

# RocketRibbon™ Extreme Density Cable Installation Checklist

## AE Note 166, Rev 3

Duct Sizes	
1728F 1.5" OD Duct 3456F 2.0" OD Duct	<b>Remember:</b> Smaller duct sizes are possible. Pulling distance depends on the length and number of bends. Contact Corning Cable Applications Engineer to estimate installation length using Polywater software.
	Verify duct run details to ensure all bends DO NOT violate the MBR (Minimum Bend Radius) of the cable.
	Follow the link to the fill ratio calculator to obtain a recommended smallest duct size: <a href="#">Fill Ratio Calculator</a>
	Use of fiber cable lubricants is acceptable and should be used during installation. MaxCell has been evaluated to work well with cable installation.
Verify 600 lbf tension is not exceeded at any time during the placing operations	
Breakaway swivel	<b>Remember:</b> Verify the maximum tensile rating on the breakaway swivel is 600 lbs. or less.
Tugger	<b>Remember:</b> Ensure tugger meter is calibrated and does not exceed 600 lbf, during the pull.
Figure 8 or Railroad	<b>Remember:</b> RocketRibbon™ cables can be put in a figure 8 or railroad configuration (depending on length) during placing as recommended in SRP 005-011 and AE Note 166.
Wire or fabric mesh grip, cable squirting, tighten reel bolts	<b>Remember:</b> Wire mesh grip can be installed over the end of the cable and then wrapped with electrical tape. In addition, half hitches with pull tape or fabric mesh are acceptable for more streamlined duct requirements. See AE Note 168. <b>Remember:</b> loosen cable on flange and cut back to approximately one foot out of the arbor hole to allow cable to freely squirt out during placing. See AE Note 165.
Pulling by hand	<b>Remember:</b> One person can pull around 300 lbf. Two people in series can pull over 600 lbf. If two people are pulling together and pulling hard, this could violate the max recommended tensile rating of the cable. In addition, pulling cable over your shoulder could violate the MBR of the cable. Do not push and pull at the same time.
Jetting cable	<b>Remember:</b> Jetting should not create a situation where there is tension applied to the cable. However when slowing down, the belt can start to slip and tear up the jacket.
Verify the Tugger Capstan size must be at least as large as the specified MBR	
Capstan 1728F MBR	MBR = 14.8 inches or 2X = 30 inches for the MBD (Minimum Bend Diameter)
Capstan 3456F MBR	MBR = 19.5 inches or 2X = 39 inches for the MBD
	<b>Remember:</b> If tugger capstan is not larger than the MBD, placing SHOULD NOT continue. Tugger capstan sizes large enough to meet or exceed these MBR are common and available through Condux, General Machine Products and/or other suppliers.

**Verify all Sheave Wheel/Cable Guides sizes must be at least as large as the specified MBR**

<b>Sheave Wheels</b>	<p><b>Remember:</b> Measure all sheave wheels:          1728F: MBR = 14.8 inches or 2X = 30 inches for the MBD          3456F: MBR = 19.5 inches or 2X = 39 inches for the MBD          If sheave wheel is not as large as the MBD, placing SHOULD NOT continue. Sheave wheel sizes large enough to meet or exceed these MBR are common and available through Condux, General Machine Products and/or other suppliers. See AE 168</p>
<b>Cable Guides</b>	<p><b>Remember:</b> Measure all cable guides:          1728F: MBR = 14.8 inches or 2X = 30 inches for the MBD          3456F: MBR = 19.5 inches or 2X = 39 inches for the MBD          If cable guide is not larger than the MBD, placing SHOULD NOT continue. Cable guide sizes large enough to meet or exceed these MBR are common and available through Condux, General Machine Products, Highland Valley Supply and/or other suppliers. See AE Note 167 and 168.</p>
<p>Note: Check the size of pull boxes to ensure they are large enough to install cable          Note: Best practice is to line ducts up when pulling through a vault of pull box          Note: It is OK to push cable through a manhole cover with no tension.</p>	
<b>Modifications to Contractor's Existing Equipment</b>	
<b>Field Modifications</b>	Please see attached presentation.

## RocketRibbon™ Extreme Density Cable Spec Sheets and SRPs

Spec Sheets	
<b>1728F Spec Sheet</b>	<a href="#">1728F RocketRibbon™ Extreme Density Cable</a>
<b>3456F Spec Sheet</b>	<a href="#">3456F RocketRibbon™ Extreme Density Cable</a>
SRPs and AE Notes	
<b>SRP-005-011: Cable Installation in duct</b>	<a href="https://www.corning.com/catalog/coc/documents/standard-recommended-procedures/005-011.pdf">https://www.corning.com/catalog/coc/documents/standard-recommended-procedures/005-011.pdf</a>
<b>AEN-165: Cable Handling</b>	<a href="https://www.corning.com/catalog/coc/documents/application-engineering-notes/AEN165.pdf">https://www.corning.com/catalog/coc/documents/application-engineering-notes/AEN165.pdf</a>
<b>AEN-167: Split ducts for cable installation in vaults and manholes</b>	<a href="https://www.corning.com/catalog/coc/documents/application-engineering-notes/AEN167.pdf">https://www.corning.com/catalog/coc/documents/application-engineering-notes/AEN167.pdf</a>
<b>AEN-168: Cable placing methods &amp; equipment for manholes and vaults</b>	<a href="https://www.corning.com/catalog/coc/documents/application-engineering-notes/AEN168.pdf">https://www.corning.com/catalog/coc/documents/application-engineering-notes/AEN168.pdf</a>
<b>AEN-049: Cable Blowing</b>	<a href="https://www.corning.com/catalog/coc/documents/application-engineering-notes/AEN049.pdf">https://www.corning.com/catalog/coc/documents/application-engineering-notes/AEN049.pdf</a>
<b>SRP 004-279: Sheath Removal</b>	<a href="https://www.corning.com/catalog/coc/documents/standard-recommended-procedures/004-279-AEN.pdf">https://www.corning.com/catalog/coc/documents/standard-recommended-procedures/004-279-AEN.pdf</a>
<b>Field Modifications for Ancillary Equipment</b>	This AE Note
<b>Green Acres: Corning-Maxcell Trial</b>	This AE Note

## Support and Equipment

Name	Website
Split sheave wheels	<a href="https://www.gmptools.com/fiber-optic-sheave-shackle/">https://www.gmptools.com/fiber-optic-sheave-shackle/</a> <a href="https://www.gmptools.com/jamb-skid/">https://www.gmptools.com/jamb-skid/</a>
Split Flexible Steel Cable Guides	<a href="https://www.gmptools.com/split-cable-feeder/">https://www.gmptools.com/split-cable-feeder/</a> <a href="https://www.gmptools.com/cable-feeder-nozzles/">https://www.gmptools.com/cable-feeder-nozzles/</a>
Split HDPE Cable Guides	<a href="mailto:sales@highlandvalley.com">sales@highlandvalley.com</a>
Ancillary pieces of equipment	<a href="https://www.gmptools.com/products/">https://www.gmptools.com/products/</a> <a href="https://www.condux.com/index.php/home">https://www.condux.com/index.php/home</a>
Maxcell	<a href="http://www.maxcell.us">www.maxcell.us</a>

**Critical to monitor during installation:**

- **MBR – Minimum Bend Radius – maintain at all times**
- **Pulling Tension – do not exceed specification for cable, do not hand push and pull at the same time.**
- **Twisting Avoidance – use a break away swivel, verify load rating is 600 lbs or less.**
- **Allow Cable to squirt out of the arbor hole. Remove all of cable attached prior to start of placing located on the outside flange except for approximately one foot. Allow it to freely squirt out, and cut off when too long and interferes with placing. Placing will need to stop to cut off cable. See AE Note 165: <https://www.corning.com/catalog/coc/documents/application-engineering-notes/AEN165.pdf>**
- **Tighten Bolts prior to and during installation. See AE Note 165.**
- **Refer to AEN 165, 166, 167, 168 and SRP 005-011, 004-279**

**For more Information please contact:**

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