

Conveyor Series

DT II TYPE FIXED BELT CONVEYOR

The DT II Fixed Belt Conveyor is a general-purpose series widely used in metallurgy, mining, coal, ports, power plants, building materials, chemical, light industry, petroleum, and other industries. It can operate as a single unit or multiple units combined into a conveyor system, transporting bulk materials with a loose density of 500~2500 kg/m³ as well as packaged goods.

The overall structure of the stationary DTII-type belt conveyor is shown in Figure 1. Its main components include: the conveyor belt, drive unit (or motorized pulley), drive pulley, tail pulley, idlers, tensioning device, belt cleaner, discharge device, frame, hopper, chute, safety protection devices, and others.

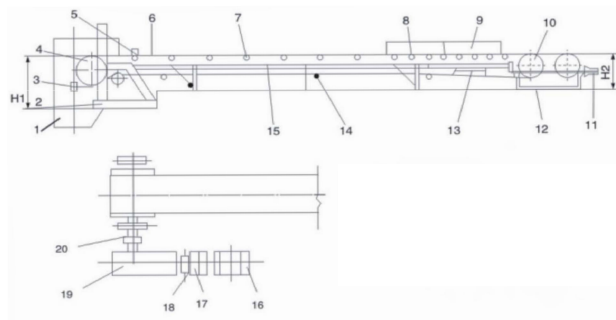


Figure 1: Overall Structure Diagram of the Belt Conveyor



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|-----------------------------|--------------------------|--------------------|
| 1. Head Chute | 9. Loading Skirt | 17. Fluid Coupling |
| 2. Frame | 10. Tail Pulley | 18. Brake |
| 3. Head Cleaner | 11. Screw Take-up Device | 19. Reducer |
| 4. Drive Pulley | 12. Tail Frame | 20. Coupling |
| 5. Safety Protection Device | 13. Return Cleaner | |
| 6. Conveyor Belt | 14. Return Idler | |
| 7. Carrying Idler | 15. Intermediate Frame | |
| 8. Impact Idler | 16. Electric Motor | |

TECHNICAL PARAMETER

The DT II Fixed Belt Conveyor is generally suitable for operating temperatures of -25°C to 40°C . For conveyors used in special environments, such as those requiring heat or cold resistance, waterproofing, corrosion resistance, explosion protection, or flame retardancy, appropriate protective measures can be applied.

The DT II conveyors are designed as modular components. Designers can select and configure the conveyor according to the material handling process, terrain, and working conditions. The components support both horizontal and inclined transport and can also be configured with combinations of convex, concave, and straight belt sections.

The maximum allowable material size depends on belt width, belt speed, trough angle, inclination, and the frequency of large material pieces. Maximum sizes for different belt widths are provided in Table 1.

Table 1

Bandwidth Throughput Belt Speed	500	650	800	1000	1200	1400	1600	1800	2000	2200	2400
0.8	69	127	198	324							
1.0	87	159	248	405	593	825					
1.25	108	198	310	507	742	1032					
1.60	139	254	397	649	951	1321					
2.00	174	318	496	811	1188	1652	2186	2795	3470		
2.50	217	397	620	1014	1486	2065	2733	3494	4338		
3.15			781	1278	1872	2602	3444	4403	5466	6843	8289
4.00				1622	2377	3304	4373	5591	6941	8690	10526
4.50					2674	3718	4920	6291	7808	9776	11842
5.00					2971	4130	5466	6989	8676	10863	13158
5.60							6122	7829	9717	12166	14737
6.50								9083	11277	14120	17104