## Fully Automatic Fat/solvent Extraction system with hydrolysis Application:

Raw Materials, Intermediates and Finished Products in Food, Animal Feed and Petfood

## For Total Fat (Free and Bound Fat)

- 1. Complete system for integrated boiling and filtration of samples and all accessories needed for food and feed samples
- 2. Completely automatic and unattended system,
- 3. Only ~10 ml of solvent should be used per sample with the recovery system
- 4. Separate timer functions for each extraction step
- 5. 2 set of Extraction cups should provided and should be made of Aluminum.
- 6. Accessories for batch handling (mention the list of batch handling tools included ) to improve laboratory efficiency
- 7. Official approvals AOAC2003.05, 2003.06 (feed), SCAN-CM 49:93 (paper/pulp), EPA method 3541 (PAH in soil) should be there.
- 8. The electrical parts like switches, controllers, display etc except the heating element should be separate from the unit and should be able to be kept at least at 1 meter distance from extraction system for safety reasons.
- 9. Sample preparation prior to GC/HPLC work should be possible.
- 10. During rinsing procedure the samples along with the thimbles should be raised up from the solvent cups for better rinsing and good reflux without need of displacing the solvent cups.
- 11. 50 number of thimbles Thimble of size:  $26 \times 60$  mm. Approx. 25 ml
- 12. Extraction time: typically 40 to 60 min, depending on application
- 13. Capacity per batch: 6 samples ,Capacity per day: 30-36 samples
- 14. Measuring range: 0.1-100% fat
- 15. Accuracy: According to official approvals
- 16. Repeatability:  $\pm$  1% rel. or better at 5-100% fat
- 17. Heating up time: from 20°C to 280°C in 7-9 min (230 V)
- 18. Solvent recovery: 80%
- 19. Following Seals for condensers should be supplied viton (set of 6), butyl (set of 6), teflon (set of 6), polyuretone (set of 6)
- 20. Preventive maintenance kit for the system.
- 21. Solvent dispensing system to extraction cups.
- 22. Mill to grind samples of High-moisture, high-fat and fibrous samples, such as: Grains, Cereals Beans Oilseeds Nuts Peas wet and dry Maize (Corn) wet and dry Pelleted feed and Pet food (3-4 mm) Pellets up to 6 mm with lid for pellets meat products, Vegetables and Fruit . sample size Maximum 30 200 ml ,principle: Rotor blade Time: 2 to 10 sec ,speed Blade 16.000 rpm, Chamber cooling option by connect cooling circulating water to reduces adhesion of sample to the wall of the grinder
- 23. Hydrolysis system.

NOTE: All the item quoted should be from same manufacturer.