

In pneumatic systems, a((**PG fitting**))designates a **push-to-connect straight reducing union**. It is a tool-free, one-touch connector used to bridge two hoses of different outer diameters (OD) in a straight-line setup.

How the Part Numbers Work

The nomenclature follows a strict PG [Large Diameter] - [Small Diameter] format. For example: [\[1\]](#)

- **PG8-6**: Connects an 8mm outer-diameter tube to a 6mm outer-diameter tube.
- **PG10-8**: Connects a 10mm tube to an 8mm tube.
- **PG12-8**: Connects a 12mm tube to an 8mm tube.

Key Specifications & Applications

- **Material**: Most common industrial models are made from lightweight Polybutylene Terephthalate (PBT) or composite plastic with stainless steel gripping claws, though heavy-duty 304 stainless steel variants exist.
- **Media**: Designed primarily for compressed air, vacuums, and sometimes water applications.
- **Pressure Limits**: Standard plastic models handle typical operating pressures between **0 to 1.0 MPa (0–145 PSI)**