



DOUBLE EXPANSION SHIELDS

The double expansion shield is used for medium duty applications in rock, concrete and brick. This anchor eliminates high stress points detrimental in fastening into materials of medium hardness. This anchor expands fully, has high gripping power, and is ideal where there are shear loads or where the bolt is subject to side pressure or vibration.



KEY BENEFITS

- Performs in base material of varying strength
- Corrosion Resistant Zamac Alloy
- Internally Threaded Anchor for Simple Installation and Removal of Threaded Rod

TESTING PROCEDURE

The anchors were mounted in 3,500 psi minimum concrete in accordance with Customer's Instructions and subjected to Ultimate Load by pullout testing using a Tinius Universal Tensile Machine. Shear force was also determined.

PERFORMANCE DATA

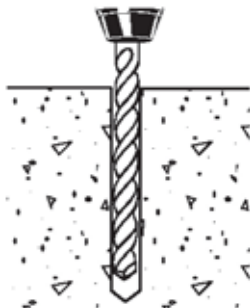
Tested in 3500 psi concrete.

Anchor Diameter in (mm)	Recommended Hole Diameter	Ultimate Load, Pullout (lbs.)	Shear Strength (lbs.)
1/4	1/2	1857	2784
3/8	3/4	4212	3279
1/2	7/8	9258	4578

Bolt Diameter	Recommended Hole Diameter	Double Expansion Anchors		
		D1 Minimum Diameter of Shield Body	L1 Minimum Length of Shield Body	Proof Test Load (Ultimate Tensile Strength) In 3000 psi Strength Concrete
5/8	1	1	2-3/4	3250
3/4	1-1/4	1-1/8	3-1/4	4600
7/8	1-5/8	1-1/2	4	5850
1	1-3/4	1-5/8	4-1/4	6700



INSTALLATION INSTRUCTIONS



Drill a hole into the base material to the minimum depth required. The tolerances of the drill bit used should meet the requirements of ANSI Standard B212.15. Do not expand the anchor prior to installation. Do not over drill the hole unless the application calls for a subset anchor.



Insert anchor into the hole, threaded cone end first until the outer sleeve is flush with the surface of the base material.



Position fixture, then insert screw or bolt and tighten. For maximum expansion, the upper cone should protrude slightly before setting. The bolt must engage a minimum of 2/3 of the anchor threads.

ORDERING INFORMATION

PART #	SIZE	DRILL SIZE	MAX. FIXTURE THICKNESS	QUANTITY / BOX
1DES14	1/4	1/2	1/8	100/BOX
1DES56	5/16	5/8	1/8	50/BOX
1DES38	3/8	3/4	1/4	50/BOX
1DES12	1/2	7/8	1/2	25/BOX
1DES58	5/8	1	3/4	25/BOX
1DES34	3/4	1-1/4	1-1/4	10/BOX