


TUNNEL NAME/LOCATION/DATE COMPLETED: Friedrichshagen Tunnel; Berlin, Germany; 1927		T.4 - Friedrichshagen 	
TUNNEL TYPE AND USE: Reinforced concrete; Pedestrian		LANES/TRACKS: One tube; Footway	
NO OF ELEMENTS: 2	LENGTH: 52.9 m	HEIGHT: 6.67 m	WIDTH: 7.65 m
TOTAL IMMERSED LENGTH: 105.8 m		DEPTH AT BOTTOM OF STRUCTURE: 10.8 m	
UNUSUAL FEATURES:	Constructed as two pneumatic caissons. Element structure was constructed on fill placed halfway to center of river. Excavation under this structure, which was provided with cutting edges, allowed it to be lowered to grade below the river bottom. One side was done at a time. The two elements were sealed at the middle joint after the second element was at grade.		
FABRICATION METHOD: In place.		JOINT TYPE: Concrete joint formed in cofferdam.	
WATERPROOFING METHOD:	Concrete-protected membrane all around.		
PLACEMENT METHOD:	Caisson method.		
FOUNDATION METHOD:	Concrete filled caisson under tunnel tube.		
VENTILATION TYPE:	Natural ventilation		
COVER AND TYPE:	1.5 m backfill		