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C1100 - Appendix

Distribution Conduit, Fittings, and Accessory Material Manufacturers and Part Numbers

Scope

This appendix is to be used in conjunction with:

C1100 – DISTRIBUTION DUCTBANK CONSTRUCTION AND MATERIALS and
D3820 - 15/25kV PRIMARY UNDERGROUND DISTRIBUTION SYSTEMS TO 200 AMPS.

The document lists the approved manufacturer names and part numbers of the equipment used in an underground distribution system that is intended to be inspected and transferred to NSTAR electric and Gas when construction is complete. Conduit must be installed per construction Standard C1100. Materials may be purchased from NSTAR approved distributor/supplier or local supply houses.

The NSTAR Catalog Identification (cat ID) number is an internal reference for NSTAR, but they can be used at NSTAR approved suppliers to make sure the manufacturer and part number are exactly to NSTAR specs. NSTAR designers may use cat IDs in drawings to identify specific materials.

NSTAR Material Standards (such as M1310) may provide specific dimensional information needed for manufacturers; they may detail one or several similar catalog ID items.

All conduits, cable, fittings, manholes, pull boxes and transformer pads must be installed to NSTAR standards to ensure proper installation and acceptance by NSTAR.

Approved NSTAR Supplier (not limited to):

WESCO Distribution Co. Inc.
Manchester 1120
117 Londonderry Turnpike
Hooksett, NH 03106
603-391-3118 Tel
603-391-3126 Fax

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Bill of Materials– Conduit, Fittings & Accessories –

1.0 Conduit

Material	Size (inside diam. – in.)	Wall Thickness (Type/Sch)	Unit Length (Ft)	NSTAR Catalog ID	Manufacturer Name	Mfr. Part #
PVC – rigid	2	40	10	1197	American Pipe	TC6410252
				“	Cantex	2" SCH 40
				“	Carlton	49011-010
	3	40	10	1198	American Pipe	TC6415252
				“	Cantex	3" SCH 40
				“	Carlton	49013-010
	4	40	10	1195	American Pipe	TC6420252
				“	Cantex	4" SCH 40
				“	Carlton	49015-010
	4	EB	20	1362	American Pipe	TC7420752
				“	Cantex	4" TYPE EB
				“	Carlton	48715-020
	5	40	10	1196	American Pipe	TC6425252
				“	Cantex	5" SCH 40
				“	Carlton	49016-010
	5	EB	20	1363	American Pipe	TC7425752
“				Cantex	5"EB PVC	
“				Carlton	48716-020	
6	40	10	15174	Carlton	49017	
			16047	Carlton	48717-020	
			“	Ipex	5" EB PVC	
PVC – flexible	1-1/2	40 flex	1	15968	Carlton	11810
	2	40 flex	1	9480	Carlton	11811
	2-1/2	40 flex	1	15969	Carlton	11812
	3	40 flex	1	9481	Carlton	11813-250
	4	40 flex	1	9482	Carlton	11815

H.D. Galv. Steel	2	40	10	9474	LTVSteel Wheatland	00106
	3	40	10	1246	“	
	4	40	10	1248	“	
	5	40	10	1249	“	
	6	40	10	15177	“	

2.0 Straight Couplings, Split Duct and Reducers (PVC to PVC Only)

Material	Type	Size (inside diam - in.)	App- lication	NSTAR Catalog ID	Manufacturer Name	Mfr. Part #		
PVC	Straight Coupling	2	Joining	1208	American Pipe	NS400		
				“	Cantex	6141628		
				“	Carlton	E940J		
		“	Ipex	EC35				
		3	Joining	1209	American Pipe	NS500		
				“	Cantex	6141630		
	“			Carlton	E940L-CAR			
	4	Joining	4	Joining	1210	American Pipe	N505	
					“	Cantex	6141632	
					“	Carlton	E940N	
			“	Ipex	770101/EC55			
			5	Joining	5	Joining	16375	Carlton
16355							Carlton	E940R
PVC	Split Duct	2					Repair	16873
			16874	Carlton	49012SD-010			
			16875	Carlton	49013SD-010			
		16876	Carlton	49014SD-010				
		16831	Cablelan Products Inc.	F-ADLD4580-12- ES-024-S3				
		PVC	Reducer	3 to 2- 1/2	change diam.	13661	Carlton	E952LK
13639	Carlton					E952LJ		
16043	Carlton					E952NL		
16044	Carlton					E952PN		
16045	Carlton					E952RP		

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3.0 Sweeps - Elbow Fittings

Material	Angle - degrees	Size (Inside diam-in.)	Radius (in)	NSTAR Catalog ID	Manufacturer Name	Mfr. Part #
PVC	5	4	N/A	1357	American Pipe	FT518
				"	Carlton	E2440NF
		5	N/A	1358	American Pipe	FT548
				"	Carlton	E2440PF
		6	N/A	16354	Carlton	E2440RF
				15319	Carlton	UA5AL
PVC	22.5	3	13	1169	American Pipe	BSTC64425045
				"	Cantex	5233888
		5	36	"	Carlton	UA5FPB
				"	Ipex	69171
		5	36	1170	American Pipe	BSTC64625045
				"	Cantex	5233780
PVC	45	6	48	"	Carlton	UA7FPB
				"	Ipex	68871
		2	18	16358	Carlton	UA7HR
				1158	American Pipe	BSTC64710023
		3	24	"	Cantex	5133844
				"	Carlton	UA9CJ
PVC	90	4	36	"	Ipex	N/A
				1159	American Pipe	BSTC64715030
		4	24	"	Cantex	5133837
				"	Carlton	UA9DL
		4	16	"	Ipex	N/A
				1167	American Pipe	BSTC64720045
PVC	22.5	4	36	"	Cantex	5233842
				"	Carlton	UA9FNB
		4	48	"	Ipex	68769
				16374	Carlton	UA9DNB
		5	36	7746	Carlton	UA9AN
				16385	Carlton	UA9HNB
PVC	45	5	36	1171	American Pipe	BSTC64725045
				"	Cantex	5233841
		6	60	"	Carlton	UA9FPB
				"	Ipex	68767
		6	60	16361	Carlton	UA9IPB
				16363	Carlton	UA9FRB
6	60	16364	Carlton	UA9IRB		

H.D. Galv. Steel	90	2	30	16854	LTVSteel Wheatland	
		3	30	1173	“	
		4	36	9898	“	
		5	36	9899	“	
		6	36	15176	“	

4.0 Duct Plugs and Caps

Material	Description	Size ID (in.)	NSTAR Catalog ID	Manufacturer Name	Mfr. Part #
PVC/ Rubber	Duct Plug	2	1634	Any	
		3	1635	Jack Moon	30D346U
PVC/ Rubber	Duct Plug	4	1636	Jack Moon	40D402U
		5	1637	Jack Moon	50D535U
		6	16869	Kinco	1938KW-X-LARGE
PVC	Sched 40 End Bell	2	9423	Carlton	E997J
		3	9424	Carlton	E997L
		4	9425	Carlton	E997N
			“	Ipex	EB-55
		5	16428	Carlton	E997P
		6	16367	Carlton	E997R
PVC	Type EB End Bell	2	16365	Carlton	E297J
		3	16366	Carlton	E297L
		4	1156	American Pipe	NS548
			“	Carlton	
			“	Cantex	E297N
			“	Ipex	
		5	1157	American Pipe	NS544
			“	Carlton	
			“	Cantex	E297P
			“	Ipex	
	6	16429	Carlton	E297RR	

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5.0 Accessories

Material	Description	Size	NSTAR Catalog ID	MFG Name	MFG Part #
PVC Cement	All season, quick setting cement	Quart	1213	American Pipe	NS1200
			“	Carlson	VC9982
			“	JC Whitlam	PR-32
Marker Tape	Caution Tape to install over buried electric lines	1000 ft roll	9913	Harris Ind	UT-8 (4MIL)
Fish Line	Pull line, with footage, 2500lb strength	3000 ft	16860	ARNCO	BLWP25-3000
Duct Foam	Expands and seals around cables at duct mouths	13 oz can	1380	TodoI Prod	DF01
Dux Seal	Plug compound, nonhardening	Large, 5lb	1239	Blackburn	DC-50
		Small, 1lb	9469	OZ/Gedney	DC10
Cold patch	Temporary Pavement	60 lb	1628	LIKARR Maintenance	UPM-KOLD PATCH
			“	Package Pavement	102200
			“	Waldo Bros	1023-06
Fairleader	For all duct mouths to protect cable	3-5	1371	Electric Materials	27-1
			“	Virginia Plast	LG-345