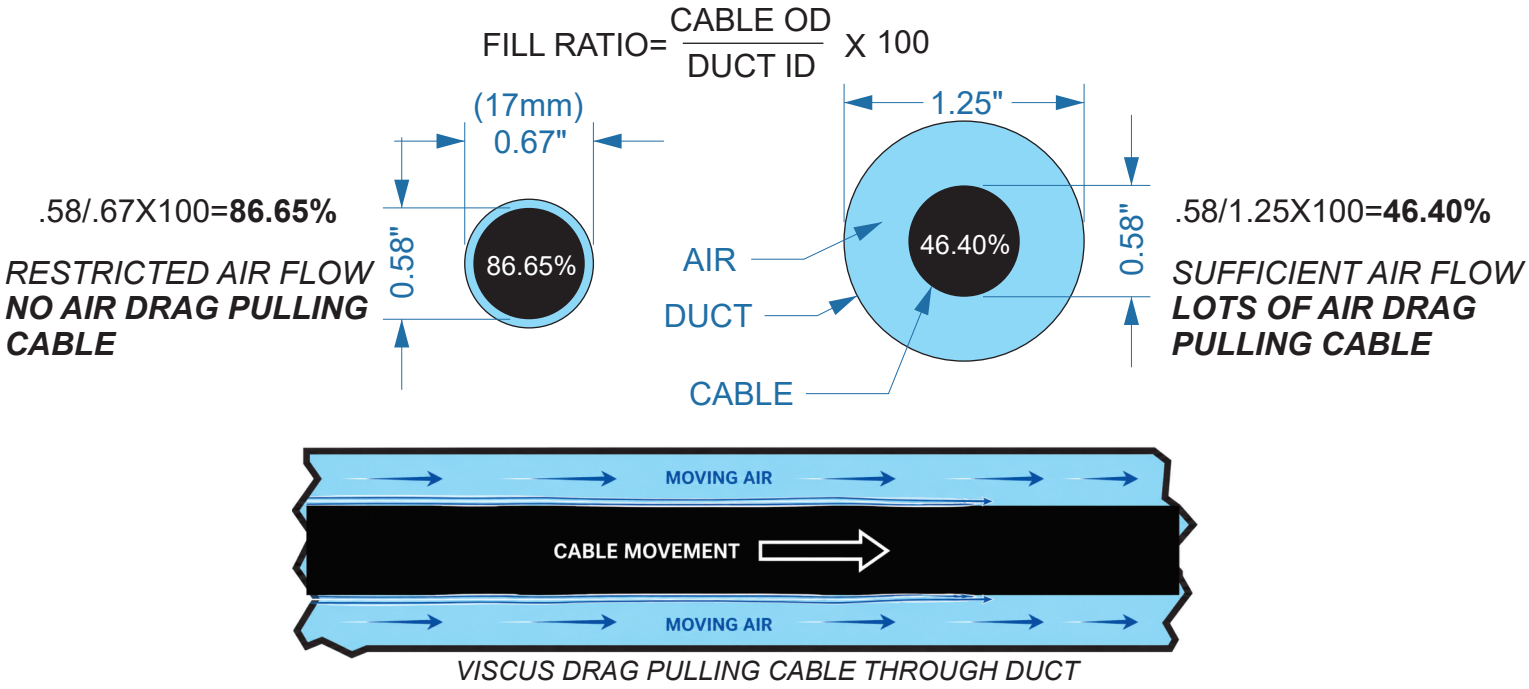
DESIGN CONSIDERATIONS FOR SUCCESSFUL CABLE BLOWING



VISCUS DRAG PULLING CABLE THROUGH DUCT

Choosing the Right Cable and Duct Size

For successful cable blowing, there must be enough open space around the cable for air to flow through the duct.

Fill Ratio = Cable Outside Diameter ÷ Duct Inside Diameter × 100

Aim for a 35% to 65% Fill Ratio

- **35%–65%: Best range**
  Provides enough airflow to carry the cable while helping keep it stable inside the duct.
- **Over 80%: Too tight**
  There is not enough room for air to move around the cable. This reduces pushing force, increases friction and may damage the cable.
- **Under 35%: Too much open space**
  The cable may move around too much, increasing the risk of buckling or kinking.

How the Air Moves the Cable

Fast-moving air flows along the cable's surface and pulls it forward. This pulling effect is called viscous drag. Simply put: The moving air grips the cable and carries it through the duct.

Other Factors to Consider

- Ducts are not always perfectly round. Shipping, storage and installation can slightly flatten them.
- Bends can narrow the duct and increase resistance.
- A fill ratio that looks acceptable on paper may be tighter in actual field conditions.

GENERAL MACHINE PRODUCTS (KT), LLC
3111 OLD LINCOLN HWY · TREVOSE, PA 19053
215-357-5500 GMPTOOLS.COM

GMP ® a KLEIN TOOLS company