

SINTERING & ROASTING EQUIPMENT



TRAVELING ROTARY VANE FEEDER



Traveling rotary vane feeder is designed for the uniform feeding of discharge conveyor from the raw-material storage slot hoppers. Transported material: iron-ore concentrate, iron-stone, dolomite, limestone, coal.

Traveling rotary vane feeder consists of as follows:

- feeder frame;
- travel drive;
- bogie frame;
- vane wheel travel mechanism;
- vane wheel.

SPECIFICATIONS	VALUE
Capacity, m ³ /h	up to 650
Feed size, mm	0-150
Feeder gauge, mm	1720
Feeder base, mm	4200
Running wheel diameter, mm	500
Feeder traveling speed:	
- travel operation speed, m/min	1,82
- idling speed, m/min.	89
Vane wheel diameter, mm	2710
Vane wheel speed, rpm	7,85
Rotation rate, s ⁻¹	0,13
Overall dimensions, mm:	
- length	5890
- width	3155
- height	1850
Weight, max, kg	12850

Manufacturing period – 160 days

ROTARY-DRUM MIXER SBF3-2.8H8

Mixers are designed for mixing, moistening and pelletizing of charge components before the feeding to sintering machine during the sintering process. Manufacture of the mixers SBF3-2,8x8, SBF4-2,8x8, SBF6-2,8x8, and SBF2,8x10 is possible.

Advantages:

- structural reliability;
- decreased energy consumption.



SPECIFICATIONS	VALUE
Design capacity at drum filled by 10%, t/h	300
Internal drum diameter, mm	2800
Effective drum length, mm	8000
Drum rotation speed, rpm.	7
Centre-to-centre distance between the charging funnel and discharge chamber, mm	9030
Overall dimensions, mm :	
- length	13800
- width	3360
- height	4040
Weight, kg (max)	55000

Manufacturing period – 90 days

PAN PELLETIZER

Pan pelletizer is designed for the green pellets production of the powdered concentrates used in the metallurgical production.

Pan pelletizer consists of: pan inclined at an angle required by the process conditions, pan rotation and tilting mechanism, support. Charge is continuously fed to the open bottom area of rotating pan, moistened with the nebulized water and pelletized with formation of round pellets.

Advantages:

- high reliability;
- extended service life.



SPECIFICATIONS	VALUE	
Pan diameter, mm	7000	7500
Pan depth, mm	650	650
Pan rotation speed, rpm	3,5...7,0	3,5...7,0
Pan inclination, degrees	45...55	45...55
Charge humidity, %	8...9,5	8...9,5
Capacity, t/h	80	90
Drive electric motor, kW	75	120
Weight, t	53	63

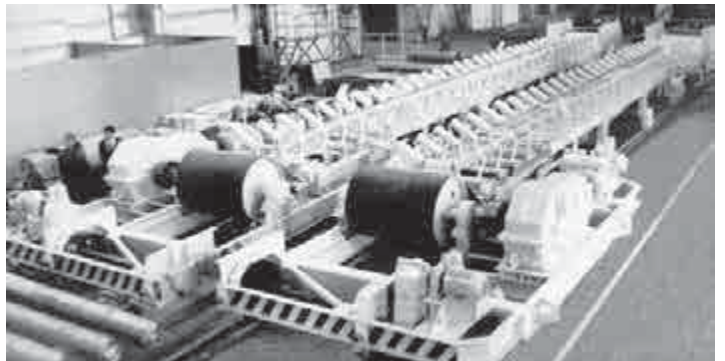
Manufacturing period – 160 days

RETRACTABLE BELT CONVEYOR KLK 120100-140

Retractable belt conveyer KLK 120100-140 is designed for the loose materials loading to the sintering machines at sintering plants and integrated iron-and-steel works.

Advantages:

- high reliability;
- minimum operation costs.



SPECIFICATIONS	VALUE
Belt width, mm	1200
Conveyor length, m	19
Belt speed, m/s	1,87
Belt drive: - electric motor - power, kW - revolutions per minute - reduction gear	4AM 25036 U3 45 985 KTs 2-1000-28
Conveyor drive: - electric motor - power, kW - rotation speed, rpm - reduction gear	AIRS 132 M6U3 8,5 940 VKU-610-112
Rail	R50
Gauge, mm	1750
Weight, kg	23000

Manufacturing period – 120 days

PALLET CARS



Pallet car is designed for the ore fines and concentrates sintering by the air-sweeping through the charge layer during the sintering belt movement. Car consists of the split body or one-piece steel cast body, four traveling rollers, steel or cast-iron side walls, steel sealing plates and lattice grate. The adoption of seal assembly on rollers allow substantial wear resistance enhancement.

Advantages:

- high reliability;
- extended service life.



SPECIFICATIONS	VALUE			
Type	TC-2.5	TC-2.7	TC-2.8	ТСГ-4
Gauge, mm	2964	3204	2964	4940
Traveling speed, m/s	0,025...0,075	0,025...0,075	0,025...0,075	0,025...0,075
Overall dimensions, mm:				
- length	1000	1000	1000	1500
- width	3240	3464	3240	5186
- height	2830	3070	2735	
Weight (without grate), kg	1950	2110	1760	5140

Manufacturing period – 90 days



ROASTING CARS

Roasting cars are designed for roasting of green pellets bedded on lattice grate by the downward hot air sweeping with the partial removing of injurious constituents from pellets. Roasting cars form a traveling grate, on which all production processes take place. Cars consist of side frames, body, lattice grate and side walls. Side frames and body are made of the low-carbon heat-resistant steel, and lattice grate is made of high-chrome steel.

Advantages:

- high reliability;
- extended service life.

SPECIFICATIONS	VALUE	
Type	TO-3,5-1,5-Y	TO-4,0-1,5
Lattice grate width, mm	3500	4000
Lattice grate area, m ²	5,25	6
Center-to-center gauge, mm	4556	5300
Rail-to-top-of-side wall height, mm	973	1058
Overall dimensions, mm:		
- length	4760	5554
- width	1500	1500
- height	1003	1098
Weight (without grate), kg	5414	8040

Manufacturing period – 90 days

COOLER OF SINTER RETURNS

Cooler of sinter returns is designed for water cooling of hot sinter returns, i.e. sinter fines and undersized pellets screen-separated after the sintering and roasting machines discharge.

Two following types of coolers of sinter returns are manufactured:

- self-discharge barrel (OV 1,8x4,9), with internal biliflar helix, completed with feed and discharge end subassemblies with access platform (horizontally mounted barrel);
- barrel with longitudinal round ribs for better stirring of sinter returns (OV 1,8x5,9) mounted at the angle of 4° to the horizontal towards the discharge end subassembly.



Cooler of sinter returns is a steel welded barrel with internal steel plate lining bearing on four supporting rollers through supporting rings. Two thrust rollers prevents barrel from longitudinal displacement. Barrel rotation is driven by the electric motor through the reduction gear and open gear mechanism, geared rim fastened on one of supporting rings.

SPECIFICATIONS	VALUE	
Type	OV 1,8x4,9	OV 1,8x5,9
Capacity, t/h	60	60
Water flow rate, m ³ /h	10	10
Barrel diameter (Internal), mm	1800	1800
Barrel length, mm	5440	5880
Barrel rotation speed, rpm	6,0	6,0
Electric motor: type	AIR225M8U3	
- power, kW	30	37
- rotation speed, rpm	750	750
Reduction gear: type	Ts2-500-31.5-21Ts	
- gear-ratio	25	25
- open gear mechanism gear-ratio	4,67	31,5
Overall dimensions, mm:		
- length	5440	5910
- width	3986	3980
- height	3590	3220
Weight, kg	25000	18260

Manufacturing period – 90 days