



PROCESS HEAT EXPERTS

# ROSS BOILERS

## WE ARE THE HEAT SOURCE



STEAM BOILERS

HOT WATER GENERATORS



HOT AIR GENERATORS

THERMIC FLUID HEATERS



EDIBLE OIL HEATERS

# STEAM BOILERS

## RSR Series

### Three Pass Reverse Flue Oil / Gas Fired Steam Boilers



Model	Capacity (kg/hr)
RSR 100	100
RSR 200	200
RSR 300	300
RSR 400	400
RSR 500	500
RSR 600	600
RSR 800	800
RSR 1000	1000
RSR 1200	1200
RSR 1500	1500
RSR 2000	2000
RSR 2500	2500
RSR 3000	3000

- ▶ 3 pass reverse flue compact horizontal boiler available both in Non-IBR & IBR version
- ▶ Ideally suited to burn light oil, heavy oil, NG or LPG with imported burners
- ▶ Hinged front refractory door for quick access to furnace & smoke tubes
- ▶ Fully automatic operation with field proven controls & safeties
- ▶ High thermal efficiency due to spirals in flue tubes for better heat transfer

## RSB Series

### Coil Type Oil / Gas Fired Steam Boilers

- ▶ 3 pass reverse flue coil type steam boiler available both in non-IBR version (models 100 to 800) & IBR version (all models)
- ▶ Fitted with optional combustion air pre-heat and economizer for high thermal efficiency
- ▶ Designed to operate with light oil, heavy oil, NG or LPG fuel with rugged in-house or European burner
- ▶ Easy to operate & maintain with quick delivery of steam in few minutes
- ▶ Fully automatic operation with field proven controls & safeties

Model	Capacity (kg/hr)
RSB 100	100
RSB 200	200
RSB 300	300
RSB 400	400
RSB 600	600
RSB 800	800
RSB 1000	1000
RSB 1200	1200
RSB 1500	1500
RSB 2000	2000
RSB 2500	2500
RSB 3000	3000
RSB 3500	3500
RSB 4000	4000

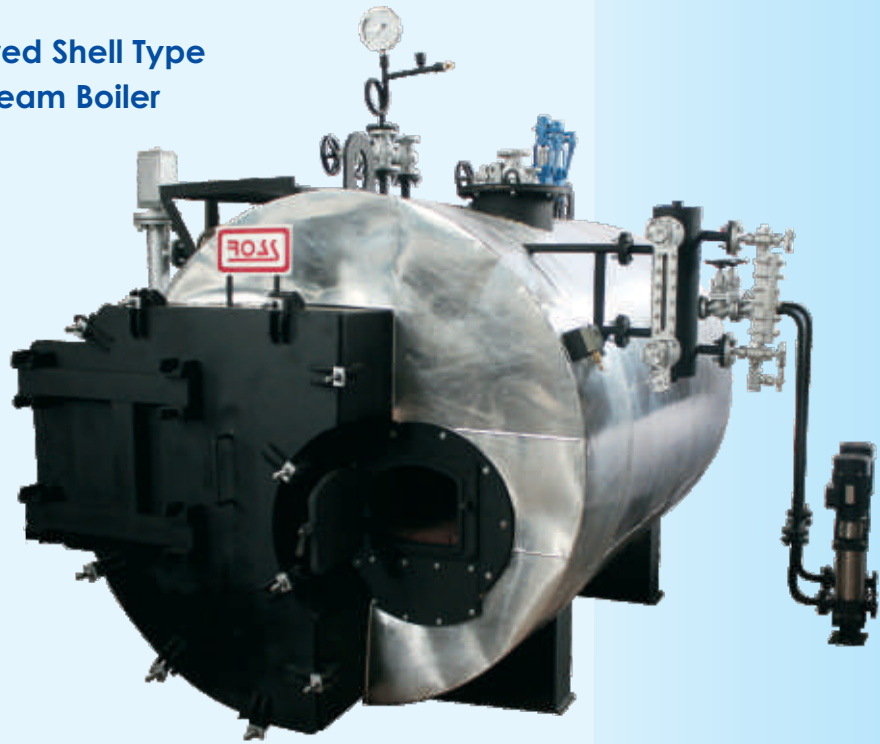


# STEAM BOILERS

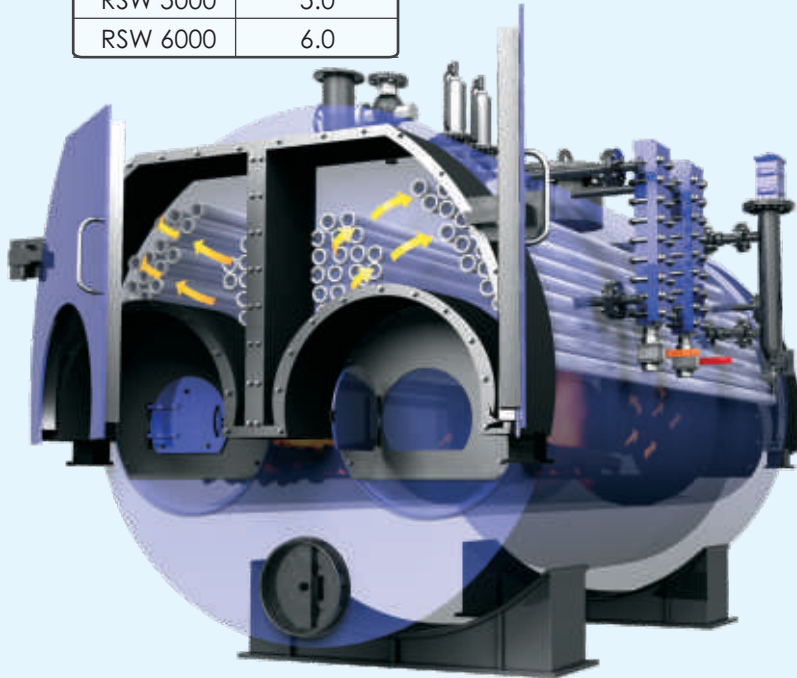
## RSW Series

### Solid Fuel Fired Shell Type Flue Tube Steam Boiler

Model	Capacity (TPH)
RSW 1000	1.0
RSW 1500	1.5
RSW 2000	2.0
RSW 2500	2.5
RSW 3000	3.0
RSW 4000	4.0



Model	Capacity (TPH)
RSW 4000	4.0
RSW 5000	5.0
RSW 6000	6.0



### Solid Fuel Fired Twin Furnace Three Pass Steam Boiler

- ▶ High thermal efficiency due to twin furnace design.
- ▶ Hinged doors for quick and easy cleaning of tubes.
- ▶ Easy to operate and maintain.
- ▶ Can fire a variety of fuels, such as coal, wood, agrowaste, etc.
- ▶ Rugged design
- ▶ Has high steam and water storage to cater to fluctuating steam demands.

## RSBE Series

### Electric Steam Boilers

- ▶ Space saving designs
- ▶ Fully automatic operation
- ▶ Clean & quiet operation
- ▶ Fully packaged unit, minimizes site work
- ▶ No fuel tank & chimney required

Model	Capacity (kg/hr)
RSBE 10	15
RSBE 15	23
RSBE 20	30
RSBE 35	55
RSBE 50	78
RSBE 65	100
RSBE 130	200
RSBE 165	250
RSBE 200	300
RSBE 260	400
RSBE 320	500
RSBE 390	600
RSBE 450	700
RSBE 520	820
RSBE 640	1000

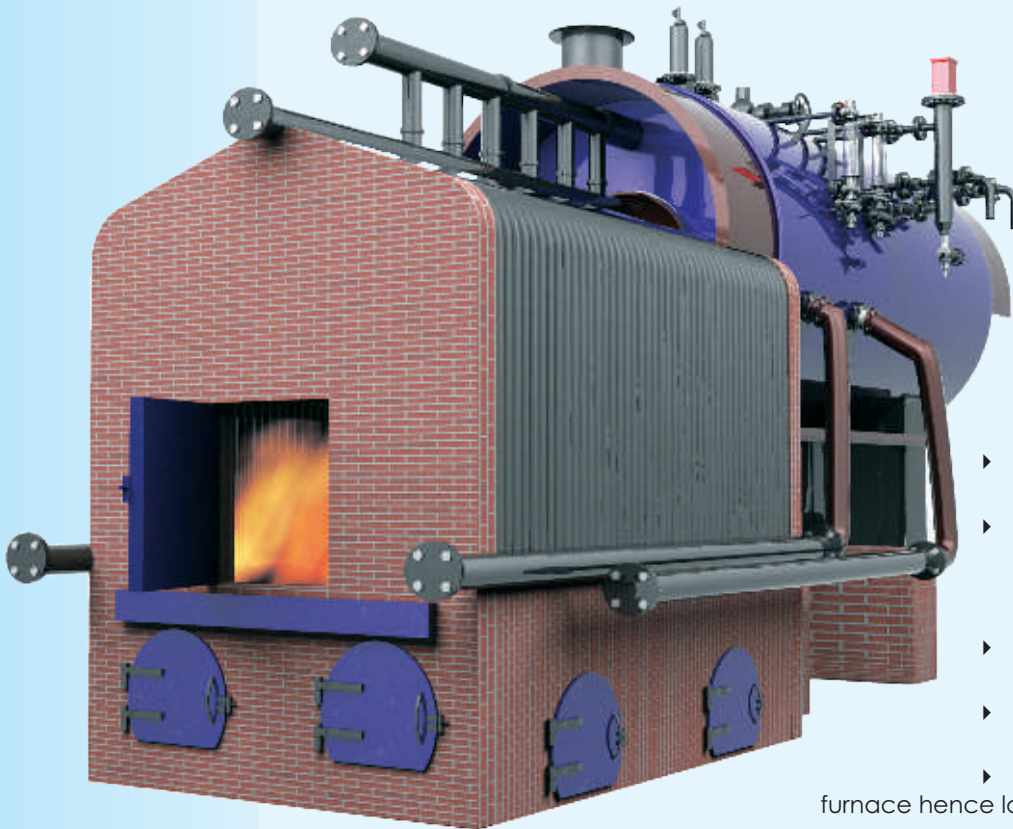




# STEAM BOILERS

## RM Series

### Smoke-cum-Water Tube Boilers



Model	Capacity (TPH)
RM 04	4
RM 05	5
RM 06	6
RM 08	8
RM 10	10
RM 15	15
RM 20	20
RM 25	25
RM 30	30

- ▶ Very high thermal efficiency due to high combustion chamber volume.
- ▶ Minimum radiation losses & minimum air leakage due to membrane water wall panelled radiant furnace.
- ▶ Very large water holding and steam space.
- ▶ Automatic operation for consistent & uninterrupted steaming.
- ▶ Minimum usage of refractory in furnace hence lower maintenance costs.
- ▶ Easy & safe to operate.

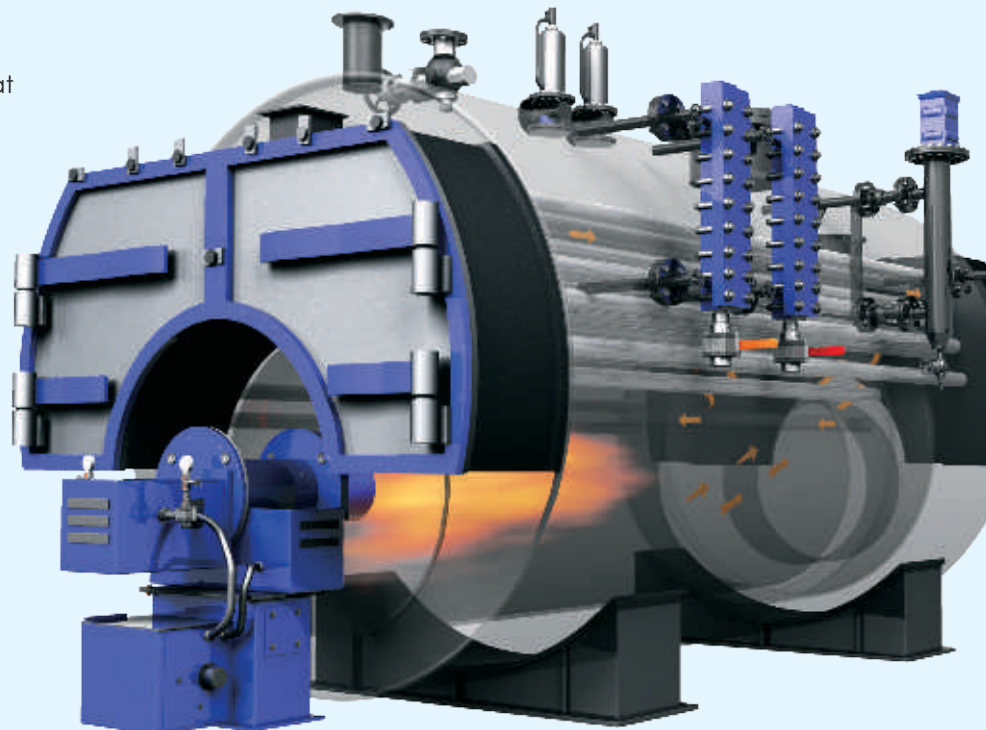
## RS Series

### Shell Type Conventional 3 Pass Fully Wet Back Steam Boilers

- ▶ Straight three pass design.
- ▶ Ideally suited to burn light oil, heavy oil, NG, LPG & biogas.
- ▶ Fully automatic operation with field proven controls & safeties.
- ▶ Rugged & durable design.
- ▶ Higher radiation as well as convective heat transfer areas.

- ▶ Large combustion volume, hence enhanced safety and higher efficiency.
- ▶ Easy and quick erection and commissioning.

Model	Capacity (TPH)
RS 01	1.0
RS 1.5	1.5
RS 02	2.0
RS 2.5	2.5
RS 03	3.0
RS 04	4.0
RS 05	5.0
RS 06	6.0
RS 08	8.0
RS 10	10



# THERMIC FLUID HEATERS

## ALFA Series

### Oil / Gas Fired Thermic Fluid Heaters

Model	Capacity (kcal/hr)
ALFA 100	1,00,000
ALFA 200	2,00,000
ALFA 300	3,00,000
ALFA 400	4,00,000
ALFA 600	6,00,000
ALFA 800	8,00,000
ALFA 1000	10,00,000
ALFA 1500	15,00,000
ALFA 2000	20,00,000
ALFA 2500	25,00,000
ALFA 3000	30,00,000
ALFA 3500	35,00,000
ALFA 4000	40,00,000



- ▶ High temperature up to 300°C at low pressure of 1 to 3 bar
- ▶ No heat loss due to hot condensate and flash steam discharge
- ▶ No risk of corrosion
- ▶ Low maintenance costs
- ▶ Easy to operate (does not require a steam boiler certified operator)
- ▶ Large heating surface area hence higher efficiency
- ▶ Hinged front door for easy cleaning & inspection
- ▶ Rugged construction
- ▶ Maximum running reliability

## DELTA Series

### Solid Fuel Fired Thermic Fluid Heaters

- ▶ Low operating cost
- ▶ Reliable operation
- ▶ Safety against low thermic fluid flow
- ▶ Precise thermic fluid temperature Control
- ▶ Maximum running reliability

#### DELTA 4 Pass Models:

Model	Capacity (kcal/hr)
DELTA400	4,00,000
DELTA 600	6,00,000
DELTA 800	8,00,000
DELTA 1000	10,00,000
DELTA 1500	15,00,000
DELTA 2000	20,00,000
DELTA 2500	25,00,000
DELTA 3000	30,00,000
DELTA 3500	35,00,000
DELTA 4000	40,00,000

#### DELTA 3 Pass Models:

Model	Capacity (kcal/hr)
DELTA 100	1,00,000
DELTA 200	2,00,000
DELTA 300	3,00,000
DELTA 400	4,00,000
DELTA 600	6,00,000





# THERMIC FLUID HEATERS

## RTH Series

### Vertical Oil / Gas Fired Thermic Fluid Heaters

RTH series heaters are compact, vertical, factory-assembled fired equipment for high temp, closed loop thermal oil process heat applications. Synthetic or mineral based thermal oils having stable properties over a wide temp range of 10 to 300 deg C are used as heating medium at comparatively low operating pressure of 3-4 kg/cm<sup>2</sup>. RTH series TF Heaters are fitted with indigenous pre-heated air burners in three-pass combustion system to improve thermal efficiency. These heaters are fitted with standardized components & are quite simple to operate & maintain. A large number of options, such as choice of fuel, addition of standby TF pump, sizing of De-aerator tank etc are available to users to meet their process needs.

Model	Capacity (kcal/hr)
RTH 100	100,000
RTH 200	200,000
RTH 300	300,000
RTH 400	400,000
RTH 600	600,000

Smaller capacity thermal oil heaters in output range 100 to 300 x 1000 kcal/hr require light fuel oil for combustion for ease of maintenance & operation. These heaters are fitted with single stage burners.

Larger capacity TF Heaters are available for operation with light or heavy fuel oil as per customer's choice. Being fully shop-assembled & tested, these heaters are supplied in ready-to-install condition to facilitate quick plant start-up.



## RTHE Series

### Electric Thermic Fluid Heaters



ROSS electric operated thermic fluid heaters are designed & manufactured using high quality heating elements, precise dimensions in a state of the art manufacturing facility. Our quality control guarantees highest safety and long life span.

- ▶ Short installation time due to pre-assembled units  
Depending on the overall dimensions, complete systems can be skid mounted on a base frame. Systems are factory tested for function, control and leakage. Installation and start-up time can therefore be greatly reduced.
- ▶ Low Watt density flanged electric heaters  
Low watt density heaters maintain low heat flux densities. The surface area provided is generously sized to keep thermic fluid film temperatures low, which protects the thermic fluid from carbonizing.

# HOT WATER GENERATORS

## ASTRA Series

Model	Capacity (Kcals/hr)
ASTRA 100	1,00,000
ASTRA 150	1,50,000
ASTRA 200	2,00,000
ASTRA 250	2,50,000
ASTRA 300	3,00,000
ASTRA 400	4,00,000
ASTRA 500	5,00,000
ASTRA 600	6,00,000
ASTRA 800	8,00,000
ASTRA 1000	10,00,000
ASTRA 1500	15,00,000
ASTRA 2000	20,00,000
ASTRA 2500	25,00,000
ASTRA 3000	30,00,000

- ▶ 3 pass reverse flue horizontal HW Generators with large water volume
- ▶ Ideally suited to burn light oil, heavy oil, NG or LPG with imported burners
- ▶ Hinged front refractory door for quick access to furnace & smoke tubes
- ▶ Fully automatic operation with field proven controls & safeties
- ▶ High thermal efficiency due to spirals in flue tubes for better heat transfer
- ▶ Available for pressurized hot water system at 140 deg C max outlet temp



## Coil Type Water Tube Hot Water Generators

## RHBC Series

Model	Capacity (Kcals/hr)
RHBC 100	100,000
RHBC 150	150,000
RHBC 200	200,000
RHBC 300	300,000
RHBC 400	400,000
RHBC 500	500,000
RHBC 600	600,000
RHBC 800	800,000
RHBC 1000	1,000,000
RHBC 1250	1,250,000
RHBC 1500	1,500,000
RHBC 2000	2,000,000
RHBC 2500	2,500,000
RHBC 3000	3,000,000

- ▶ Three-pass, once through, coil type HWG with efficient fuel combustion & compact construction for closed loop process heating at maximum 160°C temperature.
- ▶ Single or multi-start coils are designed to accommodate customer-specific larger hot water flows at lower pr drops to ensure low electric power demand for pumping water.
- ▶ Process fluid being soft water, is non-hazardous, non-contaminating & non-polluting.
- ▶ Process fluid is re-cycled, unlike condensate wastages in steam heating, resulting in valuable resource & heat energy conservation.
- ▶ Low initial equipment cost, low operating & maintenance cost.
- ▶ Less corrosion or scaling of HWG coil as water remains in liquid phase even at 160°C.



# HOT WATER GENERATORS

## RHBE Series

### Electric Hot Water Generators



These units have high thermal efficiency & low maintenance. Units are easy to install & can be located close to the point of use. They are environment friendly & pollution free. Units are available in capacities from 9 Kw up to 1000 Kw. These units are ideal for commercial & residential buildings for generating hot water. All units are factory tested ready to use. ROSS Electric hot water generators have small physical size as compared to oil or gas fired units, hence require less floor space.

- ▶ Low watt density flanged electric heaters
- ▶ Easy to operate and maintain
- ▶ High thermal efficiency, environment friendly & pollution free
- ▶ Custom built units
- ▶ Requires less floor space

## SIGMA Series

### Horizontal Solid Fuel Fired Hot Water Generators

- ▶ 3 pass wet back horizontal HW Generators for 95 to 140 deg C outlet temp
- ▶ Designed to burn various agro-waste fuels like wood, bagasse, coal, etc.
- ▶ Hinged front refractory door for easy maintenance of flue tubes
- ▶ Large water volume helps to overcome varying heat loads

Model	Capacity (Kcals/hr)
SIGMA 100	1,00,000
SIGMA 150	1,50,000
SIGMA 200	2,00,000
SIGMA 250	2,50,000
SIGMA 300	3,00,000
SIGMA 400	4,00,000
SIGMA 500	5,00,000
SIGMA 600	6,00,000
SIGMA 800	8,00,000
SIGMA 1000	10,00,000
SIGMA 1500	15,00,000
SIGMA 2000	20,00,000
SIGMA 2500	25,00,000
SIGMA 3000	30,00,000





# HOT AIR GENERATORS

## RAHW Series

### Wood Fired Hot Air Generators



The RAHW series hot air generators are offered in vertical or horizontal designs, either as standard models or tailor-made models to match customer's specifications and applications.

Designed in DIRECT and INDIRECT heating types, these systems are practically free from any maintenance and are highly efficient. Units can be manufactured in SS for high temperature applications.

- ▶ Durable construction
- ▶ Easy operation and minimal maintenance
- ▶ High level of safety in operation, thus greater reliability
- ▶ Optional recirculation system to improve overall thermal efficiency

## RAH Series

### Oil/Gas Fired Hot Air Generators

The RAH series hot air generators are offered in vertical or horizontal designs, either as standard models or tailor-made models to match customer's specifications and applications. Designed in DIRECT and INDIRECT heating types, these systems are practically free from any maintenance and are highly efficient.

- ▶ Durable construction
- ▶ Easy operation and minimal maintenance
- ▶ High level of safety in operation, thus greater reliability
- ▶ Optional recirculation system to improve overall thermal efficiency
- ▶ Fully automatic burner control and temperature control



# EDIBLE OIL HEATERS

## REOH Series

### Edible Oil Heaters



These are custom-built heaters manufactured with food grade quality stainless steel materials, pumps & other equipment. Higher thermal efficiency, better utilization of cooking oil & freedom from thermal oil contamination are some of the winning features of ROSS make edible oil heaters.

- ▶ Low heat release rate
- ▶ Models available in oil / gas / solid fuel fired
- ▶ Easy to operate and maintain
- ▶ Rugged construction



# INDIRECT STEAM BOILERS

## RTS Series

### Thermal Oil Heated Steam Boilers

These are custom-built media heated steam boilers, ideally suited to utilize spare heating capacity of existing thermal oil heaters, to supply or augment plant steam. Being un-fired pressure vessels, these are silent, stationary boilers, easy to operate & maintain. Essentially, these are horizontal shell & tube type heat exchangers built to SIB or Class 1 IBR steam boiler codes, with the addition of feed water pump, three-way thermal oil pneumatic valve & related controls used in shell boilers. Due to large boiling water & steam storage capacity of the shell, steady dry steam generation is achieved. These are made as completely factory assembled packaged boilers, ready to install & operate with minimum efforts. RTS steam boilers are easy to maintain and operate, as fuel burning hassels are absent.





# ACCESSORIES

**Calorifiers**



**Air & Water Pre-heaters**



**Fuel Oil Ring Mains & OPH Stations**



**Feed Water & Fuel Oil Service Tanks**



**Heat Recovery Units**



**Radiators**



**Steam Pressure Reducing Stations**



**Water Softeners, Filters, RO & DM Plant**







### QUALITY ASSURANCE

We believe that client satisfaction comes from products that perform efficiently and reliably with least down time. We have adopted stringent quality assurance checks for every product, starting with the raw material. Our workforce is self motivated with every employee considering himself to be a Quality Inspector.

### AFTER-SALES-SERVICE

We offer you not only prompt and effective service, but also the complete range of original spares to help prevent any down time and consequent production and profit losses. We have earned an enviable reputation throughout the country for the excellence of our sales and service.

### UNITS EXPORTED TO MORE THAN 40 COUNTRIES WORLDWIDE

We have exported number of units to various countries. Repeat export orders speak of our quality & commitment towards customer satisfaction.



PROCESS HEAT EXPERTS

## ROSS BOILERS

An ISO 9001: 2008 Certified Company

33, Burhani Industrial Estate, Kondhwa Bk, Pune - 411048, India.

Phone : +91 20 65293314

For Export Sales : +91 9822012844

For Sales in India : +91 9922433674

E-mail : sales@rossindia.com

Website : www.rossindia.com

### MADE IN INDIA FOR THE WORLD



Represented By: