

### SAFETY

**Safety** - consult Blakeborough publication 'Safety' before starting any maintenance work.

The valve and actuator should be handled and installed with care. Consult publication 'Good Installation Practices' for details.

Before any maintenance work it is essential to ensure that the actuator is isolated and depressurised.

### PACKING REMOVAL

Packings are most easily removed with the valve dismantled as it is easier to access the packings with the stem removed. When removing the parts from the packing box assembly, note the order of removal as this will be the order in which new packings are fitted.

1. Unscrew the packing flange nuts (24).
2. Remove packing flange (15) and packing follower (14).
3. Using a narrow hook or bent wire, pull out the packing rings and packing box parts.

### PACKING BOX ASSEMBLY

Before proceeding with the appropriate packing operation below, clean the valve packing box thoroughly and assemble the valve as per maintenance instructions.

Except on oxygen service, packing rings should be lubricated by lightly smearing the rings with a coat of grease before insertion into the packing box. Avoid damage to the packing rings when slipping them over the stem threads, and be sure each ring is pushed firmly into the packing box.

The most common types of packing box assemblies are shown below. If your packing type is not shown then the order of removal of parts should be noted at disassembly. Replace the parts in reverse order.

When replacing the packing flange (15) place it flat side up, over the stem and flange studs to rest on the packing follower. Screw the packing flange nuts onto the studs and tighten them evenly to avoid cocking the flange (15).

**CAUTION:** Finger tightening of the packing flange nuts (24) should provide ample pressure to the packing rings. When the valve is placed in service this adjustment should be checked and the nuts tightened just enough to prevent any leakage. Too much tightening will bind the valve stem and prevent sensitive response.

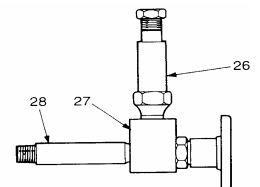
### LUBRICATOR

1. With the valve out of service apply the lubrication as follows:

- a. Before applying line pressure to the valve back off the gland nuts (24) until the packing follower (14) is loose on the stem packing.

- b. Open the isolating valve (27).

- c. Remove the lubricator plunger and insert a charge of lubricant into the barrel (26).



- d. Turn the lubricator plunger into the barrel by hand.

- e. Remove the plunger and repeat the procedure until the stem packing starts to rise and filling is complete. Do not use a wrench on the plunger. Greater force than can be applied by hand alone is liable to split the barrel.

- f. Close the isolating valve (27).

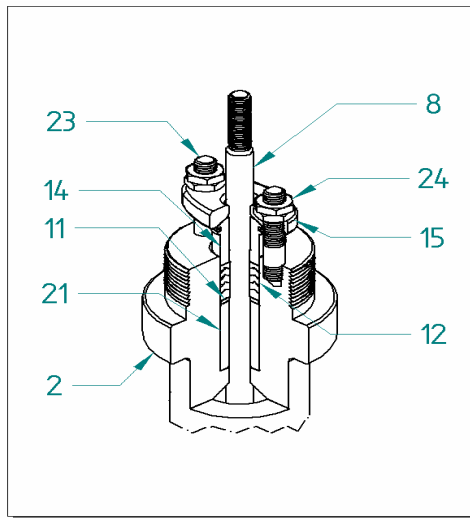
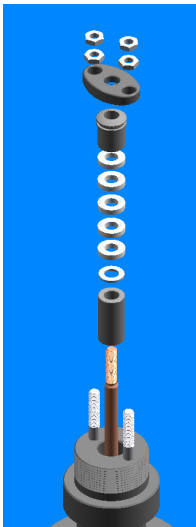
- g. Tighten the nuts lightly and evenly on both sides of the packing flange (15).

- h. Apply line pressure to the valve. If there is leakage at the stem, tighten the nuts further until leakage stops.

2. When the valve in service feed the lubricant as follows:

- a. Screw down the lubricator plunger a few turns (the isolating valve must be opened before turning the lubricator plunger and closed after).

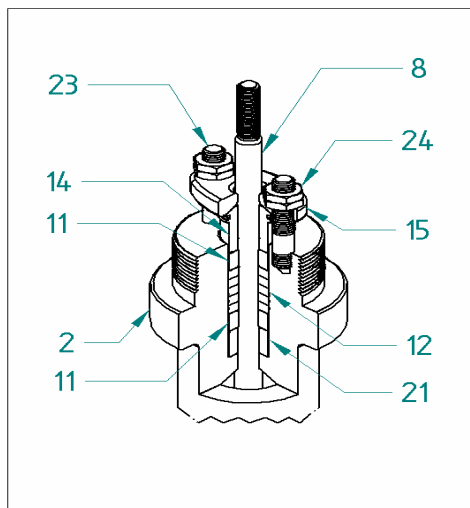
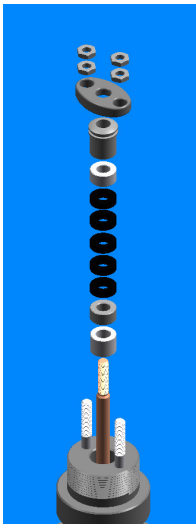
- b. When recharging the lubricator barrel, do not remove the plunger before closing the isolating valve.



### PTFE CHEVRON

#### PARTS LIST

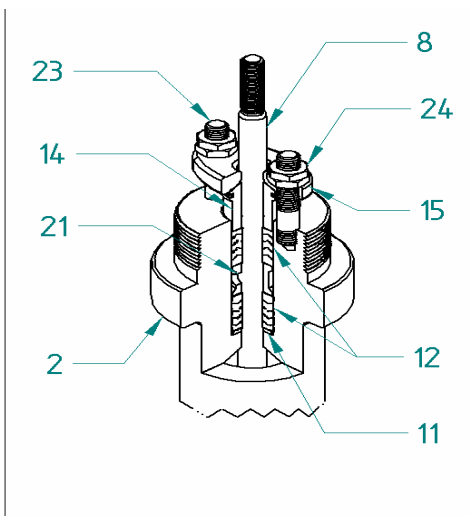
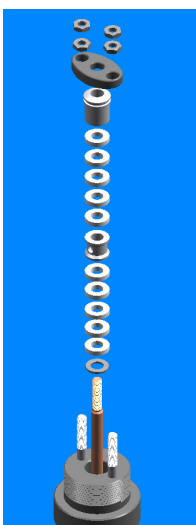
2	BONNET
8	PLUG STEM
11	PACKING WASHER
12	PACKING RINGS
14	PACKING FOLLOWER
15	PACKING FLANGE
21	PACKING SPACER
23	PACKING STUD
24	PACKING STUD NUT



### GRAFOIL

#### PARTS LIST

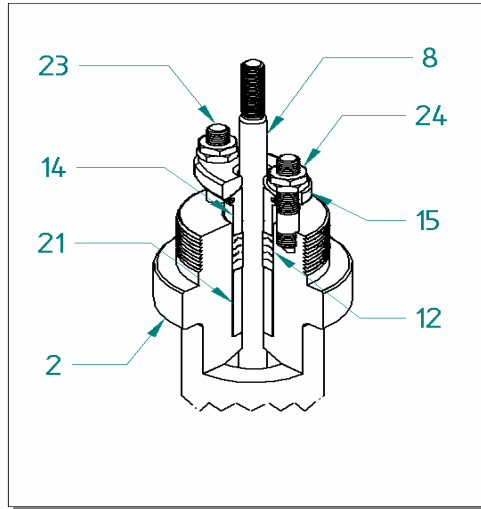
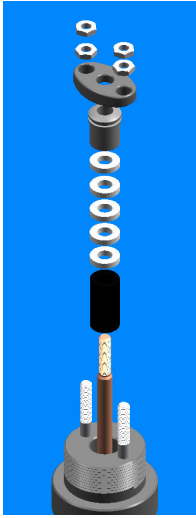
2	BONNET
8	PLUG STEM
11	SUPPORT RING
12	PACKING RINGS
14	PACKING FOLLOWER
15	PACKING FLANGE
21	PACKING SPACER
23	PACKING STUD
24	PACKING STUD NUT



### DOUBLE OPPOSED CHEVRON

#### PARTS LIST

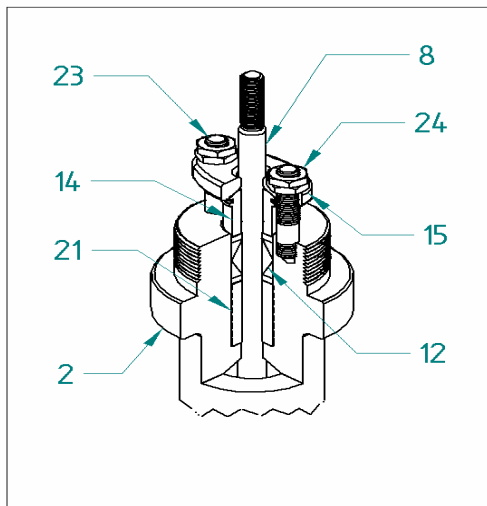
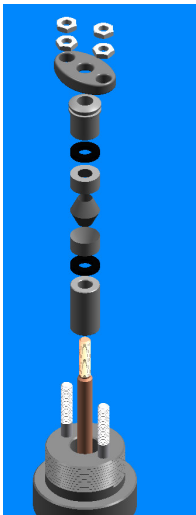
2	BONNET
8	PLUG STEM
11	PACKING WASHER
12	PACKING RINGS
14	PACKING FOLLOWER
15	PACKING FLANGE
21	LANTERN RING
23	PACKING STUD
24	PACKING STUD NUT



**PTFE CHEVRON WITH CARBON BUSH**

**PARTS LIST**

2	BONNET
8	PLUG STEM
12	PACKING RINGS
14	PACKING FOLLOWER
15	PACKING FLANGE
21	PACKING SPACER
23	PACKING STUD
24	PACKING STUD NUT



**ENVIROFLEX**

**PARTS LIST**

2	BONNET
8	PLUG STEM
12	PACKING RINGS
14	PACKING FOLLOWER
15	PACKING FLANGE
21	PACKING SPACER
23	PACKING STUD
24	PACKING STUD NUT