

# HIGH SPEED RESEARCH CENTRIFUGES

Range of High Speed centrifuges for Research Applications, with a wide range of Angle Rotor Heads



TC 4103

High Speed Research Centrifuge - TC 4100 D



TC 4102

High Speed Research Centrifuge - TC 4100 F



High Speed Research Centrifuge - MP 400

## General Features:

- Sturdy and safe steel body
- Anti vibrator mounting of motor assembly and the whole centrifuge
- Specifically designed drive motor and electronics manufactured in house
- Double walled lid with see through window for observation and calibration. Electrical/ Electronic/ Mechanical lid lock
- Corrosion resistant epoxy coated centrifuge chamber
- Provided with Hydraulic lid lifting and holding
- Provided with Auto-Rotor Identification.
- Provided with Short-Spin.
- Control panel with soft touch key pad for ease of operation
- LCD Display of setting and working parameters
- Speed Programmable by setting required RCF value
- Display of Working speed / Working RCF value
- Remaining Time
- Rotor Head selection from system library and programmable
- Over speed protection by selecting and programing required rotor
- Imbalance detection & Auto safety switch off with error message on screen
- Programmed electronic lid lock release in case of power failure
- Safety soft start programmed to start / restart for drive motor
- At start programmed to start count down timer when the set speed attained
- Safety Lid lock programmed which allows the centrifuge to start only when lid is locked and prevent lid opening during centrifugation with 'Lid Open' error message when lid not locked.

## Technical Specifications and Programmable features:

Specifications	TC 4100 D	TC 4100 F	MP 400
Drive Motor	AC/DC Universal	Brushless AC Induction	Brushless AC Induction
Control system	Digital programmable	Microprocessor with VFD Programmable	Microprocessor with VFD Programmable
Program Memory	Last used Program	25 Program	99 Program
Speed Range- depending on rotor head	200 to 18500 RPM	200 to 20000 RPM	200 to 20000 RPM
Timer	1 to 99 minutes & infinite mode	1 to 120 Minutes & infinite mode	1 to 120 minutes & infinite mode
Acceleration / Deceleration time	30 to 300 Seconds	40 to 450 Seconds	40 to 450 Seconds
Temperature control	N.A	N.A.	N.A.
<b>DISPLAYS</b>			
Rotor Head Speed/ RCF Value	Working Speed/ Working RCF value	Working Speed/ Working RCF value	Working Speed/ Working RCF value
Time	Remaining Time	Remaining Time	Remaining Time
Imbalance	Auto Switch off + Error Message	Auto Switch off + Error Message	Auto Switch off + Error Message + Indication
Lid Open	Error Message	Error Message	Error Message + Safe lid open indication
Alarm on completion	Audible	Audible	Audible

## CHOICE OF FIXED ANGLE ROTOR HEADS FOR USE WITH TC 4100 D/TC 4100 F / MP 400

Centrifuge Model	Rotor Model	No.tube x ml	Tube Type	Type	TC 4100 D		TC 4100 F / MP 400	
					Max.RPM	Max.RCF	Max.RPM	Mx.RCF
TC 4101	4 x 100	P.P. Tube	Angle	13600	20800	14000	22110	
TC 4102	8 x 50	P.P. Tube	Angle	13000	20480	13500	22100	
TC 4103	6 x 50	P.P. Tube	Angle	14200	22070	14500	23000	
TC 4104	4 x 50	P.P. Tube	Angle	15500	23800	17000	28600	
TC 4105	8 x 25	P.P. Tube	Angle	14500	22400	15000	24000	
TC 4106	6 x 25	P.P. Tube	Angle	16700	27700	17000	28700	
TC 4107	12 x 15	P.P. Tube	Angle	14500	22100	15000	23670	
TC 4108	8 x 15	P.P. Tube	Angle	15700	24600	16500	27200	
TC 4109	6 x 15	P.P. Tube	Angle	17500	28400	20000	37000	
TC 4110	4 x 10	P.P. Tube	Swing Out	12000	14800	12500	16100	
TC 4111	24 1.5 / 2	Eppendorff	Angle	18500	26100	20000	30500	
TC 4113	24 x 0.5	Eppendorff	Angle	18500	24800	20000	29000	
TC 4114	4 x 25	P.P. Tube	Swing Out	11500	14700	12000	16000	
TC 4115	18 x 15	P.P. Tube	Angle	11700	16700	12000	17600	
TC 4116	192 x 0.5	Eppendorff	Angle	13500	22900	14000	24000	
TC 4117	48 x 1.5 / 2	Eppendorff	Angle	14600	20900	15000	22100	
TC 4118	24 x 3 / 4	Vaccutainer	Angle	10000	10400	10000	10400	
TC 4119	4 x (8x0.2)	PCR Strip	Angle	N.A.	N.A.	11000	12180	
TC 4120	6 x (8x0.2)	PCR Strip	Angle	N.A.	N.A.	12000	19320	

Note: Rotor Head for different Vaccutainer and other specific application tubes can be designed, manufactured and supplied

## Technical Data:

Model	TC 4100 D	TC 4100 F	MP 400
Width x Depth x Height (mm)	450 x 570 x 510	450 x 570 x 510	450 x 570 x 510
Max. Speed (RPM)	18500	20000	20000
Max. RCF (g)	28400	37000	37000
Weight (Kgs.)	50	50	50
Connected Load (kVa)	0.75	0.75	0.75

## CHOICE OF CONICAL (FALCON) TUBE ROTOR HEADS

MODEL	RC 4100F / MP400R				
	Rotor Model	No. of tube X ml	Tube type	Type	Max Rpm
TC 4201	12 X 15ML	Conical (Falcon)	Angle	15000	23670 x g
TC 4203	8 X 50ML	Conical (Falcon)	Angle	13500	22100 x g
TC 4204	12 X 50ML	Conical (Falcon)	Angle	13500	22100 x g

\* Optional: F Series & MP Series model can be provided with Data Downloading through computer software using RS 232/485 port Interface & Automatic lid opening after completion of run.