

28 January 2019

To Whom It May Concern:

Nexans is a global wire and cable manufacturing company with approximately 24,000 employees worldwide. The Fergus, Ontario facility started operations in 1966 and has grown to become both a manufacturing and a logistics center. This facility currently employs 225 people, and ships about 300,000 lbs of finished wire and cable per day.

It is important that wire and cable products are packaged in a manner that allows for the safe, damage-free storage and installation of the product. Proper assembly of the reels is a critical factor. Below is a diagram of a cable reel, detailing the various dimensions of a reel. The reel is typically identified by the flange, traverse, and drum dimensions, all in inches. For example, a reel identified as 42-26-18 would have a flange diameter of 42 inches, a traverse dimension of 26 inches, and a drum diameter of 18 inches.

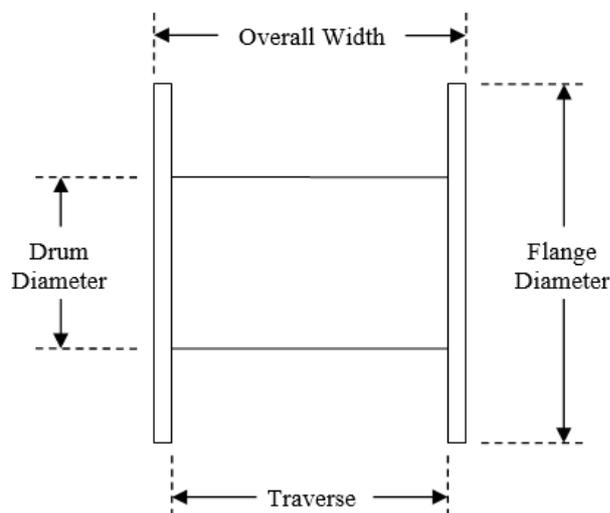


Figure 1: Identifying reel dimensions

The flanges come fully assembled and pre-drilled, laying horizontal. A means to flip (manual or tilt table) are used to move the flange to a vertical orientation. Staves (or the slats making up the drum of the reel) come cut to length so they are manually placed into pre-milled slots. The last slat typically needs its width modified – a bandsaw is typically used to cut this final stave to fit. The rods come in pre-cut lengths. The assembler will need an air wrench to tighten, and a hammer to snap excess length and upset the end to avoid nuts coming loose.

The reel assembly is illustrated in the following photos. Note that the reels are supported using a jig such that they are less likely to fall. This is both for ease of installation and safety of the assembler. Nexans can supply the tilt table (a table which takes a stack of reel flanges, and lifts them up to an upright orientation), a band-saw and the jig for assembly to minimize any tool costs of the assembler. Additional photos of the reel assembly process as well as the tilt table and jig for assembly are available on request.



Photo 1: Flanges are supported in place for ease of assembly. This configuration also allows for the easy movement of the completed reel.



Photo 2: Flange hardware is attached (square metal plate in center of flange), and threaded rods are fed through the pre-drilled holes in the flanges.



Photo 3: Staves (the boards making up the drum of the reel) are added.



Photo 4: Washers and nuts are applied to the threaded rods.

Below is a list of the reel sizes that we are interested in having assembled for delivery to the Nexans Fergus plant. Note that the tare weight of the finished reel is included in this table for each reel configuration. The volumes vary depending on the market but could be as much as 330 units (for a given reel configuration) per month.

Package Number	Flange	Traverse	Drum	Tare (LBS)
000654	24	8	10	30
000655	24	12	10	32
000759	24	18	10	33
003684	24	22	10	33
000653	27	18	12	42
000628	30	18	12	48
000806	32	24	14	72
000475	36	24	17	95
000764	40	24	17	109
000765	42	26	18	126
000526	44	22	22	186
000495	45	28	21	140
000530	50	32	24	207
000535	56	32	25	279
000771	58	32	28	270
000755	60	28	28	335
000664	66	36	36	424
000548	68	32	28	443
000777	72	36	36	501
000667	78	48	42	662
000668	84	54	48	789
000785	90	54	48	1,195
000787	96	54	56	1,050
000577	96	76	52	1,200

Payment will be based on "\$/reel assembled" and will be based on existing assembly standards that Nexans can provide. The current space requirement for assembly is 600 square feet. Kan-ban (a scheduling system for lean manufacturing and just-in-time manufacturing) management of the reel assembly "kits" is an option.

If you have any questions or concerns, feel free to contact me at your convenience.

A handwritten signature in blue ink, appearing to read 'Isaac Muller', with a stylized flourish at the end.

Isaac Muller, P. Eng.
Applications Engineer

IMPORTANT NOTICE: This document is provided for informational purposes only in order to illustrate typical product constructions, applications and/or methods of installation. Because conditions of actual installation and use are unique and will vary, Nexans makes no representation or warranty as to the reliability, accuracy or completeness of this document or the information contained herein, even if Nexans is aware of the product's intended use or purpose. Furthermore, this document does not constitute, nor should it be regarded or relied upon, as professional engineering advice. Installation of cable should only be done by qualified personnel and in conformance with all safety, electrical and other applicable codes, standards, rules or regulations. Appropriate and correct product selection, installation and use, and compliance with all such codes, standards, rules and regulations, is a customer/end-user responsibility.