AUTOFLEX SERIES HVII

TYPE CD & ECS COUPLINGS (DOUBLE FLEX - SPACER)

The Autoflex CD & ECS is a drop out spacer style coupling designed to meet API 610 8th Edition for industrial pump couplings. The coupling consists of three parts, two shaft hubs and a factory pre-assembled transmission unit.

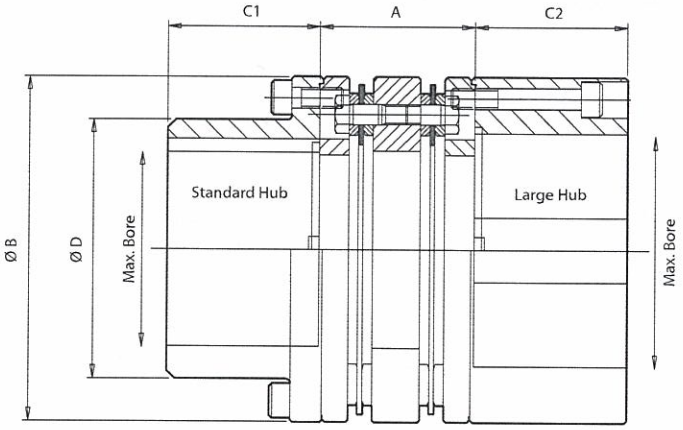
Unlike conventional membrane couplings, the anti-fly guard is designed to extend over the top of the membrane pack. This features provides several benefits:

- Reduces the windage produced by the membrane pack.
- Acts as a coupling guard providing additional safety.
- Increases the retaining strength over conventional couplings.
- Eliminates the need for balancing tools (gag sleeves and bolts) and therefore increases the accuracy of the dynamic balance of the coupling.

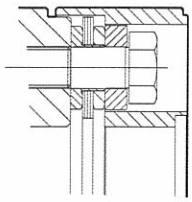
The transmission unit is spigoted between the shaft hubs providing excellent balance characteristics. The coupling has been designed to provide an AGMA class 9 balance as manufactured. The coupling can be balanced up to an AGMA 11 for high speed, sensitive applications. The fact that the coupling does not require lubrication ensures that the balance will not degrade over the life of the driving and driven equipment.

The CD has been designed for very short DBSE applications. The ECS four and six link couplings are used in medium duty application providing a good combination of torque carrying and misalignment capacity.

The ECS eight-link coupling is used for high power applications.



CD - 6 Link
Short Spacer Coupling



Size 150 and above have anti-fly guard rings

Technical Details

Coupling Size - Links	Rating kW/1000 rpm	Torque Rating		Maximum Speed ②		① Weight (kg)	① Inertia (kgm²)	Misalignment ③	
		Cont. (Nm)	Peak (Nm)	Unbal. (rpm)	Bal. (rpm)			Axial (mm)	Parallel (mm)
15 - 6	16	150	270	9,800	24,000	2.33	0.00259	0.76	0.20
35 - 6	37	350	620	8,300	19,000	4.68	0.00810	0.97	0.24
70 - 6	73	700	1,240	7,600	16,000	7.18	0.0186	1.12	0.24
150 - 6	157	1,500	2,680	6,200	12,000	16.8	0.0731	1.47	0.33
330 - 6	346	3,300	6,600	5,300	10,000	34.4	0.219	1.79	0.44
480 - 6	502	4,800	9,600	4,900	9,100	47.3	0.373	2.02	0.50

1) Weight and Inertias are calculated using maximum bored standard hubs and minimum DBSE.
2) Maximum Unbalanced Speeds are based on AGMA 9000-C90 Class 9 with min DBSE and max interference bored coupling hubs.
3) Maximum Parallel Offset is based on a minimum DBSE (½ Deg. Angular misalignment per membrane pack).

Dimensional Details

Coupling Size - Links	Maximum Bore ④		A (DBSE)		B	C1	C2	D
	Std. Hub (mm)	Large Hub (mm)	Min (mm)	Max (mm)	(mm)	(mm)	(mm)	(mm)
15 - 6	45	60	48.5	80.0	89	36.5	36.5	60
35 - 6	55	74	59.9	100	110	46.0	46.0	75
70 - 6	75	90	59.9	100	133	58.7	58.7	100
150 - 6	95	112	90.7	110	170	74.5	74.5	130
330 - 6	120	140	128	152	205	90.0	90.0	163
480 - 6	130	-	143	169	230	95.0	-	181

4) Maximum Bore assumes an interference fit with a rectangular key.

NOTE: The CD coupling is used on 4 bearing systems such as motor to pump / gearbox when short DBSEs and Drop Out Transmission Units are required