

Jetted Installation

Installation considerations with Sherman & Reilly Superjet

Table of Contents

	page
1.0 Setup.....	1
2.0 Performance.....	2

When blowing fiber optic cable using the Sherman & Reilly Superjet, these guidelines should be considered in coordination with:

- [+] Sherman & Reilly's Superjet operating and cable installation practices
- [+] Manufacturer & Customer cable handling and installation practices
- [+] Compliance to cable specifications: bend radius, pulling tension, operating temperatures, etc.

Technicians must be properly trained to assure proper and safe operation of the Superjet. This is especially important with smaller diameter cable.

Installation Check List

- [+] Inspect, clean, and prepare duct.
- [+] Use proper lubricant and amount.
- [+] Use cable guides for cables < 1.0" diameter.
- [+] DO NOT exceed 800 psi pressure on cables < 0.6" diameter.
- [+] Use the proper Cable Sealing Insert and Cable Seal.
- [+] Use air compressor cooler when necessary.
- [+] Install the proper size cable end cap before installation.

NOTE: Cable with smaller diameters will require a lower maximum push force. The maximum push force will also decrease with larger duct sizes.

1.0 Jetting Equipment Setup / Operation

1.1 Duct/Conduit Inspection Before Cable Installation

It is recommended to use a foam cylinder to clean duct and remove water & debris prior to cable installation.

1.2 Equipment Cleaning & Inspection

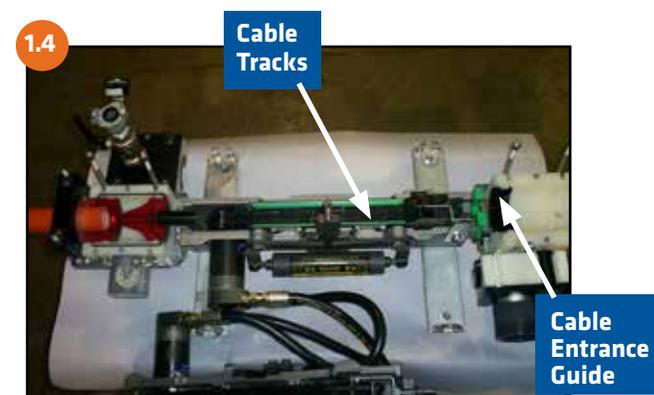
Ensure the blowing equipment is clean and in proper working condition. Clean the blowing equipment drive mechanism as often as possible to optimize blowing performance.

1.3 Duct Lubricant

Duct lubricant is recommended for cable installation. Refer to Sherman & Reilly's procedures for recommended lubricant type and amount. Re-apply lubricant as necessary to limit friction and ease cable-blowing installation.

1.4 Use Cable Guides for Cable < 1.0" Diameter.

The cable diameter should be measured at several locations and an average diameter determined prior to installation. The equipment should be setup according to the measured average diameter. This measurement should be repeated for each cable reel. Failure to properly setup the machine for the specific cable may result in cable damage.



1.5 Maximum Push Force

It is recommended that a maximum push force be determined by performing a "crash test". Excessive pushing will cause the cable to corkscrew or fold over which will damage the cable.

1.6 DO NOT Exceed 800 PSI Pressure on Cable < 0.6" Diameter.

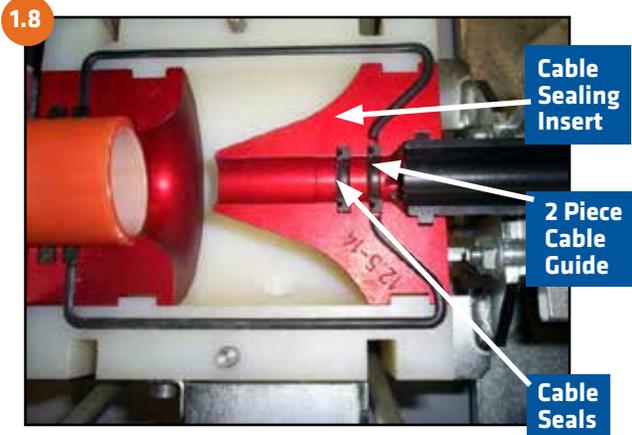
Exceeding this pressure on small diameter cable can result in cable damage.

1.7 Air Compressor Cooler

Air compressor after-coolers are strongly recommended when the ambient air temperature exceeds 80°F. It is common for the compressed air to exceed 200°F without the use of an after cooler on a day when the ambient air temperature is near 100°F. The air in the duct should never exceed the maximum cable installation temperature, typically 140°F. Excessively hot air can soften the outer jacket increase, friction, damage the jacket, and limit installation performance.

1.8 Use the Proper Size Cable Sealing Insert & Cable Seal.

Always measure the cable diameter and compare against the Superjet operating manual to verify the correct insert and seal is used.



1.9 Cable & Equipment Setup

1.9.1 Pre-installation Cable Inspection

It is recommended prior to installation that the cable be tested using an OTDR and the values recorded prior to installation at 1310 nm and 1550 nm to ensure compliance with attenuation specifications. The cable should also be visually inspected for any defects or damage that may have occurred during shipping and handling.

1.9.2 Reel Placement

The cable reel should be on a reel trailer, reel jacks, or reel stands located on level ground with reel shafts mounted on ball bearings or bushings. Reels should be center mounted with cones for easy pull-off. The reel should be positioned where the cable coming off the reel minimizes the cable's angle going into the blowing equipment. A person must assist turning the cable reel during the installation to minimize cable tension. This person should be watching the cable reel to ensure no wraps are overlapped and be able to stop the reel in case of emergency to avoid cable damage. The cable should not be allowed to drag across course surfaces that might damage the outer jacket.

1.10 Minimum Bend Radius

Do not violate the minimum cable bend radius during handling or cable installation. Refer to data sheets of the manufacturer.

NOTE: Specific machine settings such as air pressure, flow rates, speed, tension etc. will be determined and provided by the blowing equipment manufacturer. It is the responsibility of the cable installation contractor to determine if the blowing equipment to be used has been tested and authorized for the specific cable to be installed. The cable installation contractor operating the machine must be properly trained on the use of the blowing machine.

2.0 Considerations for Optimum Blowing Performance

- [+] Run all machines at consistent speeds
- [+] Do not try to test the limits of the system
- [+] Maintain proper airflow to "blow" the cable verses "pushing" the cable
- [+] Insure proper airflow before restarting installation
- [+] Clean cable as it enters the SuperJet
- [+] Install the proper size cable end cap before installation

DISCLAIMER OF WARRANTIES AND LIMITATION OF LIABILITIES

The practices contained herein are designed as a guide. Since there are numerous practices which may be utilized, Prysmian has tested and determined that the practices described herein are effective and efficient. The recommended practices are based on average conditions.

In addition, the materials and hardware referenced herein appear as examples, but in no way reflect the only tools and materials available to perform these evaluations.

Prysmian makes no representation of nor assumes any responsibility for its accuracy or completeness. Local, State, Federal Industry Codes and Regulations, as well as manufacturers requirements, must be consulted before proceeding with any project. Prysmian disclaims any liability arising from any information contained herein or for the absence of same.

For further information or assistance, contact:

Prysmian Field Services Department

700 Industrial Drive
Lexington, SC 29072-3799
803-951-4800
FAX (803) 957-4628

OR

Prysmian Applications Engineering Department

710 Industrial Dr.
Lexington, SC 29072-3799
803-951-4800
FAX (803) 951-4044