

FLOATING INSTALLATION QUICK GUIDE (FIBER CABLE WITH WATER IN DUCTS)

Floating is a fiber installation method that uses water inside the duct instead of air. The water reduces friction and helps carry the cable forward, enabling significantly longer installation distances.

CORE PARAMETERS

1. Duct Dimension (outer/inner diameter)
2. Cable Type & Diameter
3. Water Pressure & Flow Rate
4. Expected Installation Length

RECOMMENDED SETTINGS OVERVIEW

| Duct Size (OD/ID) | Cable Diameter | Water Pressure (bar) | Water Flow (L/min) | Typical Installation Length (m) | Estimated Water Use / 1000 m (L) |
|-------------------|----------------|----------------------|--------------------|---------------------------------|----------------------------------|
| 16/12 mm | 4-6 mm | 3-16 | 4-8 | 1000-1800 | 350-400 |
| 20/16 mm | 6-7 mm | 3-16 | 6-10 | 1500-2500 | 500-600 |
| 25/20 mm | 7-9 mm | 3-16 | 8-15 | 2000-3000 | 700-900 |
| 32/25 mm | 8-10 mm | 3-16 | 10-20 | 2500-3500 | 900-1200 |
| 40/32 mm | 10-20 mm | 3-16 | 15-25 | 1000-6000 | 1000-1500 |
| 50/40 mm | 10-20 mm | 3-16 | 20-30 | 1000-6000 | 1200-1800 |
| 60/50 mm | 15-20 mm | 3-16 | 25-35 | 1000-6000 | 1500-2100 |

Note: Values are approximate and depend on route layout, terrain (it is always easier to install downhill than uphill), duct quality, temperature, and whether pure water or a water/air mix is used. In some cases, it is possible to install longer distances than stated.

KEY INSTALLATION INSIGHTS

- **Smaller duct** → less space → **higher pressure needed**
- **Larger duct** → lower friction → **longer distance**
- **Thinner cables** → less mass, more floating, **longer range per tank**
- **Thicker cables** → more drag, needs more force, **shorter range**

TYPICAL PRESSURE RANGES

- Start low: **~3 bar**
- Increase as needed up to **14-16 bar**
- Always monitor pressure and cable speed using systems like **Jetlogger**

INSTALLATION WORKFLOW

1. Identify duct dimension (inner diameter most critical)
2. Select cable type & size
3. Plan expected pressure, flow, and volume
4. Verify duct material specifications – ensure the duct can withstand the planned pressure
5. Test duct with air and cleaning plug to ensure it is free from obstacles – wait until the plug exits at the other end
6. Start with low pressure (~3 bar) and fill duct with water for 1-2 minutes before cable installation
7. Gradually increase to maintain speed and overcome resistance
8. Ensure water flow matches cable installation speed whenever possible
9. Use logging tools to monitor performance
10. After installation, blow out residual water (especially in freezing conditions).