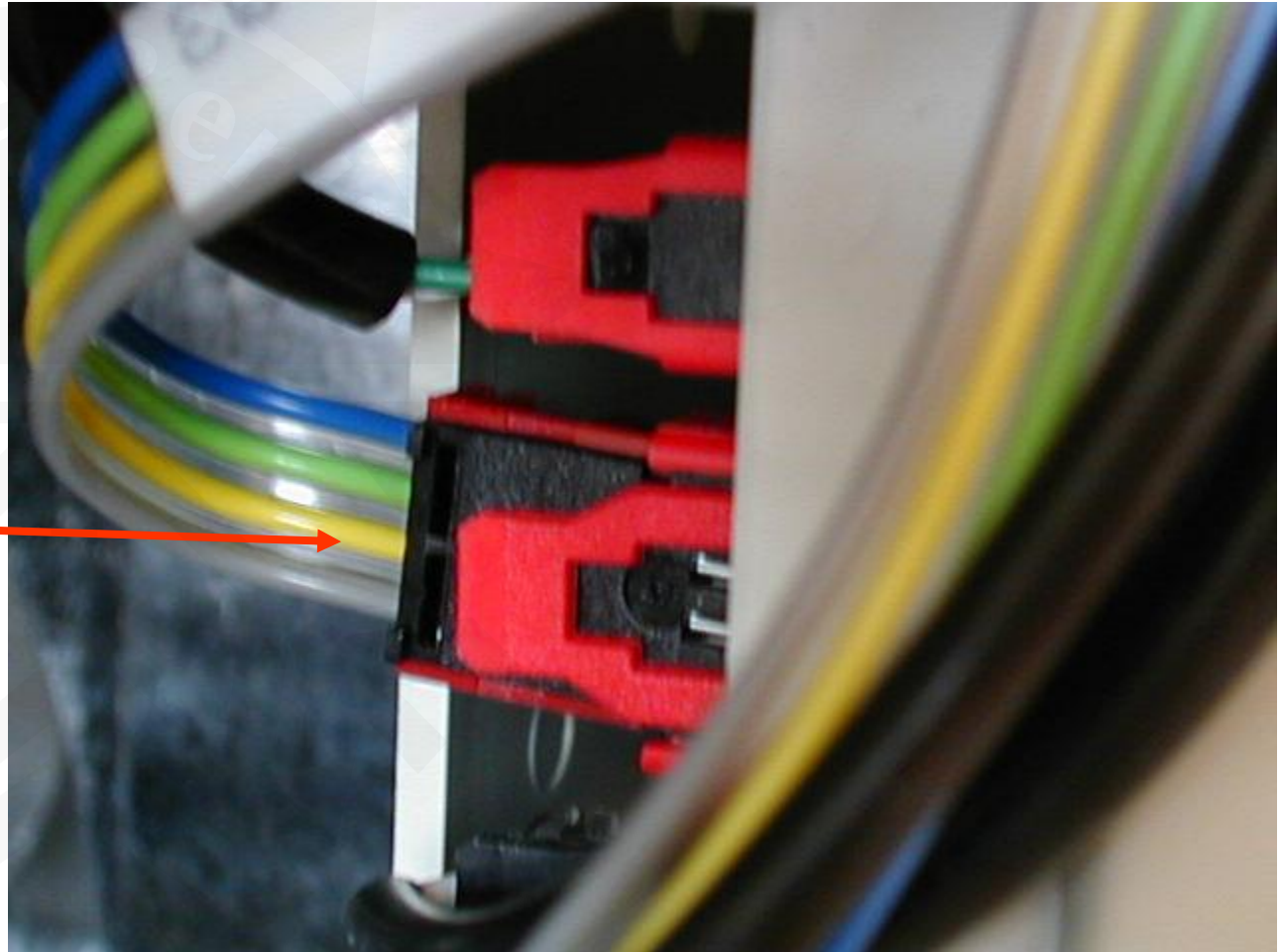


SPR – SPN SERIES

SERVICE ANALYSIS

Additional reasons for the tripping OFF at Rotation Error are:

- Magnetic sensor unplugged



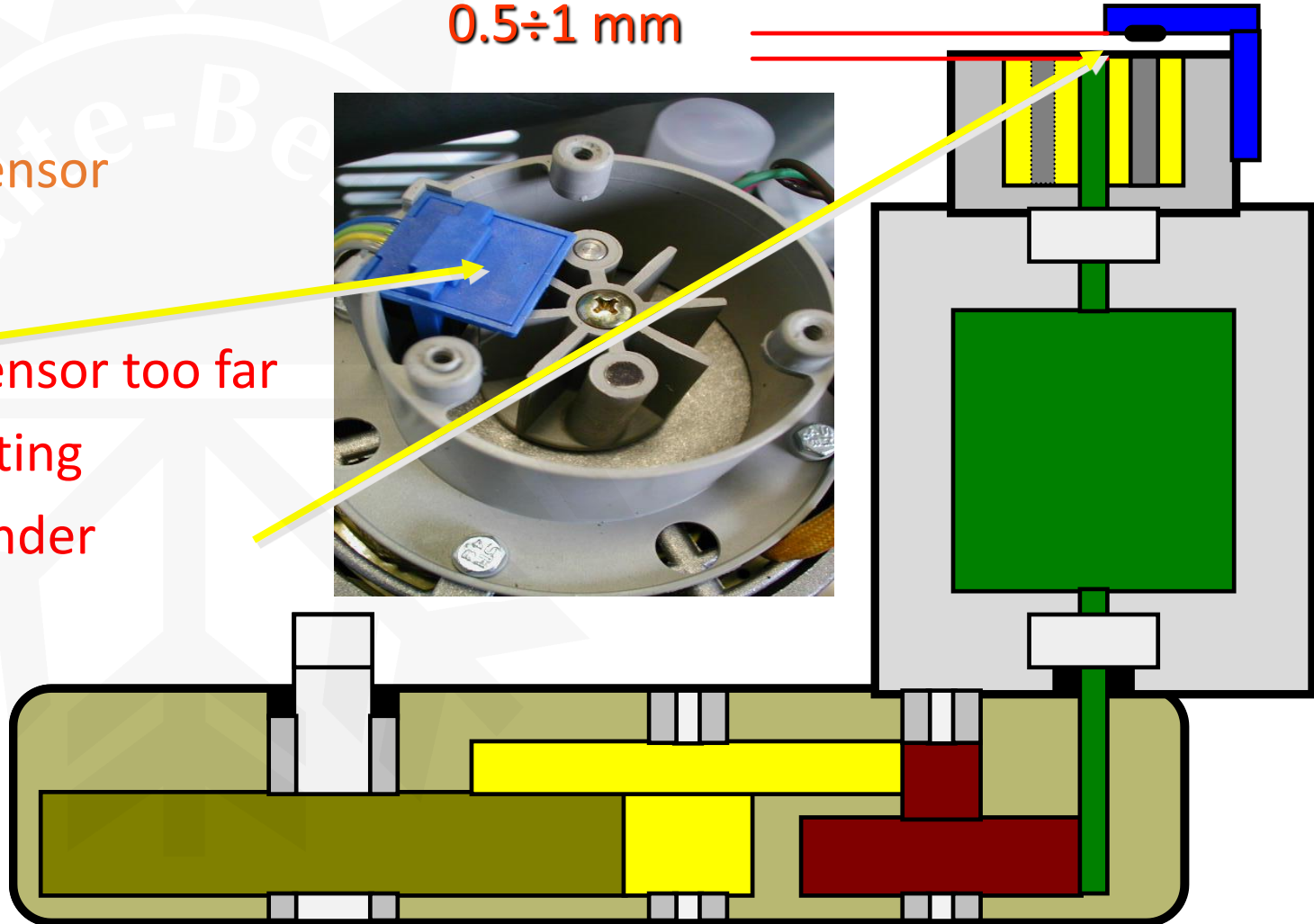
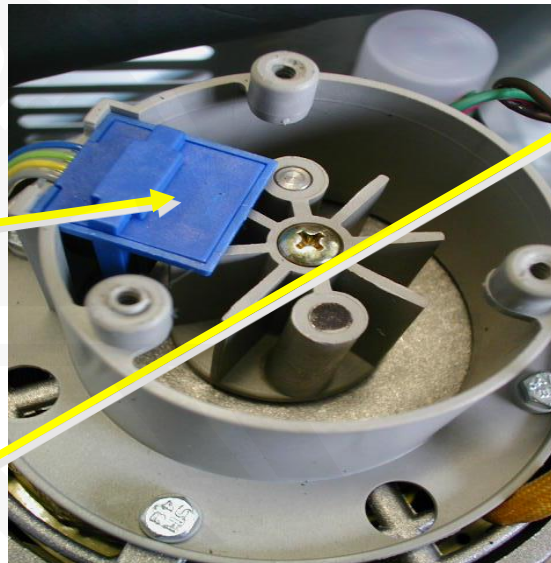


SPR – SPN SERIES

SERVICE ANALYSIS

0.5÷1 mm

- Magnetic sensor unplugged
- Magnetic sensor too far from the rotating magnetic cylinder

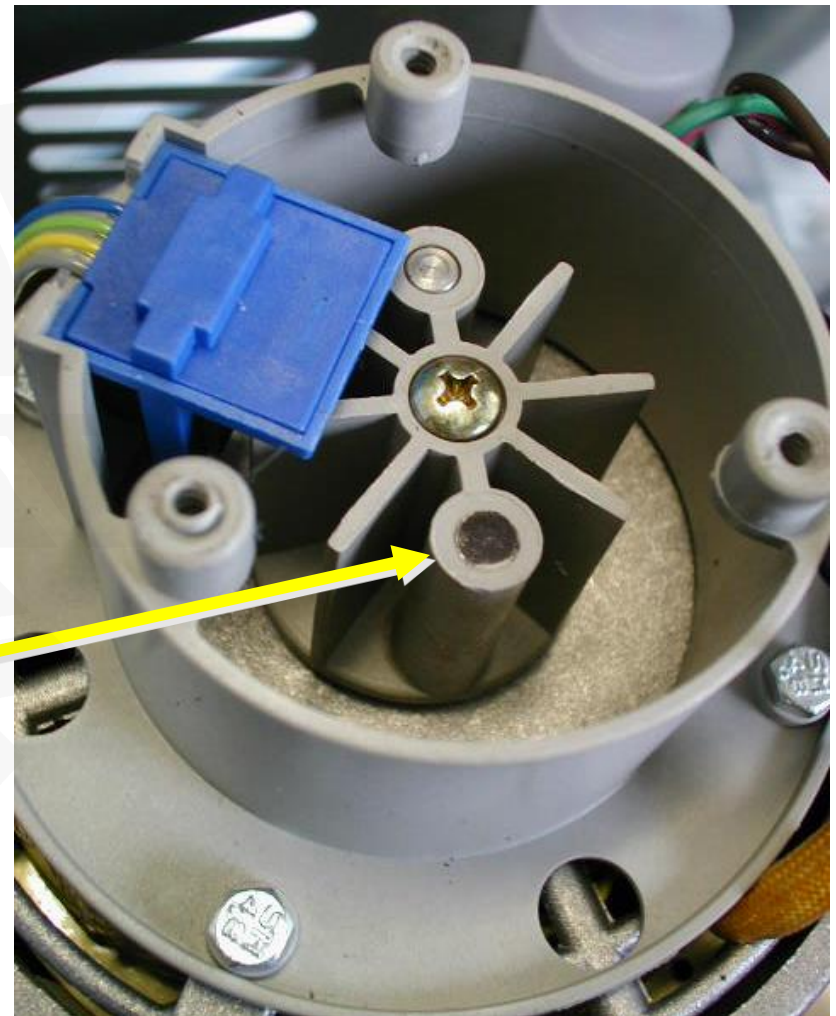




SPR – SPN SERIES

SERVICE ANALYSIS

- Magnetic sensor unplugged
- Magnetic sensor too far from the rotating magnetic cylinder
- Magnetic cylinder partially or fully demagnetized





SPR – SPN SERIES

SERVICE ANALYSIS

Manual reset mode

The New Flaker PC Board Trip OFF definitively the machine on ALARM after three tripping OFF for the same reason in 4 hours.

In this way the New PC Board should avoid any Tripping OFF due to possible magnetic fields and/or micro black OUT of power supply that can affect the correct operation of the Flaker machine.



SPR – SPN SERIES

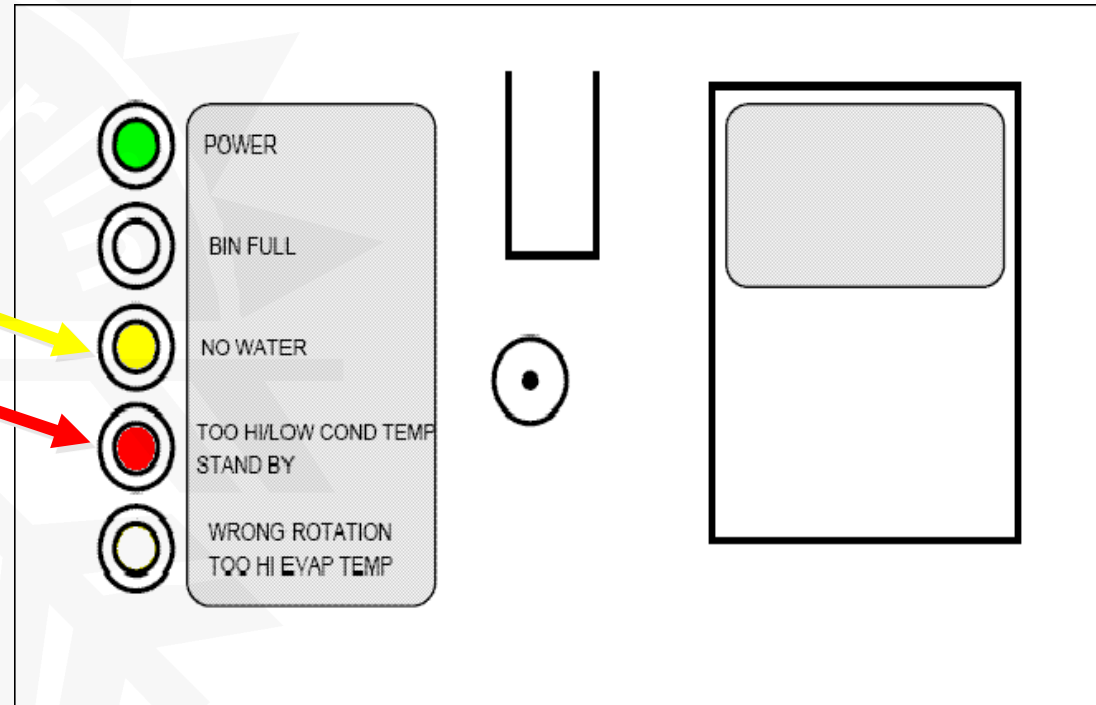
SERVICE ANALYSIS

**CONDENSER SENSOR OUT
OF ORDER**

No Water YELLOW LED
+
Stand-by Red LED

BOTH ON STEADY

**REPLACE CONDENSER
SENSOR**





SPR – SPN SERIES

SERVICE ANALYSIS

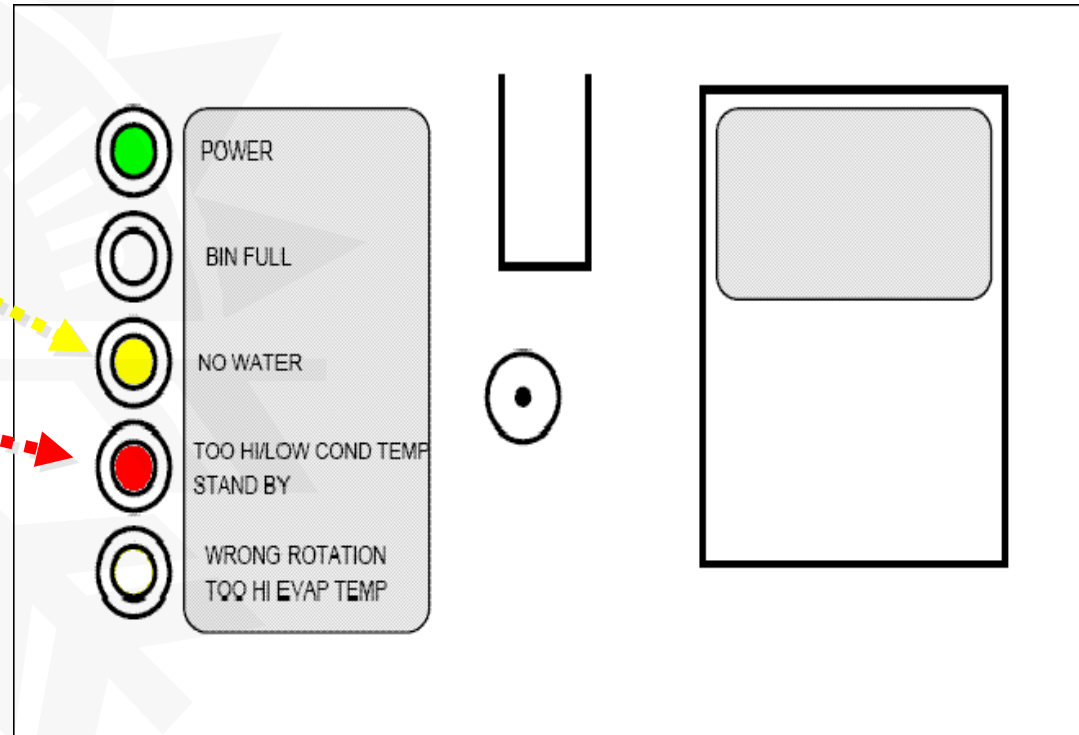
**EVAPORATOR SENSOR OUT
OF ORDER**

No Water YELLOW LED
+

Stand-by Red LED

BOTH BLINKING

**REPLACE EVAPORATOR
SENSOR**





REPLACEMENT OF THE AUGER, WATER SEAL AND BEARINGS

REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

SPR 80-120-200

SPN 125-255



SPR – SPN SERIES

REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

Remove first the
top panel and
then



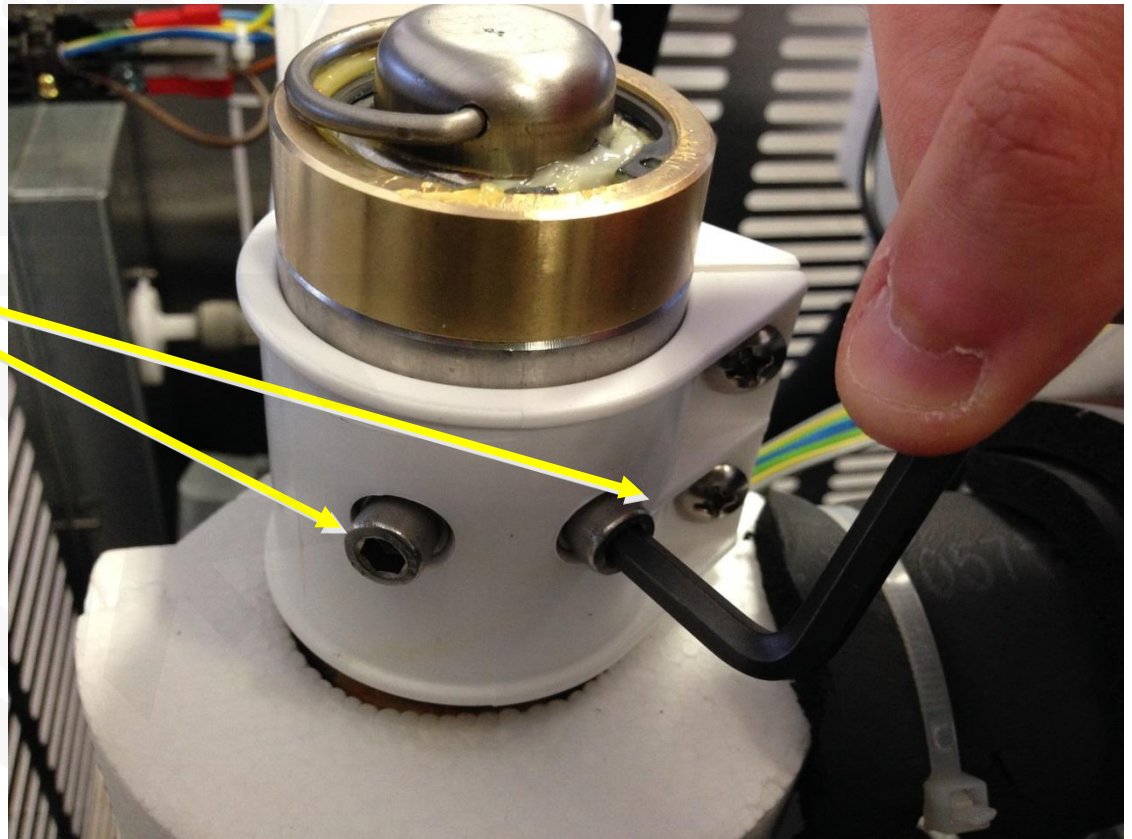
REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

.....remove ice
spout insulation.



REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

Unscrew and remove the two screws securing the brass ice breaker to the evaporator.



REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

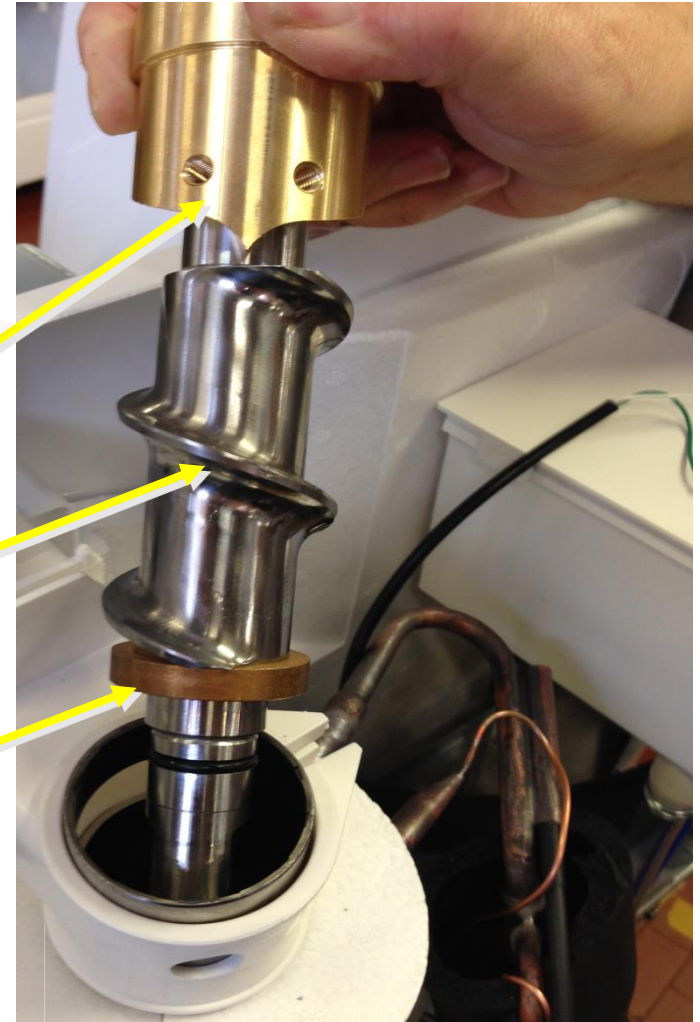
Grasp with a screw driver the wire cap hook located at the top of the freezer and pull out the auger and attached ice breaker assembly.



REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

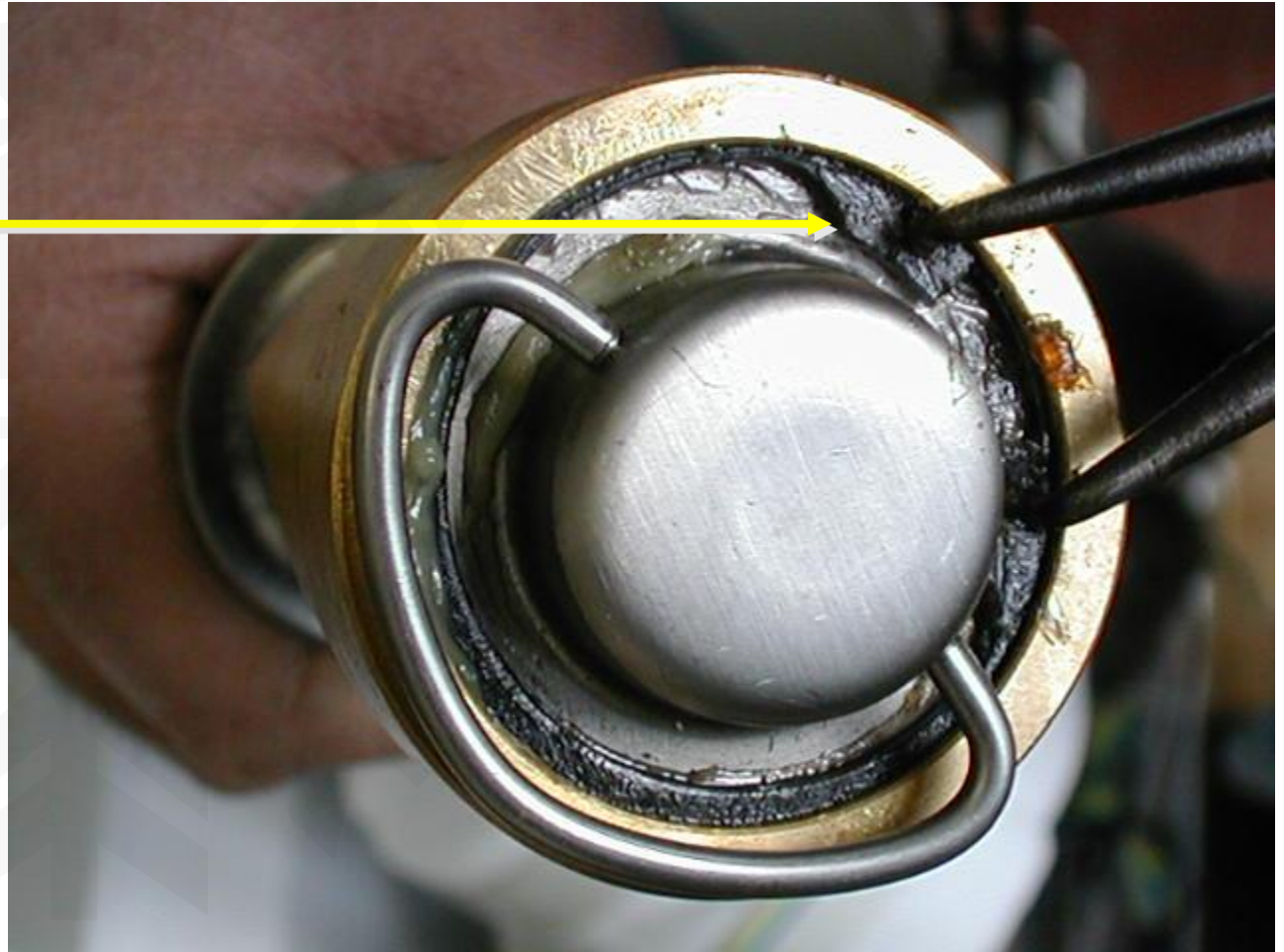
Parts pulled out from the top of the evaporator/worm tube are:

- **Ice breaker assembly**
- **Auger**
- **Top Half of the water seal**



REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

With a clip
ring pliers
remove the
retaining ring
and the cap
from the ice
breaker.



REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

Unloose and
remove the
screw and.....



REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

.....remove
the ice
breaker
assembly
from the
auger.



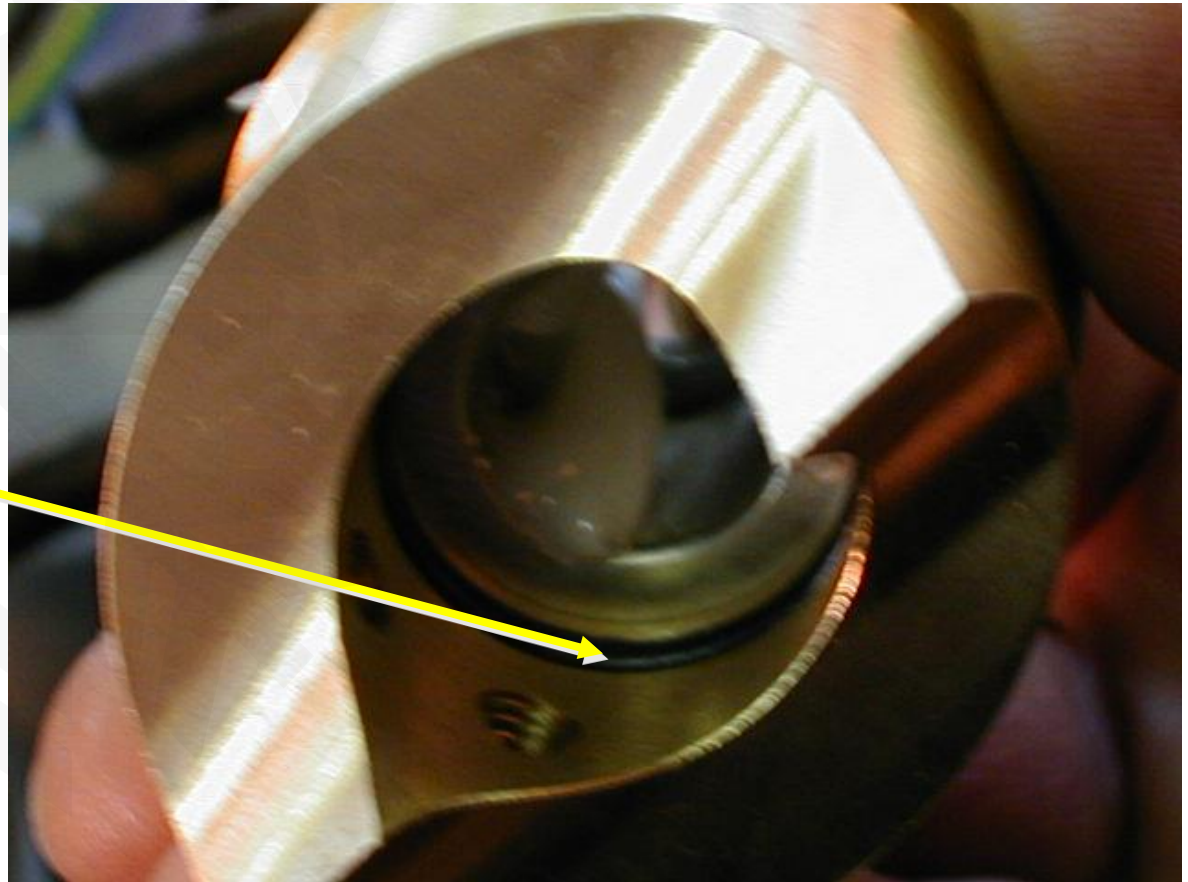
REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

Clean away the old grease from the interior of the ice breaker and inspect the conditions of the top bearing



REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

..... as well as
the condition
of the O ring.



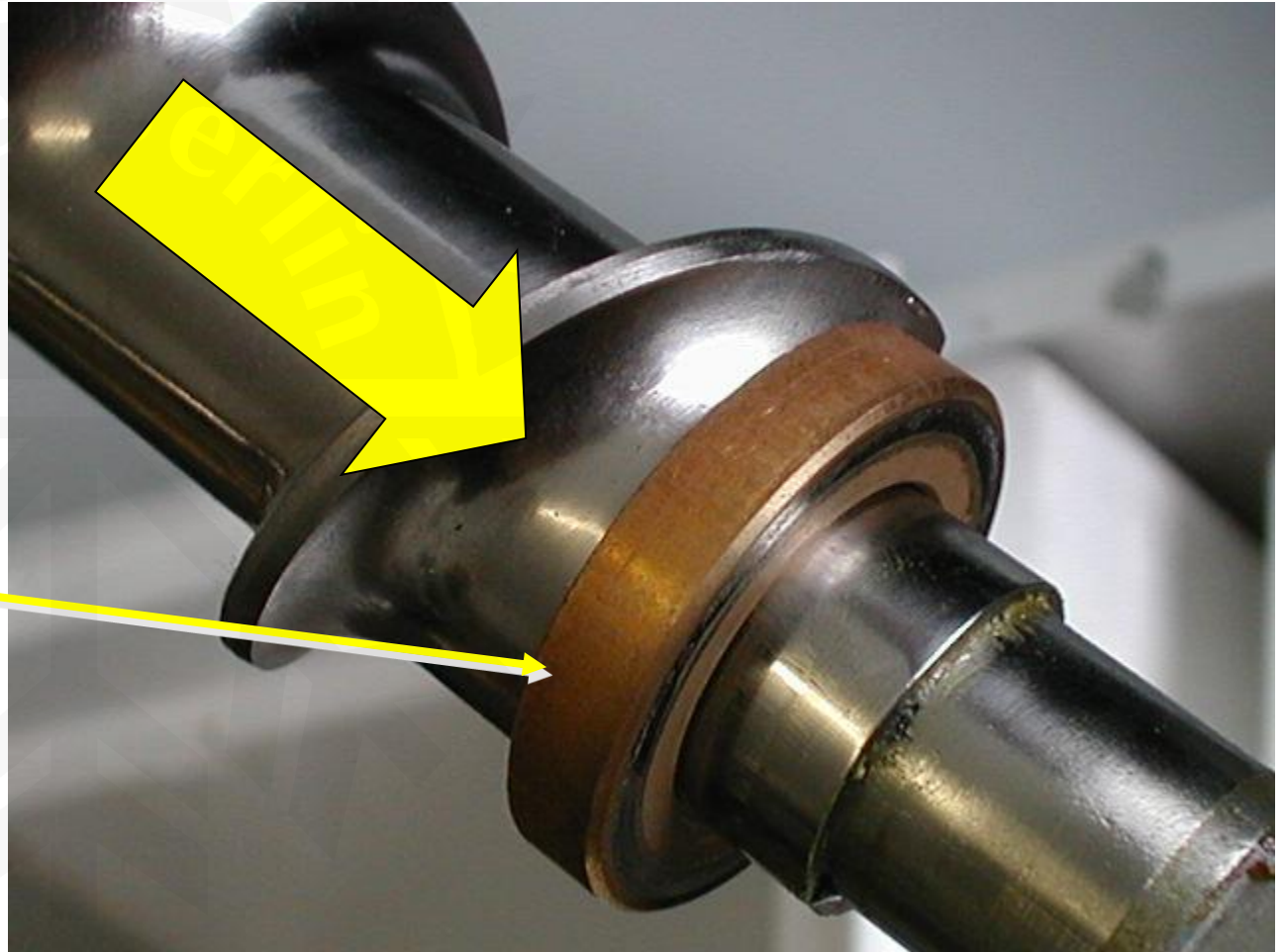
REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

..... And the
condition of
the O ring
located on the
auger shaft .



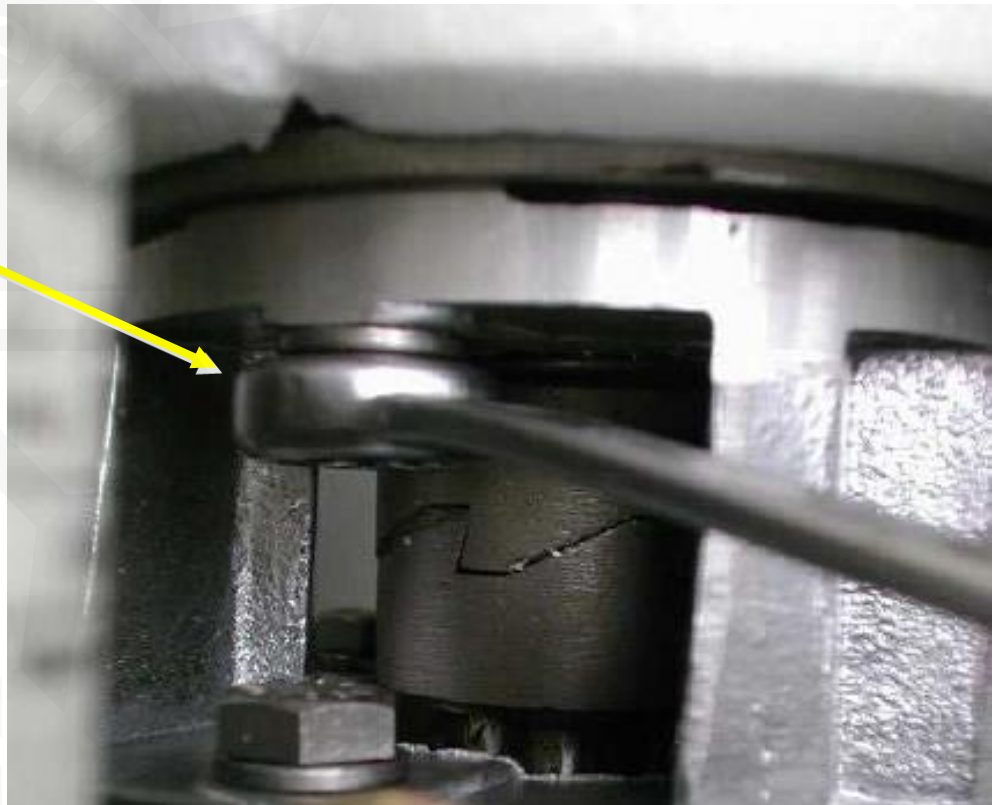
REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

Slide off from
the bottom of
the auger the
upper half of
the water seal.



REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

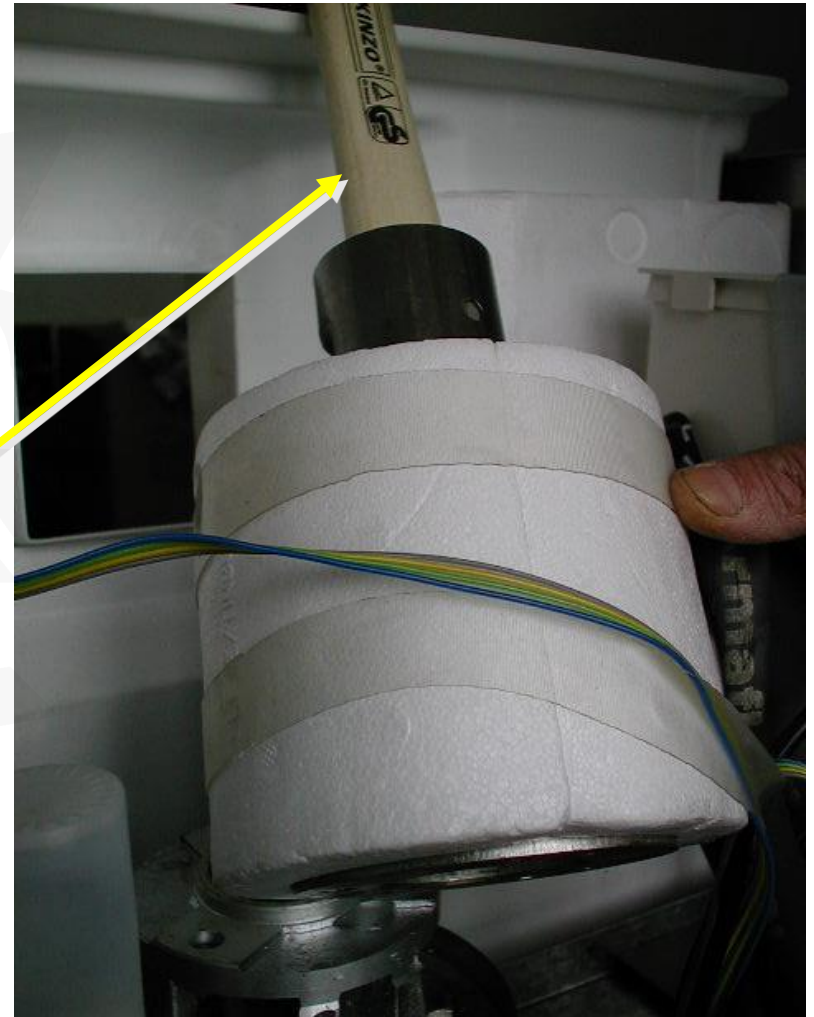
Unloose and remove the three bolts and lock-washers holding the freezer assembly to the aluminum adapter then



REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

..... raise the freezer assembly off the adapter and move it out so to have enough room to work.

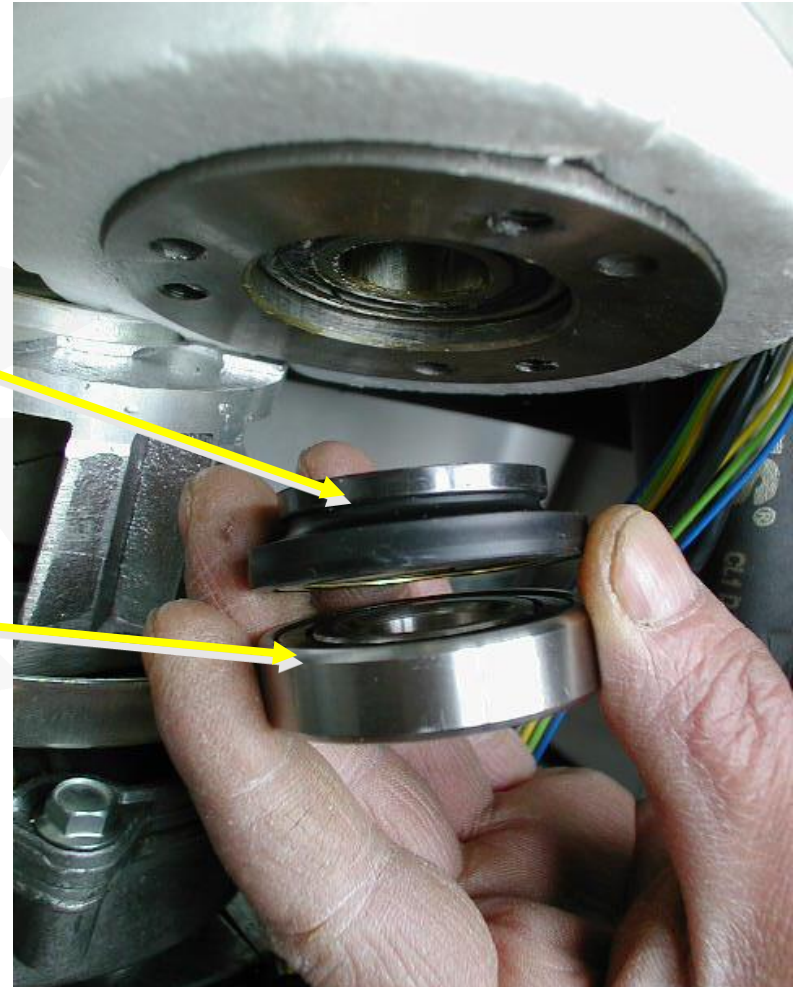
Using a suitable wooden dowel inserted through the top of the freezer.....



REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

.....tap the lower half
of the water seal

.....and the lower
bearing out the bottom
of the freezer.



REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

It is good practice to replace the **water seal assembly, the bottom bearing, the ice breaker assy (including top bearing and the O ring)** any time the auger is removed.

A **Kit is available** for this purpose containing a **can of waterproof special grease**.



REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

SPN 405-605-1205

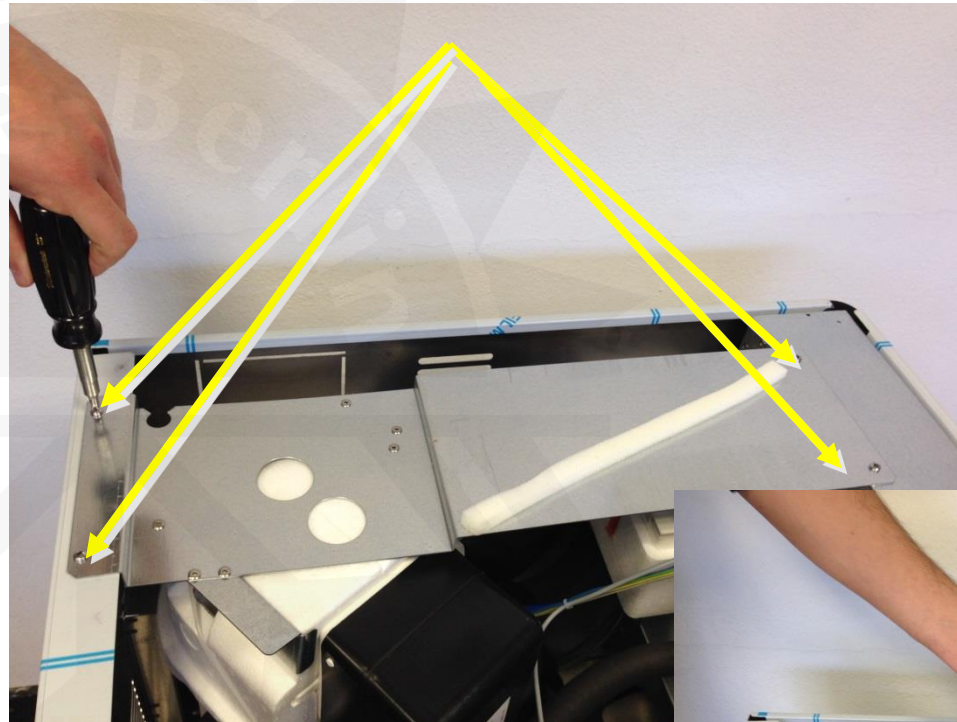
REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

Remove first
the front and
top panel and
then



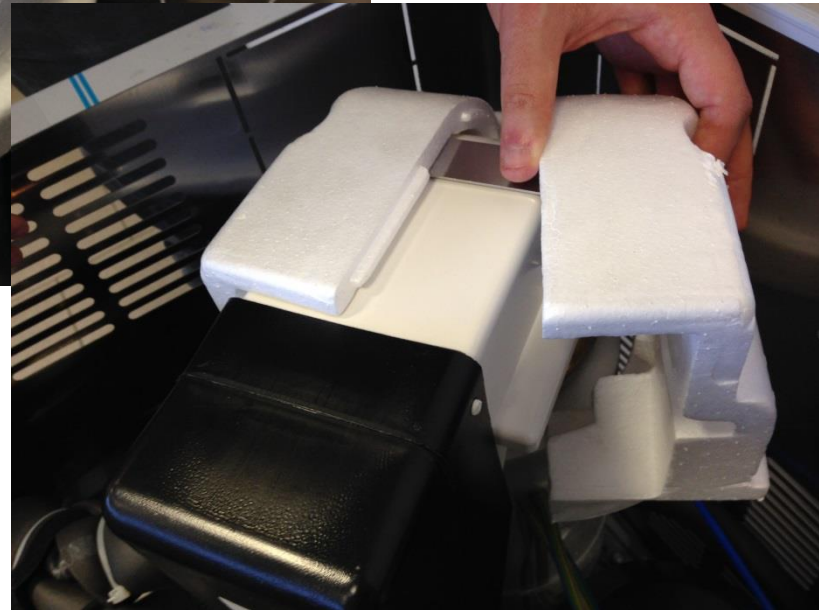
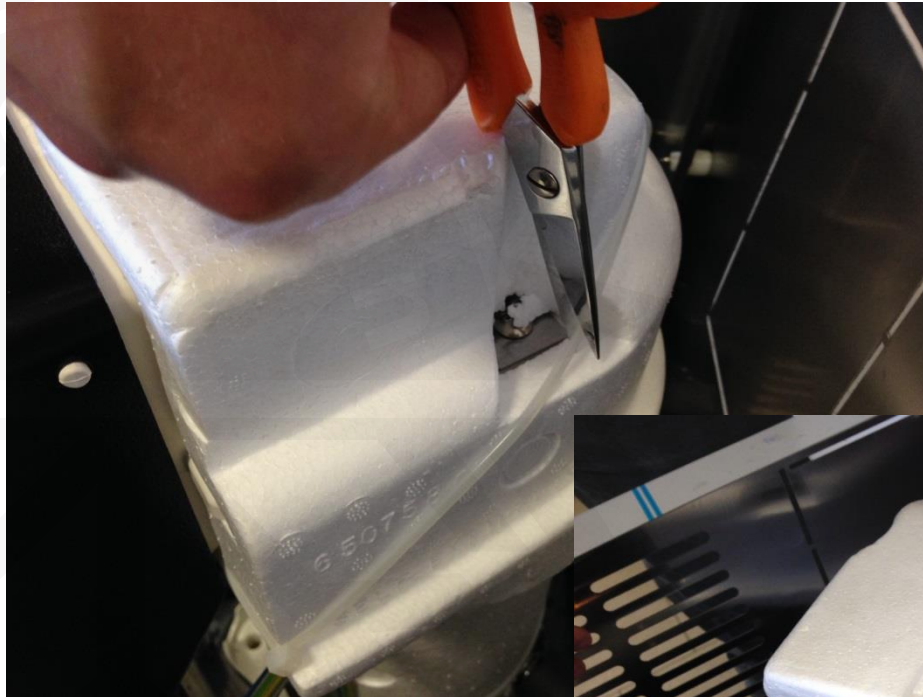
REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

Unloose the four screws holding the metal bracket and remove it from the frame of the machine



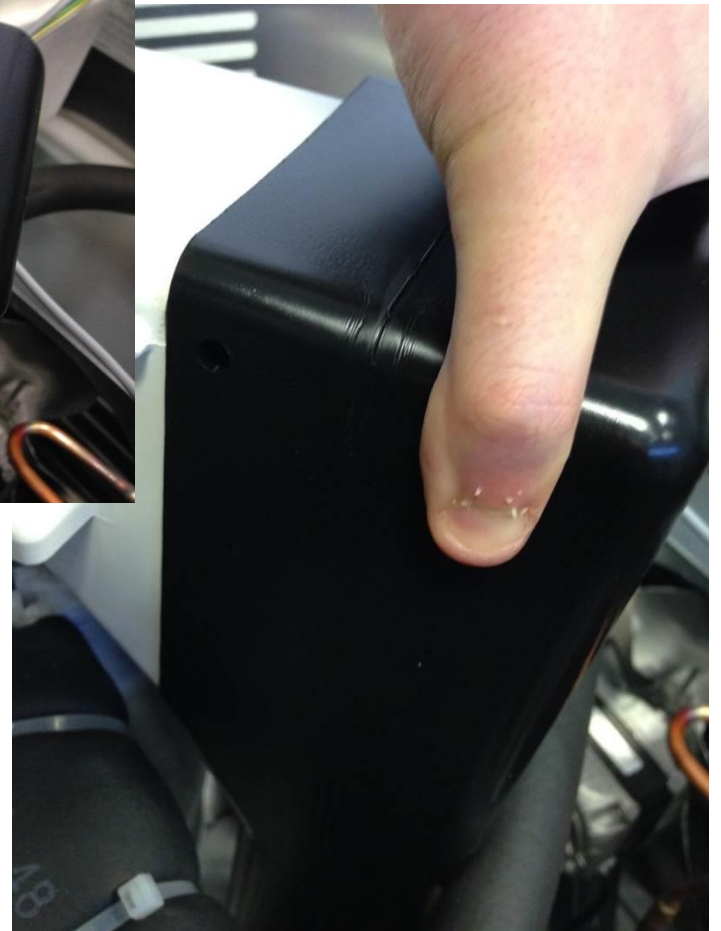
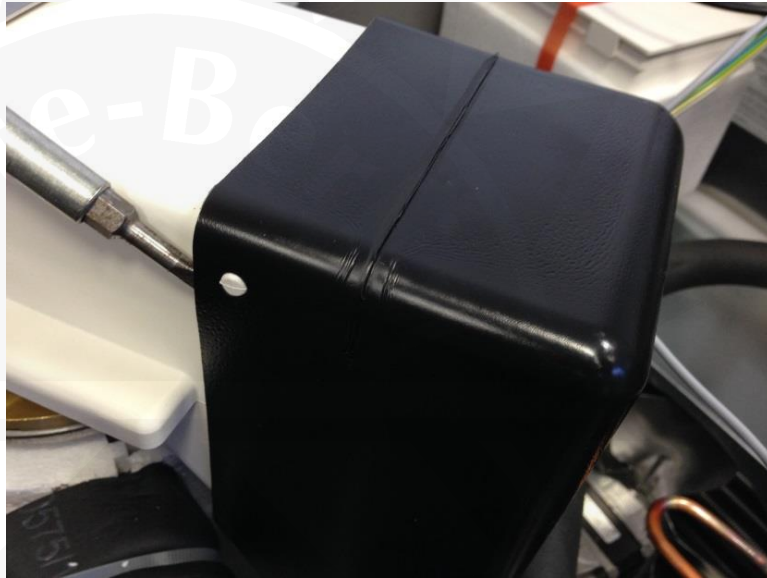
REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

Cut the plastic
clamp and
remove the
polystyrene
ice spout
insulation
covers



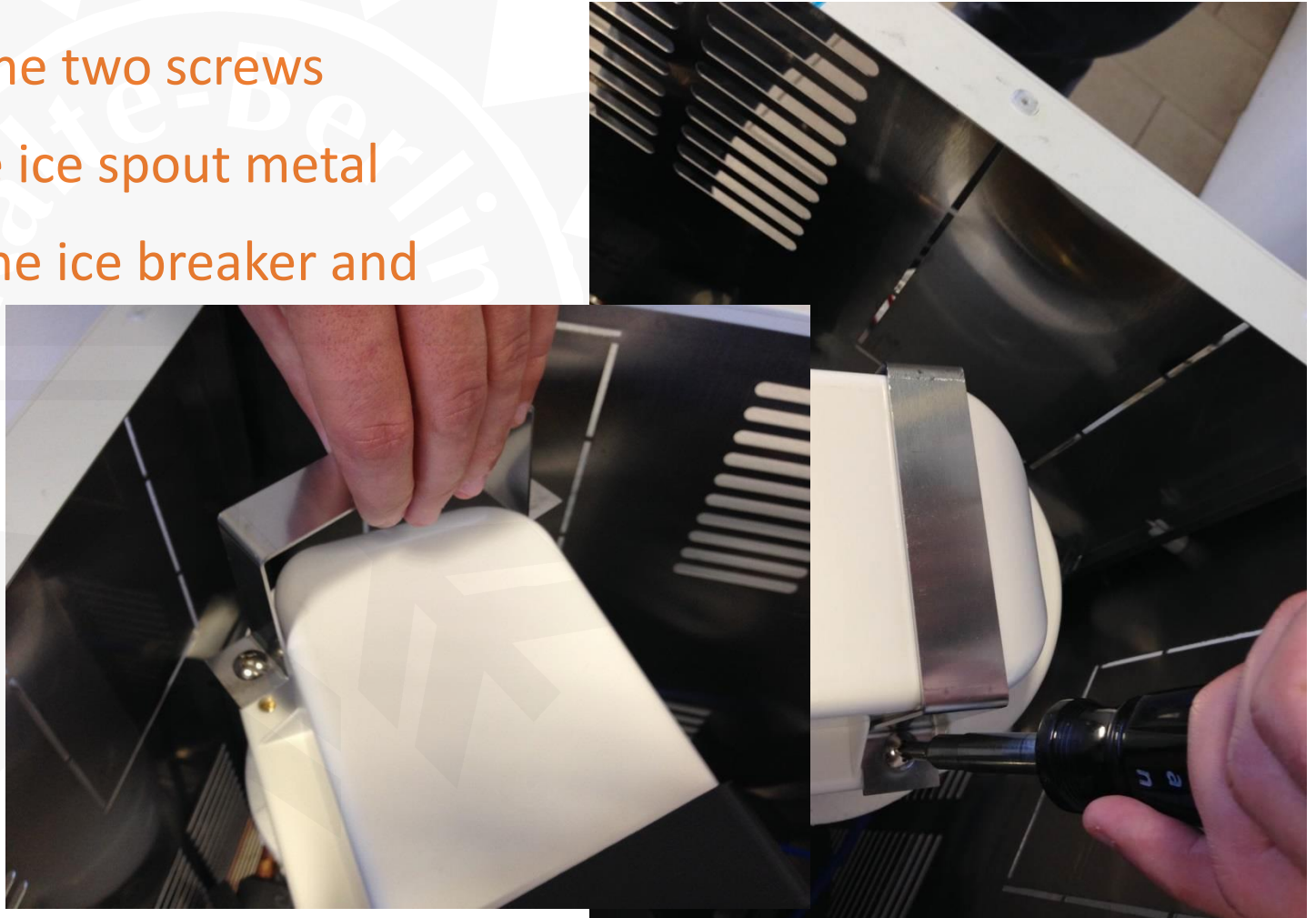
REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

Remove the
ice chute
from the ice
spout



REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

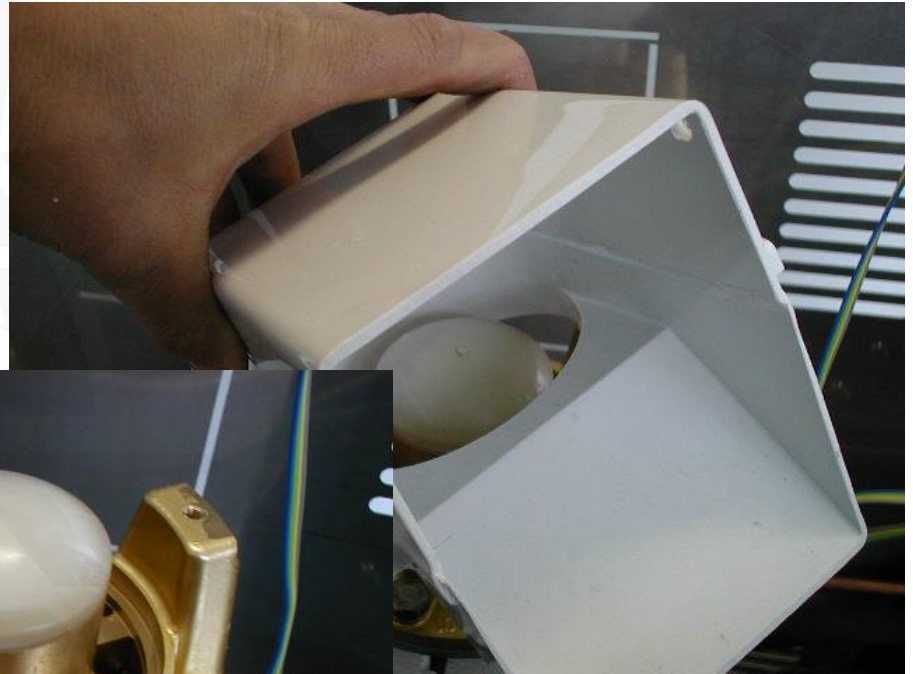
....unloose the two screws
securing the ice spout metal
bracket to the ice breaker and
remove it ...



REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

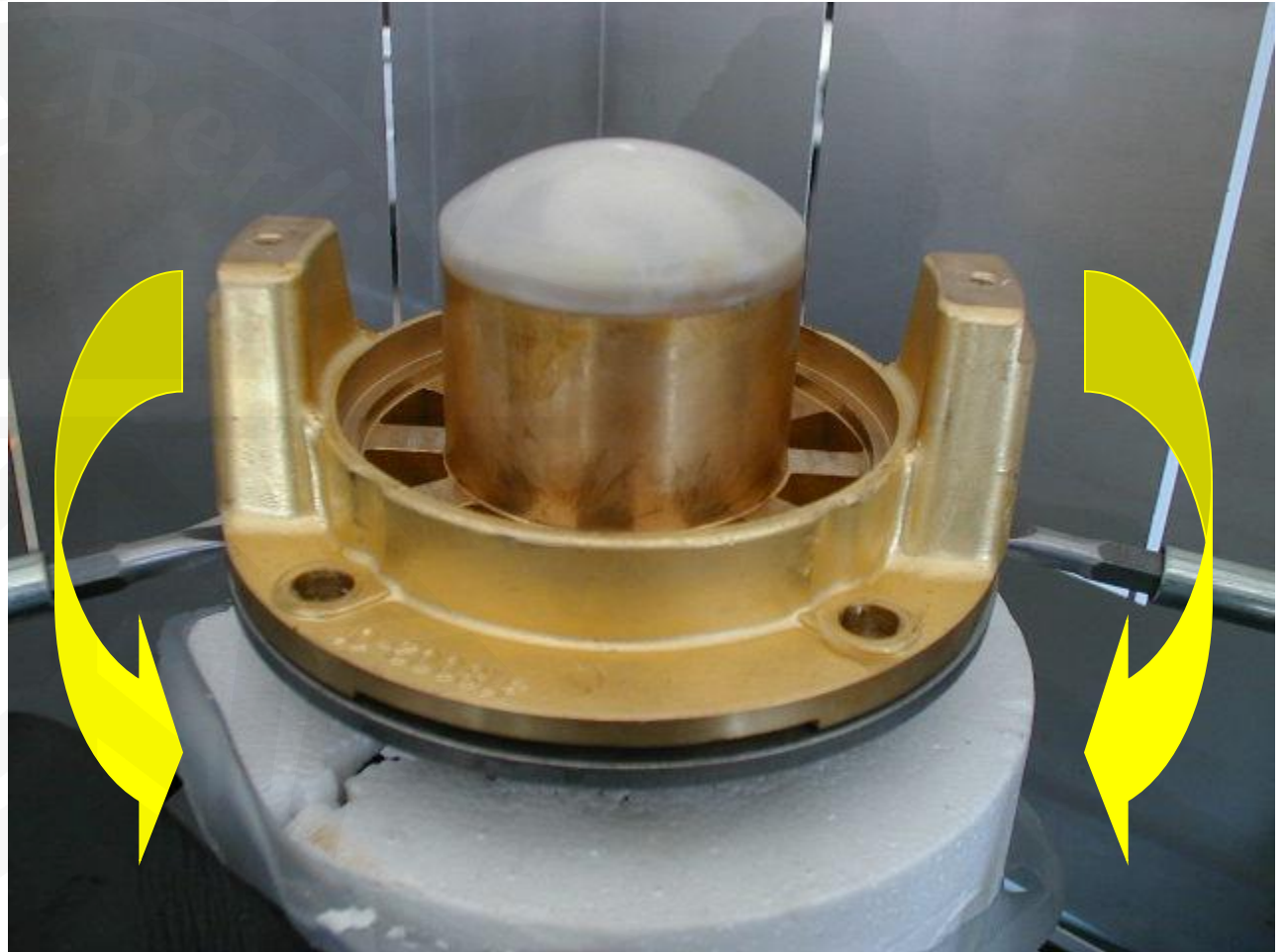
Remove the plastic ice spout....

....then
unloose the
four bolts
holding the
ice breaker
to the
upper
flange of
the freezer.



REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

With a couple
of screwdrivers
rise up a little
bit the ice
breaker and
auger assembly
then



REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

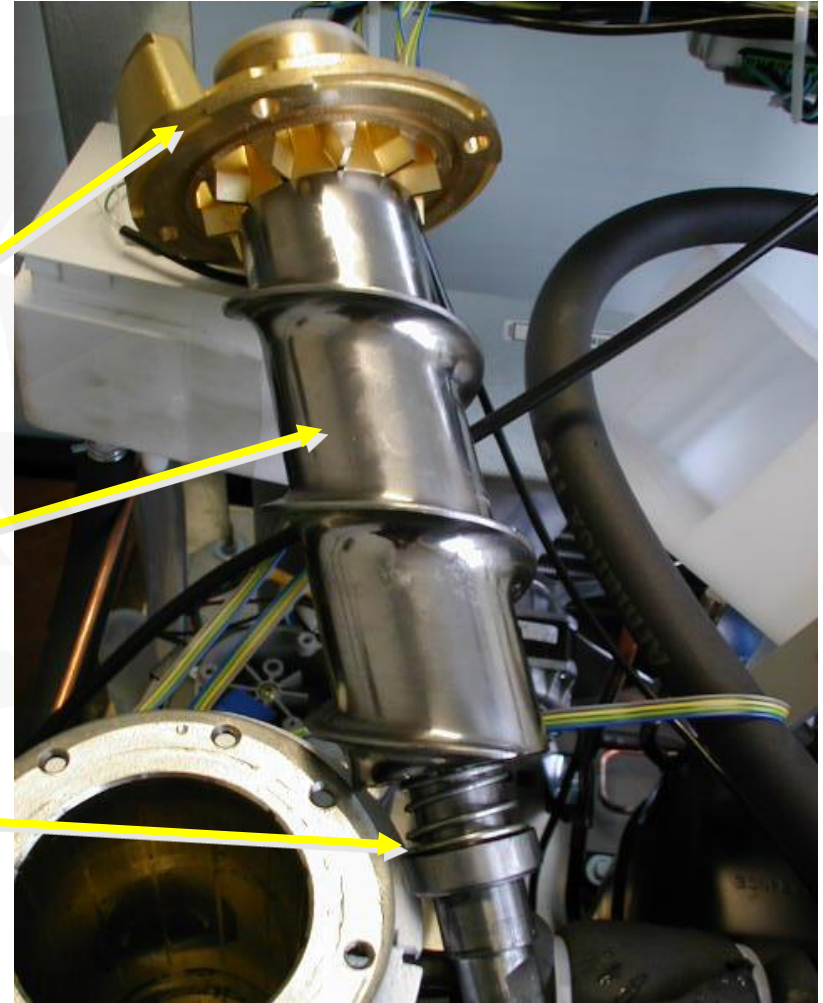
.... pull out the
auger and ice
breaker
assembly.



REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

Parts pulled out from the top of the evaporator/worm tube are:

- Ice breaker assembly
- Auger
- Top half of the water seal



REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

With a screwdriver remove the plastic cap from the upper side of the ice breaker.



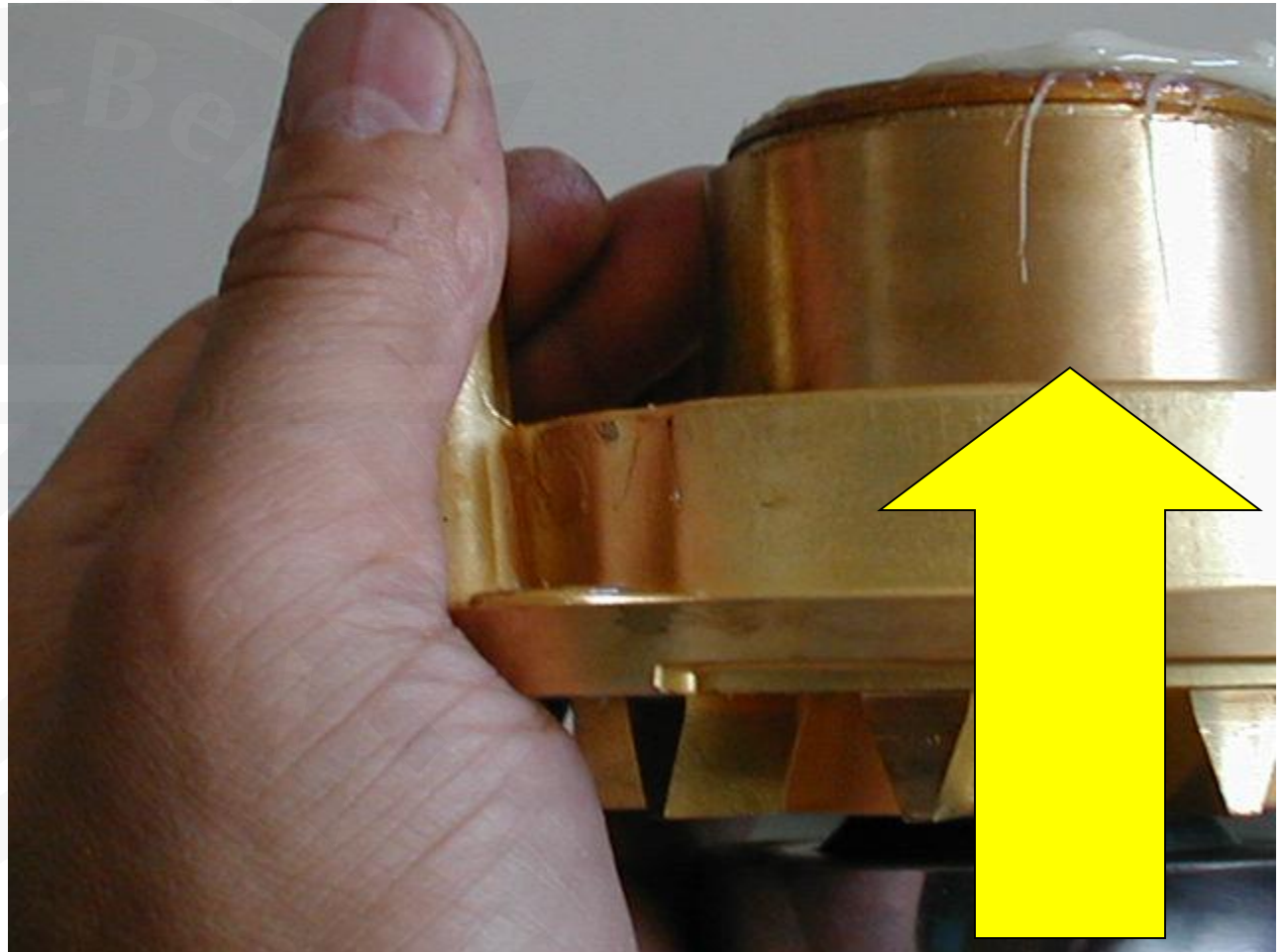
REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

Unloose and
remove the
screw and.....



REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

.....remove
the ice
breaker
assembly
from the
auger.



REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

Clean away the old grease from the interior of the ice breaker and inspect the conditions of the top bearing



REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

..... as well as
the condition
of the O ring.



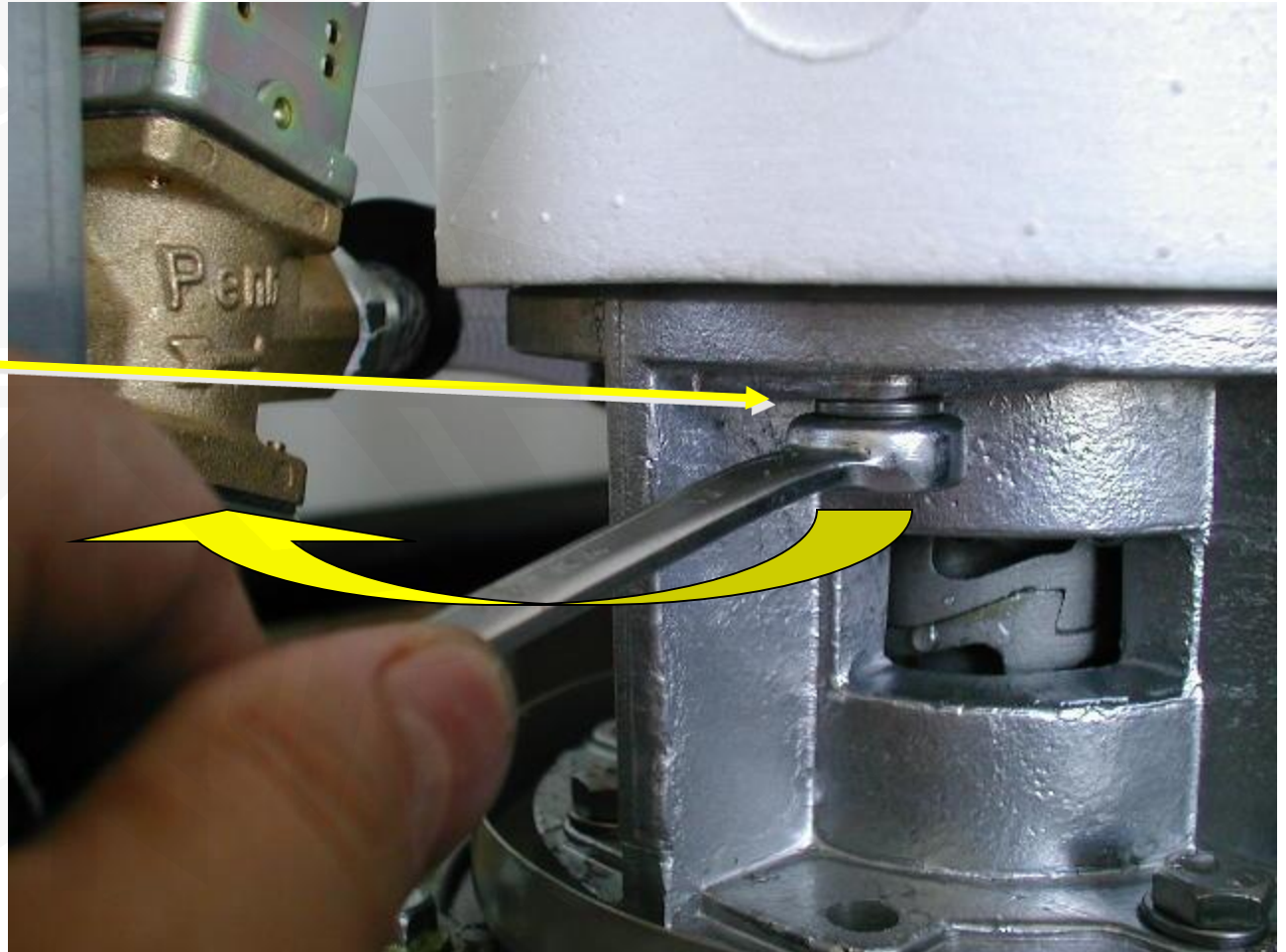
REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

Slide off from the bottom of the auger the upper half of the water seal and check the condition of the two O-rings located on the auger shaft



REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

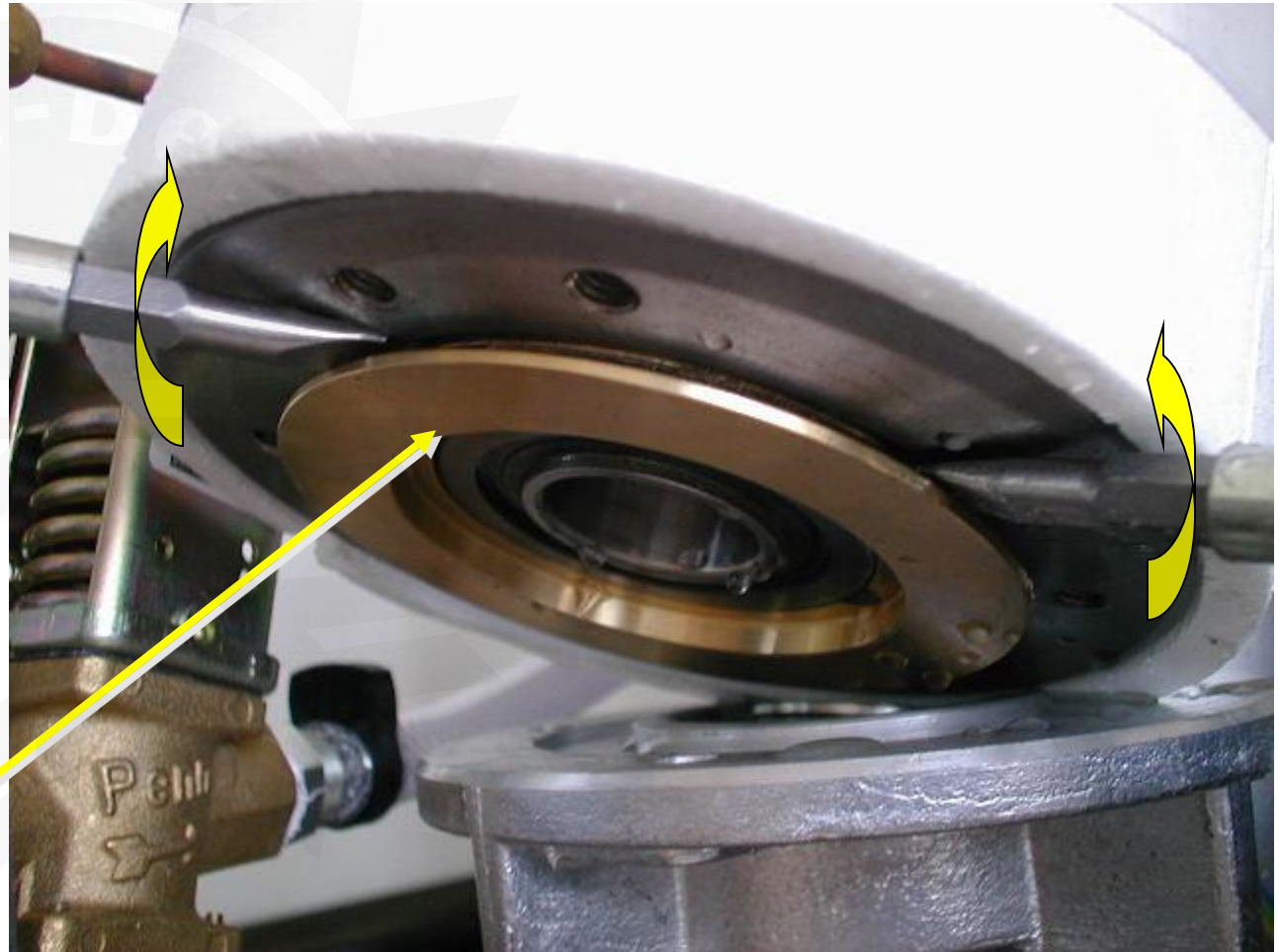
Unloose and remove the four bolts and lock-washers holding the freezer assembly to the aluminum adapter then



REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

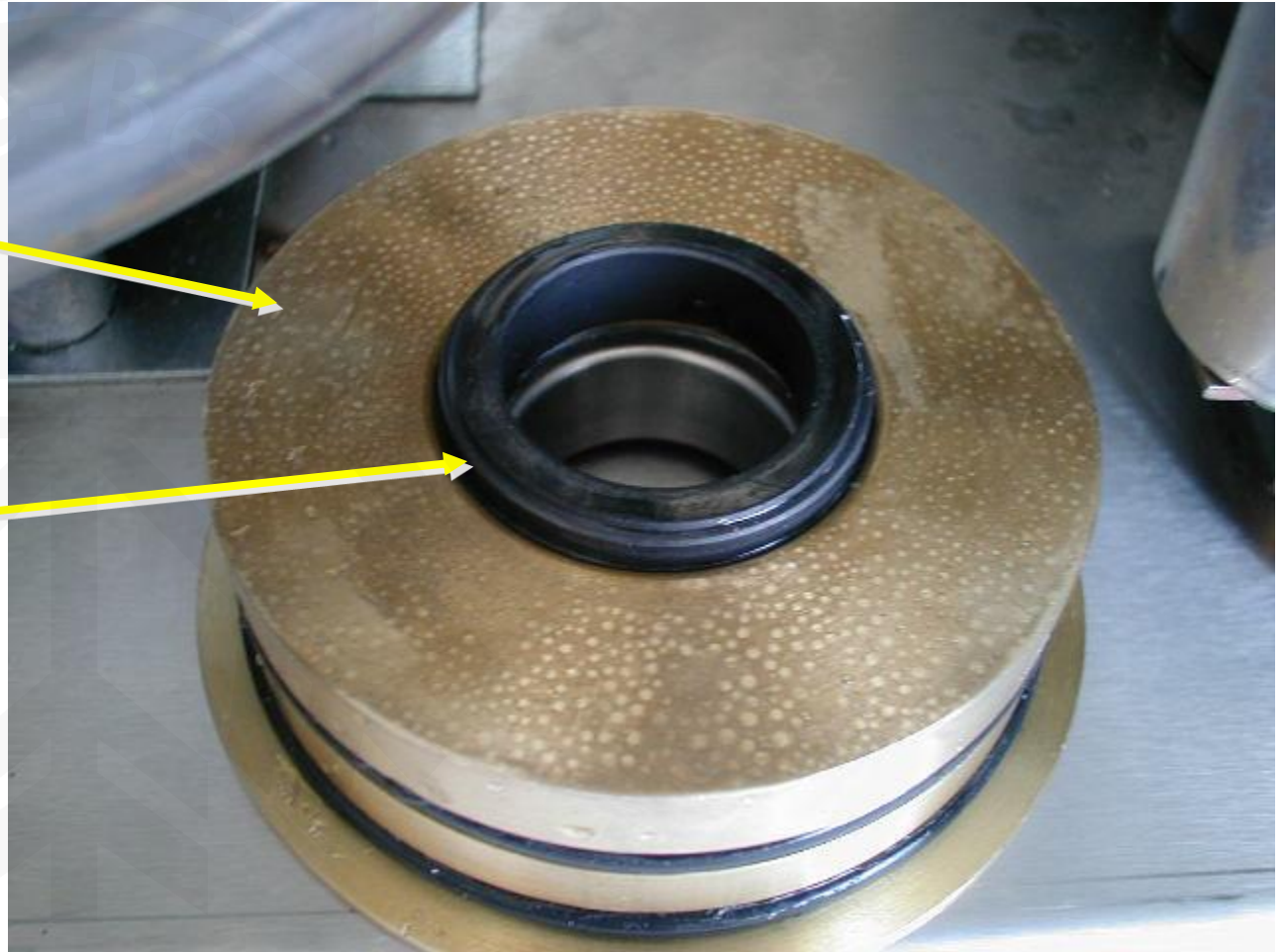
..... raise the freezer assembly off the adapter and move it out so to have enough room to work.

Using two flat screwdrivers remove.....



REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

..... the bottom bearing and brass housing assembly with the bottom graphit ring of water seal.



REPLACEMENT OF AUGER, WATER SEAL AND BEARINGS

It is good practice to replace the **water seal assembly**, the **two top and bottom bearings** and the **O rings** any time the auger is removed.

A **Kit is available** for this purpose containing a **can of waterproof special grease**.

