



Guide Specification

SUBJECT: HEAVY DUTY NONMETALLIC CABLE RACK

7.2. MANHOLE HARDWARE. Cables shall be well supported on walls by HEAVY DUTY NONMETALLIC cable racks. The cable racks consist of a stanchion that shall be attached to the manhole wall in accordance with the manufacturer's recommendations and adjustable arms that lock into the stanchion. Unless otherwise specified:

- a. At least two stanchions shall be installed on each manhole wall.
- b. Cable rack arm lengths shall be appropriate for the manhole size and amount of cable being installed.
- c. At least two spare arms shall be installed at each stanchion position.

7.2.1. CABLE RACK: Stanchions and arms shall be made from 50% glass-

reinforced nylon or a NONMETALLIC material having equal mechanical strength, thermal resistance, chemical resistance, dielectric strength and physical properties. The stanchion shall be 36 inches long, shall incorporate multiple arm mounting holes that are 4 inches apart and recessed bolt mounting holes. Slots shall be provided in the arms for cable wire ties. The cable racks shall meet or exceed the load capacities shown in Table I and shall be marked with the manufacturer's name, plant location and date manufactured. Cable rack components shall be Underground Devices catalog number (Note: Insert applicable stanchion and arm catalog numbers here. See Table II on the back side of this page). Arms shall be locked into stanchion with catalog number HDL.

TABLE I - HEAVY DUTY CABLE RACK ARM CAPACITIES ***

UDI Arm Catalog No.	3HDS	4.9HDS	RA04	RA06	RA08	RA11	RA14	RA14LP	RA20	RA20LP
Length (inches)	3	4.9	4	6	8	11	14	14	20	20
Rated Working Load (lbs.)*	450	300	450	450	450	400	350	350	250	250
Deflection at Rated Working Load (inches)**	NA	NA	.082	.156	.218	.250	.312	.369	.234	.294
Ultimate Load (lbs.)* (Short Term)	1000+	1000+	1000+	1000+	1000+	1000+	900	1000+	1000	1000+

* Load concentrated 1" from outer end of arm.

** Deflection is measured 1" from the outer end of arm.

*** Arm and stanchion are to be conditioned at 50% relative humidity prior to test.

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7.2.2. CABLE RACK MOUNTING HARDWARE. Either one of the following corrosion resistant hardware sets may be used to secure the stanchion to the manhole wall.

a. Drop-in anchors (UDI Catalog No. FSRM-12) shall have a 1/2-13 thread, a rated pullout working capacity of 2100 lbs. and shall be made from either 303 or 316 stainless steel. A 316 stainless steel 1/2-13 hex head cap screw (UDI Catalog No. FHC316-16-044) and a 316 stainless steel .562 ID x 1.250 OD x .078 THK. flat washer

(UDI Catalog No. FFW316-18-40) shall be used with each drop-in anchor.

b. Cast-in-place anchors (UDI Catalog No. FNMA-16) shall have a 1/2-13 thread, a working load capacity of 1260 lbs. and shall be made from Acetal Copolymer. A special 316 stainless steel 1/2-13 hex head cap screw (UDI Catalog No. FHC316-16-088) and a 316 stainless steel .562 ID x 1.250 OD x .078 THK. flat washer (UDI Catalog No. FFW316-18-40) shall be used with each cast-in-place anchor.

TABLE II - HEAVY DUTY CABLE RACK	
UDI Catalog No.	Description
CR36-B	36" Stanchion
CR28-B	28" Stanchion
CR24-B	24" Stanchion
CR20-B	20" Stanchion
CR16-B	16" Stanchion
CR12-B	12" Stanchion
CR8-B	8" Stanchion
3HDS	3" Saddle
4.9HDS	4.9" Saddle
RA04	4" Arm
RA06	6" Arm
RA08	8" Arm
RA11	11" Arm
RA14	14" Arm
RA14LP	14" Low Profile Arm
RA20	20" Arm
RA20LP	20" Low Profile Arm
HDL	Arm Lock



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