MENS
STEELMEN GROUP

STEELMEN MACHINERY PVT. LTD

Coimbatore-Tamilnadu-India
Mob:- +91-9999906488, +91-7810046204
Off:- +91-422-2978505, +91-7200066507
admin@steelmen.in / projects@steelmen.in

WWW.STEELMEN.IN



MANUFACTURES OF STEEL PLANT MACHINERY

COMPLETE SOLUTIONS

ENGINEERING – DESIGN – EQUIPMENT

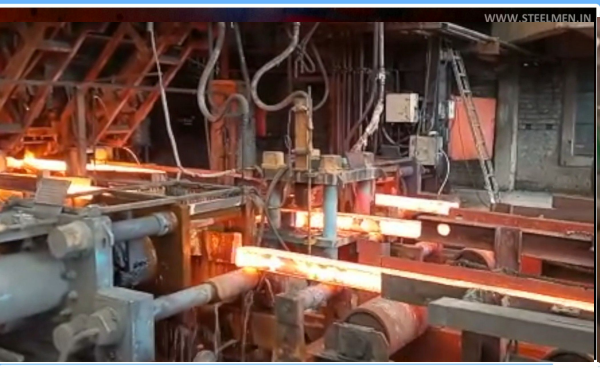
STEELMEN GROUP A COMBINATION OF
LATEST TECHNOLOGY AND PASSION FOR STEEL PRODUCING,
ESTABLISHED IN OVER 150 PLANTS IN DIFFERENT COUNTRIES



HOT BILLET SHEARING MACHINE WITH HYDRAULIC POWER PACK

Specially Designed for Continuous Casting Machine (CCM) in Steel Plants.

THIS MACHINE IS SUITABLE FOR
CONTINUOUS CASTING MACHINE 3/6, 4/7 ,6/11 & 9/16 RADIUS,
TO CUT THE BILLET SIZES OF 100X100MM TO 200X200MM IN 900 C.









STEELMEN MACHINERY PVT. LTD
Coimbatore-Tamilnadu-India
Tel: +91-9999906488
+91-422-2978505 /+91-7200066507
info@steelmen.in

MENS
STEELMEN GROUP

HOT BILLET SHEARING MACHINE



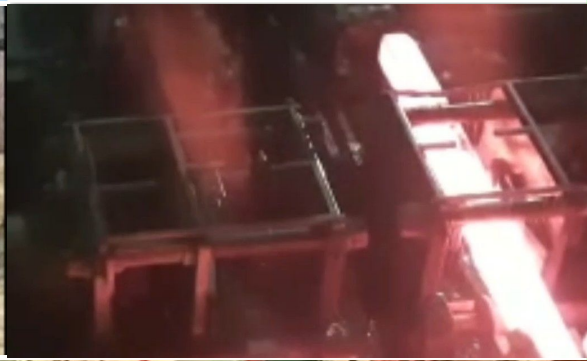


Hot Billet Shear: Specially designed for Continuous Casting Machine in Steel plants.

- It is used to cut the hot billets. Horizontal in construction and travelling along with the hot billet at an caster speed for accurate shearing. It brings reduction in overall operating cost such as Oxygen Gas, LPG Gas, Material cutting loss & Labor.
- This machine is suitable for Continuous Casting Machine 3/6, 4/7 ,6/11 & 9/16 radius, to cut the billet sizes of 100 x 100 mm to 200 x 200 mm in 900 C.
- Our machine will be of smooth functioning and are widely demanded for their optimum performance, durable support and high dimensional accuracy.

SHEAR AUTOMATION :- There will be an Three Modes of Operation:
♦Manual mode
♦Semi-Automatic
♦Automatic









STEELMEN MACHINERY PVT. LTD
Coimbatore-Tamilnadu-India
+91-9999906488,
info@steelmen.in

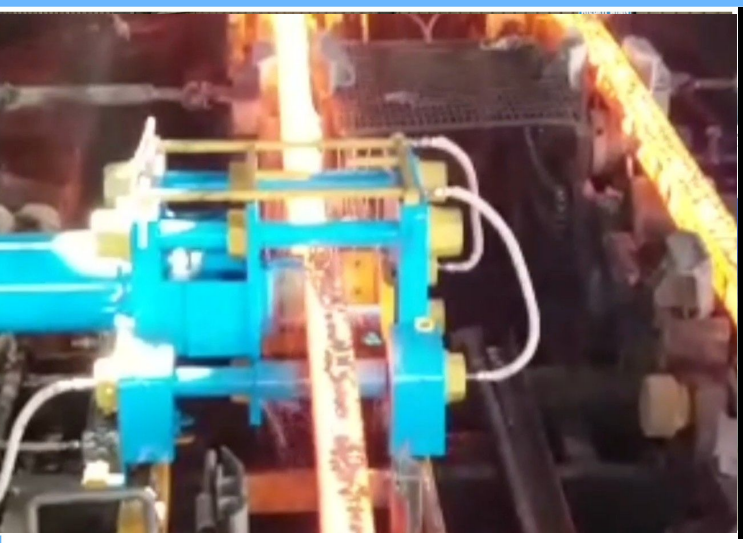
MENS
STEELMEN GROUP

HOT BILLET SHEARING MACHINE

HOT BILLET SHEARING MACHINE WILL BRING REDUCTION IN OVERALL OPERATING COST SUCH AS OXYGEN GAS, LPG GAS, MATERIAL CUTTING LOSS & LABOR.

COMPARISON BETWEEN HOT BILLET SHEAR AND MANUAL GAS CUTTING

S.N.	HOT BILLET SHEAR	GAS CUTTING
1.	Material loss is zero	In each cut 1.750Kg of metal loss for 150X150mm Billet. If the Billet size varies simultaneously metal loss also varies.
2.	Labors are not required	Gas cutter and Helpers are required
3.	Duration of cutting time is less which helps for direct rolling	Manual cutting takes more seconds
4.	We Can achieve the Proper length of cutting	We can't achieve the proper length of cutting
5.	Maintenance cost is less	Maintenance cost is more
6.	No Random in TMT due to accurate distance of Billet cutting	More random due to inaccurate distance of Billet cutting
7.	Oxygen, LPG's are not required	Oxygen, LPG's are required
8.	There is no risk for the workmen	High risk for the workmen





STEELMEN MACHINERY PVT. LTD
Coimbatore-Tamilnadu-India
+91-9999906488,
info@steelmen.in

MENS
STEELMEN GROUP

HOT BILLET SHEARING MACHINE

TECHNICAL SPECIFICATIONS

Model	Max. Billet Cutting Size (in mm)	Blade Size (in mm)	Normal Cutting Force (in TONS)	Cutting Frequency per min	Power (in kW)	Working pressure (in BAR)	Overall Dimension (in mm)	Maximum working Temp. (in °C)	Machine Weight (in TONS)
SMPL-HBS-100	100 x 100	125 x 125	80	5 ~ 6	22	90	2000 x 900	> 850	3.5
SMPL-HBS-125	125 x 125	150 x 150	100	3 ~ 4	37	140	2100 x 970	> 850	4
SMPL-HBS-130	130 x 130	175 x 150	100	3~ 4	37	160	2100 x 970	> 850	4
SMPL-HBS-150	150 x 150	200 x 225	150	1 ~ 2	45	180	2400 x 1150	> 850	5.5
SMPL-HBS-160	160 x 160	200 x 225	150	1 ~ 2	45	180	2400 x 1150	> 850	5.5
SMPL-HBS-200	200 x 200	250 x 250	220	1	45	240	2650 x 1350	> 850	7

SHEAR AUTOMATION

- **There will be an Three Modes of Operation:**

  MANUAL
  SEMI-AUTOMATIC
  AUTOMATIC

- **MANUAL MODE:**

  Select the selector Switch to Manual mode and Press and hold the Push button for Hydraulic Cylinder Forward & Reverse Movement. Same way Pneumatic Cylinder will be operated with the help of indigenous Push Button.

- **SEMI-AUTOMATIC MODE:**

  Select the selector Switch to Semi-Automatic mode and Press the Cycle Start Button once, the cycle will get completed automatically (ie. Hydraulic Cylinder will move Forward till the billet shearout. Stroke Length is decided by the Limit Setting then it will come back to Reverse. Further Pneumatic Cylinder get energized it will bring the machine into home position. Again we need to press the Cycle Start Button for the next cycle.

- **AUTOMATIC MODE:**

  Select the selector Switch to Automatic mode and Press the Cycle Start Button, the Proximity Sensor will count the number of pulse. This is further sliced with fixed scan pulse of PLC and added after each cycle to achieve the accumulated length of billet travelled. This length is compared with desired length to cut which is set through 7 Inch touch screen HMI (Human Machine Interface) thereby the cycles will be started automatically. Number of pulse counts will be displayed in the HMI.

- **HMI (Human Machine Interface):**

  7 Inch Touch Screen Display will shows the Hyd. Cylinder Forward, Reverse timings. We can change the number of pulse in the HMI according to length of the Billet (in mtr) to be sheared out. Number of Sheared Billets will also be displayed in the HMI (Resettable Counter).

STEELMEN MACHINERY PVT. LTD
Coimbatore-Tamilnadu-India
+91-9999906488,
info@steelmen.in

MENS
STEELMEN GROUP

HOT BILLET SHEARING MACHINE (SMPL-HBS-100) For Billet 100 X 100mm FOR 10 TON FURNACE

A	***OVERALL SAVINGS USING HOT BILLET SHEARING MACHINE (SMPL-HBS-100) for 10 TON FURNACE***		
•	For 100 x 100 mm Billet	=	314 grams of metal loss in each cut.
	If we take (10 TON Furnace)		
•	100 x 100 mm; 3 Mtr long Billet Shearing Weight	=	235.5 kgs.
•	Number of Cuts	=	10000 kgs / 235.5 kgs= 43 cuts.
•	For 43 cuts x 314 grams	=	13.502kgs.
•	Assume 10 heats in a day	=	135.02 kgs.
•	For One month	=	4.0506MT.
•	For One Year	=	48.6072MT.
	So that from the above, we can minimize the cutting wastages of 48.6072 MT per year for 100 x 100 mm Billet.		
•	Total Material Wastage cost (per month)	=	₹ 1,29,619.00/-
B	**LABOR COST (per Month)**		
•	Gas Cutter & Helper (4 Persons)	=	₹ 60,000.00/-
C	**OXYGEN & LPG GAS COST (per Month)**		
•	Oxygen	=	₹ 26,000.00/-
•	LPG	=	₹ 26,000.00/-
•	Total Savings (per Month)	=	₹ 2,41,619.00/-
•	Total Savings (per Year)	=	₹ 28,99,428.00/-

NOTE:- The above analysis is for 10 TON Furnace & CCM one strand.

- This machine is suitable for Continuous Casting Machine 3/6, 4/7, 6/11 & 9/16 radius, to cut the billet sizes of 100 x 100 mm in 900°C.
- Our machine will be of smooth functioning and are widely demanded for their optimum performance, durable support and high dimensional accuracy.

STEELMEN MACHINERY PVT. LTD
Coimbatore-Tamilnadu-India
+91-9999906488,
info@steelmen.in

MENS
STEELMEN GROUP

HOT BILLET SHEARING MACHINE (SMPL-HBS-100) For Billet 100 X 100mm FOR 12 TON FURNACE

A	***OVERALL SAVINGS USING HOT BILLET SHEARING MACHINE (SMPL-HBS-100) for 12 TON FURNACE***		
•	For 100 x 100 mm Billet	=	314 grams of metal loss in each cut.
	If we take (12 TON Furnace)		
•	100 x 100 mm; 3 Mtr long Billet Shearing Weight	=	235.5 kgs.
•	Number of Cuts	=	12000 kgs / 235.5 kgs= 51 cuts.
•	For 51 cuts x 314 grams	=	16.014kgs.
•	Assume 10 heats in a day	=	160.14 kgs.
•	For One month	=	4.8042MT.
•	For One Year	=	57.6504MT.
	So that from the above, we can minimize the cutting wastages of 57.6504 MT per year for 100 x 100 mm Billet.		
•	Total Material Wastage cost (per month)	=	₹ 1,53,734.00/-
B	**LABOR COST (per Month)**		
•	Gas Cutter & Helper (4 Persons)	=	₹ 60,000.00/-
C	**OXYGEN & LPG GAS COST (per Month)**		
•	Oxygen	=	₹ 31,000.00/-
•	LPG	=	₹ 31,000.00/-
•	Total Savings (per Month)	=	₹ 2,75,734.00/-
•	Total Savings (per Year)	=	₹ 33,08,808.00/-

NOTE:- The above analysis is for 12 TON Furnace & CCM one strand.

- This machine is suitable for Continuous Casting Machine 3/6, 4/7, 6/11 & 9/16 radius, to cut the billet sizes of 100 x 100 mm in 900°C.
- Our machine will be of smooth functioning and are widely demanded for their optimum performance, durable support and high dimensional accuracy.

STEELMEN MACHINERY PVT. LTD
Coimbatore-Tamilnadu-India
+91-9999906488,
info@steelmen.in

MENS
STEELMEN GROUP

HOT BILLET SHEARING MACHINE

HOT BILLET SHEARING MACHINE (SMPL-HBS-100) For Billet 100 X 100mm FOR 15 TON FURNACE

A	***OVERALL SAVINGS USING HOT BILLET SHEARING MACHINE (SMPL-HBS-100) for 15 TON FURNACE***		
•	For 100 x 100 mm Billet	=	314 grams of metal loss in each cut.
	If we take (15 TON Furnace)		
•	100 x 100 mm; 3 Mtr long Billet Shearing Weight	=	235.5 kgs.
•	Number of Cuts	=	15000 kgs / 235.5 kgs= 64 cuts.
•	For 64 cuts x 314 grams	=	20.096kgs.
•	Assume 10 heats in a day	=	200.96 kgs.
•	For One month	=	6.0288MT.
•	For One Year	=	72.3456MT.
	So that from the above, we can minimize the cutting wastages of 72.3456 MT per year for 100 x 100 mm Billet.		
•	Total Material Wastage cost (per month)	=	₹ 1,92,922.00/-
B	**LABOR COST (per Month)**		
•	Gas Cutter & Helper (4 Persons)	=	₹ 60,000.00/-
C	**OXYGEN & LPG GAS COST (per Month)**		
•	Oxygen	=	₹ 39,000.00/-
•	LPG	=	₹ 39,000.00/-
•	Total Savings (per Month)	=	₹ 3,30,922.00/-
•	Total Savings (per Year)	=	₹ 39,11,064.00/-

NOTE:- The above analysis is for 15 TON Furnace & CCM one strand.

- This machine is suitable for Continuous Casting Machine 3/6, 4/7, 6/11 & 9/16 radius, to cut the billet sizes of 100 x 100 mm in 900°C.
- Our machine will be of smooth functioning and are widely demanded for their optimum performance, durable support and high dimensional accuracy.

STEELMEN MACHINERY PVT. LTD
Coimbatore-Tamilnadu-India
+91-9999906488,
info@steelmen.in

MENS
STEELMEN GROUP

HOT BILLET SHEARING MACHINE

HOT BILLET SHEARING MACHINE (SMPL-HBS-100) For Billet 100 X 100mm FOR 25 TON FURNACE

A	***OVERALL SAVINGS USING HOT BILLET SHEARING MACHINE (SMPL-HBS-100) for 25 TON FURNACE***		
•	For 100 x 100 mm Billet	=	314 grams of metal loss in each cut.
	If we take (25 TON Furnace)		
•	100 x 100 mm; 3 Mtr long Billet Shearing Weight	=	235.5 kgs.
•	Number of Cuts	=	25000 kgs / 235.5 kgs= 106 cuts.
•	For 106 cuts x 314 grams	=	33.284kgs.
•	Assume 10 heats in a day	=	332.84 kgs.
•	For One month	=	9.9852MT.
•	For One Year	=	119.8224MT.
	So that from the above, we can minimize the cutting wastages of 119.8224 MT per year for 100 x 100 mm Billet.		
•	Total Material Wastage cost (per month)	=	₹ 3,19,526.00/-
B	**LABOR COST (per Month)**		
•	Gas Cutter & Helper (4 Persons)	=	₹ 60,000.00/-
C	**OXYGEN & LPG GAS COST (per Month)**		
•	Oxygen	=	₹ 64,000.00/-
•	LPG	=	₹ 64,000.00/-
•	Total Savings (per Month)	=	₹ 5,07,526.00/-
•	Total Savings (per Year)	=	₹ 60,90,312.00/-

NOTE:- The above analysis is for 25 TON Furnace & CCM one strand.

- This machine is suitable for Continuous Casting Machine 3/6, 4/7, 6/11 & 9/16 radius, to cut the billet sizes of 100 x 100 mm in 900°C.
- Our machine will be of smooth functioning and are widely demanded for their optimum performance, durable support and high dimensional accuracy.

STEELMEN MACHINERY PVT. LTD.

S.F. NO. 103/2, Palakkad Main Road,
Navakkarai (Post), Madukkarai,
Coimbatore-641105 Tamil Nadu, India
Mob.: +91-7810046204

Tel : +91-422-2656507 / 6566507
Fax : +91-422-2656508
steelmengroup@gmail.com
info@steelmen.in
www.steelmen.in

OUR LOCATION

