

# Operation Instruction

## Operation

1. Switch on power, instrument, printer, computer in sequence. Preheat for 30 min (for analysis after interval, preheating is not required).
2. Check if furnace temperature is close to room temperature. If it's much higher, press Cool, cooling fan accelerates cooling. Take out clean and dry crucibles and crucible lid from desiccator and put them into corresponding crucible holes on rotary tray.
3. Run testing software. Click System Setting and set parameters to meet testing requirement. Then click Hardware Commissioning to check if each components of analyzer works properly.
4. After preheat for 30min, according to the instruction manual if nitrogen atmosphere is selected in system setting, turn on oxygen valve and nitrogen valve. Adjust nitrogen flow to 4-5L/min. If compressor pump is used , pump flow is 10L/min. If not, adjust gas regulating valve on the back of compressor pump to meet analysis requirements. Flow meter should have no flow then.
5. Click Start Analysis to enter sample data interface. Click one of the samples on simulated rotary tray and input the first sample number and sample weight. Then all the samples are positioned.
6. Click Next to enter analysis menu. Close upper furnace cover and it weighs empty crucibles for moisture,

ash and volatile matter.

7. After all empty crucibles weighing, it will automatically prompt you to load samples. Open upper furnace cover, load sample in corresponding crucible and flatten it to make sample evenly distributed on crucible bottom. Then click Sample Weighing. After all sample weighing, it will automatically prompt you Analyze or not. Check if each sample weight meets its requirement. If not, click No to add or reduce coal samples. Then restart Sample Weighing. After all sample weight is in accordance with requirements, cover crucible lid for volatile matter and click Yes to start analysis.
8. The whole process will be finished automatically. After furnace cooling, drop samples in crucibles. Then clean and dry all the used crucibles. Store them in desiccator.
9. For next sample analysis, just repeat the above process.
10. After all analysis, switch off analyzer, computer, printer, power and main valves on gas cylinder.