

## FLUX DRIVE ADJUSTABLE SPEED **DRIVE**

FOR INLINE APPLICATIONS



Flux Drive Inline Adjustable Speed Drive (ASD-IL) is a Soft-Start Coupling with the added ability to configure linear engagement between the rotating magnets and a patented induction rotor - thus allowing for cushioned start, vibration reduction, mis-alignment correction, variable speed control and substantial energy savings.

The drive consists of two independently rotating halves separated by a 0.070" air gap. When motionless, magnetic attraction between the rotor and cylinder portions of the drive is relatively low. As relative motion increases a directional current is developed inside the induction rotor. This current creates a magnetic coupling effect that builds rapidly across the air gap until the load begins to rotate. The time between full "slip" at start-up and full load speed is the soft-start period, typically 5-10 seconds.

Variable speed can then be achieved by dynamically adjusting the amount of overlap between the magnets and the induction rotor while the motor is running. Pulling the induction rotor out of the magnetic field weakens the coupling effect, allowing the load to slow down. The motor continues to operate efficiently at its rated speed but, on centrifugal devices, torque requirements quickly drop. This "unloads" the motor and results in lower amperage and kW consumption.

## **Soft-Start and Utility Demand Charges**

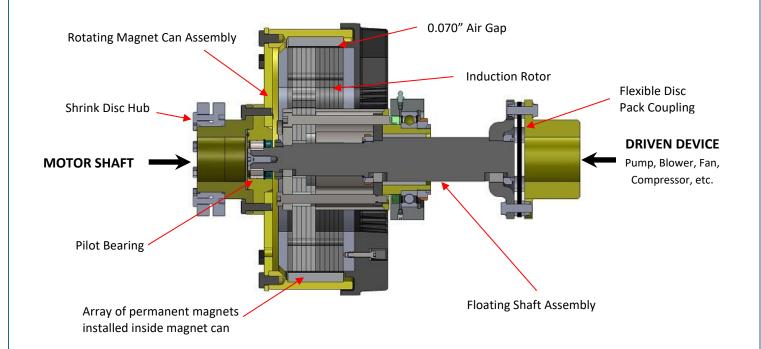
Motor driven applications typically require maximum power (kW) at start-up – up to 7 times normal running power. Utilities will often penalize customers for this high kW "demand".

With the Flux Drive ASD, the motor and load are disconnected at start-up, resulting in significantly reduced locked rotor current and drastically reduced initial kW demand.



## **Benefits**

- Truly a 'Green' technology
- Provides soft-start, dynamic mechanical variable speed control, AND energy savings
- Reduces motor and load maintenance related to vibration and torsional shock
- Operates in hot, wet, dirty, corrosive environments
- No harmonics or shaft current damage
- Protects equipment from load seizures
- Not impacted by power spikes, sags, or dirty power effects
- Works with any motor & voltage
- Simple 5-minute annual maintenance procedure
- Decades of useful life fully rebuildable with inexpensive and widely available bearings



INLINE ADJUSTABLE SPEED DRIVE OPERATING SPECIFICATIONS								
	Operating Torque		Locked Rotor Torque (140%)		Operating HP/kW Rating			
					900 RPM	1200 RPM	1800 RPM	3600 RPM *
Model / Size	Lb-ft	Nm	Lb-ft	Nm	HP/kW	HP/kW	HP/kW	HP/kW
10-90-ASD-IL	90	122	126	171	15 / 11.2	20 / 15	30 / 22.4	60 / 45
10-120-ASD-IL	120	163	168	228	20 / 15	27 / 20	40 / 30	80 / 60
10-150-ASD-IL	150	203	210	284	25 / 18.6	33 / 24.6	50 / 28	100 /
12-180-ASD-IL	180	244	252	342	30 / 22.4	40 / 30	60 / 45	120 / 90
12-225-ASD-IL	225	305	315	427	37.5 / 30	50 / 37	75 / 56	150 / 112
14-300-ASD-IL	300	407	420	570	50 / 28	65 / 49	100 / 75	200 / 150
16-375-ASD-IL	375	508	525	711	62.5 / 47	85 / 63	125 / 93	250 / 187
16-450-ASD-IL	450	610	630	854	75 / 56	100 / 75	150 / 112	300 / 224
18-600-ASD-IL	600	813	840	1138	100 / 75	135 / 100	200 / 150	400 / 300
20-750-ASD-IL	750	1016	1050	1422	125 / 93	165 / 123	250 / 187	500 / 375
20-900-ASD-IL	900	1220	1260	1708	150 / 112	200 / 150	300 / 224	600 / 450
20-1200-ASD-IL	1200	1627	1680	2278	200 / 149	275 / 205	400 / 298	800 / 596

<sup>\*</sup> Some limitations may apply when using ASDs for 3600rpm operation. Consult us before ordering.



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