

# FLUIDOMATIC™

PUTTING **POWER** TO BRANDED BATTERIES

Battery Machine Manufacturers: Since 1989

## LEAD RECYCLING PLANT

We provide **TURNKEY SOLUTIONS** for used lead-acid battery recycling that includes, Project Feasibility studies, Specification developments, Equipment and Machinery Designing, With manufacturing engineering services, Plant Installation & Start-up with Technical Trainings, Our plants ensure High Returns on Investment because of their high quality, Low Maintenance and extremely economic costing.

Our Technical team's expertise ensures that the pollution norms are dealt with highest priority. Every part of the plant is designed to optimize the operations from pollution control viewpoint and production cost as well. The Lead metal received after Refining process, is guaranteed to have a minimum purity level of 99.97%. In nutshell, plant provided that is non-polluting; produces highest quality product; at unimaginable low price; has low maintenance and optimized for higher production thereby giving high rate of return on investment.

**WE PRESENTS:**  
**ROTARY FURNACES,**  
**AIR POLLUTION CONTROL SYSTEM**  
**AIR GAS NEUTRILISING PLANT**



**FLUID-O-MATIC**

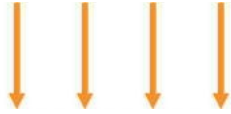
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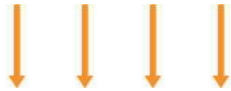
# COMPLETE SOLUTIONS



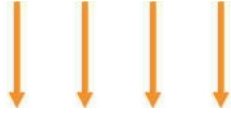
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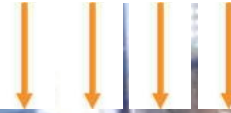
**SMELTING**



**POLLUTION CONTROLLING SYSTEM**



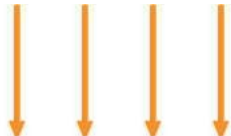
**REFINING POTS**



**ALLOY CASTING**



**QUALITY FINISHED LEAD**



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# PLANT TECHNICAL DETAILS CAP. 8 MT

## ROTARY FURNACE: BATCH LOAD 2MT



**PROCEDURE:** The Rotary Furnace will be both Side Conical in shape with a door & a Pouring Port in Centre, The body shell is lined by insulation by high alumina bricks. Rotary drive by gearbox attached to a Motor with central chain drive system. Combustion by F.D. fan burner and its accessories and necessary pipe line and burner stand. One no of Recuperator (Hood) is to use the waste heat of rotary for pre heating the air to Supply to the burner for fuel economy & also to control the fumes at the time of discharge metal.. One oil tank of with out flow heater & measuring device and necessary stand for tank. Heating and pumping unit with oil filtering unit is attached. Cast iron heavy duty pull handle trolleys for making jumbo blocks . Fire bricks lined rings for flue gas passing into gas chamber. Rotary will be mounted on heavy M.S. structure and on heavy M.S. wheels fitted with heavy shaft and bearing and plumber blocks with guard wheels. One M.S. sheet fabricated chamber to collect flue gases of rotary

with dust cleaning window. The Batch Time for Rotary will be of 4 To 5 Hours. It has to run round the clock, For better & efficient productivity the Loading of Scrap & Unloading of Finished Lead reduced to be minimum.

### TECHNICAL DESCRIPTION:

Rotary Furnace made of MS Material in Plate thickness of 6mm. The Cell Length is of 1500mm & the outer Diameter is of 2000mm. For its proper fitment the Base size is kept of 150mm X 75mm Channel. The Drive roller of 150mm diameter is used for specified workings. The Shaft in EN8 material, with a Self Align RB bearing. & transmission by R.G. Box 1.50 R is 4 inches. For Refractory Working the R cement 60% Alumina Brick is fixed for jacketing the shell from inner side. The cartable Refractory 3" reputed company ACC brand bricks are used. Oil is used as the Heating Source for the Furnace. For adequate Handling 5 number of MS make trolley are provided. The Cell type is in MS & in size of 25mm X 62mm. Actual consumption of oil is only 25Ltr. per Hour. 2 number of Burners are provided with the system. The Blower Motor is of 2HP with the Drive Motor of 5HP. The motor provided with the system is of either Kirloskar/ABB make. The selection of motor will be done by seeing the suitability of Availability. The Starter will be of Larson & Turbo. Electricity Requirement: 7Hp/3Phase.



## POLLUTION CONTROLLING SYSTEM

**PROCEDURE:** Ducting with proper bends attached with the cyclone of suitable size with discharge port. One cooling unit to control the temperature of flue to protect the bag house. One bag house filter fitted with electronic timer for sequential. Cleaning of bags by pulse jet system. One compressor with moisture remover and necessary equipment and auto cut system with proper deck, ladders, and solenoid valve for controlling air flow. One axially air taint with proper fitments. One ID blower fan of proper suction of air with control dampers. Bag house will be fitted with motorized rotary valve, scrubber with as per pollution board parameters (made by M. S. sheet, S. S. optional). One Chimney with base plate and monkey ladder up to pollution check point. One pollution checking deck and proper sampling port.

### TECHNICAL DESCRIPTION:

The Plant Duct lines are Fabricated in M.S. Material in Thickness of 3-2mm. The Bend pipes are made in diameter of 350mm to 300mm. The Dust Settling Chamber is also made in 3-2mm thick M.S. Sheets. The binding with MS angle in size of 40mm X 6mm. According to plant's capacity, keeping the chamber size with Auto cooling lining 2000mm X 2000mm X 2000mm High & top in conical shape of 1200mm. Cyclones in 3-2mm thick MS sheets. The cyclone is made in conical shaped cylindrical fast vertex making cell in size of 900m X 2700mm. The MS fabricated Air Cooling Tower with Cooling Air duct line in 3-2mm thick sheet. 8 No. of duct lines of 300mm in height of 3800mm. The Rectangular Conical shaped 60 Non Woven Bag of 150mm X 2100mm in Bag houses made up in 3-2 mm thick MS sheet in size of 1800mm X 1500mm X 2500mm & top in conical shape of 1200mm. Pulse Jet type Bag Cleaning system by 10 valves, equipped with Electronic based Solid state timers therefore with Manual Dust discharging. M S fabricated High Speed suction Blower with SS material make Impeller. 2 Hp Motor based 1 cylinder Compressor in 300 pond air pressure tank capacity. Electrical Motor of Kirloskar/ ABB make with Larsen & Turbo Starter. Area Required for Plant is 600 Sq. Ft. Electricity Consumption for Air Pollution Control System is 9.5 Hp/ 3 Phase.

# PLANT TECHNICAL DETAILS CAP: 12 MT

## ROTARY FURNACE: BATCH LOAD 3 MT



**PROCEDURE:** The Rotary Furnace will be both Side Conical in shape with a door & a Pouring Port in Centre, The body shell is lined by insulation by high alumina bricks. Rotary drive by gearbox attached to a Motor with central chain drive system. Combustion by F.D. fan burner and its accessories and necessary pipe line and burner stand. One no of Recuperator (Hood) is to use the waste heat of rotary for pre heating the air to Supply to the burner for fuel economy & also to control the fumes at the time of discharge metal. One oil tank of with out flow heater & measuring device and necessary stand for tank. Heating and pumping unit with oil filtering unit is attached. Cast iron heavy duty pull handle trolleys for making jumbo blocks . Fire bricks lined for flue gas passing into gas chamber. Rotary will be mounted on heavy M.S. structure and on heavy M.S.

wheels fitted with heavy shaft and bearing and plumber blocks with guard wheels. One M.S. sheet fabricated chamber to collect flue gases of rotary with dust cleaning window. The Batch Time for Rotary will be of 4 To 5 Hours. It has to run round the clock, For better & efficient productivity the Loading of Scrap & Unloading of Finished Lead reduced to be minimum.

### TECHNICAL DESCRIPTION:

The Rotary Furnace will be both Side Conical in shape, made of MS Material, in Plate thickness of 8 mm. The Cell Length is of 2000mm & the outer Diameter is of 2000 mm. For its proper fitment the Base size is kept of 200mm X 100mm Channel. The Drive roller of 150mm diameter is used for specified workings. The Shaft in EN8 material, with a Self Align RB bearing. & transmission by R.G. Box 1.50 R is 5 inches. For Refractory Working the R cement 70% Alumina Brick is fixed for jacketing the shell from inner side for Hot Face Insulation. The cartable Refractory 3" reputed company ACC brand bricks are used. Oil is used as the Heating Source for the Furnace. For adequate Handling 6 number of MS make trolley are provided. The Cell type is in MS & in size of 25mm X 75mm. Actual consumption of oil is only 30Ltr. per Hour. 3 number of Burners are provided with the system. The Blower Motor is of 3 HP with the Drive Motor of 7.5HP. The motor provided with the system is of either Kirloskar/ABB make. The selection of motor will be done by seeing the suitability of Availability. The Starter will be of Larsen & Turbo. Electricity Requirement: 10.5Hp/3Phase.



### POLLUTION CONTROLLING SYSTEM

**PROCEDURE:** Ducting with proper bends attached with the cyclone of suitable size with discharge port. One cooling unit to control the temperature of flue to protect the bag house. One bag house filter fitted with electronic timer for sequential. Cleaning of bags by pulse jet system. One compressor with moisture remover and necessary equipment and auto cut system with proper deck, ladders, and solenoid valve for controlling air flow. One axially air taint with proper fitments. One ID blower fan of proper suction of air with control dampers. Bag house will be fitted with motorized rotary valve, scrubber with as per pollution board parameters (made by M. S. sheet, S. S. optional). One Chimney with base plate and monkey ladder up to pollution check point. One pollution checking deck and proper sampling port.

### TECHNICAL DESCRIPTION:

The Plant Duct lines are Fabricated in M.S. Material in Thickness of 3-2mm. The Bend pipes are made in diameter of 350mm to 300mm. The Dust Settling Chamber is also made in 3-2mm thick M.S. Sheets. The binding with MS angle in size of 40mm X 6mm. According to plant's capacity, keeping the chamber size with Auto cooling lining 2000mm X 2000mm X 2000mm High & top in conical shape of 1200mm. Cyclones in 3-2mm thick MS sheets. The cyclone is made in conical shaped cylindrical fast vertex making cell in size of 900m X 2700mm. The MS fabricated Air Cooling Tower with Cooling Air duct line in 3-2mm thick sheet. 8 No. of duct lines of 300mm in height of 3800mm. The Rectangular Conical shaped 60 Non Woven Bag of 150mm X 2100mm in Bag houses made up in 3-2 mm thick MS sheet in size of 1800mm X 1500mm X 2500mm & top in conical shape of 1200mm. Pulse Jet type Bag Cleaning system by 10 valves, equipped with Electronic based Solid state timers therefore with Manual Dust discharging. M S fabricated High Speed suction Blower with SS material make Impeller. 2 Hp Motor based 1 cylinder Compressor in 300 pond air pressure tank capacity. Electrical Motor of Kirloskar/ ABB make with Larsen & Turbo Starter. Area Required for Plant is 600 Sq. Ft. Electricity Consumption for Air Pollution Control System is 9.5 Hp/ 3 Phase.



# PLANT TECHNICAL DETAILS CAP: 20 MT

## ROTARY FURNACE: BATCH LOAD 5 MT



**PROCEDURE:** The Rotary Furnace will be both Side Conical in shape with a door & a Pouring Port in Centre, The body shell is lined by insulation by high alumina bricks. Rotary drive by gearbox attached to a Motor with central chain drive system. Combustion by F.D. fan burner and its accessories and necessary pipe line and burner stand. One no of Recuperater (Hood) is to use the waste heat of rotary for pre heating the air to Supply to the burner for fuel economy & also to control the fumes at the time of discharge metal.. One oil tank of with out flow heater & measuring device and necessary stand for tank. Heating and pumping unit with oil filtering unit is attached. Cast iron heavy duty pull handle trolleys for making jumbo blocks . Fire bricks lined rings for flue gas passing into gas chamber. Rotary will be mounted on heavy

M.S. structure and on heavy M.S. wheels fitted with heavy shaft and bearing and plumber blocks with guard wheels. One M.S. sheet fabricated chamber to collect flue gases of rotary with dust cleaning window. The Batch Time for Rotary will be of 4 To 5 Hours. It has to run round the clock, For better & efficient productivity the Loading of Scrap & Unloading of Finished Lead reduced to be minimum.

### TECHNICAL DESCRIPTION:

The Rotary Furnace will be both Side Conical in shape, made of MS Material, in Plate thickness of 10 mm. The Cell Length is of 2500mm & the outer Diameter is of 2200 mm. For its proper fitment the Base size is kept of 250mm X 100mm Channel. The Drive roller of 200mm diameter is used for specified workings. The Shaft in EN8 material, with a Self Align RB bearing. & transmission by R.G. Box 1.50 R is 6 inches. For Refractory Working the R cement 70% Alumina Brick is fixed for jacketing the shell from inner side for Hot Face Insulation. The cartable Refractory 4" reputed company ACC brand bricks is used. Oil is used as the Heating Source for the Furnace. For adequate Handling 8 number of MS make trolley are provided. The Cell type is in MS & in size of 40mm X 100mm. Actual consumption of oil is only 40Ltr. per Hour. 4 number of Burners are provided with the system. The Blower Motor is of 5 HP with the Drive Motor of 10HP. The motor provided with the system is of either Kirloskar/ABB make. The selection of motor will be done by seeing the suitability of Availability. The Starter will be of Larsen & Turbo. Electricity Requirement: 15Hp/3Phase.



## POLLUTION CONTROLLING SYSTEM

**PROCEDURE:** Ducting with proper bends attached with the cyclone of suitable size with discharge port. One cooling unit to control the temperature of flue to protect the bag house. One bag house filter fitted with electronic timer for sequential. Cleaning of bags by pulse jet system. One compressor with moisture remover and necessary equipment and auto cut system with proper deck, ladders, and solenoid valve for controlling air flow. One axially air taint with proper fitments. One ID blower fan of proper suction of air with control dampers. Bag house will be fitted with motorized rotary valve, scrubber with as per pollution board parameters (made by M. S. sheet, S. S. optional). One Chimney with base plate and monkey ladder up to pollution check point. One pollution checking deck and proper sampling port.

### TECHNICAL DESCRIPTION:

The Plant Duct lines are Fabricated in M.S. Material in Thickness of 4mm. The Bend pipes are made in diameter of 450mm to 300mm. The Dust Settling Chamber is also made in 4-5mm thick M.S. Sheets. The binding with MS angle in size of 50mm X 6mm. According to plant's capacity, keeping the chamber size with Auto cooling lining 2400mm X 2400mm X 2500mm High & top in conical shape of 1400mm. Cyclones in 4mm-5mm thick MS sheets. The cyclone is made in conical shaped cylindrical fast vertex making cell in size of 1100m X 2800mm. The MS fabricated Air Cooling Tower with Cooling Air duct line in 4-5mm thick sheet. 8 No. of duct lines of 350mm in height of 4000mm. The Rectangular Conical shaped 84 Non Woven Bag of 150mm X 2500mm in Bag houses made up in 4-5 mm thick MS sheet in size of 2200mm X 1800mm X 3000mm & top in conical shape of 1500mm. Pulse Jet type Bag Cleaning system by 12 valves, equipped with Electronic based Solid state timers therefore with Auto Dust discharging system. reduction Gear Transmission by 1HP Motor with Air Lock value Drive. MS fabricated High Speed suction Blower with SS material make Impeller. 5 Hp Motor based 2 cylinder Compressor in 500 pond air pressure tank capacity. Electrical Motor of Kirloskar/ ABB make with Larsen & Turbo Starter. Area Required for Plant is 1500 Sq. Ft. Electricity Consumption for Air Pollution Control System is 21 Hp/ 3 Phase.

# PLANT TECHNICAL DETAILS CAP 32MT



## ROTARY FURNACE: BATCH LOAD 8 MT

**PROCEDURE:** The Rotary Furnace will be both Side Conical in shape with a door & a Pouring Port in Centre, The body shell is lined by insulation by high alumina bricks. Rotary drive by gearbox attached to a Motor with central chain drive system. Combustion by F.D. fan burner and its accessories and necessary pipe line and burner stand. One no of Recuperater (Hood) is to use the waste heat of rotary for pre heating the air to Supply to the burner for fuel economy & also to control the fumes at the time of discharge metal. One oil tank of with out flow heater & measuring device and necessary stand for tank. Heating and pumping unit with oil filtering unit is attached. Cast iron heavy duty pull handle trolleys for making jumbo blocks . Fire bricks lined rings for flue gas passing into gas chamber. Rotary will be mounted on heavy M.S. structure and

on heavy M.S. wheels fitted with heavy shaft and bearing and plumber blocks with guard wheels. One M.S. sheet fabricated chamber to collect flue gases of rotary with dust cleaning window. The Batch Time for Rotary will be of 4 To 5 Hours. It has to run round the clock, For better & efficient productivity the Loading of Scrap & Unloading of Finished Lead reduced to be minimum.

### TECHNICAL DESCRIPTION:

The Rotary Furnace will be both Side Conical in shape, made of MS Material, in Plate thickness of 12 mm. The Cell Length is of 3000mm & the outer Diameter is of 2500 mm. For its proper fitment the Base size is kept of 250mm X 100mm Channel. The Drive roller of 200mm diameter is used for specified workings. The Shaft in EN8 material, with a Self Align RB bearing. & transmission by R.G. Box 1.50 R is 8 inches. For Refractory Working the R cement 70% Alumina Brick is fixed for jacketing the shell from inner side for Hot Face Insulation. The cartable Refractory 5" reputed company ACC brand bricks are used. Oil is used as the Heating Source for the Furnace. For adequate Handling 10 number of MS make trolley are provided. The Cell type is in MS & in size of 50mm X 100mm. Actual consumption of oil is only 50Ltr. per Hour. 4 number of Burners are provided with the system. The Blower Motor is of 5 HP with the Drive Motor of 15HP. The motor provided with the system is of either Kirloskar/ABB make. The selection of motor will be done by seeing the suitability of Availability. The Starter will be of Larsen & Turbo. Electricity Requirement: 20Hp/3Phase.



## POLLUTION CONTROLLING SYSTEM

**PROCEDURE:** Ducting with proper bends attached with the cyclone of suitable size with discharge port. One cooling unit to control the temperature of flue to protect the bag house. One bag house filter fitted with electronic timer for sequential. Cleaning of bags by pulse jet system. One compressor with moisture remover and necessary equipment and auto cut system with proper deck, ladders, and solenoid valve for controlling air flow. One axially air taint with proper fitments. One ID blower fan of proper suction of air with control dampers. Bag house will be fitted with motorized rotary valve, scrubber with as per pollution board parameters (made by M. S. sheet, S. S. optional). One Chimney with base plate and monkey ladder up to pollution check point. One pollution checking deck and proper sampling port.

### TECHNICAL DESCRIPTION:

The Plant Duct lines are Fabricated in M.S. Material in Thickness of 5mm. The Bend pipes are made in diameter of 500mm to 400mm. The Dust Settling Chamber is also made in 4-5mm thick M.S. Sheets. The binding with MS angle in size of 50mm X 6mm. According to plant's capacity, keeping the chamber size with Auto cooling lining 3000mm X 3000mm X 3000mm High & top in conical shape of 1500mm. Cyclones in 4mm-5mm thick MS sheets. The cyclone is made in conical shaped cylindrical fast vertex making cell in size of 1200m X 3000mm. The MS fabricated Air Cooling Tower with Cooling Air duct line in 4-5mm thick sheet. 10 No. of duct lines of 350mm in height of 4500mm. The Rectangular Conical shaped 100 Bag of 150mm X 2500mm in Bag houses made up in 4-5 mm thick MS sheet in size of 2500mm X 2000mm X 3000mm & top in conical shape of 1500mm. Pulse Jet type Bag Cleaning system by 12 valves, equipped with Electronic based Solid state timers therefore with Auto Dust discharging system. reduction Gear Transmission by 1HP Motor with Air Lock valve Drive. M S fabricated High Speed suction Blower with SS material make Impeller. 7.5 Hp Motor based 3 cylinder Compressor in 500 pond air pressure tank capacity. Electrical Motor of Kirloskar/ABB make with Larsen & Turbo Starter. Area Required for Plant is 2000 Sq. Ft. Electricity Consumption for Air Pollution Control System is 28.5 Hp/ 3 Phase.