

26 GDS Helpsheet



*World Leaders in Computer Controlled Testing
Systems for Geotechnical Engineers and Geologists*

Hardware

ADV Controller High Pressure

Speeds - Firmware Ver 4.0

1. Introduction

The new GDS high pressure digital pressure/volume controller has a larger motor than before. The gearbox is standardised at a reduction ratio of 250:1. This motor and gearbox are used throughout the high pressure range of controllers. In addition there are firmware changes to the pressure seek algorithm ("GDS DC VER 4.0"). Pressure is now displayed to 1 kPa instead of 1 bit or 1/4000 of the range. These enhancements improve the performance of the controller.

2. Improved Performance Characteristics

20 MPa controller

Compared to the old 20 MPa controller the volume change speed is the same. The pressure change speed however is between 2 and 2.5 times faster.

64 MPa controller

Here there is an electronic "gear change" at 20 MPa.

Compared to the old 64 MPa controller below 20 MPa volume change is 5 times faster and pressure change is 10-15 times faster. Above 20 MPa volume change is 2.5 times faster and pressure change is 5-7.5 times faster.

3. New Specification

Maximum speed on volume change and pressure change

100 cu.mm/second up to 20 MPa

50 cu.mm/second above 20 MPa

Note that these speeds are maximum values. On pressure seek the control algorithm will cause the controller to step at slower speeds near the target pressure