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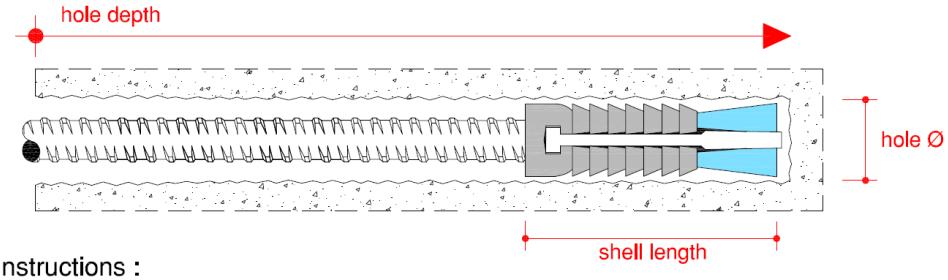
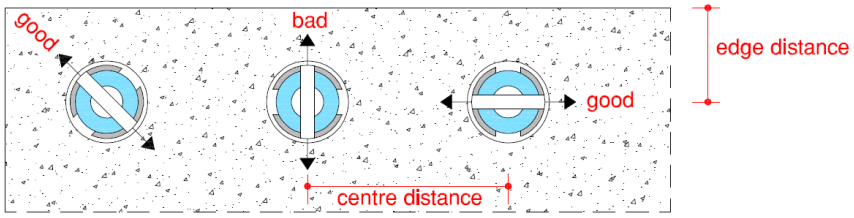
Technical Data Sheet : D.107H
DYWIDAG Mechanical Expansion Shells

bar Ø grade	ultimate kN	part No.	length mm	weight	hole Ø mm	min. depth mm	min. centre mm	min. edge mm
Form-Tie Applications - Prestressing Steel Threadbar								
15mm 900/1100	195	15F2135	85	0.25	35 - 38	200	350	175
20mm 900/1100	345	20F2137	125	0.68	50 - 55	300	500	250
26.5mm 950/1050	579	26E2221	150	1.13	61 - 63	400	600	350
Rock Bolting Applications - GEWI® Steel Threadbar								
20mm 500/600	188	20T2137	125	0.68	50 - 55	230		
25mm 500/600	295	25T2137	125	0.61	50 - 55	275		
28mm 500/600	370	28T2137	125	0.60	50 - 55	300		



Installation Instructions :

1. The borehole should be drilled to full depth using a rotary percussive drill and then blown clean using compressed air.
2. The borehole diameter should be controlled to fall within the stated tolerance range of the Expansion Shell being used.
3. Screw the threadbar fully into the conical part of the Expansion Shell .
4. IMPORTANT : if the shell is fitted with a temporary plastic collar, it should be removed before insertion into the borehole.
5. Before installation, orientate the Expansion Shell as shown on the drawing below to avoid the risk of spalling.
6. After installation the Expansion Shell should be locked by tightening the bar to "activate" the two shells.
7. Alternatively, pulling the bar sharply will also activate the shells.



Testing :

1. To assess the safe carrying capacity of the Expansion Shell, it is recommended that pull-out tests are conducted on-site using a hollow hydraulic stressing jack to determine the depth and spacing of the boreholes.
2. If no initial movement is acceptable, a preload of 50kN - 100kN should be applied using an hydraulic jack.

General Notes :

1. Expansion Shells to suit other Threadbar diameters and hole sizes are available on request.
2. The shells are designed to carry the ultimate capacity of the Threadbar in competent material.
3. Centre and edge distances are based on concrete or rock strength of 30N/mm² at 50% ultimate capacity of the bar.
4. Where vibration is present, the load and movement within the formties held by the shell should be constantly monitored.
5. This information is given in good faith and is for guidance purposes only.
6. Installers should satisfy themselves that use of these Expansion Shells meets the requirements of the Designer responsible.