# ptcsystem® operation



Connect the **ptc**system<sup>®</sup> launcher to the compressed air network or a compressed air cylinder.



Select the appropriate nozzle and insert it into the open retaining ring on the **ptc**system<sup>®</sup> launcher. For assistance with the nozzle selection, see the operating manual and the tables starting on page 17.



Select a cleaning projectile and insert it into the nozzle. To make selection easier, the designations of the cleaning projectiles are made in accordance with the inner diameter that is to be cleaned.



Close the **ptc**system<sup>®</sup> launcher and position the nozzle on the end of the tube or hose. Now press the trigger until the cleaning projectile is discharged from the end of the line.

# **Cleaning instructions**

#### Tube

Tubes are cleaned following **cutting**, **bending** and, where applicable, the **pre-assembly** of the **cutting ring**. Thoroughly deburr the tube. A **single** cleaning process will normally be sufficient. If necessary, the cleaning can be made even more effective through the use of a second cleaning projectile. In order to remove more stubborn deposits or rust, use the abrasive or corundum projectiles. Following the use of corundum projectiles, subsequent cleaning must always be performed using a standard projectile.

#### Hose

Clean the hose after cutting and prior to integration. This enables optimum cleaning and prevents dirt from remaining on the cross-section transition between the fitting and the inner wall of the hose. Use a suitable device to cut the hose in order to minimise the amount of dirt. Remove any rubber burrs that may have built up. The hose nozzle is inserted into the hose to a depth of a few millimetres. We therefore recommend performing cleaning from both sides.

## **Hose assembly**

In some cases, it is essential to clean the hose assembly after it has already been integrated. This may be the case after damage to a hydraulic pump, for example. To clean the hose assembly, use the **conical hose nozzles** and our FLEX projectiles. Select the nozzle featuring a tip that can be inserted into the fitting. Choose a projectile size that is **at least** equal to the **nominal width** of the hose. Test in advance to see whether the projectile can be shot through the selected nozzle.

## **Cleaning tube bundle heat exchangers**

Use a **conical nozzle** to clean a tube bundle. For a boss featuring set-back displacement, we recommend using an extended special nozzle. This allows the outer tubes of the boss to be reached. If the heat exchanger is already in operation, use **abrasive projectiles** in order to remove instances of biofouling. Heat exchangers that are clogged or contaminated with hard debris cannot be cleaned using the **ptcsystem**<sup>®</sup>.