

CROSSDRIVE™ DESIGN



The **Cross Drive™** is an internally geared belt conveyor head pulley. It has the same gear reducer with the same 96% mechanical efficiency as the drum motor.

The Cross Drive™ has all vital components such as gears, bearings and seals permanently lubricated within the drive shell. The electric motor is mounted externally on the faceplate of the Cross Drive™, which has been designed to **accept any standard C flange mount electric motor** or the exclusive **VDG design Pancake motor** that reduces the overall motor length by up to 50%. Installation and removal of the electric motor is quick and easy, requiring only four bolts.



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

| XD160 CROSS DRIVE (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 | 12 |
| 18.70 : 1 | 314 | 159 | 05 |
| 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 |
| 38.25 : 1 | 153 | 78 | 51 |

| XD215 CROSS DRIVE (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 | 37 |
| 21.01 : 1 | 365 | 185 | 22 |
| 22.50 : 1 | 340 | 173 | 13 |
| 24.29 : 1 | 315 | 160 | 05 |
| 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 |
| 41.08 : 1 | 186 | 95 | 62 |

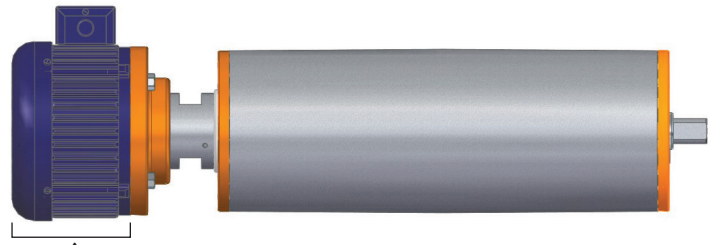


▶ INCREASES OPERATIONAL SAFETY

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

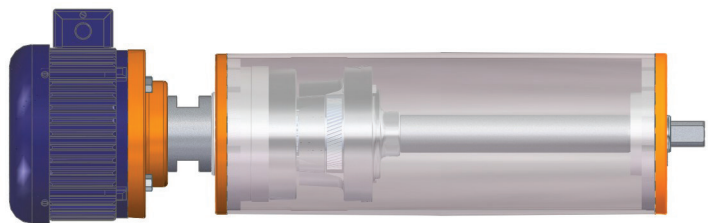
▶ HIGH EFFICIENCY AC PANCAKE MOTOR (SHORT-EGRESS)

- ▶ 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

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