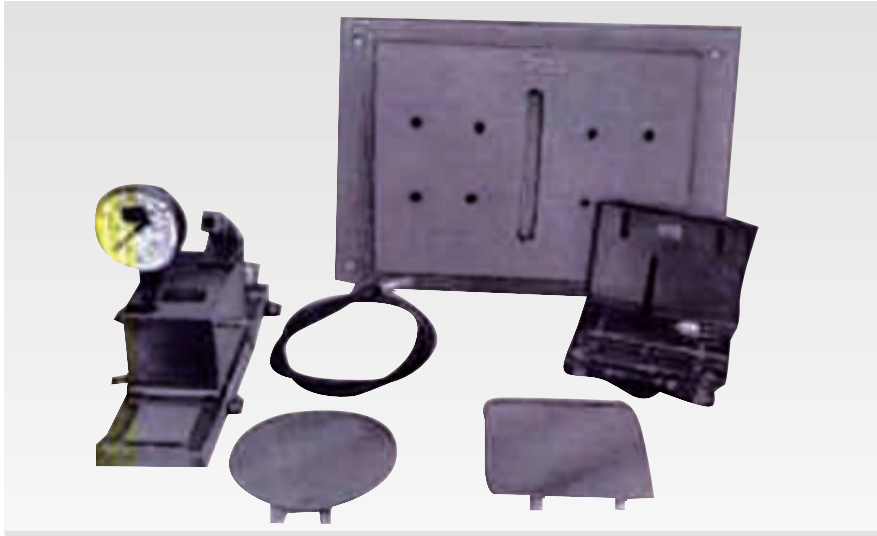


FLAT JACKS

Introduction

Flat jacks are used for the determination of In-situ rock stress by relief technique. The test method consists of cutting a thin slot

a guide for cutting the slot and drilling holes for gauge points. This ensures accuracy for positing and alignment of holes to be drilled in the rock faces both for slot and gauge points.



HR72.305

into the surface by drilling a series of overlapping holes. The process relieves the rock surface of the stress which originally existed across it. This is measured between two points across the slot fixed in the rock prior to cutting the slot. This convergence occurring is then neutralized by inflating a flat jack fixed in the slot and the cancellation pressure is noted. Assuming that the rock mass is elastic within range of working stress, this cancellation pressure is taken as very nearly equal to the pressure that existed in the rock normal to the plane of slot before the slot was cut. HEICO flat jack equipment meets the essential requirements of IS: 7292-1974.

HR72.305 - Flat Jack, 300 mm x 300 mm square.

It is a hollow square shaped pressure cell made up of 2 mm thick mild steel plates welded on all the four sides. Two nozzles are welded to the jack one serves as an oil inlet and the other as an air outlet

HR72.305.1 - Jig for 300mm Flat Jack

It is a frame made of mild steel to serve as

HR72.310 Flat Jack 450 mm x 450 mm square.

Similar to HR72.305 except that it has a bigger size of 450 mm x 450 mm.

HR72.310.1 Jig for 450 mm Flat Jack

Similar to HR72.305.1 but suitable for use with 450 mm x 450 mm square flat jack.

HR72.315 Flat jack, 600 mm x 600 mm square