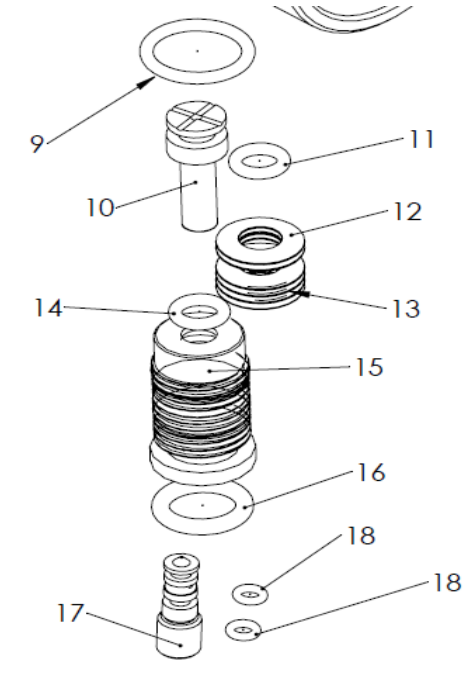


FX AMP Regulator DL-Tac Bottle



9	O-ring 10x1,5 NBR 90	19790
10	Regulator rod	19696
11	O-ring 4x1,5 NBR 70	19109
12	Washer 10x4,2x0.6	2572
13	Washer 10x4,2x0.5	2570
14	O-ring 4x1,5 NBR 70	19109
15	Regulator house	19697-1
16	O-ring 7,5x2,0 NBR 70	19225
17	Regulator screw	19695
18	O-ring 2x1 NBR 90	19731

Regulator Piston (10)



Large Surface Area of the Piston

Small Surface Area of the Piston

Regulator House (15)



(1) HP Air from bottle flows through this hole.

Regulator Screw (17)



(2) Air from (1) flows through this hole.

(3) Air from (2) flows through this hole and goes through the piston and then to the plenum.



- PHASE 0 The plenum is full of regulated air.
- PHASE 1 Gun is fired, the hammer strikes the valve pin, the regulated air is released from the plenum and flows to the port and then to the barrel.
- PHASE 2 Two added forces push the **Small Surface Area** of the piston away from the top end of the **Regulator Screw**, which has a hole where the high pressure air is coming from:
- Force 1: the unregulated/high pressure air pushing on the **Small Surface Area** of the piston.
 - Force 2: the belleville spring washers.
- The HP air flows to the plenum.
- PHASE 3 The force applied by the regulated air (plenum) to the **Large Surface Area** of the piston has increased to a point that it pushes the **Small Surface Area** of the piston against the Regulator Screw. As a consequence, the transfer of air from the bottle to the plenum has stopped.

Regulator Creep: if the o-ring marked by a star (*) is damaged then HP air from bottle will continue to flow to the plenum, which will result to unexpected higher pressure in the plenum and higher velocity.