Conveyor Belt For Heat Treatment

Heanjia's conveyor belts are used for a combination of heating and quenching operations for metals and alloys in solid state to receive the desired conditions or characteristics.

Heat treating applications

The Heat treatment industry involves the following processes:

Solution heat treatment, stress relieving, cooling, tempering, normalizing, preheating, hydrogen embrittlement relief, heat treatment solution, annealing and aging.

Applications

Freezing units, sterilizers, ovens, storage units, foundaries, drying units, cooling units, quenching tanks, steel blast systems, packing machines, shrinkage systems, dehydration plants, sieving systems and others.

Heanjia pursues cost reduction and operability based on its modern technology. The top construction in the industry proves to provide high service.

We produce custom conveyor belts for heat treating furnaces that are used for continuous and uninterrupted annealing, hardening, brazing, soldering, glass sealing and enameling.

Using our conveyor belts ensures safe transportation of listing and unloading of materials, the belting covers are constructed from anti-abrasive, high tensile strength and heat resistant grades, ideal for hot materials made to perform at the elevated temperatures.

Specification

Belt designation	Highest allowable working tension KN/M	Carcass thickness	Carcass weight, kg/cm Width/mtr	Highest belt width, mm for sufficient load support (material bulk density) (kg./m)			Highest belt width, mm, for maximum throughing (angle of picking idlers)		
				Up to 800	Up to 1500	Up to 2500	20o	35o	45o
250/2	20	1.9 mm	0.019 kg/cm	650 mm	500 mm	400 mm	300 mm	300 mm	450 mm
250/3	25	2.1 mm	0.020 kg/cm	650 mm	600 mm	450 mm	350 mm	400 mm	450 mm
315/2	28	2.9 mm	0.021 kg/cm	700 mm	650 mm	500 mm	350 mm	400 mm	450 mm
315/3	31	2.2 mm	0.023 kg/cm	800 mm	700 mm	600 mm	350 mm	400 mm	450 mm
400/3	31	3.0 mm	0.028 kg/cm	1000 mm	800 mm	650 mm	400 mm	450 mm	500 mm
400/4	40	3.2 mm	0.033 kg/cm	1050 mm	900 mm	650 mm	500 mm	500 mm	500 mm
400	44	3.9 mm	0.038 kg/cm	1050 mm	900 mm	650 mm	500 mm	500 mm	500 mm
500/3	50	3.2 mm	0.033 kg/cm	1200 mm	900 mm	800 mm	500 mm	500 mm	500 mm
630/3	63	3.4 mm	0.035 kg/cm	1200 mm	1000 mm	800 mm	500 mm	500 mm	500 mm
200/2	20	2.4 mm	0.025 kg/cm	750 mm	600 mm	450 mm	300 mm	300 mm	450 mm
250/2	25	2.6 mm	0.030 kg/cm	900 mm	650 mm	500 mm	450 mm	450 mm	500 mm
250/3	28	3.6 mm	0.035 kg/cm	1000 mm	900 mm	650 mm	450 mm	450 mm	500 mm
250/3	31	3.7 mm	0.039 kg/cm	1200 mm	1000 mm	800 mm	450 mm	500 mm	500 mm
315/3	40	3.9 mm	0.042 kg/cm	1200 mm	1000 mm	800 mm	500 mm	500 mm	600 mm
400/3	44	4.8 mm	0.048 kg/cm	1300 mm	1100 mm	850 mm	500 mm	500 mm	600 mm
400/4	50	4 mm	0.045 kg/cm	1400 mm	1200 mm	900 mm	500 mm	500 mm	600 mm
500/4	50	5 mm	0.046 kg/cm	1400 mm	1200 mm	900 mm	500 mm	500 mm	650 mm
630/3	63	4.2 mm	0.047 kg/cm	1400 mm	1200 mm	1000 mm	500 mm	500 mm	650 mm
630/4	70	5.4 mm	0.052 kg/cm	1800 mm	1400 mm	1200 mm	500 mm	650 mm	800 mm
800/4	90	5.6 mm	0.054 kg/cm	1800 mm	1600 mm	1400 mm	650 mm	800 mm	900 mm
800/5	100	6.7 mm	0.058 kg/cm	1800 mm	1600 mm	1400 mm	650 mm	800 mm	900 mm

1000/4	110	6 mm	0.065 kg/cm	1800 mm	1600 mm	1400 mm	650 mm	800 mm	900 mm
1000/5	120	7 mm	0.070 kg/cm	1800 mm	1600 mm	1400 mm	700 mm	850 mm	1000 mm
1250/4	140	6.4 mm	0.070 kg/cm	1800 mm	1600 mm	1400 mm	750 mm	900 mm	1000 mm
1250/5	140	7.5 mm	0.076 kg/cm	1800 mm	1600 mm	1400 mm	800 mm	1000 mm	1000 mm

Belt designation	Highest allowable working tension KN/M	Nominal Carcass thickness, mm	Carcass weight, kg/cm Width/mtr	Highest belt width, mm for sufficient load support (material bulk density) (kg./m)			Highest belt width, mm, for maximum throughing (angle of picking idlers)		
				Up to 800	Up to 1500	Up to 2500	20o	35o	45o
400/3	40 KN/M	4/3 mm	0.044	1200 mm	1000 mm	750 mm	500 mm	500 mm	600 mm
500/3	50 KN/M	4/4 mm	0.048	1300 mm	1100 mm	750 mm	500 mm	500 mm	600 mm
500/4	55 KN/M	5/5 mm	0.061	1400 mm	1200 mm	800 mm	500 mm	500 mm	650 mm
630/3	63 KN/M	4/6 mm	0.052	1400 mm	1200 mm	850 mm	500 mm	500 mm	650 mm
630/4	70 KN/M	5/9 mm	0.067	1400 mm	1200 mm	850 mm	500 mm	500 mm	650 mm
800/4	90 KN/M	6/2 mm	0.070	1600 mm	1400 mm	1000 mm	500 mm	500 mm	650 mm
800/5	100 KN/M	7.3 mm	0.081	1650 mm	1400 mm	1100 mm	500 mm	500 mm	650 mm
1000/4	110 KN/M	6.6 mm	0.074	1800 mm	1400 mm	1200 mm	500 mm	65 mm	800 mm
1000/5	120 KN/M	7.7 mm	0.085	1800 mm	1500 mm	1300 mm	500 mm	650 mm	800 mm
1250/4	140 KN/M	7 mm	0.087	1800 mm	1600 mm	1400 mm	650 mm	650 mm	800 mm
1250/5	140 KN/M	8.3 mm	0.092	1800 mm	1800 mm	1600 mm	650 mm	800 mm	900 mm
1400/5	155 KN/M	9 mm	0.092	2000 mm	1800 mm	1800 mm	650 mm	800 mm	900 mm
1600/5	180 KN/M	9.4 mm	0.097	2000 mm	2000 mm	1800 mm	800 mm	900 mm	1000 mm
1800/6	190 KN/M	10.6 mm	0.120	2000 mm	2000 mm	2000 mm	800 mm	900 mm	1000 mm

For several decades, wire mesh conveyor belts have been successfully used in the metal processing industry such as steel industry. The consistency and durability of the belt are the chief factors of its success, paired with the different belt materials and their classy design that makes it simple to construct different kinds of belts. For instance, the belt can be easily used with carriers, flights, side plates or small rollers. Besides, the wire mesh opening can be customized to alter the belt drain that varies by 10 – 90%. Least drain openings of about 0.7mm can be made by flattening the wiremesh. The space between the wires is smaller than the diameter.

Wire mesh belts can be used at the conveyor speeds changing between below 1 m per minute and 50 m per minute, on the base of processing situation and the intended service time. The belt strength and its characteristic to wear are determined by the count of plate links and the chain on edges.

The wire mesh belts are employed in the production processes conducting at temperatures -100oC to 600oC. They are constructed from thin wires offering the following benefits:

- Process fluids and gases can easily travel through belt
- Belt weight can be kept nominal
- Easily cleanable
- Belt is positively driven by driving drum or sprockets
- Easily repairable
- Fit for straight and curved conveyors

Equipped with special formed internal wire to carry the product on a special manner. They are significantly driven by toothed sprockets, constructed from steel and other materials. These sprockets are constructed to fit the belt and are adapted to the diameter you need. The count of teeth is free to select and can be produced for each novel or existing conveyor.

Link Plate Belt: It is a special belt that is known for its strong construction these belts are usually used where traditional belting is not strong.

The link plate belt requires nominal maintenance and offers service life for several years.

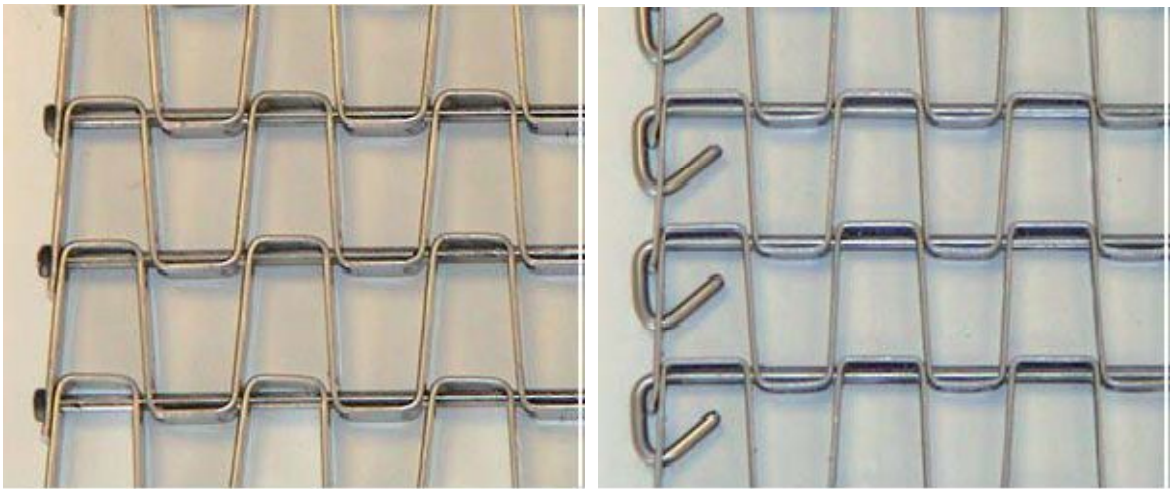
Ladder Belt:

The ladder belt is a generally used belt for common processes and product loads.

It is made from cross rods, joined with S- hooks, side chain links or special links. The chains and special links are protected by ring welded at the cross rod ends.

Ladder belts are utilized in quenching systems, washing systems, waste treatment, blanching system, sieving system, drying system and sorting systems.

Honey comb belts



The honey comb belt is called as traditional conveyor belt. It has been produced for wide applications, production and process applications. It is used in the production processes with temperatures -30oC to 400oC in the industries.

Normally, there is no need to have the belt created up with specific tension. In normal application, a reverse shaft adjustable in the belt's running direction is sufficient to enough to handle a possible elongation of belt within the length of time.

Flat spiral belt

Heanjia produce the type of different metal wire belts such as furnace belts or oven belts. The flat spiral belt is constructed of close wound spiral wire of round profile.

Alternating left and right hand spirals are mutually interconnected by means of perpendicular cross wires.

The wire mesh belts serve several industries. They are light weight single layer construction and are positively driven by sprockets. They have an open structure and are widely used in heat treating units. They are made from the high performance alloys and are produced in the wide range of dimensions to fit in the production units. They are executed with single or double loop edges for special requirements. Contact us to receive a quote for conveyor belt today.