

The Saddle Rack

For Power And Communication Cables



UNDERGROUND DEVICES SADDLE RACKS:

- Low Cost, But Tough and Non-Corrosive
- For Temporary Support or Permanent Installation
- For Use in Manholes, Handholes, Vaults or Tunnels With Curved Walls. Can Also Be Used to Support Pipe or Conduits
- No Need to Tie Cables to the Rack - Simply Drop Them in the Saddles or Lock Them in With the Optional Saddle Rack Lock
- Available in Both 2" and 3" Throat Openings, With 1, 2 or 3 Saddles
- Available in Two Standard Material Grades:
Polycarbonate
- or -
Glass Reinforced Nylon



Polycarbonate Saddle Rack Installation
Showing the Optional Saddle Rack Locks



2" SADDLE RACK OPTIONS

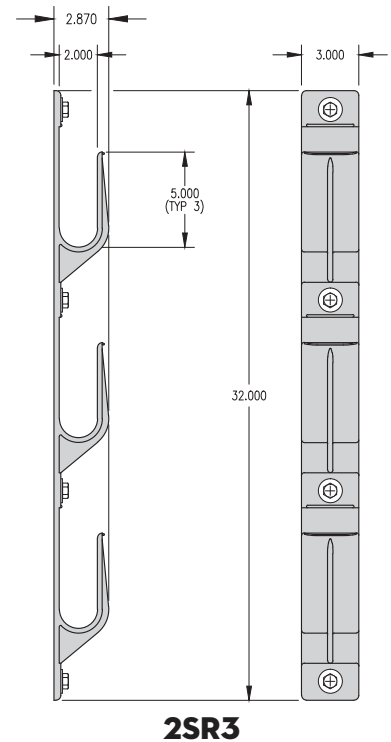
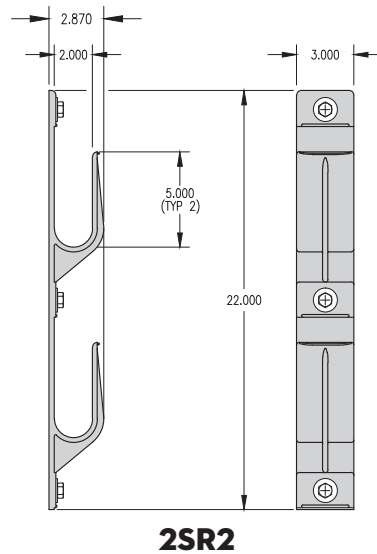
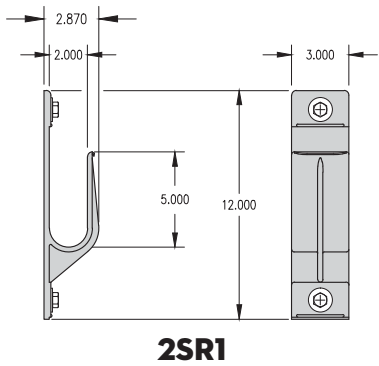
GLASS REINFORCED NYLON MATERIAL



POLYCARBONATE MATERIAL



2" SADDLE RACK DIMENSIONS



RATED LOAD CAPACITY	
CATALOG NUMBER	RATED LOAD PER SADDLE (LBS)*
2SR1	300
2SR2	300
2SR3	300

*Concentrated load centered in each saddle. Rated loads apply to all material options.

3" SADDLE RACK OPTIONS

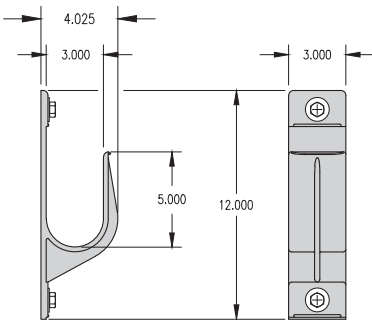
GLASS REINFORCED NYLON MATERIAL



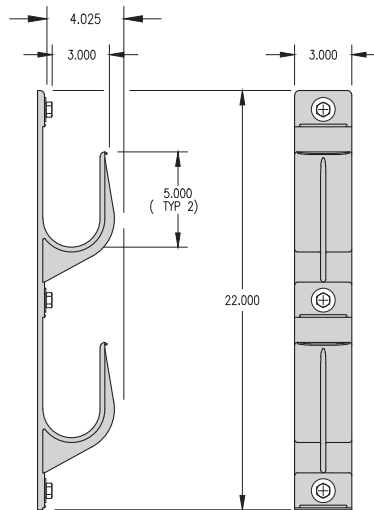
POLYCARBONATE MATERIAL



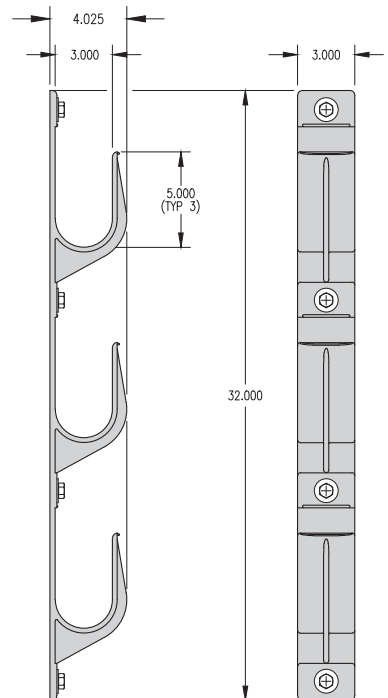
3" SADDLE RACK DIMENSIONS



3SR1



3SR2



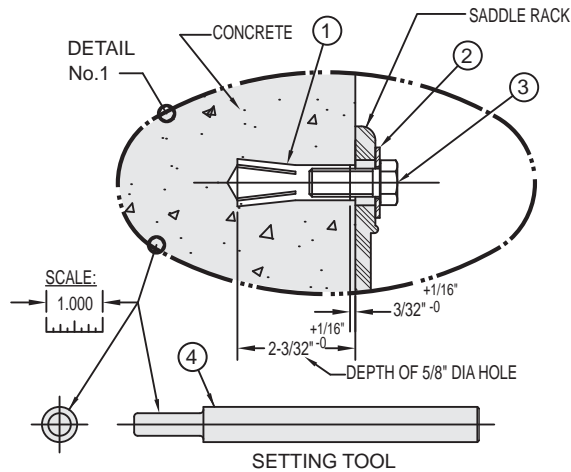
3SR3

RATED LOAD CAPACITY	
CATALOG NUMBER	RATED LOAD PER SADDLE (LBS)*
3SR1	300
3SR2	300
3SR3	300

*Concentrated load centered in each saddle. Rated loads apply to all material options.

SADDLE RACK MOUNTING HARDWARE

(Drop-in Anchor Installation)



GENERAL INSTALLATION INSTRUCTIONS:

- The surface of the concrete wall should be smooth, flat and plumb.
- Install one fastener in each of the elongated mounting holes.
- Install each drop-in anchor as shown in "Detail No.1" and as described below:
 - Drill a 5/8" diameter hole 2-3/32" deep.
 - Blow out hole.
 - Drive anchor 1/8" to 3/32" below surface of concrete.
 - Expand anchor with FRT-112 setting tool. Anchor is properly seated when shoulder of setting tool is flush with the top of anchor.
- Install the flat washer and tighten the cap screw.
- Installation drawings that show additional details are included in the UDI general catalog and at udevices.com

ANCHOR LOAD CAPACITY:

Ultimate Shear and Tension Values in Solid Concrete*

TENSION Lbs. (kN)			SHEAR Lbs. (kN)
f _c =2000 PSI (13.8 MPa)	f _c =4000 PSI (27.6 MPa)	f _c =6000 PSI (41.4 MPa)	f _c =2000 PSI (13.8 MPa)
3,300 (14.7)	5,840 (26.0)	8,300 (36.9)	4,580 (20.4)
* Allowable values are based upon a 4 to 1 safety factor. Divide by 4 for allowable load values f _c = Concrete compressive strength The values in this table are applicable to 1/2-13 drop-in anchors UDI catalog numbers FSSRM-12-316 and FSRM-12-188			
Combined Shear and Tension Loading for UDI Drop-In Anchors Allowable loads for anchors subjected to combined shear and tension forces are determined by the following equation: $(P_s/P_t)^{5/3} + (V_s/V_t)^{5/3} \leq 1$ P _s =Applied tension load V _s =Applied shear load P _t =Allowable tension load V _t =Allowable shear load			

GENERAL ANCHOR NOTES:

- Caution: UDI drop-in anchors are designed to operate properly only when installed with UDI brand FRT setting tools.
- The use of a 24 to 40 ounce hammer is recommended for expanding UDI drop-in anchors.
- Anchors should be installed with carbide tipped hammer drill bits made in accordance to ANSI B212.15-1994 specifications.
- UDI drop-in anchors are tested to ASTM E488 and are approved and listed by agencies as required by local building codes. Consult UDI Engineering for a complete list of approvals.
- UDI drop-in anchors are not recommended for use in new concrete which has not had sufficient time to cure.
- UDI drop-in anchors are not recommended for use in light weight masonry such as block or brick.

HEX HEAD CAP SCREW AND WASHER NOTES:

- UDI Type 316 stainless steel cap screws conform to ASTM 316F593G and ASME B18.2.1. Type 18-8 stainless steel cap screws conform to ASTM F593C and ASME B18.2.1.
- "316F593G" and the manufactures identification number is stamped on the head of each Type 316 stainless steel screw. "F593C" and the manufactures identification number is stamped on the head of each Type 18-8 stainless steel screw.
- The manufacturing lot number is marked on each carton of fasteners and has full traceability.
- Upon request UDI will supply written certification that a given lot of fasteners conforms to the applicable specification.
- All washers are stamped "316" or "18-8" as applicable.
- Type 316 stainless steel is more corrosion resistant than Type 18-8 stainless steel.

MOUNTING HARDWARE

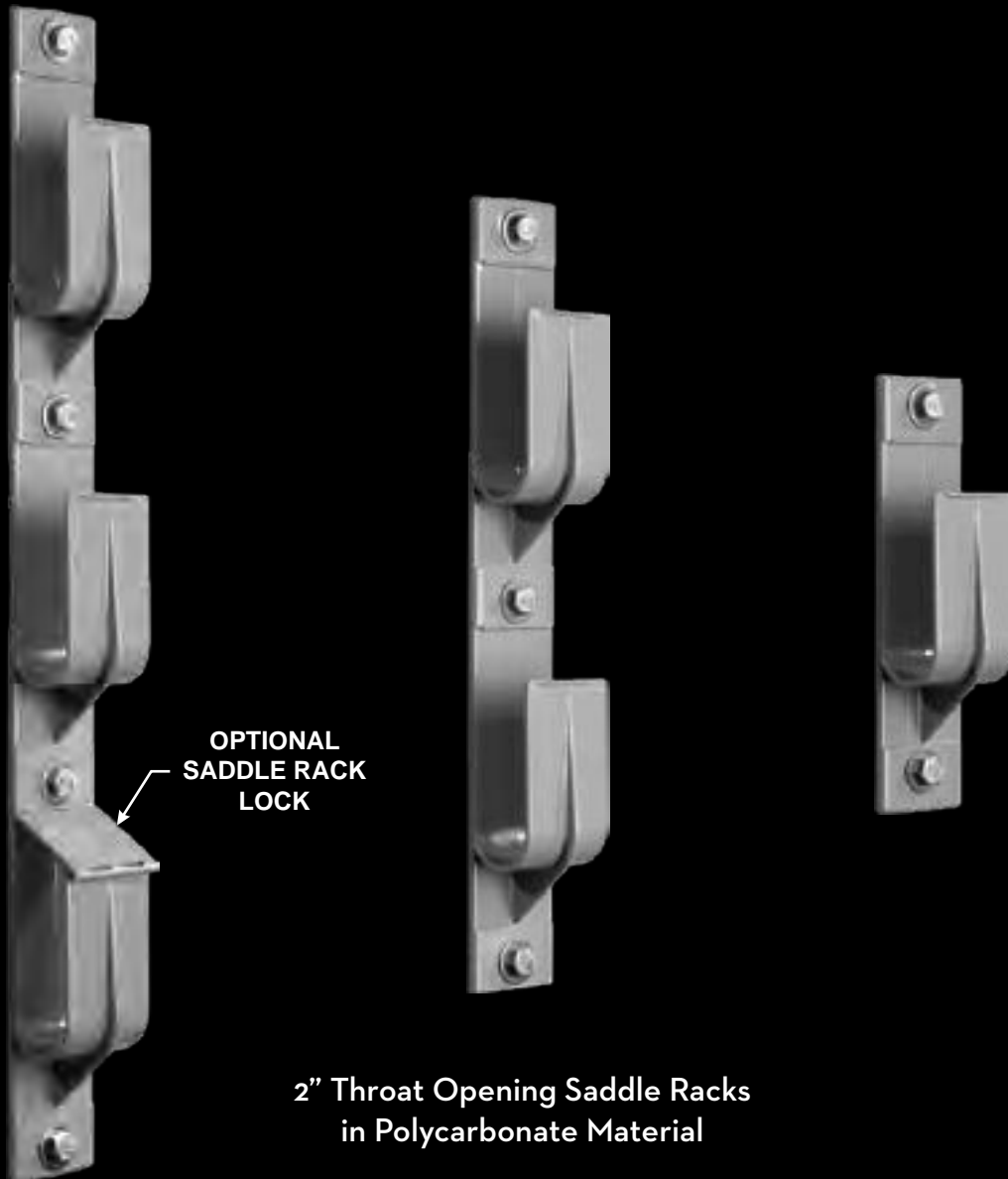
ITEM No.	CATALOG NUMBER	DESCRIPTION
STAINLESS STEEL		
①	FSRM-12	1/2-13 DROP-IN ANCHOR
②	FFW316-18-40	FLAT WASHER ID=.562, OD=1.25, THICKNESS=.078
③	FHC316-16-040	1/2-13 X 1-1/4" LONG HEX HEAD CAP SCREW
④	FRT-112	SETTING TOOL - Used to install FSRM-12 Drop-in Anchors

SADDLE RACK

ORDERING INFORMATION

SADDLE RACKS - POLYCARBONATE MATERIAL*							
CATALOG NUMBER	DESCRIPTION	STANDARD CARTON					
		QUANTITY	WEIGHT (LBS.)	LENGTH (INCHES)	WIDTH (INCHES)	HEIGHT (INCHES)	CUBIC FEET
2SR1	2", ONE SADDLE RACK POLYCARBONATE MATERIAL	36	25	33.750	9.875	6.750	1.301
2SR2	2", TWO SADDLE RACK POLYCARBONATE MATERIAL	12	16	33.750	9.875	6.750	1.301
2SR3	2", THREE SADDLE RACK POLYCARBONATE MATERIAL	12	23	33.750	9.875	6.750	1.301
2SRL	2" SADDLE RACK LOCK POLYCARBONATE MATERIAL	36	3	CONSULT FACTORY			
3SR1	3", ONE SADDLE RACK POLYCARBONATE MATERIAL	36	27	33.500	9.500	9.750	1.796
3SR2	3", TWO SADDLE RACK POLYCARBONATE MATERIAL	12	17	33.500	9.500	9.750	1.796
3SR3	3", THREE SADDLE RACK POLYCARBONATE MATERIAL	12	25	33.500	9.500	9.750	1.796
3SRL	3" SADDLE RACK LOCK POLYCARBONATE MATERIAL	36	3	CONSULT FACTORY			
SADDLE RACKS - GLASS REINFORCED NYLON MATERIAL*							
CATALOG NUMBER	DESCRIPTION	STANDARD CARTON					
		QUANTITY	WEIGHT (LBS.)	LENGTH (INCHES)	WIDTH (INCHES)	HEIGHT (INCHES)	CUBIC FEET
2SR1N	2", ONE SADDLE RACK NYLON MATERIAL	36	31	33.750	9.875	6.750	1.301
2SR2N	2", TWO SADDLE RACK NYLON MATERIAL	12	21	33.750	9.875	6.750	1.301
2SR3N	2", THREE SADDLE RACK NYLON MATERIAL	12	30	33.750	9.875	6.750	1.301
2SRLN	2" SADDLE RACK LOCK NYLON MATERIAL	36	4	CONSULT FACTORY			
3SR1N	3", ONE SADDLE RACK NYLON MATERIAL	36	34	33.500	9.500	9.750	1.796
3SR2N	3", TWO SADDLE RACK NYLON MATERIAL	12	22	33.500	9.500	9.750	1.796
3SR3N	3", THREE SADDLE RACK NYLON MATERIAL	12	32	33.500	9.500	9.750	1.796
3SRLN	3" SADDLE RACK LOCK NYLON MATERIAL	36	4	CONSULT FACTORY			
SADDLE RACK MOUNTING HARDWARE							
CATALOG NUMBER	DESCRIPTION	STANDARD CARTON					
		QUANTITY	WEIGHT (LBS.)	LENGTH (INCHES)	WIDTH (INCHES)	HEIGHT (INCHES)	CUBIC FEET
STAINLESS STEEL MOUNTING HARDWARE							
FSRM-12	1/2-13 DROP-IN ANCHOR	40	5	5.625	4.250	2.250	.031
FHC316-16-040	1/2-13 X 1-1/4" LONG HEX HEAD CAP SCREW	40	4	5.625	4.250	2.250	.031
FFW316-18-40	FLAT WASHER ID=.562, OD=1.250, THICKNESS=.078	40	2	3.750	3.375	2.250	.016
FRT-112	SETTING TOOL - Used to install FSRM-12	1	1	6.000	.750	.750	.002

* Please Note: Saddle Rack and Lock Available in Polycarbonate or Glass Reinforced Nylon.
Add "N" Suffix to Catalog Number for Glass Reinforced Nylon Material.



**2" Throat Opening Saddle Racks
in Polycarbonate Material**

- TERMS:** Net 30 days - \$100.00 minimum net billing. All prices FOB our factory or warehouse location with freight to be charged directly by the carrier.
- CLAIMS:** Claims for damages or shortages shall first be processed with carrier by consignee.
- RETURN GOODS POLICY:** A 25% re-stocking charge will be made on orders returned, transportation prepaid, to the original shipping point following authorization from UNDERGROUND DEVICES, INC. Authorization will be granted only under the conditions that the quantity to be returned does not exceed 10% of the quantity ordered, the goods are in saleable condition in the original cartons and the request for return is made within 90 days of the shipping date.
- LIMITED WARRANTY:** UNDERGROUND DEVICES, INC. Warrants to the original purchaser that the goods manufactured by it are free from defects in material and workmanship for a period of one year from the date of purchase. Consequences of improper selection or installation of UNDERGROUND DEVICES product on any application over any period of time is the sole responsibility of the Purchaser or User. UNDERGROUND DEVICES liability is limited to replacement of, or credit for, defective products. UNDERGROUND DEVICES, INC. WILL IN NO EVENT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

UNDERGROUND DEVICES
INCORPORATED



3304 COMMERCIAL AVENUE
NORTHBROOK, ILLINOIS 60062
Phone: (847) 205-9000 • Fax: (847) 205-9004
Website: <http://www.udevices.com>