

"Zero Burn-Through" Fiberglass Elbows

Specified on NEC and utility power projects!





SAVINGS

- **Material Cost**
- **Labor Units**
- System Integrity
- System Life-cycle

www.unitedfiberglass.com

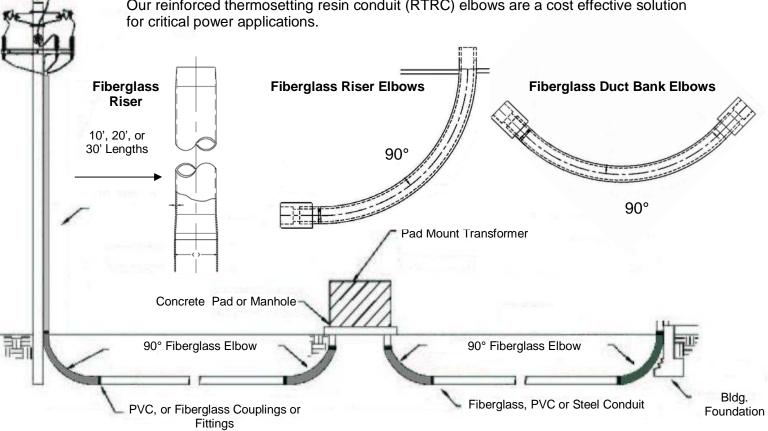
Features and Benefits

- **Zero Burn Through**—our elbows minimize the risk of burn-through on high tension and long conductor pulls.
- No Taping—our elbows do not require taping when going through the concrete floor.
- **No Grounding**—our elbows do not require a grounding bushing or exothermic grounding.
- Reduced Co-Efficient of Friction—our elbows have a low co-efficient of friction allowing for longer pulls.
- Wide Range of Applications—our elbows are available with various installed fittings to adapt to a wide range of applications.
- **Lightweight— One Man Installation!**
 - 4" Rigid Steel Elbow = > 60 lbs
 - 4" Fiberglass Elbow = <10 lbs
- **Easy to Install**—our elbows arrive with bonded PVC or fiberglass couplings or fittings.
- **Wide Operating Temperature Range**—our elbows are rated for use in temperatures between -40° to 230°F.
- Wide Range of Sizes—our elbows are available in sizes from 3/4" to 8". Standard angles include 11.25°, 22.5°, 30°, 45°, and 90° degree. Special angles and radii are available.
- **Corrosive Resistant**—our elbows will not degrade in corrosive environments.
- Non-Metallic—our elbows are nonconductive and will not melt or weld to the conductor during cable fault conditions.
- Cost Effective—our elbows offer a low cost solution.
- UL, CSA, NEMA TC-14, and NEC Approved



ZERO BURN-THROUGH FIBERGLASS ELBOWS

Used for NEC, NFPA 70, and utility applications, the United Fiberglass line of "Zero Burn-Through" fiberglass elbows are manufactured and inspected for compliance to the industry's highest standards. Our inspection ensure that each and every elbow has smooth and defect free interior walls while maintaining a water tight environment. Our reinforced thermosetting resin conduit (RTRC) elbows are a cost effective solution for critical power applications.



Compare the Coefficient of Friction for United Fiberglass RTRC

Cable Type	United Fiberglass	Steel	PVC	Aluminum	HDPE	Concrete
PVC	.38	.55	.90	.25	1.90	.95
XLP	.23	.75	.90	1.50	2.00	.75
LDPE	.25	.50	.50	.62	1.70	.60
Neoprene	.53	1.60	2.60	.26	3.30	1.35
Concentric Neutral	.16	-	-	-	-	-
Armored	.16	1.60	2.60	.26	3.30	1.35

UFA Elbows are optionally supplied on either end with factory bonded PVC deep socket or standard socket couplings, fiberglass couplings, or with varying combinations of PVC or fiberglass fittings.

UFA XW Pole Risers are manufactured with our UV resistant RTRC .250" wall fiberglass conduit to provide additional mechanical protection against snow plows, bush hogs and other items that may damage existing risers or guards. Our Pole Risers are available in 10', 20' and 30' lengths.

Our Elbows and Pole Risers are tested and rated for operation in temperatures between -40°F and 230°F. 105°C rated conductors may be used at their full operating temperature. This is an exceptional product for cold weather environments.

Above Ground Products may be used for concrete encasement and direct buried Below Ground applications in addition to Above Ground applications.

ZERO BURN-THROUGH FIBERGLASS SWEEPS

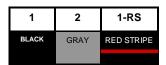


90° FIBERGLASS ELBOWS w/ 2 PVC COUPLINGS



For part number of 45° elbow, replace 90 with 45. For 30° elbow, replace 90 with 30. For 22.5° elbow, replace 90 with 22. For 11.25° elbow, replace 90 with 11.

SIZE	12" RADIUS	18" RADIUS	24" RADIUS	36" RADIUS	48" RADIUS	60" RADIUS
3/4" IPS SW	UF75A-SW-AG-9012-E-1	UF75A-SW-AG-9018-E-1	UF75A-SW-AG-9024-E-1	UF75A-SW-AG-9036-E-1	UF75A-SW-AG-9048-E-1	UF75A-SW-AG-9060-E-1
1" IPS SW	UF10A-SW-AG-9012-E-1	UF10A-SW-AG-9018-E-1	UF10A-SW-AG-9024-E-1	UF10A-SW-AG-9036-E-1	UF10A-SW-AG-9048-E-1	UF10A-SW-AG-9060-E-1
1-1/4" IPS SW	UF12A-SW-AG-9012-E-1	UF12A-SW-AG-9018-E-1	UF12A-SW-AG-9024-E-1	UF12A-SW-AG-9036-E-1	UF12A-SW-AG-9048-E-1	UF12A-SW-AG-9060-E-1
1-1/2" IPS SW	UF15A-SW-AG-9012-E-1	UF15A-SW-AG-9018-E-1	UF15A-SW-AG-9024-E-1	UF15A-SW-AG-9036-E-1	UF15A-SW-AG-9048-E-1	UF15A-SW-AG-9060-E-1
2" IPS SW		UF20A-SW-AG-9018-E-1	UF20A-SW-AG-9024-E-1	UF20A-SW-AG-9036-E-1	UF20A-SW-AG-9048-E-1	UF20A-SW-AG-9060-E-1
2-1/2" IPS SW			UF25A-SW-AG-9024-E-1	UF25A-SW-AG-9036-E-1	UF25A-SW-AG-9048-E-1	UF25A-SW-AG-9060-E-1
3" IPS SW			UF30A-SW-AG-9024-E-1	UF30A-SW-AG-9036-E-1	UF30A-SW-AG-9048-E-1	UF30A-SW-AG-9060-E-1
3-1/2" ID SW			UF35B-SW-AG-9024-E-1	UF35B-SW-AG-9036-E-1	UF35B-SW-AG-9048-E-1	UF35B-SW-AG-9060-E-1
4" IPS HW			UF40A-HW-AG-9024-E-1	UF40A-HW-AG-9036-E-1	UF40A-HW-AG-9048-E-1	UF40A-HW-AG-9060-E-1
5" IPS HW				UF50A-HW-AG-9036-E-1	UF50A-HW-AG-9048-E-1	UF50A-HW-AG-9060-E-1
6" IPS HW				UF60A-HW-AG-9036-E-1	UF60A-HW-AG-9048-E-1	UF60A-HW-AG-9060-E-1
8" IPS HW						UF80A-HW-AG-9060-E-1



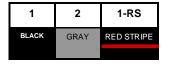
Elbow supplied as noted above. For elbow with (1) PVC coupling, replace E suffix with D. For elbow with (1) PVC coupling and (1) PVC Male Threaded Adapter (MTA), replace E suffix with DK. For elbow with (1) PVC coupling and (1) PVC Female Threaded Adapter (FTA), replace E suffix with DJ. Please contact United Fiberglass for additional information and availability of other radii, angles, or configurations.

45° FIBERGLASS ELBOWS w/ 2 PVC COUPLINGS



For part number of 30° elbow, replace 45 with 30. For 22.5° elbow, replace 45 with 22. For 11.25° elbow, replace 45 with 11.

SIZE	12" RADIUS	18" RADIUS	24" RADIUS	36" RADIUS	48" RADIUS	60" RADIUS
3/4" IPS SW	UF75A-SW-AG-4512-E-1	UF75A-SW-AG-4518-E-1	UF75A-SW-AG-4524-E-1	UF75A-SW-AG-4536-E-1	UF75A-SW-AG-4548-E-1	UF75A-SW-AG-4560-E-1
1" IPS SW	UF10A-SW-AG-4512-E-1	UF10A-SW-AG-4518-E-1	UF10A-SW-AG-4524-E-1	UF10A-SW-AG-4536-E-1	UF10A-SW-AG-4548-E-1	UF10A-SW-AG-4560-E-1
1-1/4" IPS SW	UF12A-SW-AG-4512-E-1	UF12A-SW-AG-4518-E-1	UF12A-SW-AG-4524-E-1	UF12A-SW-AG-4536-E-1	UF12A-SW-AG-4548-E-1	UF12A-SW-AG-4560-E-1
1-1/2" IPS SW	UF15A-SW-AG-4512-E-1	UF15A-SW-AG-4518-E-1	UF15A-SW-AG-4524-E-1	UF15A-SW-AG-4536-E-1	UF15A-SW-AG-4548-E-1	UF15A-SW-AG-4560-E-1
2" IPS SW		UF20A-SW-AG-4518-E-1	UF20A-SW-AG-4524-E-1	UF20A-SW-AG-4536-E-1	UF20A-SW-AG-4548-E-1	UF20A-SW-AG-4560-E-1
2-1/2" IPS SW			UF25A-SW-AG-4524-E-1	UF25A-SW-AG-4536-E-1	UF25A-SW-AG-4548-E-1	UF25A-SW-AG-4560-E-1
3" IPS SW			UF30A-SW-AG-4524-E-1	UF30A-SW-AG-4536-E-1	UF30A-SW-AG-4548-E-1	UF30A-SW-AG-4560-E-1
3-1/2" ID SW			UF35B-SW-AG-4524-E-1	UF35B-SW-AG-4536-E-1	UF35B-SW-AG-4548-E-1	UF35B-SW-AG-4560-E-1
4" IPS HW			UF40A-HW-AG-4524-E-1	UF40A-HW-AG-4536-E-1	UF40A-HW-AG-4548-E-1	UF40A-HW-AG-4560-E-1
5" IPS HW				UF50A-HW-AG-4536-E-1	UF50A-HW-AG-4548-E-1	UF50A-HW-AG-4560-E-1
6" IPS HW				UF60A-HW-AG-4536-E-1	UF60A-HW-AG-4548-E-1	UF60A-HW-AG-4560-E-1
8" IPS HW						UF80A-HW-AG-4560-E-1



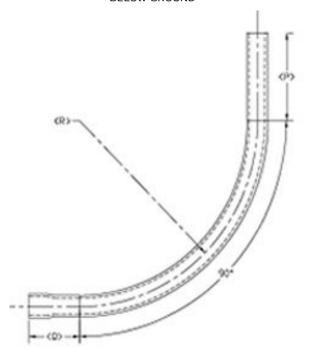
Elbow supplied as noted above. For elbow with (1) PVC coupling, replace E suffix with D. For elbow with (1) PVC coupling and (1) PVC Male Threaded Adapter (MTA), replace E suffix with DK. For elbow with (1) PVC coupling and (1) PVC Female Threaded Adapter (FTA), replace E suffix with DJ. Please contact United Fiberglass for additional information and availability of other radii, angles, or configurations.

Above Ground Products may be used for concrete encasement and direct buried Below Ground applications in addition to Above Ground applications.



ELBOW RISER

ELBOW RISERS PROVIDE A 30" LONG TANGENT ON ONE END FOR INCREASED VERTICAL HEIGHT WHEN TRANSITIONING FROM BELOW GROUND



SIZE	36" RADIUS	48" RADIUS	60" RADIUS	
2" SW	UF20A-SW-AG-R9036-A-1	UF20A-SW-AG-R9048-A-1	UF20A-SW-AG-R9060-A-1	
2-1/2" SW	UF25A-SW-AG-R9036-A-1	UF25A-SW-AG-R9048-A-1	UF25A-SW-AG-R9060-A-1	
3" SW	UF30A-SW-AG-R9036-A-1	UF30A-SW-AG-R9048-A-1	UF30A-SW-AG-R9060-A-1	
4" SW	UF40A-SW-AG-R9036-A-1	UF40A-SW-AG-R9048-A-1	UF40A-SW-AG-R9060-A-1	
4" HW	UF40A-HW-AG-R9036-A-1	UF40A-HW-AG-R9048-A-1	UF40A-HW-AG-R9060-A-1	
5" SW	UF50A-SW-AG-R9036-A-1	UF50A-SW-AG-R9048-A-1	UF50A-SW-AG-R9060-A-1	
5" HW	UF50A-HW-AG-R9036-A-1	UF50A-HW-AG-R9048-A-1	UF50A-HW-AG-R9060-A-1	
6" SW	UF60A-SW-AG-R9036-A-1	UF60A-SW-AG-R9048-A-1	UF60A-SW-AG-R9060-A-1	
6" HW	UF60A-HW-AG-R9036-A-1	UF60A-HW-AG-R9048-A-1	UF60A-HW-AG-R9060-A-1	

CUSTOM TANGENT LENGTHS AVAILABLE.

ELBOWS ARE SUPPLIED PLAIN END X PLAIN END. FOR ONE (1) FACTORY INSTALLED FIBERGLASS COUPLING, REPLACE (A) WITH (B). FOR TWO (2) FIBERGLASS COUPLINGS USE (C). FOR (1) PVC COUPLING USE (D). FOR (2) PVC COUPLINGS USE (E). FOR SPECIAL RADIUS ELBOWS PLEASE CONTACT UNITED FIBERGLASS.

Above Ground Products may be used for concrete encasement and direct buried Below Ground applications in addition to Above Ground applications.

POLE RISERS

POLE RISERS PROVIDE CABLE PROTECTION ON UTILITY POLES



SIZE	10' LENGTH	20' LENGTH	Coupling ID	Conduit OD	Wall
2" SW	UF20A-SW-AG-710-1	UF20A-SW-AG-720-1	2.38	2.39	.070
2-1/2" SW	UF25A-SW-AG-710-1	UF25A-SW-AG-720-1	2.88	2.90	.070
3" SW	UF30A-SW-AG-710-1	UF30A-SW-AG-720-1	3.50	3.52	.070
4" HW	UF40A-HW-AG-710-1	UF40A-HW-AG-720-1	4.50	4.52	.095
5" HW	UF50A-HW-AG-710-1	UF50A-HW-AG-720-1	5.56	5.60	.110
6" HW	UF60A-HW-AG-710-1	UF60A-HW-AG-720-1	6.63	6.60	.110

"BULLET RESISTANT"



POLE RISERS HAVE ONE PVC DEEP SOCKET COUPLING INSTALLED INSTEAD OF A CONDUIT BELL.

Dimensions are nominal and average as required by UL and/or NEMA standards.