

## TYPICAL SPARE PARTS FOR LF AND EAF

### Electric conductive arm

Cu/steel clad plate or Al/steel clad plate with rectangular cross-section shape.

EAF capacity: 10 ~ 220t

Transformer capacity: 5.5MVA~230MVA

Electrode diameter:  $\phi 350$ ,  $\phi 400$ ,  $\phi 450$ ,  $\phi 500$ ,  $\phi 600$ ,  $\phi 800$



### Water cooled cable

The tinned surface cable head, with corrosion resistance, good conductivity.

Hoist ring for cable head, convenient for installation.

Two stainless clamps to fasten the cable and head.

High quality flexible rubber pipe for outer protection casing, with good bending performance.

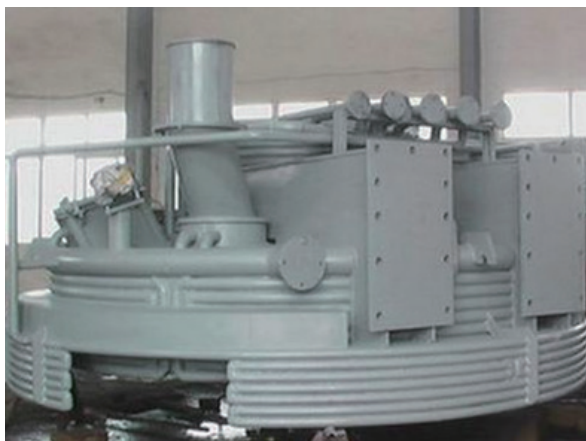
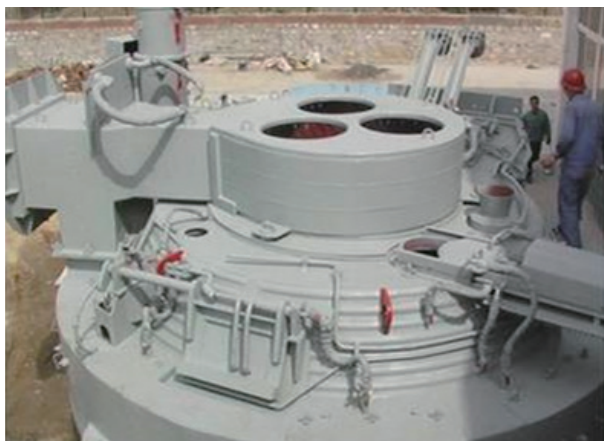
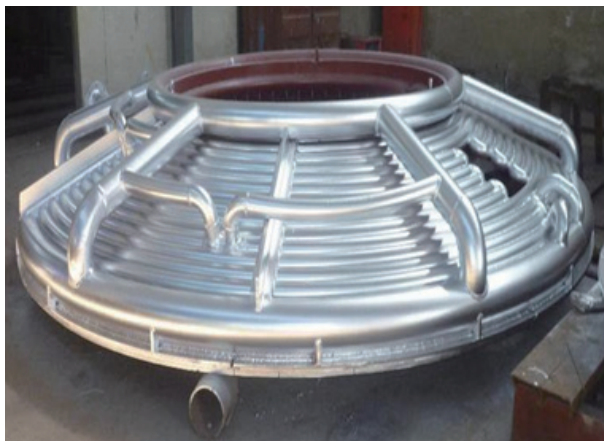
Effective cross section area:  $120\text{mm}^2 \sim 6000\text{mm}^2$



### Water cooled flue



### Water cooled furnace roof



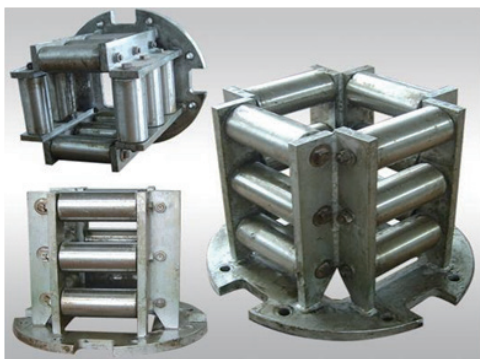


## Mould assembly

All section billet/bloom of mould can be supplied.

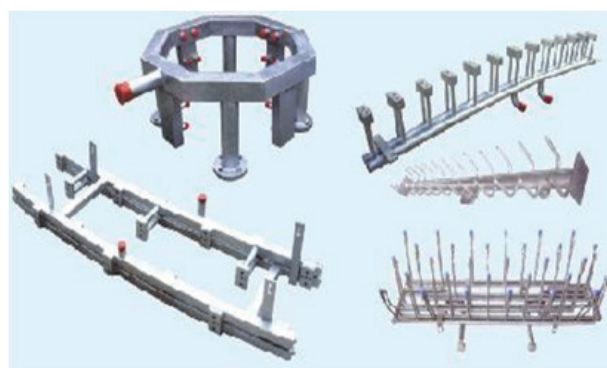
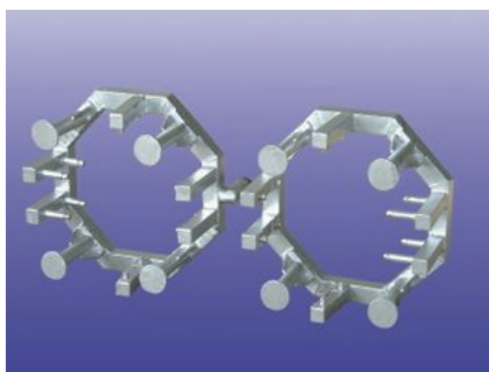


## Foot roller



## Spray cage

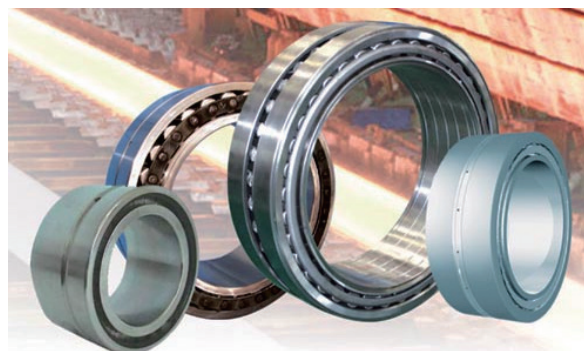
Water cooling or air mist cooling can be supplied.



## BEARING

### DEEP GROOVE BALL BEARING

ID: 10mm~1320mm  
OD: 30mm~1600mm  
Width: 9mm~300 mm



### CYLINDRICAL ROLLER BEARING

ID: 25mm~1900mm  
OD: 52mm~2300mm  
Width: 13mm~400 mm



### TAPERED ROLLER BEARING

Single row tapered roller bearings  
ID: 20mm~1270mm  
OD: 40mm~1465mm  
Width: 15mm~240mm



Double row tapered roller bearings  
ID: 38mm~1560mm  
OD: 70mm~1800mm  
Width: 50mm~460 mm



Four row tapered roller bearings  
ID: 130mm~1600mm  
OD: 200mm~2000mm  
Width: 150mm~1150 mm







**METECH STG S.R.L.**  
THE ALTERNATIVE TEAM FOR STEEL COMPANIES' EQUIPMENT



## FORGED AND CAST ROLL

### FORGED STEEL ROLL

Dia.: 1500 mm max.

Length: 8200mm max.

Weight: 35 tons max.

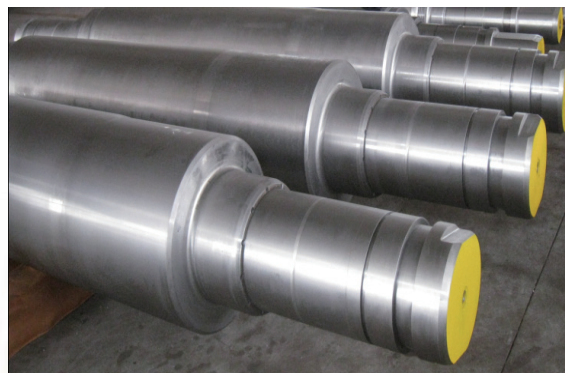
Material: Cr2, Cr3, Cr5, 70Cr3Mo, 9Cr2 Mo, 42CrMo, semi-steel and high-speed steel and etc.

Used for:

IMR (Intermediate Roll), Cold Rolling Mills Roll, Skin Pass Roll, 4HI / 6HI Mill Roll,

Work roll for 4-Hi Cold rolled mill and tandem mills.

BUR(Back-up Roll) and etc.



### CAST IRON STEEL ROLL

Diameter: 1300 mm max.

Length: 4000mm max.

Material: 60CrMnMo, 65CrNiMo, 60CrNiMo, 70Mn2, 70Mn2Mo, 75CrNiMnMo, 75CrMo, 140CrNiMo, 160CrNiMo, 180CrNiMo, 190CrNiMo and etc.

Used for:

1. Work roll of hot strip mill
2. Back-up Roll
3. Common mill roll and etc.



## ROLL RING

### Carbide roll ring and composite roll ring

O.D: 100-550mm

Thickness: 90-190mm

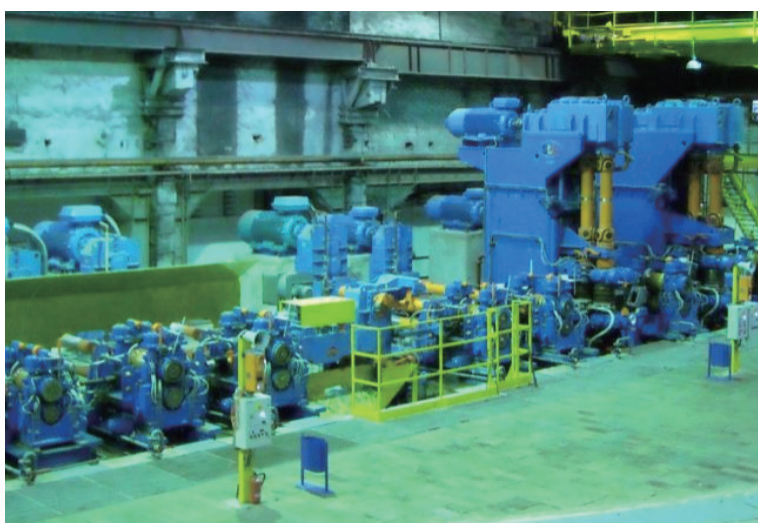


Application	Hardness (HRA)	Transverse rupture strength(N/mm <sup>2</sup> )	Compressive strength
For the last two rolling stands of finishing mill	86.5	2800	3900
For rolling stands of finishing mill located in middle	84.5	2650	3500
For rolling stands of finishing mill located in middle	83.5	2580	3300
For first three rolling stands of finishing mill	82	2580	3100
For rolling small size rebar in high speed wire rod mill or the last two rolling stands of finishing mill.	87	2580	4050





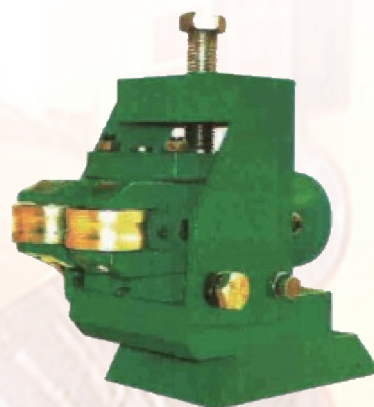
## SPARE STANDS IN ROLLING LINE



## GUIDE

### Entry roller guide

Model	Size (mm)									
	A	B	C	D	E	F	R	H	J	K
25	280	130	102	95	84	84	25	51	80	54
30	280	130	102	95	84	84	25	51	80	54
35	340	170	130	125	90	90	35	65	80	68
40	340	170	130	125	90	90	40	65	80	68
55	370	200	160	160	110	110	55	95	80	72
75	390	230	258	169	175	110	75	110	80	90



### Exit roller guide

Model	Size (mm)							
	L	H	H1	H2 off-set	F	F1	ΦMAX	R
0B	245	80	155	+6	120	66	78	45
1B	410	85	191	+20	164	89.5	130	70
2B	534	120	272	+30	230	115	180	108
3B	640	150	334	+30	290	141	250	130
4B	669	175	375	+40	330	161	204	160
5B	782	190	485	+40	360	190	290	170



### Static guide



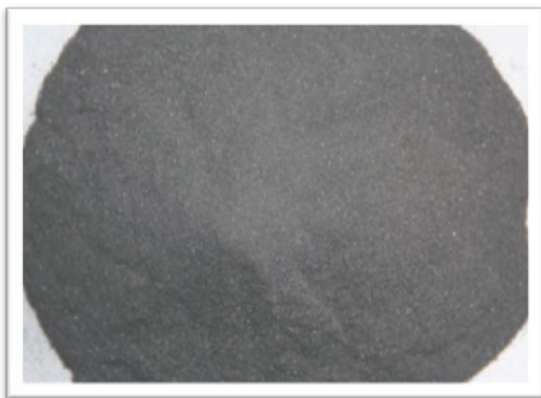
## Casting flux



C/S	SiO <sub>2</sub> (%)	CaO (%)	Al <sub>2</sub> O <sub>3</sub> (%)	MgO (%)	Fe <sub>2</sub> O <sub>3</sub> (%)	F <sup>-</sup> (%)	Na <sub>2</sub> O (%)	H <sub>2</sub> O (%)	Bulk specific gravity(g/cm <sup>3</sup> )	Melting point(°C)	(Pa.s) Viscosity at 1300°C
1.10±0.05	44±2	48.0±2	3.5±1	1.0±0.2	≤0.5	4.0±0.5	0.6±0.3	≤0.5	0.85±0.3	1050±50	0.2~0.8
1.19±0.05	41±2	49±2	2.7±1	0.9±0.5	≤0.5	4.0±0.5	1.2±0.5	≤0.5	0.85±0.3	1050±50	0.2~0.8
1.45±0.05	38.0±2	55.0±2	2.5±1.5	1.0±0.2	≤0.5	3.5±0.5	0.6±0.3	≤0.5	0.85±0.3	1050±50	0.2~0.8
0.8±0.04	53.5±2	55.0±2	2.5±1	≤1.0	≤1.0	1.0±0.3	1.6±0.3	≤0.5	0.85±0.3	1050±50	0.2~0.8
1.09±0.05	43.4±2	48.5±2	3.3±1	≤0.8	≤0.5	4.5±0.5	0.5±0.3	≤0.5	0.85±0.3	1050±50	0.2~0.8
1.085-1.145	43.5±2	48.5±2	2.4±1	0.7-1.3	≤0.5	4.5±0.3	2±0.2	≤0.5	0.85±0.3	1050±50	0.2~0.8
1.50±0.05	35.±2	54±2	2.6±1	0.7±0.3	≤0.5	4.1±0.3	0.8±0.3	≤0.5	0.85±0.3	1050±50	0.2~0.8
Packing In bags (as required by customers)											

## Tundish covering flux

Acid, neutral and basic type of covering flux can be supplied.





## Alloy Core Wire

Core wire is made of a low carbon steel sheath into which the powdered minerals, metals and ferro alloys are tightly encased. Core wire injection is the most practical way of increasing productivity and steel quality while reducing costs. One of the main problems of in-ladle metallurgy is to introduce into the liquid steel, with high reproducible recovery, many elements which are either light, reactive, or easily oxidized. Adding these elements deep in the ladle minimizes oxidation by air and slag, increases the time and surface area of contact with the liquid steel and therefore delays vaporization and, ultimately, increases efficiency.



Advantage for cored wire: Less agitation of the steel which minimizes splashing and pick-up of gases (oxygen, hydrogen, and nitrogen), with lower temperature loss, lower investment cost and lower operation cost. Cored wire consists of filling component and metal jacket.

Fillings component: one or fews alloys material powder with grain size less than 3mm.

Metal jacket: cold rolled steel band with thickness 0.35~0.5 mm and width 45~65 mm.

Specification for core wire:

Diameter: 9mm, 13mm, 16mm

Powder Content	Description	Main Element	Content
Calcium Silicon	CaSi core wire	Ca: 28-32%	Si: 55-65%
Calcium Silicon Barium	CaSiBa core wire	Ca: not less than 9%	Si: not less than 35% Ba: not less than 9%
Ferro Calcium	Ca30 Fe core wire	Ca: not less than 30%	Fe balance
Ferro Calcium Aluminum	AlCa core wire	Ca: 38-42%	Al: 23-27%
Calcium	Ca core wire	Ca: not less than 98%	
Carbon	C core wire	C: not less than 98%	
Ferro Born	B18Fe core wire	B: 18-20%	Fe balance
	B14Fe core wire	B: 14-16%	Fe balance
	B5Fe core wire	B: 5.5-7%	Fe balance
Ferro manganese	MnFe core wire	Mn: 65-72%	C: <7%
	MnFe core wire	Mn: 75-82%	C: <2%
	MnFe core wire	Mn: 80-87%	C: <0.7%
	Mn99 core wire	Mn: not less than 99%	

## Auxiliary equipment

STG can supply single equipment for mini mill plant.



Ladle



Scrap Bucket



Wire feeder



Preheater



Hydraulic oil filter



Ladle car

LADLE CAR  
capacity 350 ton of liquid steel





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STG is the pioneer and leading company for providing technology, equipment and service in Environmental protection and Energy saving after successfully commissioning numerous projects for Dedusting & slag treatment of Meltshop



De-dusting plants for Metlshop



BSSF slag processing technology capacity:1~3t/min  
suitable for BOF &EAF

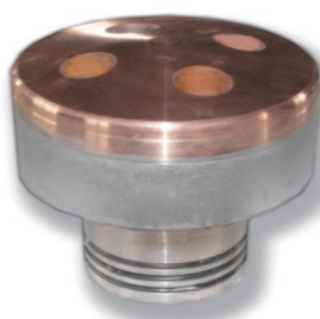
## Spare parts for Converter / BOF

Based on the philosophy of providing the best customer service, MEPC offers solution for supplying various kinds of spare parts for converter. As an integrated supply platform, for both domestic and oversea market, we are firmly committed to partner our clients and play the vital role as a supply center for spare parts for converter.

In recent years, we have been consistently expanding our business in supplying of spare parts for converter to many countries and regions as well as building long term relationship with some of the world famous enterprise.

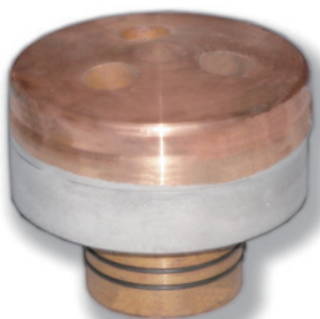
### Oxygen Lance Nozzle for Converter/BOF

Oxygen lance nozzle shaped by forging, as new product, is Original Know-how Developed by MEPC



### ADVANTAGE

Eximious design of heads throat & flared tube is optimized by Experts from MEPC according to type and capacity of converter as will as amount of blowing oxygen and cooling water. High quality material High pure E-Cu or SF-Cu is used. Advanced process method Oxygen lance head is shaped by forging unitarily. Stabilization of oxygen jet-flow Because of the good anti-creep speciality of the material forged. Long working life Through forging, the head gets high density, which is helpful to increase heat conductivity, and increase cooling effect.



### MATERIAL

Material	Chemical Composition		Mechanical Properties				Electric Conductivity (%IACS)
	Cu (%)	Others (%)	Tensile Strength $\sigma_b$ (N/mm <sup>2</sup> )	Yield Strength $\sigma_{0.2}$ (N/mm <sup>2</sup> )	Elongation $\delta$ (%)	Hardness (HB)	
E-Cu	99.90		200	40	40	45	98
SF-Cu	99.85	P0,012 ~0.050	305	235	18	85	85





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Water cooling mouth for converter/BOF



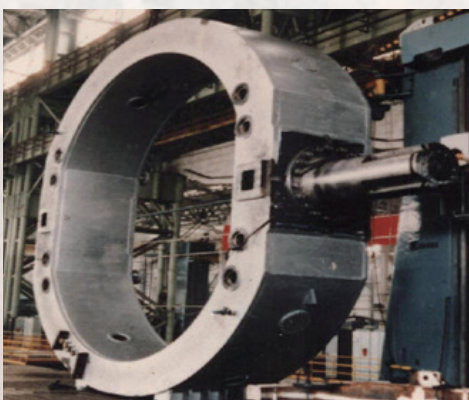
Water cooling mouth for Oxygen converter is a typical facility used in the steel making processes aimed at water cooling the high temperature operation. Our product can reach more heats due to excellent design



Hot Metal Ladle



Slag Pot



Converter Ring



Converter Shell