

ROCK BOLTING ACCESSORIES



BEARING PLATES / WASHERS

DEFORMED BEARING PLATES

Deformed bearing plates spread the compressive loads in the system away from the collar of the drilled hole to the more competent surrounding rock. The plates are also less prone to buckling and maintain their load bearing capacity better than flat bearing plates.

FLAT BEARING PLATES

These are recommended for use only in conjunction with other load spreading devices such as headboards or 'W' straps. These plates, when used on their own, deform under load. This results in the compressive loads in the system being transferred to the collar of the drilled hole beneath the plate. This in turn leads to further deterioration of the rock in the immediate vicinity of the support and ultimate failure.

APPLICATIONS

- As a general rule, the more friable the ground being supported, the larger the bearing plate selected
- Where the rock surface below the bearing plate tends to be irregular, i.e. the plate would tend to align itself at an angle to the long axis of the bolt or stud, a spherical seat should be used in conjunction with the bearing plate
- Where the rock surface is relatively smooth (most coal mine roofs fall into this category), the spherical seat may be dispensed with. However, when using point anchored systems with larger diameter (+ 20mm) bolts, a spherical seat should be incorporated as this will improve the load bearing capacity of the system.

SIZES

Bearing plate type	Dimensions (mm)				Hole size (mm)				Thickness (mm)	
	100x100	125x125	150x150	250x250	18	22	27	40	5	6
Domed	-	Y	Y	Y	Y	Y	Y	Y	-	Y
Steep domed	-	Y	Y	-	Y	Y	Y	Y	Y	-
Domed slotted	-	Y	-	-	Slotted for yield cone				-	Y
Ribbed	-	Y	Y	-	Y	Y	Y	-	4.5	-
Flat	Y	Y	Y	Y	Y	Y	Y	-	-	Y



DURASET

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