CABLE BLOWING: WHY FILL RATIO MATTERS

Enough space lets air flow around the cable and help carry it through the duct.

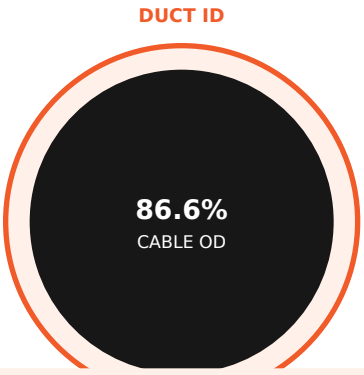
CALCULATE THE FILL RATIO

TARGET: 35%-65%

Cable outside diameter ÷ Duct inside diameter × 100

TOO TIGHT

0.58 in. cable OD ÷ 0.67 in. duct ID = 86.6%

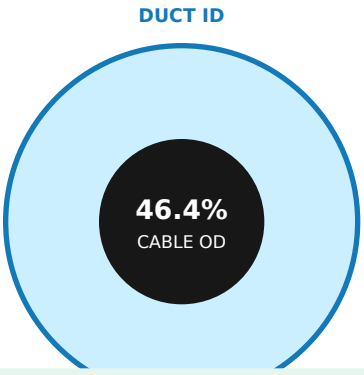


WHAT HAPPENS

Very little air can pass around the cable. Friction rises and the cable is harder to move.

PREFERRED RANGE

0.58 in. cable OD ÷ 1.25 in. duct ID = 46.4%

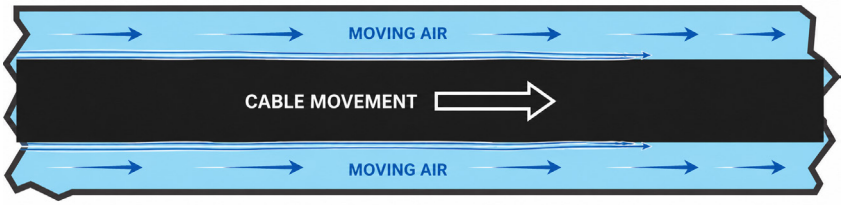


WHAT HAPPENS

Moving air reaches the cable surface and helps pull the cable forward through the duct.

HOW AIR MOVES THE CABLE

Fast-moving air rubs along the cable surface. This creates viscous drag - a pulling force that helps move the cable.



QUICK FILL-RATIO GUIDE

UNDER 35%
Too much open space
Cable may buckle or kink.

35%-65%
Preferred range
Good airflow and stability.

65%-80%
Outside target range
Check system guidance.

OVER 80%
Too tight
Airflow and pushing drop.

CHECK REAL-WORLD CONDITIONS

- Use the duct inside diameter - not its outside diameter.
- Shipping, storage and installation can flatten duct slightly.
- Bends reduce usable space and increase resistance.
- Follow the cable, duct and blowing-equipment manufacturer recommendations.

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