Wherever possible we recommend the use of hinged type expansion joints to absorb movement. This is because:

> All pressure thrust is held by the hinge pins and is not imposed on pipework, anchors or equipment.

> Force to deflect the bellows is minimal

> On short pipe runs e.g. boiler house systems, guides are not required. On long runs only simple pipe guides are required

> One pair of hinged joints can absorb very large amounts of expansion, offering considerable savings in guides, anchors and actual joint cost

A hinged joint is designed to angulate. To compensate for most pipe movements a set of three hinged units is necessary. Some typical layouts are shown in figure 6 to 15.

We often supply two joints formed into a Double hinged expansion joint. This saves the cost of four flanges and makes installation simpler.
Application details for Hinged Expansion Joints

**FIG 10** FOR STRAIGHT PIPE RUNS USING MAXIMUM CENTER-TO-CENTER DISTANCE BETWEEN PIPES. A THIRD UNIT CATERS FOR EXPANSION OF OFFSET AND MAINTAINS THE TWO PARALLEL RUNS IN ALIGNMENT. USE THREE SINGLE HINGED BELLOWS (HEJ)

**FIG 11** FOR STRAIGHT RUNS, USING MAXIMUM CENTER-TO-CENTER DISTANCE BETWEEN PIPE CENTERS USE TWO SINGLE HINGE BELLOWS (HEJ)

**FIG 12** FOR TAKING EXPANSION IN TWO DIRECTIONS FROM TWO PIPES AT AN ANGLE GREATER THAN 90, USE THREE SINGLE HINGED BELLOWS (HEJ)

**FIG 13** FOR TAKING UP EXPANSION IN VERY LONG STRAIGHT PIPE RUNS. USE THREE SINGLE HINGED BELLOWS (HEJ)

**FIG 14** FOR TAKING UP EXPANSION IN LONG STRAIGHT PIPE RUNS. USE TWO DOUBLE HINGED BELLOWS (DHEJ) WITH DIRECTIONAL ANCHOR AT ‘A’

**FIG 15** FOR PIPE BETWEEN TWO VESSELS OR OTHER MACHINERY USE DOUBLE HINGED BELLOWS (DHEJ) AND SINGLE HINGED BELLOW (HEJ)