



How to Repair a KMT Style Bleed-Down Valve

Using Kit #12593

These instructions will demonstrate how to replace components of a KMT Style Bleed-Down Valve with kit #12593

Written By: Adam Dumas



INTRODUCTION

Hypertherm is in no way affiliated with the above mentioned manufacturer



TOOLS:

- [5/8" wrench](#) (1)
- [1" wrench](#) (1)
- [1-1/8" wrench](#) (1)



PARTS:

- [Repair Kit #12593](#) (1)
- [Seat #11099 \(included in kit\)](#) (1)
- [Seal Assembly #11100 \(included in kit\)](#) (1)
- [O-ring #11240 \(included in kit\)](#) (1)
- [Valve Stem #11102 \(included in kit\)](#) (1)
- [Brass Back-up Ring #11104 \(included in kit\)](#) (1)
- [Actuator #13243](#) (1)
- [High-Pressure Gland Fitting #13802](#) (1)
- [Blue Goop #11111](#) (1)
- [Isopropyl Alcohol](#) (1)

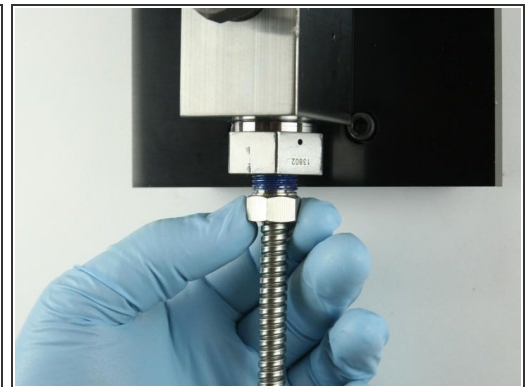
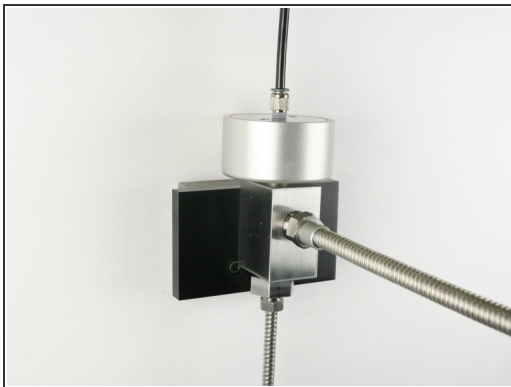
Step 1 — How to Repair a KMT Style Bleed-Down Valve Using Kit #12593



⚠ Always make sure all high-pressure water has been removed from the valve by the following machine manufacturers' safety instructions. Failure to do so can cause severe injury or death.

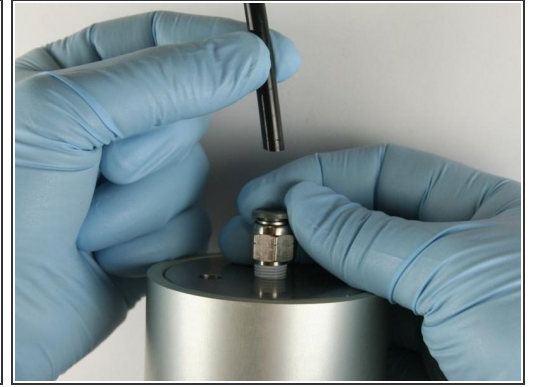
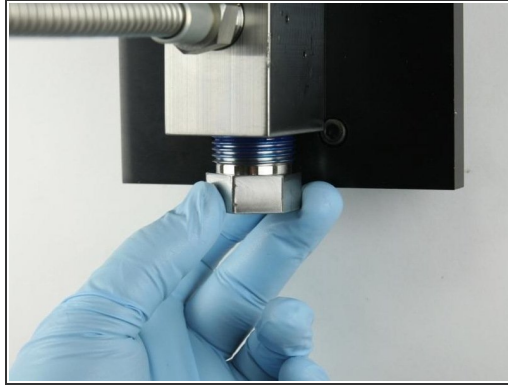
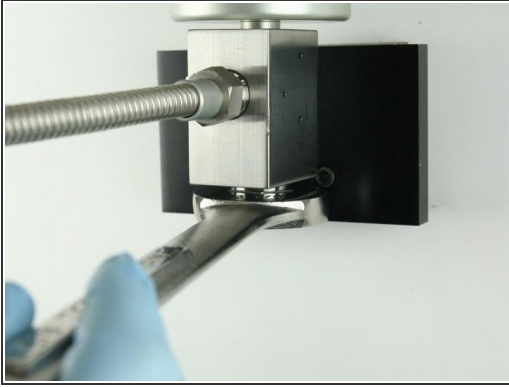
- Turn OFF all water pressure to the on/off valve.

Step 2



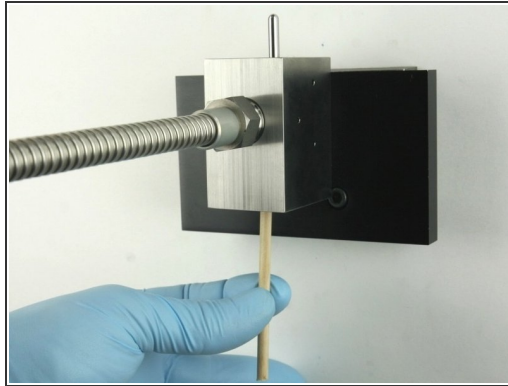
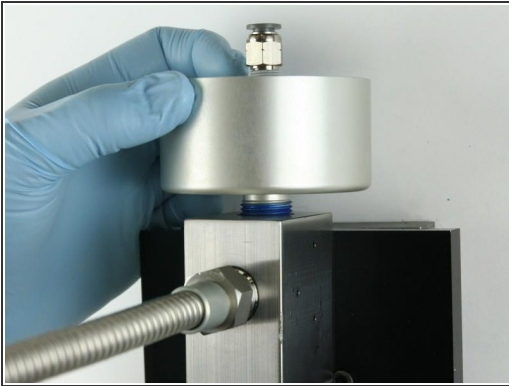
- i** The valve components can be replaced with the [valve body](#) mounted to the pump.
- Loosen the high-pressure tubing from the high-pressure gland fitting using a 5/8" and 1" wrench.
 - Unthread the high-pressure tubing from the high-pressure gland fitting.

Step 3



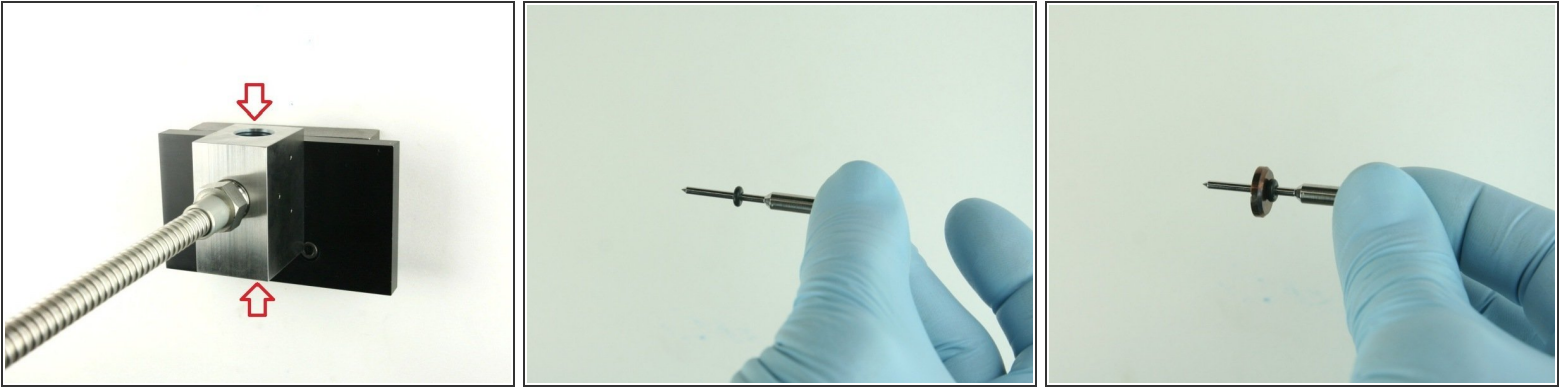
- Loosen the [high-pressure gland fitting](#) using a 1-1/8" wrench.
- Unthread the high-pressure gland fitting from the valve body.
- Disconnect the air line from the [actuator](#).

Step 4



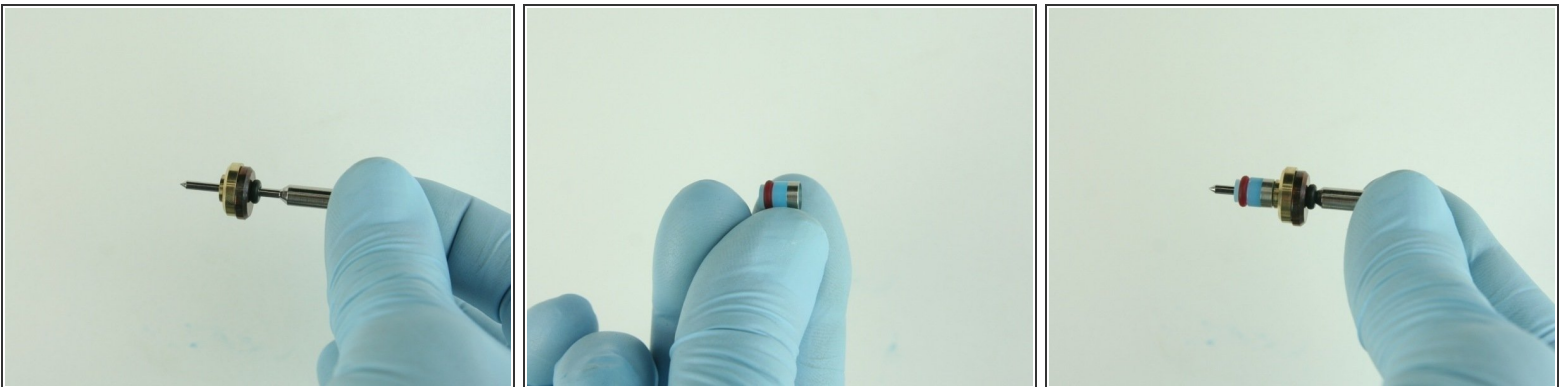
- Unthread the actuator from the valve body.
- Remove all the valve components from the valve body with the included dowel.
- Thoroughly clean the interior of the valve body with isopropyl alcohol or a similar cleaning agent before replacing the components.

Step 5



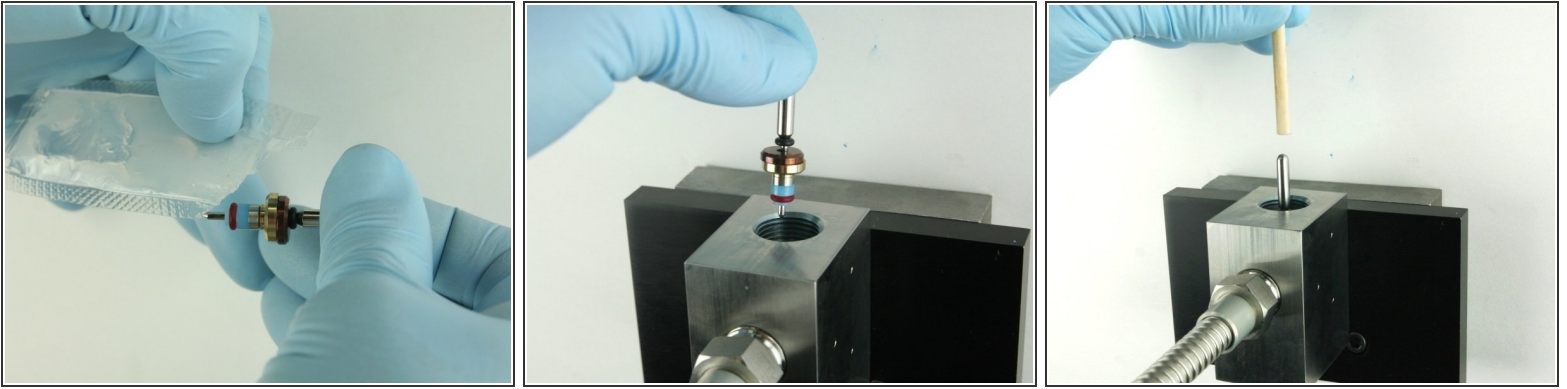
- Visually inspect the top and bottom of the valve bore for cracks/blemishes. If excessive wear or cracks are visible, replace the [valve body](#).
- Slide the [O-ring](#) on to the point of the valve stem.
- Slide the [stainless steel back-up ring](#) on to the valve stem point with the chamfer side towards the O-ring.

Step 6



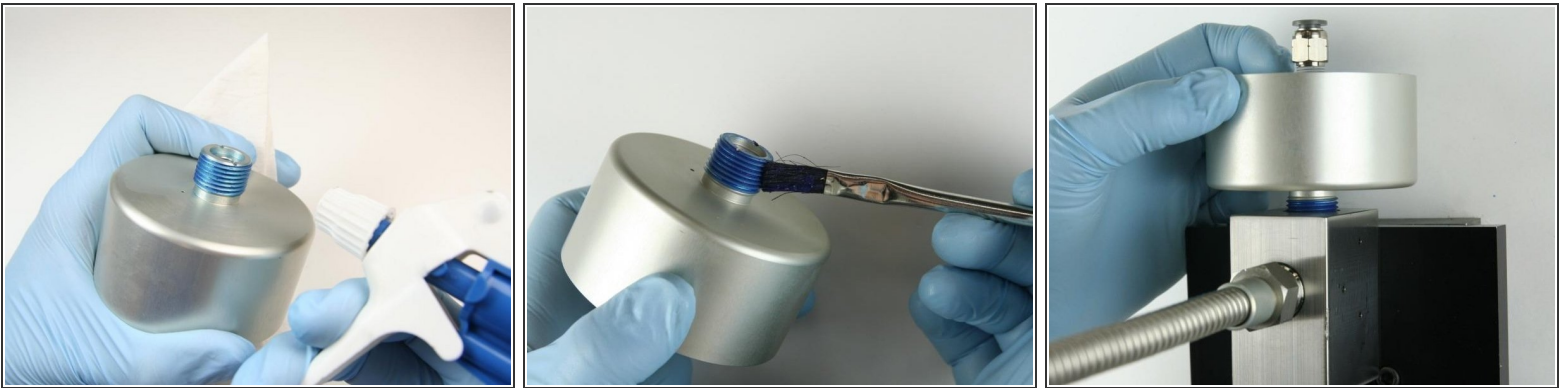
- Slide the [brass back-up ring](#) on to the valve stem point with the chamfer side away from the stainless steel back-up ring.
- Put the [hoop](#) on the [high-pressure seal](#) with the sharp edge of the hoop towards the seal.
- Slide the hoop and the high-pressure valve seal onto the valve stem with the hoop towards the brass back-up ring.

Step 7



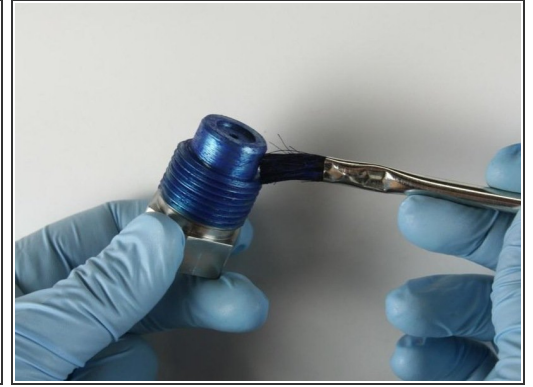
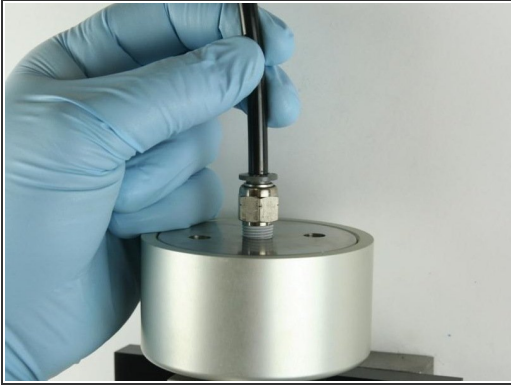
- Apply high-pressure lubricant to the outside diameter of the high-pressure valve seal.
- Put the point of the valve stem into the valve body.
- Push the valve stem with the dowel until it bottoms out.

Step 8



- Clean the actuator threads of all Blue Goop with isopropyl alcohol or a similar cleaning agent.
- Apply [Blue Goop](#) to the actuator threads.
- Thread (hand tighten) the actuator into the top of the valve body until it bottoms out.

Step 9



- Reconnect the air tube to the actuator.
- Clean the high-pressure gland fitting of all Blue Goop.
- Reapply Blue Goop to the threads of the high-pressure gland fitting.

Step 10



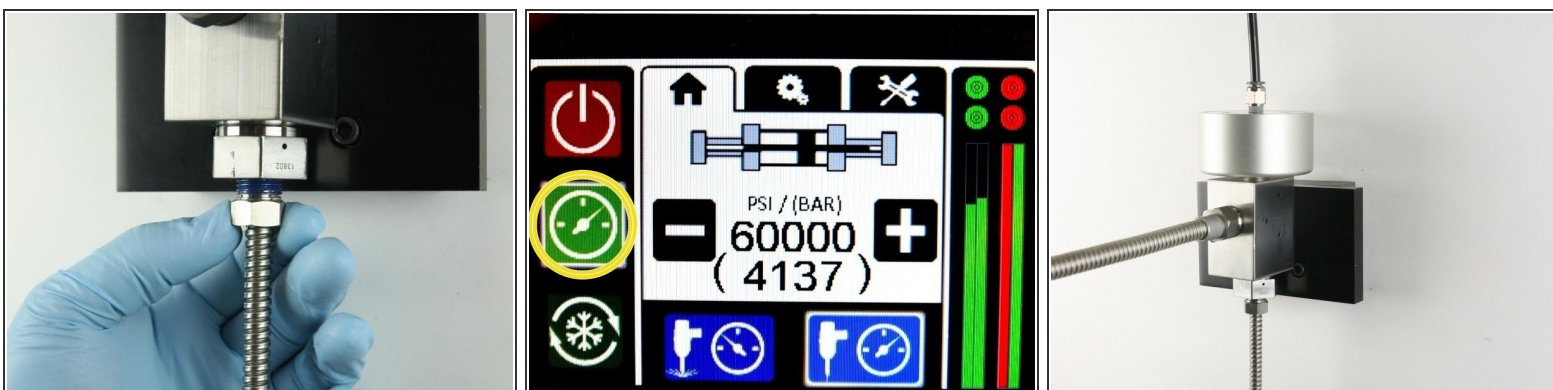
- Put the seat into the top of the high-pressure gland fitting with the flat side towards the gland fitting.
- Apply Blue Goop to the top of the seat.
- Thread the high-pressure gland fitting into the bottom of the valve body.

Step 11



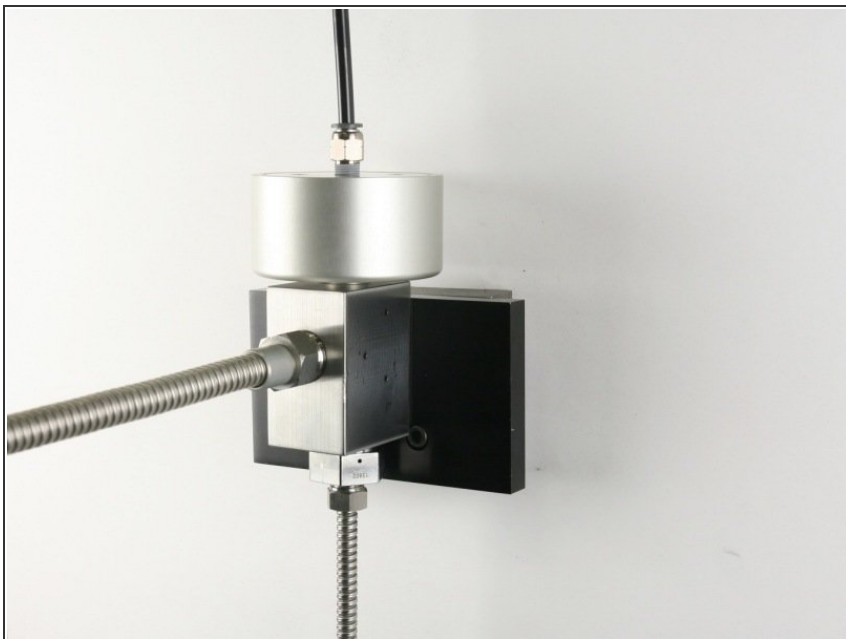
- Tighten the high-pressure gland fitting using a 1-1/8" wrench.
- Clean the high-pressure tubing threads and cone of all Blue Goop with isopropyl alcohol or a similar cleaning agent.
- Reapply Blue Goop to the high-pressure tubing threads and cone.

Step 12



- Thread in the high-pressure tubing to the bottom of the high-pressure gland fitting.
- Apply water pressure to the valve assembly to verify there are no leaks.
- Re-install the cutting head and continue the cutting process.

Step 13



- Re-install the cutting head and continue the cutting process.