



**Figure 3.12** Cocoa butter presses (Royal Duyvis Wiener). Reproduced with permission of Royal Duyvis Wiener.

**Table 3.3** Quality parameters for cocoa butter (*Source*: Cargill Cocoa, 2007).

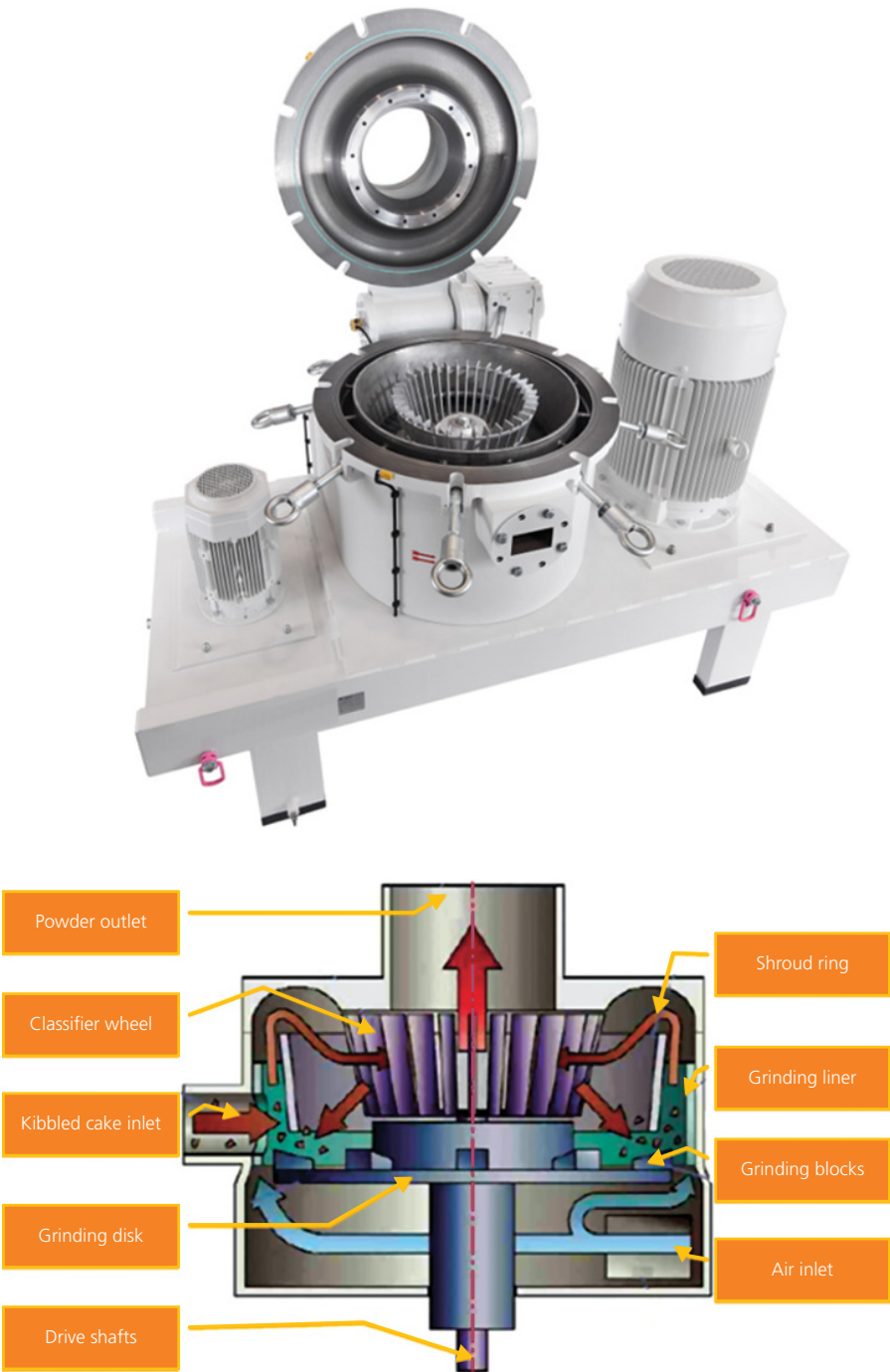
Parameter	Value	Method
Free fatty acids	1.75%	IUPAC 2.201
Iodine value	33–42	IUPAC 2.205
Refractive index	1.456–1.459	IUPAC 2.102
Moisture content	Maximum 0.1%	IOCCC 26, 1988
Unsaponifiable matter	Maximum 0.35	IOCCC 23, 1988
Blue value	Maximum 0.05%	IOCCC 29, 1988

Cocoa butter is a creamy, ivory colour when solid and it does not contribute to the colour of the finished chocolate. White chocolate can be an exception and it may contribute some yellow colour which may or may not be desirable. A key property of cocoa butter is its melting characteristics and these are described in Section 7.2.

Cocoa butter is transported and stored either in liquid or in solid form (as a single block) in 25 kg (56 lb) cardboard boxes with a polyethylene liner or a bag inside. Due to the characteristics of cocoa butter the shelf life in solid form is good; up to one year when stored under suitable conditions and in practice even up to two years. When cocoa butter has been refined the shelf life is reduced dramatically to a maximum of six months. For liquid cocoa butter the shelf life is up to one month. Nevertheless thin layers of liquid butter may oxidise quickly, so it should never be stored in this way. When liquid cocoa butter needs to be stored for longer periods, the use of nitrogen to prevent oxidation by air is recommended.

### 3.9 Cocoa press cake and cocoa powder

The pressing operation described in the previous section results in the production of hard discs of cocoa material called cocoa press cake. Usually pin or hammer mills (see Chapter 9 and Figure 3.13) are used to pulverise the cocoa cakes. Preferably after pulverising (milling) the cocoa powder is tempered (cooled) to crystallise the



**Figure 3.13** Barth cocoa powder mill (Bühler AG) for grinding kibbled cocoa cake into cocoa powder. Reproduced with permission of Bühler AG, Switzerland.