

Using the Planetary Mill Pulverisette 7

Analysis to be done	Material of bowls and Balls	Quantity of sample	Bowls volume	Size of balls	Number of balls	Rotation speed	Grinding time	maximum Temperature
XRF (traces), CHN, RockEval	Agate	3-20 ml	45 ml (big)	1cm	18 à 20	600rpm	Cycles of 3 min	70°C
XRF (traces), CHN, RockEval	Agate	0.5-5 ml	12 ml (small)	1cm	6 à 8	600rpm	Cycles of 3 min	70°C
XRF (majors)	Stainless steel	3-20 ml	45 ml (big)	1cm	18 à 20	700rpm	Cycles of 3 min	100°C
XRF (majors)	Stainless steel	0.5-5 ml	12 ml (small)	1cm	6 à 8	700rpm	Cycles of 3 min	100°C

Technique	Minimal quantity (mL)
CHN	0.025
RockEval	0.1
XRF majeurs	1.5
XRF traces	1.5
Powder XRF	0.5

Always keep in mind that there will be losses during grinding: If possible, plan to mill 15mL of sample.

NB: Never run the machine with only one bowl!

NB: Never run a bowl with balls without a sample!

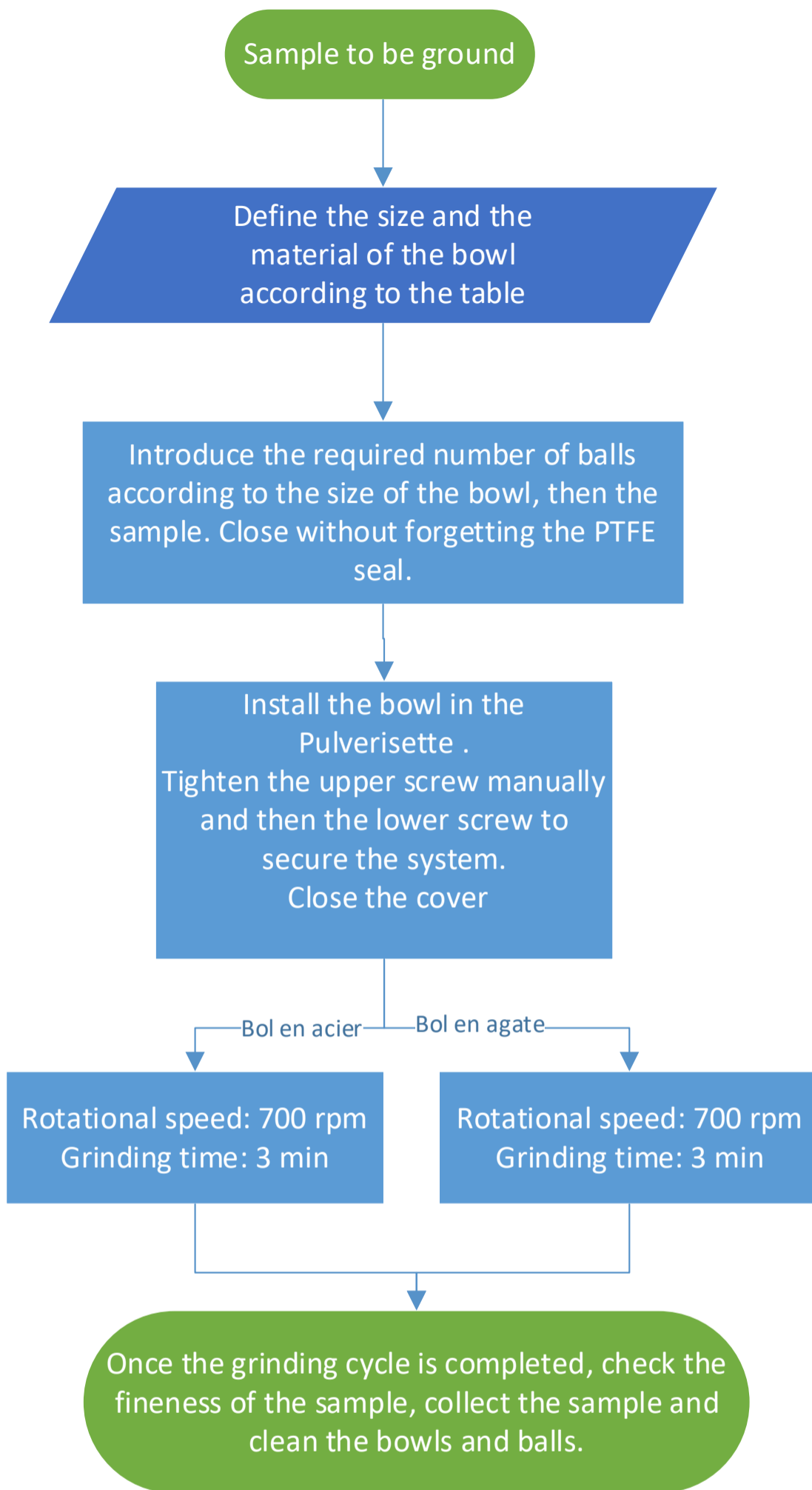
NB : Always put the balls before the sample !!!

Always use the same material for the balls and the bowl.

A bowl can be empty (without balls and without sample) if the weight difference is < 80 g.

Use the measuring spoons to get the right volume!





Bowl with beads / lid / PTFE seal



Insert the PTFE seal before fitting on the cover



Top screw: centre well and then tighten by hand.

Bowl installed on its support:

Bottom screw: screw up to the base to fix the system



Sample recovery and cleaning of bowls and balls

Sample recovery

Collect the sample in a weighing boat using a strainer to separate the balls.

Using a plastic spatula, collect the sample stuck to the walls of the bowl.

Pour the sample into a plastic bag.

Bowls after grinding



Sample recovery



Cleaning

Remove the dust with a dry Kimtech.

Use the compressed air gun to remove residual dust from the bowl and the balls (for the balls, use the strainer).

Clean everything with a little bit of ethanol on a Kimtech.

Make sure the balls and the bowls are completely dry before adding the next sample.

At the end of the preparation, clean everything with water, give a shot of ethanol and dry the bowls and balls well using the air gun.

