



010000_LnG Assembly Instructions

Nemo

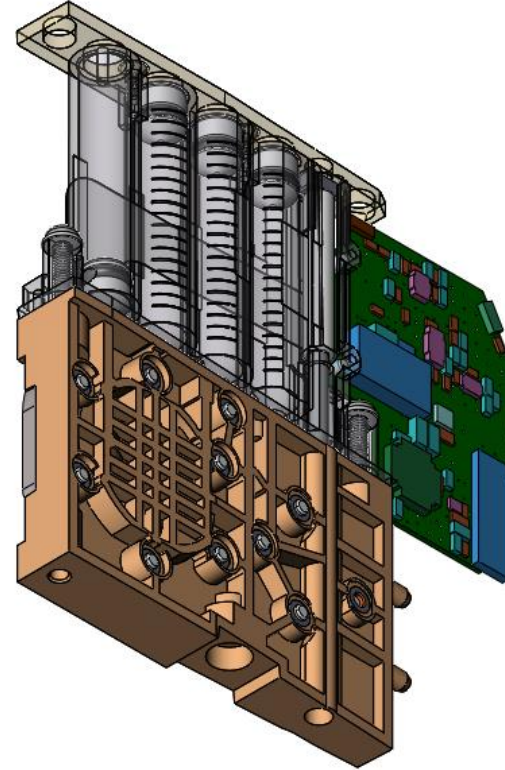
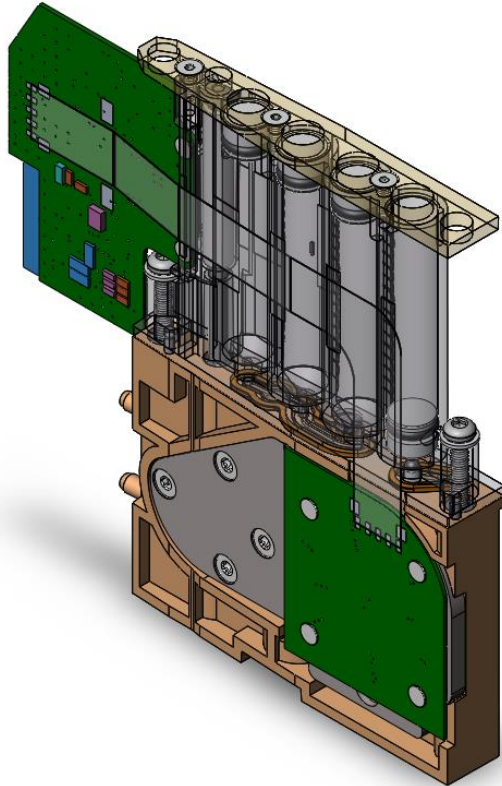
June 15, 2023

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010000

Assembly for Testing



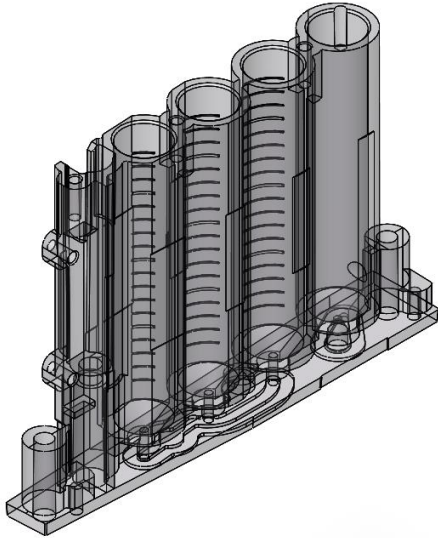
* PCB is not needed for testing

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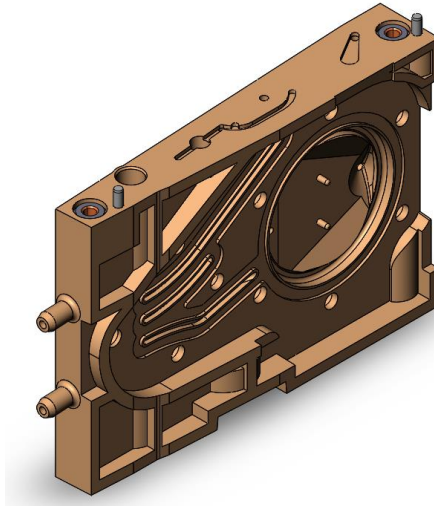


Parts

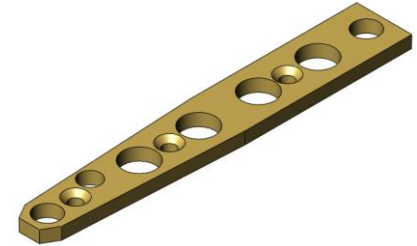
Molded



1x 010301_LnG_syringe



1x 010100_LnG_cartridge_bottom



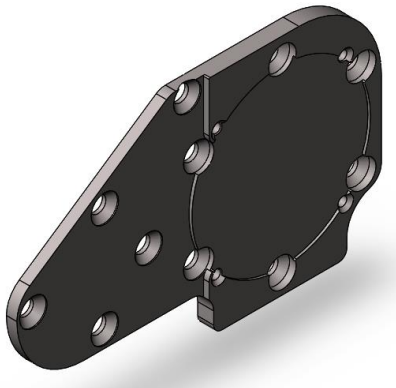
1x 010701_LnG_syringe_top

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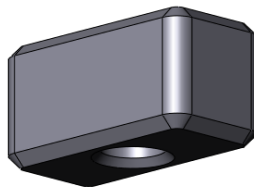


Parts

Machined



1x 010201_LnG_bottom_plate



1x 010602_LnG_valve_cap



3x 010401_LnG_plunger



1x 010501_LnG_plunger_vent



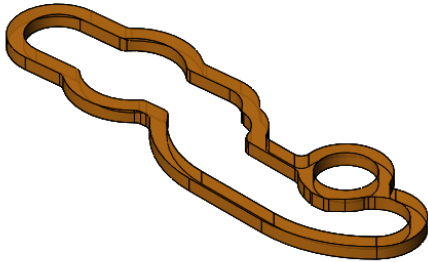
1x 010601_LnG_valve

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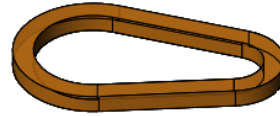


Parts

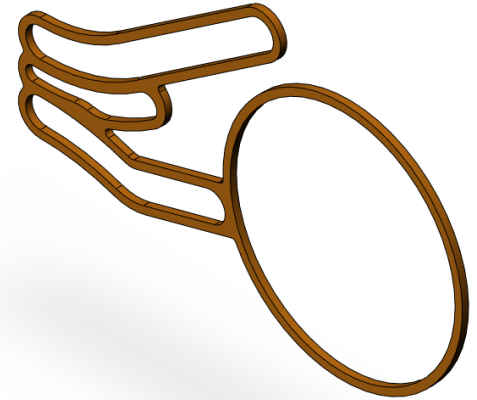
Cut



1x 010801_LnG_seal_manifold



1x 010100_LnG_seal_check_valve



1x 010701_LnG_syringe_top

010000_LnG Assembly Instructions



Parts

Purchased



4x 019902_o-ring-008
EPDM -008 70A o-ring



6x 019903_o-ring-003
EPDM -003 70A o-ring



1x 019904_o-ring-020
EPDM -020 70A o-ring



1x 019908_ball
EPDM 3/32" 70A ball



1x
019907_spring_ch
eck_valve
Lee Spring: CI
010BC 01S316



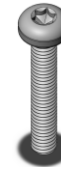
3x
019909_scr_fh_m
2x6
M2x0.4, 6mm long
SST flat head
screw



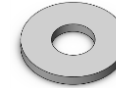
1x
019915_scr_fh_m
2p5x6
M2.5x0.45, 6mm
long SST flat head
screw



10x
019911_scr_fh_m
2p5x8
M2.5x0.45, 8mm
long SST flat head
screw



2x
019912_scr_fh_m
2p5x16
M2.5x0.45, 16mm
long SST pan head
screw



2x
019913_washer_
m2p5
SST washer,
2.7mm ID, 6mm
OD



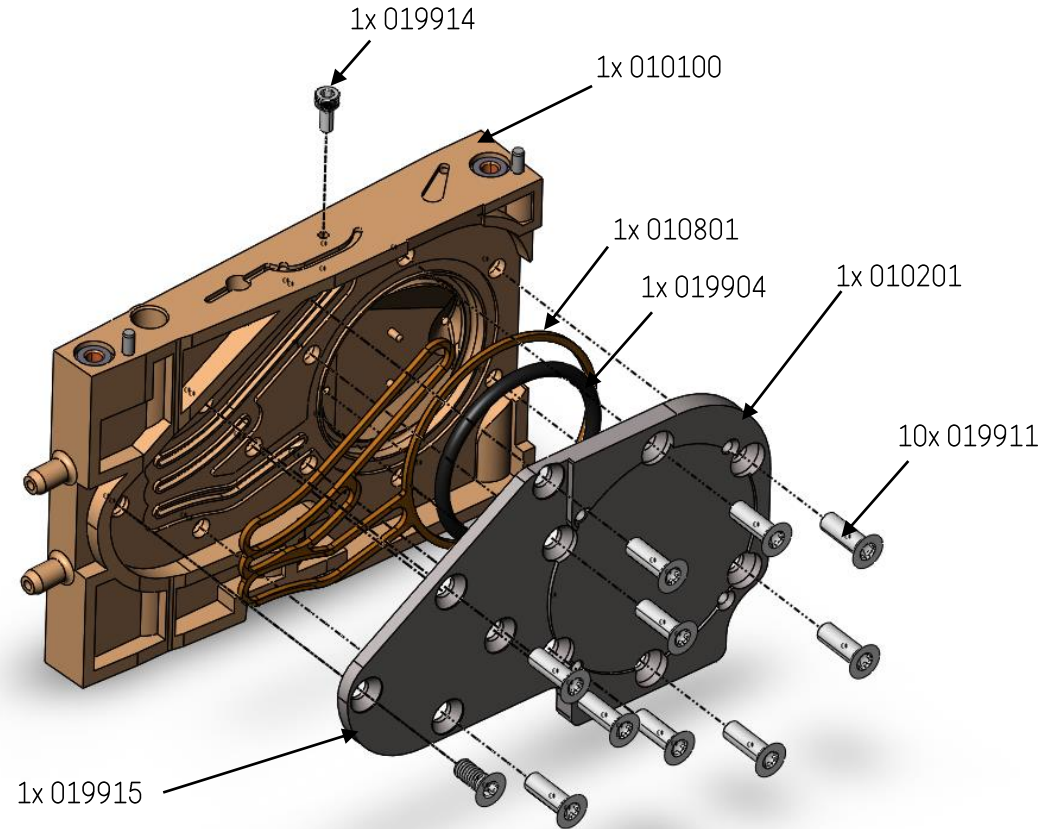
1x
019914_scr_seal_
m1p6x4
M1.6x0.35, 4mm
long SST sealing
screw

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Bottom Assembly and Plate

1. Align 010801_LnG5_seal_cb gasket into groove on 010100_LnG_cartridge_bottom. Make sure gasket does not fall out of groove.
2. Align 019904_o-ring-020 to circular groove of cartridge bottom
3. Lay 010201_LnG_bottom_plate over gaskets. Screw in place with 6lb-in of torque.
4. Lightly screw in sealing screw 019914_scr_seal_m1p6x4 with 2lb-in of torque

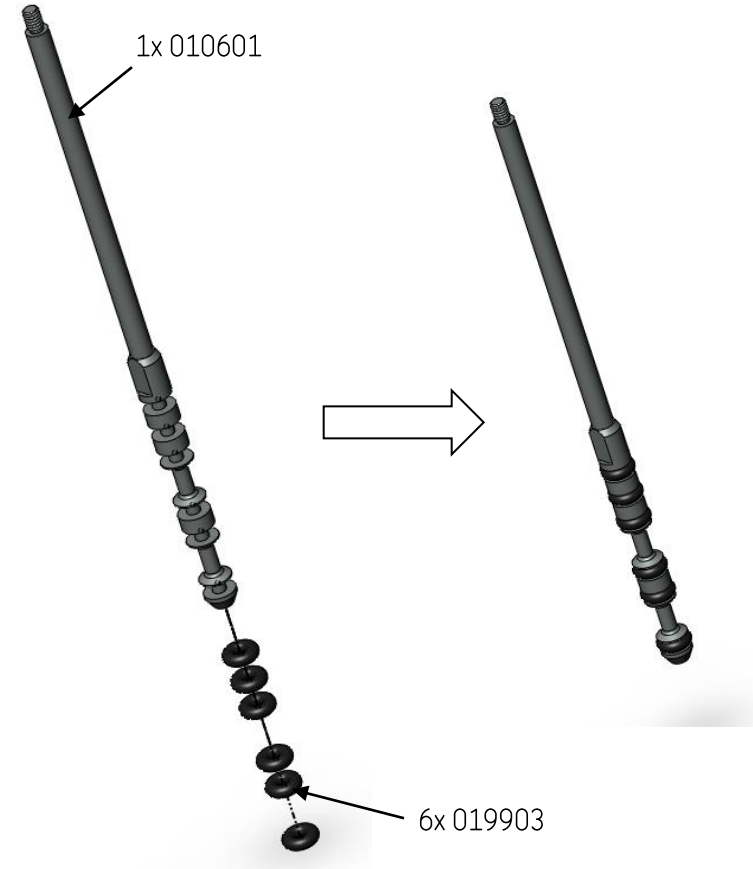


010000_LnG Assembly Instructions



Plunge Valve Assembly

1. Carefully roll 019903_o-ring-003 into grooves on 010601_LnG_valve. O-rings may break if stretched too far
2. Lubricate o-rings with thin layer of 2000cst oil

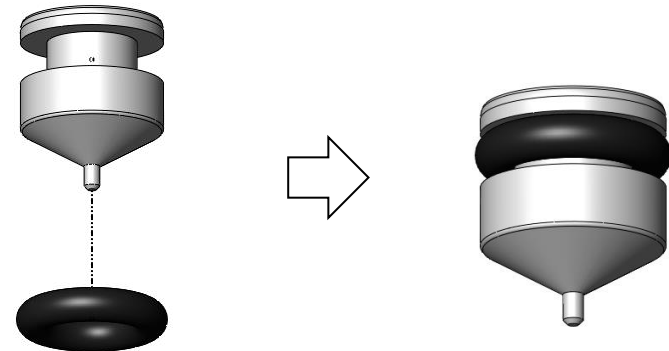
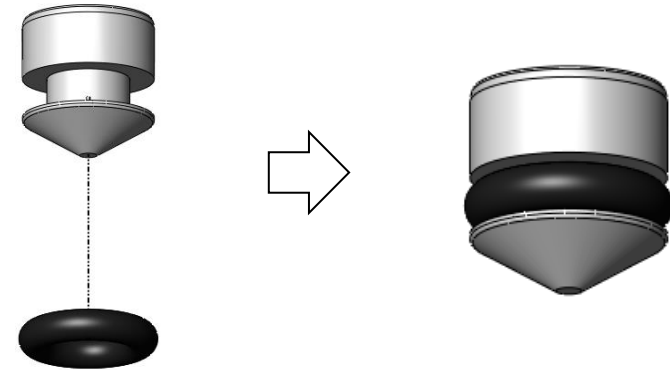


010000_LnG Assembly Instructions



Plunger Assembly

1. Carefully roll 019902_o-ring-008 into groove on 010401_LnG_plunger
2. Repeat 3x until there are 3 plunger assemblies
3. Carefully roll 019902_o-ring-008 into groove on 010501_LnG_plunger_vent
4. Lubricate o-rings with thin layer of 2000cst oil

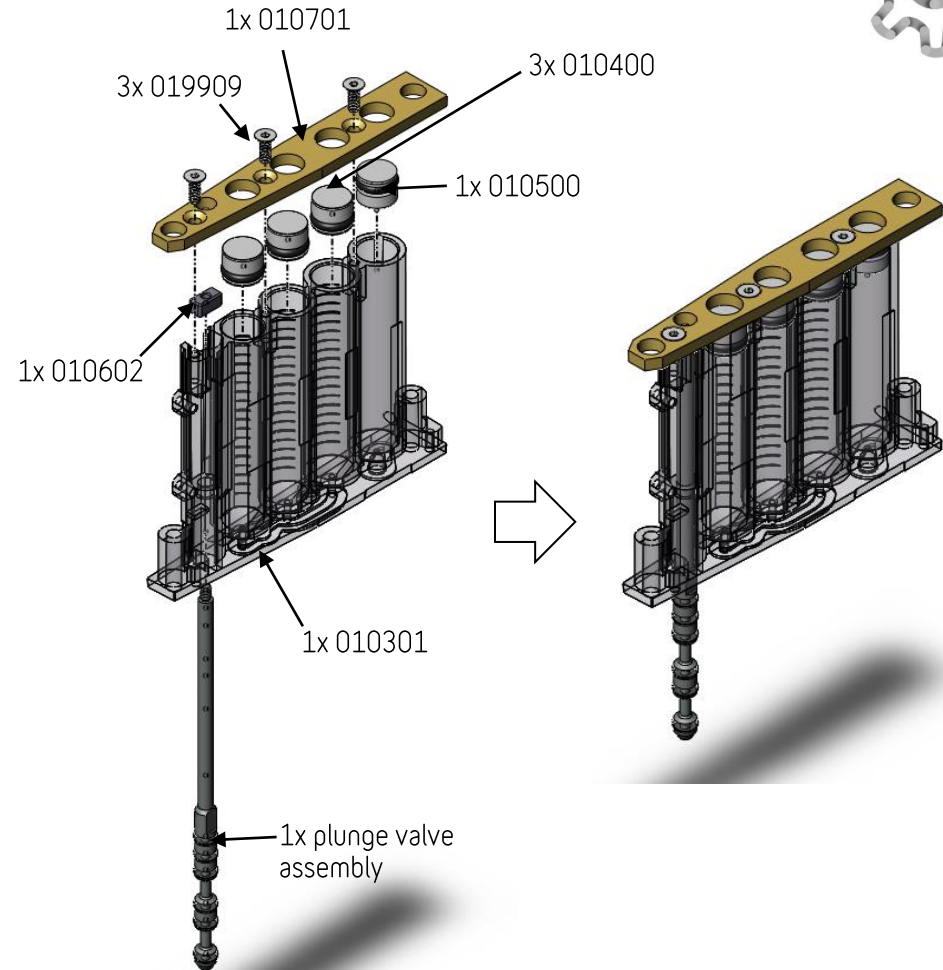


010000_LnG Assembly Instructions



Syringe Assembly

1. Slide plunger assemblies (010500 and 010400) into 010301_LnG_syringe bores. Use a magnet on a rod to slide them back and forth and verify they can move along entire length of bore.
2. Slide plunge valve assembly into syringe from bottom and screw 010602_LnG_valve_cap into plunge valve to constrain it. Make sure to orient valve cap so it nests in syringe.
3. Place 010701_LnG_syringe_top over syringe and make sure it lies flush against the syringe
4. Fasten with the 019909_scr_fh_m2x6 screws



010000_LnG Assembly Instructions



TLA

1. Lay 010801_LnG_seal_manifold and 010802_LnG_seal_check_valve in groove of 010301_LnG_syringe. Make sure gasket does not fall out of groove. Note, syringe assembly should be upside down for steps 1-3.
2. Place 019908_ball in bore of 010301_LnG_syringe. Place 019907_spring_check_valve between 019908_ball and 010101_LnG_cartridge_bottom.
3. Using alignment pins on cartridge bottom and 010600_LnG_valve assemble syringe assembly to bottom assembly. Screw together with 019912_scr_ph_m2p5x16
4. Slide plunge valve assembly up and down cartridge bottom bore and verify all 6 o-rings move along entire length of bore.

