VDG CrossDrive Design

The VDG CrossDrive, an internally geared belt conveyor head pulley, has all vital components, such as gears, bearings, and seals, lubricated within the drive shell. The electric motor is mounted externally on the faceplate of the CrossDrive and designed to accept any standard C-flange mount electric motor or the exclusive VDG pancake motor, which reduces the overall motor length by up to 50%. Installation and removal of the electric motor are quick and easy, requiring only four bolts.

The electric motor is inline with the gear reducer and operates at 96% mechanical efficiency, reducing energy consumption and operational costs. With drive components enclosed and protected inside the drum, increasing the service life before maintenance, the CrossDrive provides a safe, efficient, space optimized conveyor drive solution for all types of material handling and processing belt conveyor applications.



- INCREASE PRODUCTION
- REDUCE OPERATING COSTS
- SAVE ENERGY & MAINTENANCE COSTS

XD160 CrossDrive (6.5" diameter)			
GEAR RATIO	BELT SPEED (ft/min)		
	@3450 rpm up to 3 Hp	@1750 rpm up to 2 Hp	@1150 rpm up to 1 Hp
17.52 : 1	335	170	112
18.70 : 1	314	159	105
20.15 : 1	291	148	97
21.00 : 1	279	142	93
23.04 : 1	256	129	85
25.72 : 1	228	116	76
27.39 : 1	213	108	71
29.36 : 1	200	101	67
34.63 : 1	169	86	56

XD215 CrossDrive (8.5" diameter)			
GEAR RATIO	BELT SPEED (ft/min)		
	@3450 rpm up to 7.5 Hp	@1750 rpm up to 5 Hp	@1150 rpm up to 2 Hp
18.66 : 1	410	208	137
21.01 : 1	365	185	122
22.50 : 1	340	173	113
24.29 : 1	315	160	105
26.24 : 1	292	148	97
29.54 : 1	259	132	86
31.64 : 1	242	123	81
34.16 : 1	224	114	75
37.24 : 1	206	104	69

VDG CrossDrive Design

INCREASES OPERATIONAL SAFETY

- Exceeds OSHA safety requirements
- No exposed rotating shaft
- No external moving parts



HIGH EFFICIENCY AC PANCAKE MOTOR (SHORT-EGRESS)

- Reduces motor protrusion
- Approximately half the length of a standard electric motor
- Designed for use with variable frequency drives

REDUCES DOWNTIME / INCREASES SYSTEM AVAILABILITY & MAINTAINABILITY

- Electric motor is quickly and easily released from system (4 bolts)
- Easy connect Lovejoy coupling between pulley and motor
- Works with standard NEMA C-face motors or with the VDG PANCAKE motor

REDUCES MAINTENANCE

- No grease ports
- Internal oil-bath lubricates bearings and gears

EASILY RETRO-FITTABLE

- Flange and block mount brackets available with standard bolt pattern
- Works with standard NEMA C-face motors

NO EXTRA MOTOR / GEARBOX SUPPORT-STRUCTURE NEEDED

POWER TURN APPLICATIONS

- The **tapered VDG CrossDrive** is designed specifically for power turn conveyors





- INCREASE UPTIME & THROUGHPUT
- REDUCE MOTOR PROTRUSION
- INCREASE SAFETY

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