SAMPLING METHOD MD1

DIVISION OF A SAMPLE USING THE RIFFLER

1 **SCOPE**

This method describes the division or reduction of a sample of granular material by means of a riffler.

2 **APPARATUS**

2.1 A riffler with suitably sized openings (see paragraph 3.1) and complete with at least three catchpans. (See Figure 3.)

3 **METHOD**

3.1 **Choice of opening width**

Choose the opening width of the riffler as follows:

Maximum size of aggregate (mm) (whether graded or single-sized)	Opening width (mm)
25,0 or larger	37,5
13,2 – 25,0	25,0
6,7 – 13,2	13,2
less than 6,7	6,7

3.2 **Riffling**

The sample is placed in one of the riffler's catchpans and spread evenly along the length of the pan so that when the pan is inverted over the feeder tray all the openings received an equal quantity of material in an even stream. Shake the pan lengthwise from side to side.

Replace on or both the pans in which material has been caught after riffling with an empty pan(s) and add the divided material from one of the two pans to the feeder tray again in the same manner as before.

Repeat the procedure until a sample of the requires size is obtained.

3.3 If any lumps of material remain on top of the openings, they must first be sieved through a sieve of the appropriate size and then be quartered (see method MD2) until they have been quartered the same number of times as the rest of the material. Thereafter this material may be added to the rest of the sample.

4 **NOTES**

4.1 The importance of the opening widths is discussed in Chapter 7 (paragraph 1.1.1). When graded material is being divided and it is very important that the sample be representative, the sample my be divided into the fractions indicated in paragraph 3.1 by means of sieves and then riffled through the appropriate opening widths. Ensure that the **same number** of steps is taken when dividing each fraction.

4.2 When the sample contains dust, it must be poured through carefully so that the dust is not blown away. Tap the pans against the riffler at every stage of division to make sure that any dust which adheres will fall off.

FIGURE 3
THE RIFFLER