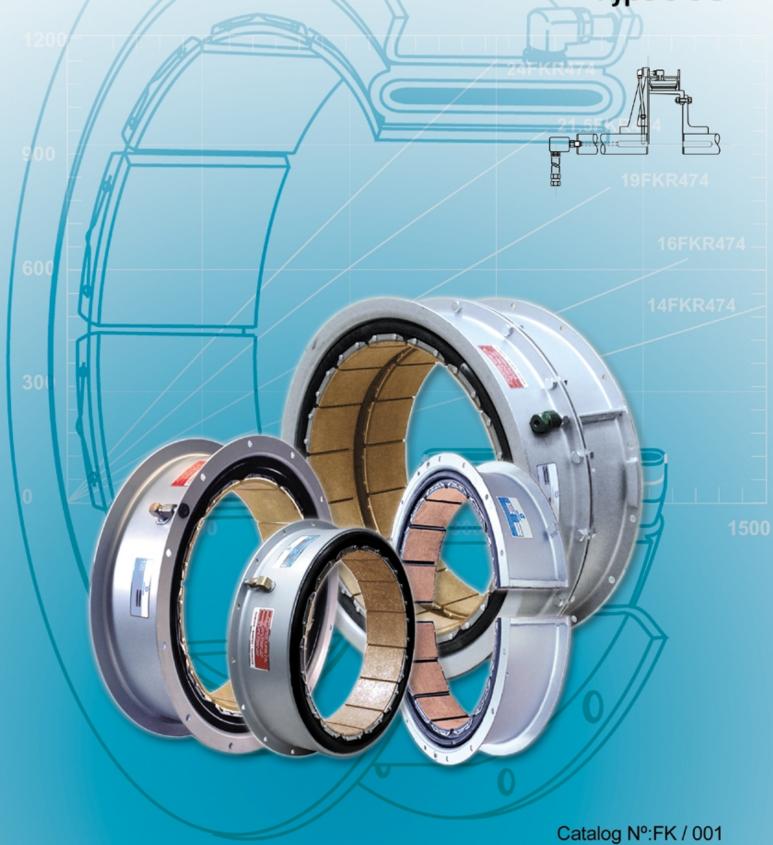






Pneumatic clutches and brakes

Type **FK** 





# Circunferencial pneumatic clutches and brakes type FK - FKE and FKR

Catalog No: FK / 001 - FKE / 001 - FKR / 001



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Element FK

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FK Element components

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**Element FK-2S** 

**Element FKR** 

Element FKE

Selection Procedure

#### General characteristics

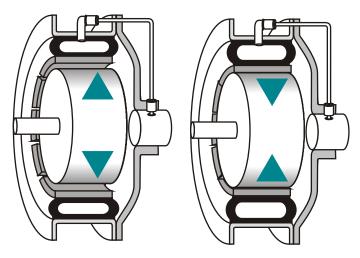


The Gummi Element is designed and constructed to provide a reliable service of a clutch or brake in a majority of industrial applications, even in the severest ones. The Element combines the advantages of a strong robust clutch with the characteristics of a flexible coupling, while not requiring lubrication or adjustment. The connection is constant on the entire friction surface, and working on the maximum diameter, provides the greater torque.

#### Type FK

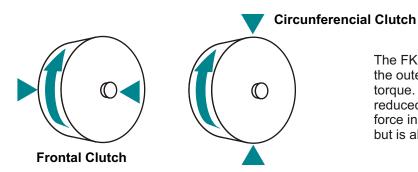
It is suited to high speed, cyclical operations, as well as for general power transmission and coupling.

#### Drive principle



The FK Elements use a neoprene rubber tube, reinforced by cord materials that quickly expands inward when pressurized. This action causes the friction shoes attached to the tube's inside diameter to engage brake around the surface of the cylindrical drum. The elements torque capacity is always dependent upon the air pressure being applied and the rotating speed.

#### The force is applied at the maximum radius to the axis



The FK Elements concentrate all the frictional force on the outer diameter of the drum, obtaining the maximum torque. The torque lever arm is the drum radius, not a reduced radius that is common in plate clutches. The force in not only generated through the optimal radius, but is also applied around the circumference of the drum.

#### Uniform contact speeds

#### Variable Plate Speed



The contact of the friction shoe occurs around the cylindrical surface of the drum where the contact speed is constant unlike plate types, where the contact speed can vary across the face of the friction plate.

**Constant Drum Speed** 







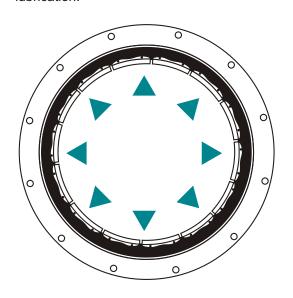


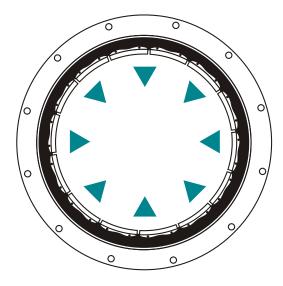
#### **Self Adjustment**

The Elements tube automatically compensate as the friction surface wears down, eliminating the necessity of adjustment, without reducing the torque capacity.

#### No Lubrication

There are no crucial sliding components, which require lubrication.



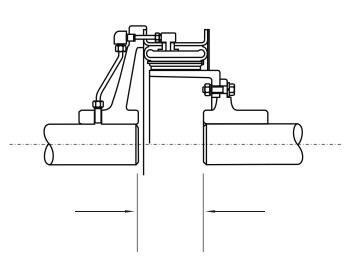


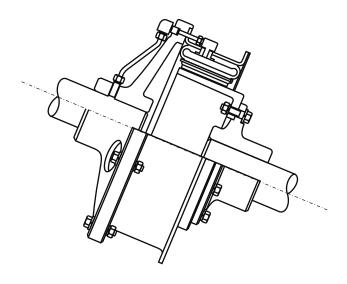
# The centrifugal force aids in the clutch disengagement

When the pressure is released from the tube, the centrifugal force, acting on the friction shoes at the rotating element, retracts the shoes away from the surface of the drum. This type of effect retracts the tube pressurizing source and the possibility for disengaged friction shoe drag is minimized.

#### **Any Plane Operation**

The construction design and characteristics, combined with the centrifugal force, allows the clutch operation in any plane.





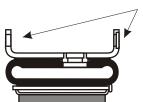
#### **Assembly**

The circumferencial clutches assembled with discontinuous axes, as the figure indicates, allows the assembly and the disassembly of its parts with no necessity of moving its axes, and facilitating its alignment.

### **Element description**



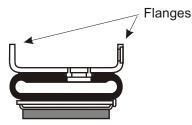
The Elements are identified by a number and type of different fittings used to make the connection from the tube valve or inlet to flange on the rim, and also by the type of friction material and any other unique rim features. Most of the unique rim features only pertain to FK elements.



Holes in both flanges

#### **DUAL DRILLED (DD)**

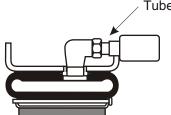
Holes are drilled in both flanges to be used for the air and mounting connections such as in the case of a dual Element.



DUAL FLANGE (DFL)

This is the description for rims with dual flange, standard for FK Elements versions: from 16FK500 to 45FK525.

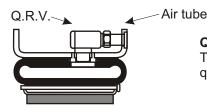
This description is used to differentiate those of single flange from those of double flange, as 12FK and 14FK Elements.



Tube adapter

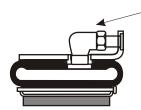
#### **PIPE ADAPTER**

An adapter that connects the standard tube fittings to the pipefittings.



QUICK RELEASE VALVE (Q.R.V)

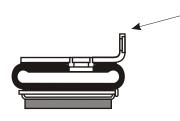
The plumbing that connects the flange of the rim to the air inlet (valve) utilizing a quick release valve and an air connection tube.



Side Connection

#### SIDE CONNECTION (SC)

The plumbing from the flange of the rim to the air inlet (valve) utilizing an elbow and an air connection tube.



Single flange

#### SINGLE FLANGE (SGL-FL)

A FK Element description for rim having only a single flange. Standard for sizes 3FK150 thru 10FK300. Size 12FK350 thru 14FK400 can be manufactured with single or dual flange.

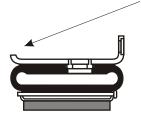




#### **SLOTTED RIM**

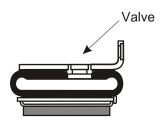
Turned down flange

A "U" shaped cutout in the flange of the rim, providing access for piping directly to the air inlet (valve). Especially in small sizes.



#### TURNED DOWN FLANGE

Applies to FK elements only. Sizes from 16FK500 thru 45FK525 come standard with dual flange, this description is used when one of its flanges is reduced or turned down to provide clearance for adjacent components.



#### VALVE (VA or VAL or VL)

This part of the tube allows for a mechanical connection to inflate and deflate. The Elements of sizes from 3FK150 to 14FK400 and 11.5FKT500 can be manufactured with one or two valves, with the largest sizes having one, two or four valves.

#### LINING (LNG or LN) FRICTION LINING

Elements can be furnished with linings that have different friction coefficients. When there is no mention made within the description, the element is outfitted with a standard lining.

#### **STANDARD LINING**

This lining produces the torque as indicated in the catalog.

#### LOW COEFFICIENT (LO-CO) OR SLIP LINING

This lining has a lower friction coefficient than the standard.

This LO-CO lining is recommended for continuous slip or tensioning applications.

#### HIGH COEFFICIENT (HI-CO) OR CORK LINING

This lining has a higher friction coefficient than standard.

It is used in applications where the Element works in the engaged position for long periods of time.

#### Recommendations



#### Safe products by torque control.

Gummi line of clutches and brakes offered for a variety of applications where high acceleration and deceleration are common within modern machines or equipment that are continuously functioning. They are available in a variety of models, sizes and assembly configurations; and are used throughout the world in almost every industry, such as: oilfield, steelworks, pulp and paper mills, marine, mining and the textile industry to name a few. Gummi manufactures and designs their products for there particular need to transmit power, in the most simple and suitable way possible.

#### **General recommendations**



Do not repair clutches or brakes while they are in operation or rotating.



Do not dismantle while the equipment pressurizing.



Heavy components must be handled with extreme caution. If they slide, they can cause serious physical harm.



Caution: the clutches and brakes generate high temperatures. Allow for a reasonable "cooling off" period of time before handling or repairing.



Do not exceed the Maximum air pressure recommendations for each size and type of unit.



Do not operate the clutch or brake elements without a guard. Rotating equipment naturally presents a potentially hazardous situation and should be guarded in accordance with requirements provided by OSHA, or local, state or federal laws.



Inner springs in some of the elements are under pressure; please follow the instructions of assembly and disassembly as per each model manual.



Switch off all power sources (electric, pneumatic, mechanical, etc.) before handling or repairing elements.



Consult Gummi to make the most suitable assembly and disassembly.

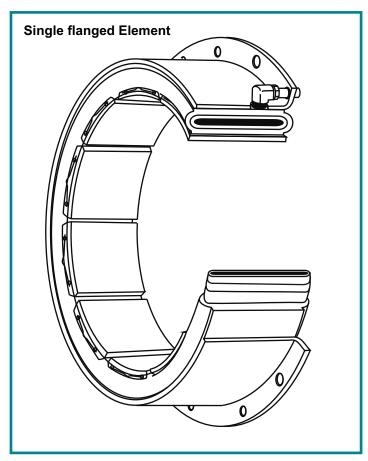
#### Safe products by torque control.

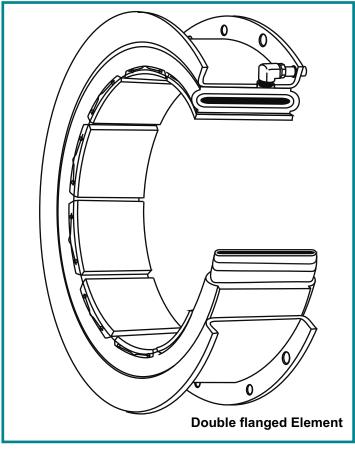
Gummi clutches and brakes are designed and manufactured to be used in conjunction with Gummi spare parts and components. The use of non-genuine Gummi replacement parts and components could result in substandard product performance, and may void your Gummi warranty.

All Gummi products are manufactured to conform to the quality management system standard ISO 9002: 1994.









The FK type Element is designed and manufactured to offer a reliable clutch or break service in the most demanding industrial applications. They are best suited to high velocity, cyclical operations in a variety of general power transmission applications.

The FK design and construction is operationally simple. A tube in shape of neoprene tube, reinforced with several ply of cords, is vulcanized to the inside of a steel rim. Inside, is a set of friction shoes that are attached to the tube using shoe pins and lock wire kit. When the tube is pressurized, the friction shoes are forced to engage around the drum.

The Element capacity to transmit torque is dependent upon the applied air pressure and rotating velocity. The values indicated in the catalog are given at a pressure of 75psi (5.2 bar) and zero R.P.M. The maximum recommended pressure is 110 psi (7.6 bar). Adjustments for velocity values appear in the Selection Procedure Section.

The FK Elements are available in 20 sizes, which are identified by the drum diameter in inches, as well as the width in inches of the friction lining. For example, a 16FK500 is designed to constrict on a drum with 16" diameter and its friction lining width 5".

Elements from 3FK150 thru 10FK300 come standard with a single flange. Elements from 12FK350 thru 14FK400 are normally provided with a single flange, but can be outfitted with 2 flanges if required. The 16FK500 thru 45FK525 Elements come standard with 2 flanges. Two Elements with double flanges can be bolted together in order to form a Dual Element, which would have twice the torque capacity of a single element. The Dual Elements are provided in sizes from 12FK350 thru 45FK525.

Due to the fact that rubber tube is the connection element between the driving and driven shafts, the FK type design offers the following additional qualities and features:

**Torque rating** 1.220.000 lb.pulg 137.890 N.m.

#### Constructions and characteristics



#### A single moving component

The tube is the only moving component; there are no springs or sliding parts.



#### **Split Elements**

Size 6FK200 thru 45FK52 can be provided in this configuration. This type of element is used to facilitate the installation, maintenance, and disassembly in applications where there is a limited amount of axial space. Normally, the single flange Elements thru size 10FK300 are used as breaks, whereas the Dual flange Elements can be used both as a clutch or break.

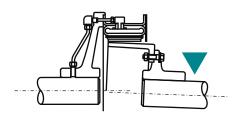


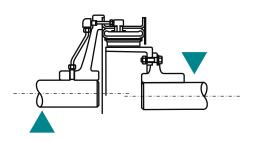
#### Shock-absorbing effect

Due to the fact that the tube transmits torque through its sidewalls, it works like a shock absorber, absorbing the shock loads thereby protecting the drive components of the transmission. The construction of the rubber tube also reduces the effects of the torsional vibration.

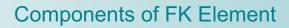
#### Flexible Coupling

The flexibility of the tube allows for it to compensate minor misalignments and axial movements of the shaft.

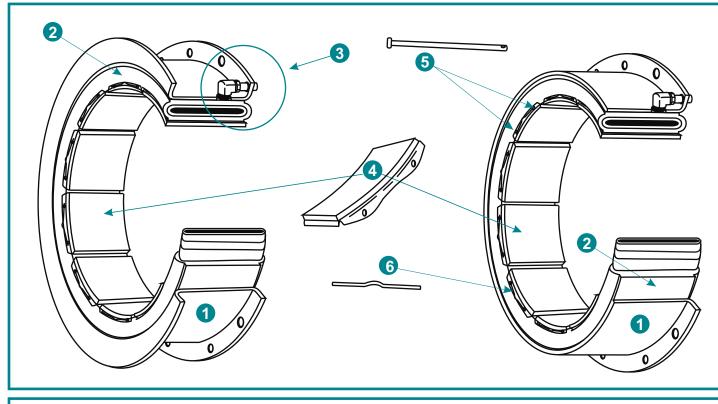




0.77	Nominal	torque
SIZE	lb.pulg @75psi	N.m @5.2 bar
3FK150	360	41
4FK200	1.00	113
5FK200	1.460	165
6FK200	2.040	231
8FK250	4.290	485
10FK300	8.150	921
12FK350	13.300	1500
14FK400	19.700	2230
16FK500	35.200	3980
18FK500	44.000	4970
20FK500	53.600	6060
22FK500	62.300	7040
24FK500	75.000	8480
26FK525	92.400	10400
28FK525	106.000	12000
30FK525	121.000	13700
32FK525	137.000	15500
36FK525	172.000	19400
40FK525	211.000	23800
45FK525	260.000	29400







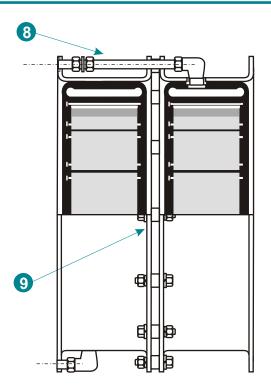


#### Type - FK/RN

- 1 Rim
- 2 Tube
- 3 Elbow
- A- Air Connection tube
- **B- Gasket**
- 4 Friction Shoe
- 5 Shoe Pin
- 6 Lockwire
- 7 Quick release valve 2
- 8 Air tube for dual assembly
- 9 Spacer for dual assembly

#### NOTES:

1- Unavailable item for size 3FK thru 5FK, due to the fact that friction material is vulcanized with the chamber and is not interchangeable. 2- Optional.





ENG	SLISH	lb.in	rpm	psi/rpm²	lb-ft²	lb	in²	Incl	nes	in³	inches
LIVE		@ 75 psi		ролгри	וט-ונ	110	""	new	worn	""	IIIOIICS
3FK150	100001	360	2000	1.5	0.1	1.8	14	0.18	0.04	3	2.90
4FK200	100002	1000	2000	1.7	0.2	2.5	23	0.18	0.03	9	3.90
5FK200	100005	1460	2000	2.0	0.4	3.5	30	0.18	0.04	16	4.90
6FK200	100012	2040	1800	6.0	1.0	7.0	36	0.18	0.06	20	5.90
8FK250	100032	4290	1800	7.0	2.0	9.0	61	0.18	0.06	30	7.90
10FK300	100052	8150	1800	10.0	6.0	19.0	91	0.18	0.06	50	9.90
12FK350	100072	13300	1800	12.0	11.0	26.0	128	0.18	0.06	80	11.90
14FK400	100093	19700	1800	15.0	17.0	31.0	170	0.18	0.06	70	13.90
Size	Part number	M. torque rating	Maximun speed	C. Centrifugal loss constant	Wk² J	Weight mass	Friction area			Air tube cavity	Minimun drum diameter
3FK150	100001	40.7	2000	0.10	0.00	0.8	90.3	5	1	0.05	74
4FK200	100002	113	2000	0.12	0.01	1.1	148.4	4.77	1	0.15	99
5FK200	100005	165	2000	0.14	0.02	1.6	193.5	4.77	1	0.26	124
6FK200	100012	231	1800	0.41	0.04	3.2	232.2	4.77	2	0.33	150
8FK250	100032	485	1800	0.48	0.08	4.1	393.5	4.77	2	0.49	201
10FK300	100052	921	1800	0.69	0.25	8.6	587.0	4.77	2	0.82	251
12FK350	100072	1500	1800	0.83	0.46	11.8	825.6	4.77	2	1.31	302
14FK400	100093	2227	1800	1.04	0.72	14	1096.7	4.77	2	1.15	353
s	ı	N·m @ 5,2 bar	rpm	Bar/rpm²	Kg-m²	Kg	cm²	new worn Millimeters		dm³	Millimeters

<sup>\*</sup> The data displayed in the catalog is current and subject to change without previous notice.

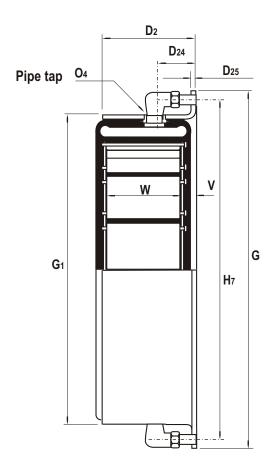
- 1- Refers to basic part number only. Does not include union or hose. When ordering, please specify the number of air inlets and the type of connection.
- 2- Dynamic torque is shown, while the static torque is about 25% greater. In each application, the torque depends on the air pressure and the velocity.
- 3- Tolerance by size

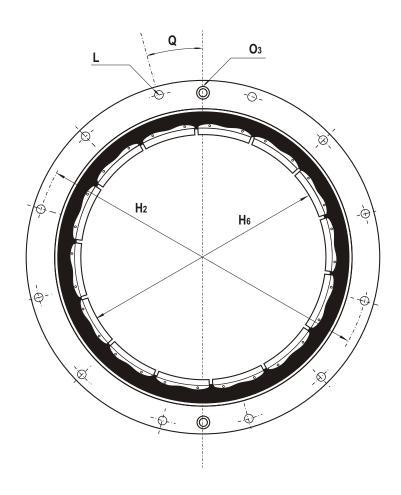
Size 3 to 5: +0,000/-0,003 ins. (+0,00/-0,8 mm). 6 and next: +0,000/-0,005 ins. (+0,00/-0,13 mm)

- 4- NPT threads. Sizes from 3FK thru 5FK only available with a single air inlet. The other sizes are available with one or two air inlets.
- 5- The maximum r.p.m. depends on the operational conditions, and may vary according to each application. Consult the factory for applications that exceed the appropriated speed.
- 6- Contact at Drum with worn shoes.









ENGL	LISH	lb.in @ 75 psi							Dimens	ions in	incl	nes						
3FK150	100001	360	2.16	1.18	0.10	6.299	4.86	5.740	3.15	5.75	8	0.25	0.25	1/8-27	22.500	0.30	6	1.50
4FK200	100002	1000	2.63	1.38	0.09	7.248	5.81	6.688	4.13	6.69	8	0.25	0.19	1/8-27	22.500	0.38	6	2.00
5FK200	100005	1460	2.85	1.50	0.10	8.819	7.20	8.071	5.16	7.07	8	0.31	0.25	1/8-27	22.500	0.37	6	2.00
6FK200	100012	2040	2.94	1.56	0.09	10.752	9.06	10.000	6.16	10.00	8	0.38	0.31	3/8-18	22.500	0.56	6	2.00
8FK250	100032	4290	3.44	1.91	0.09	12.875	11.19	12.125	816	12.13	8	0.38	0.31	3/8-18	22.500	0.56	8	2.50
10FK300	100052	8150	4.13	2.00	0.19	15.373	13.63	14.625	10.13	14.63	12	0.38	0.31	3/8-18	15.000	0.69	10	3.00
12FK350	100072	13300	4.72	2.00	0.19	17625	15.88	16.875	12.13	16.88	14	0.38	0.31	3/8-18	12.857	0.69	12	3.50
14FK400	100093	19700	5.22	2.00	0.19	19.625	17.88	18.875	14.13	18.88	16	0.38	0.31	3/8-18	11.250	0.69	14	4.00
Size		M. Torque	D <sub>2</sub>	D <sub>24</sub>	D <sub>25</sub>	G <sup>3</sup>	G <sub>1</sub>	H <sub>2</sub>	H6	H <sub>7</sub>		Bolt	О3	04	Q	V		W
0.20	number	rating 2									N.	Size			deg.		N.	width
3FK150	100001	40.7	55	30	2	160.0	123	145.8	80	146	8	6	6	1/8-27	22.500	7	6	38
4FK200	100002	113	67	35	2	184.1	148	169.9	105	170	8	6	5	1/8-27	22.500	10	6	51
5FK200	100005	165	72	38	2	224.0	183	205.0	131	205	8	8	6	1/8-27	22.500	9	6	51
6FK200	100012	231	75	40	2	273.1	230	254.0	156	254	8	10	8	3/8-18	22.500	14	6	51
8FK250	100032	485	87	48	2	327.0	284	308.0	207	308	8	10	8	3/8-18	22.500	14	8	64
10FK300	100052	921	105	51	5	390.5	346	371.5	257	371	12	10	8	3/8-18	15.000	17	10	76
12FK350	100072	1503	120	51	5	447.7	403	428.6	308	429	14	10	8	3/8-18	12.857	17	12	89
14FK400	100093	2227	133	51	5	498.5	454	479.4	359	479	16	10	8	3/8-18	11.250	17	14	102
SI		N-m @ 5.2 bar		Dimensions in millímeters														

<sup>\*</sup> The data displayed in the catalog is current and subject to change without previous notice.



ENGL	ISH	lb.in @ 75 psi	rpm	psi/rpm²	lb-ft²	lb	in²	Inch new	nes worn	in³	Inches
12FK350	100082	13000	1800	12	12	30	128	0.18	0.06	80	11.90
14FK400	100092	19700	1800	15	21	35	170	0.18	0.06	70	13.90
16FK500	100112	35200	1550	20	52	74	241	0.27	0.06	140	15.87
18FK500	100132	44000	1400	23	70	81	262	0.27	0.06	160	17.87
20FK500	100152	53600	1300	25	90	88	288	0.27	0.06	170	19.87
22FK500	100172	62300	1250	28	114	95	312	0.27	0.06	190	21.87
24FK500	100192	75000	1200	30	142	102	338	0.27	0.06	200	23.87
26FK525	100212	92400	1100	34	210	133	404	0.31	0.06	260	25.81
28FK525	100232	106000	1000	37	252	140	430	0.31	0.06	280	27.81
30FK525	100252	121000	950	40	303	148	458	0.31	0.06	290	29.81
32FK525	100272	137000	900	43	359	157	483	0.31	0.06	310	31.81
38FK525	100292	172000	800	48	510	178	550	0.31	0.06	350	35.81
40FK525	100312	211000	750	52	730	201	610	0.31	0.06	380	39.81
45FK525	100332	260000	670	64	1115	262	675	0.31	0.06	430	44.75
Size	Part number	M. Torque rating	Maximun speed 6	C. Centrifugal loss constant	Wk² J	Weight mass	Friction area		n lining (ness	Air tube cavity	Minimun drum diameter
12FK350	100082	1470	1800	0.83	0.50	14	826	4.77	2	1.31	302
14FK400	100092	2227	1800	1.04	0.88	16	1097	4.77	2	1.15	353
16FK500	100112	3978	1550	1.38	2.19	34	1555	7	2	2.3	403
18FK500	100132	4973	1400	1.59	2.95	37	1690	7	2	2.62	454
20FK500	100152	6058	1300	1.73	3.79	39	1858	7	2	2.79	505
22FK500	100172	7042	1250	1.93	4.80	43	2013	7	2	3.12	555
24FK500	100192	8477	1200	2.07	5.97	46	2181	7	2	3.28	606
26FK525	100212	10443	1100	2.35	8.84	60	2606	8	2	4.26	656
28FK525	100232	11980	1000	2.55	10.61	63	2774	8	2	4.59	706
30FK525	100252	13676	950	2.76	12.76	67	2955	8	2	4.74	757
32FK525	100272	15484	900	2.97	15.11	71	3116	8	2	5.08	808
38FK525	100292	19440	800	3.31	21.47	81	3548	8	2	5.74	910
40FK525	100312	23848	750	3.59	30.73	91	3935	8	2	6.23	1011
45FK525	100332	29386	670	4.42	46.94	119	4355	8	2	7.05	1137
s		N·m @ 5,2 bar	rpm	Bar/rpm²	Kg-m²	Kg	cm²	new worn Millimeters		dm³	Millimeters

<sup>\*</sup> The data displayed in the catalog is current and subject to change without previous notice.

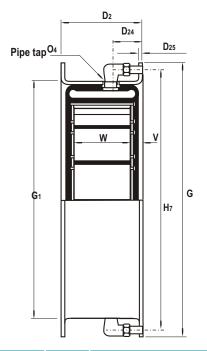
- 1- Refers to basic part number only. When ordering, please specify the number of air inlets and the type of connection.
- 2- Dynamic torque is shown, while the static torque is about 25% greater. In each application, the torque depends on the air pressure and the velocity.
- 3- Tolerance by size
  - Size 12 to 24, 28 and 32: +0,000/-0,005 in. (+0,00/-0,13 mm).
  - 26 and 30: +0,000/-0,008 in. (+0,00/-0,20 mm).
  - 36 to 45: +0,000/-0,010 in. (+0,00/-0,25 mm).
- 4- NPT threads. Sizes 12 and 14 available with 1 or 2 air inlet.
  - The other sizes are available with 1, 2 or 4 air inlets.
- 5- 10° for elements with 1 air inlet, 5° for elements with 2 or 4 air inlets.
- 6- The maximum r.p.m. depends on the operational conditions, and may vary according to each application. Consult the factory for applications that exceed the appropriated speed.
- 7- Contact at Drum with worn shoes.

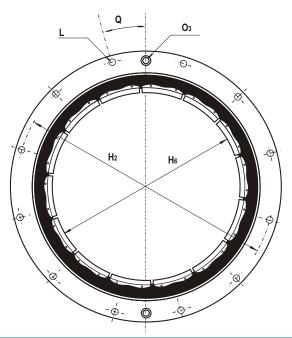












ENGL	LISH	lb.in @ 75 psi							Dimens	ions in	inc	hes						
12FK350	100082	13300	4.75	2.00	0.19	17.625	15.88	16.875	12.13	16.88	14	0.375	0.31	3/8-18	12.857	0.69	12	3.50
14FK400	100092	19700	5.22	2.00	0.19	19.625	17.88	18.875	14.13	18.88	16	0.375	0.31	3/8-18	11.250	0.69	14	4.00
16FK500	100112	35200	6.63	2.50	0.19	23.500	20.75	22.500	16.19	22.25	8	0.500	0.38	3/8-18	22.500	0.81	10	5.00
18FK500	100132	44000	6.63	2.50	0.19	25.500	22.75	24.375	18.19	24.38	12	0.500	0.38	3/8-18	15.000	0.81	11	5.00
20FK500	100152	53600	6.63	2.50	0.19	27.500	24.75	26.375	20.19	26.38	12	0.500	0.38	3/8-18	15.000	0.81	12	5.00
22FK500	100172	62300	6.63	2.50	0.19	29.500	26.75	28.375	22.19	28.38	12	0.500	0.38	3/8-18	15.000	0.81	13	5.00
24FK500	100192	75000	6.63	2.50	0.19	31.500	28.75	30.375	24.19	30.38	16	0.500	0.38	3/8-18	11.250	0.81	14	5.00
26FK525	100212	92400	6.94	2.50	0.25	34.000	31.00	32.750	26.19	32.50	16	0.625	0.50	1/2-14	11.250	0.84	16	5.25
28FK525	100232	106000	6.94	2.50	0.25	36.000	33.00	34.750	28.19	34.50	16	0.625	0.50	1/2-14	11.250	0.84	17	5.25
30FK525	100252	121000	6.94	2.50	0.25	38.000	35.00	36.750	30.19	36.50	16	0.625	0.50	1/2-14	11.250	0.84	18	5.25
32FK525	100272	137000	6.94	2.50	0.25	40.000	37.00	38.750	32.19	38.50	18	0.625	0.50	1/2-14	<b>5</b>	0.84	19	5.25
36FK525	100292	172000	6.94	2.75	0.28	44.625	41.56	43.125	36.19	43.25	18	0.750	0.63	3/4-14	6	0.84	22	5.25
40FK525	100312	211000	6.94	2.75	0.28	48.625	45.56	47.125	40.19	47.25	20	0.750	0.63	3/4-14	9.000	0.84	24	5.25
45FK525	100332	260000	6.94	2.75	0.28	53.625	50.69	52.125	45.19	52.25	24	0.750	0.63	3/4-14	7.500	0.84	27	5.25
Size	Part 1 number	M. Torque rating 2	D <sub>2</sub>	D <sub>24</sub>	<b>D</b> 25	G <sup>3</sup>	G <sub>1</sub>	H <sub>2</sub>	H <sub>6</sub>	H <sub>7</sub>	N.	. Bolt Size	<b>O</b> <sub>3</sub>	O <sub>4</sub>	Q deg.	V	N.	W width
12FK350	100082	1503	120	51	5	447.7	403	428.6	308	429	14	10	8	3/8-18	12.857	17	12	89
14FK400	100092	2227	133	51	5	498.5	454	479.4	359	479	16	10	8	3/8-18	11.250	17	14	102
16FK500	100112	3978	168	64	5	596.9	527	571.5	411	565	8	13	10	3/8-18	22.500	20	10	127
18FK500	100132	4973	168	64	5	647.7	578	619.1	462	619	12	13	10	3/8-18	15.000	20	11	127
20FK500	100152	6058	168	64	5	698.5	629	669.9	513	670	12	13	10	3/8-18	15.000	20	12	127
22FK500	100172	7041	168	64	5	749.3	679	720.7	564	721	12	13	10	3/8-18	15.000	20	13	127
24FK500	100192	8476	168	64	5	800.1	730	771.5	614	772	16	13	10	3/8-18	11.250	20	14	127
26FK525	100212	10443	176	64	6	863.6	787	831.9	665	826	16	16	13	1/2-14	11.250	21	16	133
28FK525	100232	11980	176	64	6	914.4	838	882.7	716	876	16	16	13	1/2-14	11.250	21	17	133
30FK525	100252	13676	176	64	6	965.2	889	933.5	767	927	16	16	13	1/2-14	11.250	21	18	133
32FK525	100272	15484	176	64	6	1016.0	940	984.3	818	978	18	16	13	1/2-14	5	21	19	133
36FK525	100292	19440	176	70	7	1133.5	1056	1095.4	919	1099	18	19	16	3/4-14	6	21	22	133
40FK525	100312	23848	176	70	7	1235.1	1157	1197.0	1021	1200	20	19	16	3/4-14	9.000	21	24	133
45FK525	100332	29386	176	70	7	1362.1	1287	1324.0	1148	1327	24	19	16	3/4-14	7.500	21	27	133
S	ı	N-m @ 5.2 bar			Dimensions in millímeters													

<sup>\*</sup> The data displayed in the catalog is current and subject to change without previous notice.



ENG	LISH	lb.in	rpm	psi/rpm²	lb-ft²	lb	pulg²		hes	in³	Inches
		@ 75 psi	4000			00		new	worn		
12FK350	100397	26600	1800	12	25 42	62	256	0.18	0.06	160	11.90
14FK400	100399	39400	1800	15		75	340	0.18	0.06	140	13.90
16FK500	100401	70400	1550	20	106	151	482	0.27	0.06	280	15.87
18FK500	100403	88000	1400	23	144	166	524	0.27	0.06	320	17.87
20FK500	100405	107200	1300	25	185	180	576	0.27	0.06	340	19.87
22FK500		124600	1250	28	233	194	624	0.27	0.06	380	21.87
24FK500	100409	150000	1200	30	292	209	676	0.27	0.06	400	23.87
26FK525	100411	184800	1050	34	432	272	808	0.31	0.06	520	25.81
28FK525	100413	212000	1000	37	517	286	860	0.31	0.06	560	27.81
30FK525		242000	950	40	621	302	916	0.31	0.06	580	29.81
32FK525	100418	274000	900	43	736	321	966	0.31	0.06	620	31.81
36FK525	100419	344000	800	48	1052	366	1100	0.31	0.06	700	35.81
40FK525	100421	422000	750	52	1502	413	1220	0.31	0.06	760	39.81
45FK525	100423	520000	670	64	2293	537	1350	0.31	0.06	860	44.75
Size	Part 1 number	M. Torque rating	Maximun speed 6	C. Centrifugal loss constant	Wk² J	Weight mass	Friction area		n lining mess	Air tube cavity	Minimun drum diameter
12FK350	100397	3006	1800	0.83	1.05	28	1651	5	2	2.62	302
14FK400	100399	4453	1800	1.04	1.76	34	2193	5	2	2.30	352
16FK500	100401	7957	1550	1.38	4.46	68	3109	7	2	4.59	403
18FK500	100403	9946	1400	1.59	6.06	75	3380	7	2	5.25	454
20FK500	100405	12116	1300	1.73	7.77	82	3716	7	2	5.58	505
22FK500	100407	14083	1250	1.93	9.80	88	4226	7	2	6.23	555
24FK500	100409	16954	1200	2.07	12.30	95	4361	7	2	6.56	606
26FK525	100411	20887	1050	2.35	18.19	123	5212	8	2	8.53	656
28FK525	100413	23961	1000	2.55	21.71	130	5548	8	2	9.18	706
30FK525	100415	27352	950	2.76	26.14	137	5910	8	2	9.15	757
32FK525	100418	30969	900	2.97	30.98	145	6232	8	2	10.2	808
36FK525	100419	38881	800	3.31	44.21	166	7097	8	2	11.5	910
40FK525	100421	47697	750	3.59	63.23	187	7871	8	2	12.5	1011
45FK525	100423	58773	670	4.42	96.53	243	8710	8	2	14.1	1137
SI	l	N·m @ 5,2 bar	rpm	Bar/rpm²	Kg-m²	Kg	cm²	new worn Millimeters		dm³	Millimeters

<sup>\*</sup> The data displayed in the catalog is current and subject to change without previous notice.

- 1- Refers to basic part number only. When ordering, please specify the number of air inlets and the type of connection.
- 2- Dynamic torque is shown, while the static torque is about 25% greater. In each application, the torque depends on the air pressure and the velocity.
- 3- Tolerance by size

Size 12 to 24, 28 and 32: +0,000/-0,005 in. (+0,00/-0,13 mm).

26 and 30: +0,000/-0,008 in. (+0,00/-0,20 mm).

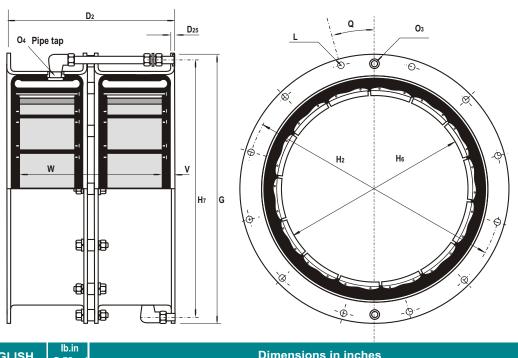
36 to 45: +0,000/-0,010 in. (+0,00/-0,25 mm).

- 4- NPT threads. Sizes 12 to 14 available with 2 air inlet. The other sizes are available with 2 or 4 air inlets.
- 5- 10° for elements with 1 air inlet, 5° for elements with 2 or 4 air inlets.
- 6- The maximum r.p.m. depends on the operational conditions, and may vary according to each application. Consult the factory for applications that exceed the appropriated speed.
- 7- Contact at Drum with worn shoes.









ENGL	ISH	lb.in @ 75 psi					Dime	ensions	in ii	nches						
12FK350	100397	26600	10.13	0.19	17.625	16.875	12.13	16.88	14	0.375	0.31	3/8-18	12.857	0.69	24	8.75
14FK400	100399	39400	11.13	0.19	19.625	18.875	14.13	18.88	16	0.375	0.31	3/8-18	11.250	0.69	28	9.75
16FK500	100401	70400	13.36	0.19	23.500	22.500	16.19	22.25	8	0.500	0.38	3/8-18	22.500	0.81	20	12.00
18FK500	100403	88000	13.63	0.19	25.500	24.375	18.19	24.38	12	0.500	0.38	3/8-18	15.000	0.81	22	12.00
20FK500	100405	107200	13.63	0.19	27.500	26.375	20.19	26.38	12	0.500	0.38	3/8-18	15.000	0.81	24	12.00
22FK500	100407	124600	13.63	0.19	29.500	28.375	22.19	28.38	12	0.500	0.38	3/8-18	15.000	0.81	26	12.00
24FK500	100409	150000	13.63	0.19	31.500	30.375	24.19	30.38	16	0.500	0.38	3/8-18	11.250	0.81	28	12.00
26FK525	100411	184800	14.25	0.25	34.000	32.750	26.19	32.50	16	0.625	0.50	1/2-14	11.250	0.84	32	12.56
28FK525	100413	212000	14.44	0.25	36.000	34.750	28.19	34.50	16	0.625	0.50	1/2-14	11.250	0.84	34	12.69
30FK525	100415	242000	14.44	0.25	38.000	36.750	30.19	36.50	16	0.625	0.50	1/2-14	11.250	0.84	36	12.69
32FK525	100418	274000	14.44	0.25	40.000	38.750	32.19	38.50	18	0.625	0.50	1/2-14	5	0.84	38	12.69
36FK525	100419	344000	14.44	0.25	44.625	43.125	36.19	43.25	18	0.750	0.63	3/4-14	6	0.84	44	12.69
40FK525	100421	422000	14.44	0.25	48.625	47.125	40.19	47.25	20	0.750	0.63	3/4-14	9.000	0.84	48	12.69
45FK525	100423	520000	14.44	0.28	53.625	52.125	45.19	52.25	24	0.750	0.63	3/4-14	7.500	0.84	54	12.69
Size	Part 1 number	M. Torque rating 2	D <sub>2</sub>	<b>D</b> <sub>25</sub>	G <sup>3</sup>	H₂	He	H <sub>7</sub>	L N.	. Bolt Size	<b>O</b> 3	04	Q deg.	٧	N.	W width
12FK350	100397	3006	257	5	447.7	428.6	308	429	14	10	8	3/8-18	12.857	17	24	222
14FK400	100399	4453	283	5	498.5	479.4	359	479	16	10	8	3/8-18	11.250	17	28	248
16FK500	100401	7957	346	5	596.9	571.5	411	565	8	13	10	3/8-18	22.500	20	20	305
18FK500	100403	9946	346	5	647.7	619.1	462	619	12	13	10	3/8-18	15.000	20	22	305
20FK500	100405	12116	346	5	698.5	669.9	513	670	12	13	10	3/8-18	15.000	20	24	305
22FK500	100407	14083	346	5	749.3	720.7	564	721	12	13	10	3/8-18	15.000	20	26	305
24FK500	100409	16954	346	5	800.1	771.5	614	772	16	13	10	3/8-18	11.250	20	28	319
26FK525	100411	20887	362	6	863.6	831.9	665	826	16	16	13	1/2-14	11.250	21	32	322
28FK525	100413	23961	367	6	914.4	882.7	716	876	16	16	13	1/2-14	11.250	21	34	322
30FK525	100415	27352	367	6	965.2	933.5	767	927	16	16	13	1/2-14	11.250	21	36	322
32FK525	100418	30969	367	6	1016.0	984.3	818	978	18	16	13	1/2-14	<b>5</b>	21	38	322
36FK525	100419	38881	367	6	1133.5	1095.4	919	1099	18	19	16	3/4-14	6	21	44	322
40FK525	100421	47696	367	6	1235.1	1197.0	1021	1200	20	19	16	3/4-14	9.000	21	48	322
45FK525	100423	58873	367	7	1362.1	1324.0	1148	1327	24	19	16	3/4-14	7.500	21	54	322
SI		N-m @ 5.2 bar		Dimensions in millímeters												

<sup>\*</sup> The data displayed in the catalog is current and subject to change without previous notice.

### **FK Clutch Applications**

### Close mounted arrangement - Technical data





	Florenset		Part number	Ç.	ider
SIZE	Element	assembly	Integral	Sp.	luer
	one inlet	two inlets	drum and hub	one inlet	two inlets
6FK200	100012	100015	212314	204010	204012
8FK250	100032	100033	212315	204020	204022
10FK300	100052	100055	212316	204030	204032
12FK350	100072	100073	212317	204040	204042
14FK400	100093	100095	212318	204050	204052

ENGLISH	lb	lb-ft²	lb	lb-ft²	lb	lb-ft²
6FK200	7	1	10	0.3	15	1.2
8FK250	9	2	19	8.0	19	2.3
10FK300	19	6	33	2.5	40	5.3
12FK350	26	11	53	5.4	46	8.1
14FK400	31	17	65	8.5	50	11.2
		Wk²	Weight	Wk²	Weight	Wk²
SIZE	Eler	ment	Integral drui	m and hub	Spi	der
		J	Mass	J	Mass	J
6FK200	3.2	0.04	4.5	0.01	6.8	0.05
8FK250	4.1	0.08	8.6	0.03	8.6	0.10
10FK300	8.6	0.25	15	0.11	18	0.22
12FK350	12	0.46	24	0.23	21	0.34
14FK400	14	0.71	29	0.36	23	0.47
SI	Kg	Kg-m²	Kg	Kg-m²	Kg	Kg-m²

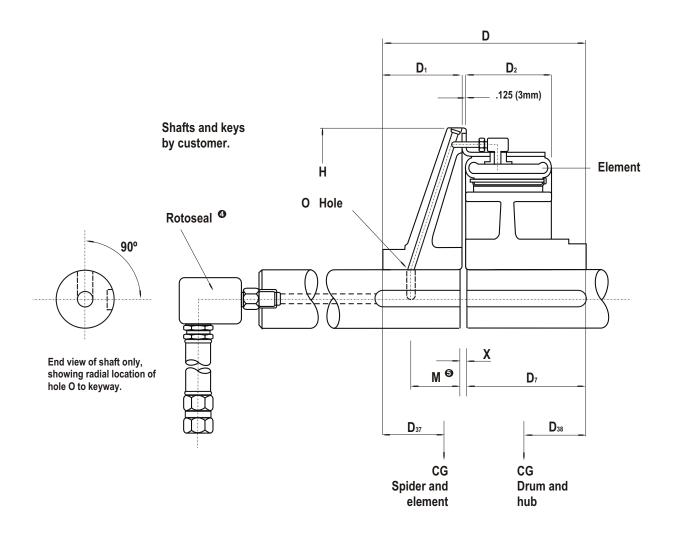
 $<sup>^{\</sup>star}$  The data displayed in the catalog is current and subject to change without previous notice.

#### NOTES:

- 1- Refers to basic part number only. Does not include union or hose. When ordering, please specify the number of air inlets and the type of connection.
- 2- Dynamic torque is shown, while the static torque is about 25% greater. In each application, the torque depends on the air pressure and the velocity.
- 3- Based upon minimum bores. Rotoseal and hose not included.
- 4- Refer to rotoseal section for mounting and dimension information.
- 5- M (in) =0.268 (H/2 radius of bore) + Y<sub>1</sub> M (mm) =6,8 (H/2 radius of bore) + Y<sub>1</sub>
- 6- Based upon minimum bores.

# **FK Clutch Applications** Close mounted arrangement - Dimensional data

**Size 6 to 14** 



ENG	LISH	lb.in @ 75 psi						Dimens	ions in	inches	;				
6FK200	206012	2040	32	1.00	2.50	5.63	2.38	2.94	2.88	2.40	1.50	11.13	0.44	0.38	0.34
8FK250	206022	4290	47	1.00	2.88	6.75	2.88	3.44	3.50	2.70	1.90	13.25	0.44	0.38	0.41
10FK300	206032	8150	92	1.25	3.31	8.00	3.56	4.13	4.00	2.50	2.10	15.75	0.44	0.44	0.41
12FK350	206042	13300	125	1.50	3.31	8.94	4.00	4.72	4.50	3.20	2.30	18.00	0.44	0.44	0.34
14FK400	206052	19700	146	2.00	4.25	9.96	4.34	5.22	5.00	3.40	2.60	20.00	0.44	0.56	0.34
Size	Part	M. Torque	Total 3 weight	min Bore r	max ange	D	D <sub>1</sub>	D <sub>2</sub>	<b>D</b> 7	<b>D</b> 37	<b>D</b> 38	н	0	Х	<b>Y</b> 1
	number	rating	mass	min	max										
6FK200	206012	231	14	25	64	143	60	75	73	61	38	283	11	10	9
8FK250	206022	485	21	25	73	171	73	87	89	69	48	337	11	10	10
10FK300	206032	921	42	32	84	203	90	105	102	64	53	400	11	11	10
12FK350	206042	1503	57	38	84	227	102	120	114	81	58	457	11	11	9
14FK400	206052	2223	66	51	108	253	110	133	127	86	66	508	11	14	9
S	ı	N-m @ 5.2 bar	Dimensions in millímeters												

<sup>\*</sup> The data displayed in the catalog is current and subject to change without previous notice.



	Flement :	assembly	Part r	number	Spider		
SIZE		2000	Drum	drum hub	Sp.	idei	
	one inlet	two inlets	Drain	arum nub	one inlet	two inlets	
6FK200	100012	100015	212004	203010	204010	204012	
8FK250	100032	100033	212005	203020	204020	204022	
10FK300	100052	100055	212006	203030	204030	204032	
12FK350	100072	100073	212007	203010	204040	204042	
14FK400	100093	100095	212008	203050	204050	204052	

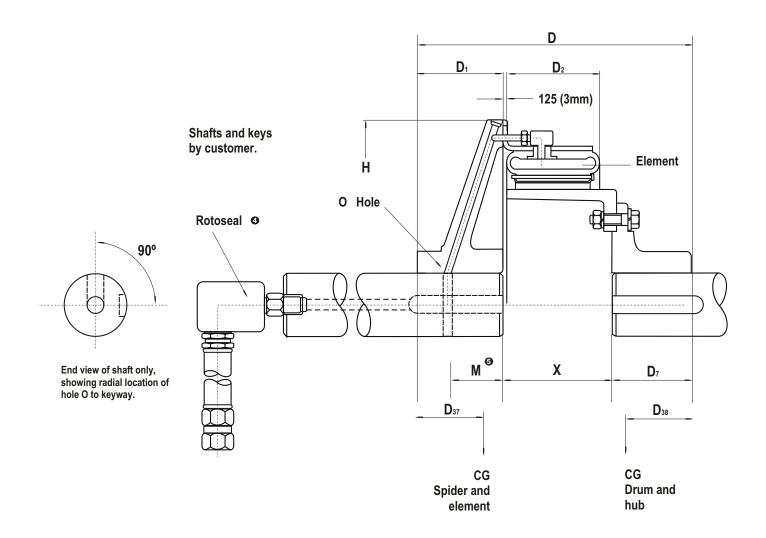
ENGLISH	lb <sup>6</sup>	lb-ft²	lb	lb-ft²	lb	lb-ft²	lb	lb-ft²
6FK200	7	1	5.5	0.3	8	0.1	15	1.2
8FK250	9	2	12.5	1.1	11	0.3	19	2.3
10FK300	19	6	19	2.7	22	0.8	40	5.3
12FK350	26	11	30	5.9	22	0.8	46	8.1
14FK400	31	17	38	10.5	54	3.2	50	11.2
	Peso	Wk²	Weight	Wk²	Weight	Wk²	Weight	Wk²
SIZE	Eler	nent	Dr	um	drum	hub	Spi	der
	Peso	J	Mass	J	Mass	J	Mass	J
6FK200	3.2	0.04	2.5	0.01	3.6	0.00	6.8	0.05
8FK250	4.1	0.08	5.7	0.05	5.0	0.01	8.6	0.10
10FK300	8.6	0.25	8.6	0.11	10.0	0.03	18	0.22
12FK350	12	0.46	14	0.25	10.0	0.03	21	0.34
14FK400	14	0.71	17	0.44	24	0.13	23	0.47
SI	Kg <sup>6</sup>	Kg-m²	Kg	Kg-m²	Kg	Kg-m²	Kg	Kg-m²

<sup>\*</sup> The data displayed in the catalog is current and subject to change without previous notice.

- 1- Refers to basic part number only. Does not include union or hose. When ordering, please specify the number of air inlets and the type of connection.
- 2- Dynamic torque is shown, while the static torque is about 25% greater. In each application, the torque depends on the air pressure and the velocity.
- 3- Based upon minimum bores. Rotoseal and hose not included.
- 4- Refer to rotoseal section for mounting and dimension information.
- 5- M (in) =0.268 (H/2 radius of bore) + Y<sub>1</sub> M (mm) =6,8 (H/2 radius of bore) + Y<sub>1</sub>
- 6- Based upon minimum bores.

# FK Clutch Applications Gap mounted arrangement - Dimensional data

**Size 6 to 14** 



ENG	LISH	lb.in @ 75 psi					С	imensi	ions in	inches					
6FK200	206010	2040	35.5	1.00	2.50	8.38	2.38	2.94	2.75	2.40	2.40	11.13	0.44	3.25	0.34
8FK250	206020	4290	51.5	1.00	2.88	9.38	2.88	3.44	2.75	2.70	2.70	13.25	0.44	3.75	0.41
10FK300	206030	8150	100	1.25	3.31	11.19	3.56	4.13	3.25	2.50	2.50	15.75	0.44	4.38	0.41
12FK350	206040	13300	124	1.50	3.31	12.25	4.00	4.72	3.25	3.20	3.20	18.00	0.44	5.00	0.34
14FK400	206050	19700	173	2.00	4.25	14.84	4.34	5.22	5.00	3.40	3.40	20.00	0.44	5.50	0.34
Size	Part number	Mr. Torque rating	weight mass	min Bore r min	max ange max	D	D <sub>1</sub>	D <sub>2</sub>	<b>D</b> 7	<b>D</b> 37	<b>D</b> 38	н	0	X	<b>Y</b> 1
6FK200	206010	231	16	25	64	213	60	75	70	61	61	283	11	83	9
8FK250	206020	485	23	25	73	238	73	87	70	69	69	337	11	95	10
10FK300	206030	921	45	32	84	284	90	105	83	64	81	400	11	111	10
12FK350	206040	1503	56	38	84	311	102	120	83	81	89	457	11	127	9
14FK400	206050	2227	78	51	108	377	110	133	127	86	109	508	11	140	9
		N-m													

<sup>\*</sup> The data displayed in the catalog is current and subject to change without previous notice.

### **FK Clutch Applications**

# Gap mounted arrangement - Dimensional data - Technical data Size 16 to 45

#### Size 16 to 45

		Part n	umber						Part number			
SIZE	Element	assembly	Davis	drum	Spider	SIZE	Element	assembly	Drum	drum	Spider	
	one inlet	four inlets	Drum	hub	Spider		one inlet	four inlets	Diulii	hub	Spidei	
16FK500	100112	100117	212009	203060	204060	26FK525	100212	100216	212014	203110	204110	
18FK500	100132	100137	212010	203070	204070	28FK525	100232	100236	212015	203120	204120	
20FK500	100152	100156	212011	203080	204080	30FK525	100252	100260	212016	203130	204130	
22FK500	100172	100176	212012	203090	204090	32FK525	100272	100277	212017	203140	204140	
24FK500	100192	100196	212013	203100	204100	36FK525	100292	100296	212018	203150	204150	

ENGLISH	lb	lb-ft²	lb	lb-ft²	lb	lb-ft²	lb	lb-ft²
16FK500	74	52	50	19	74	6.6	146	53
18FK500	81	70	67	31	83	9	152	63
20FK500	88	90	72	43	97	16	183	91
22FK500	95	114	79	58	133	25	227	123
24FK500	102	142	93	80	142	33	257	150
26FK525	133	210	108	110	164	43	298	220
28FK525	140	252	117	140	172	55	337	270
30FK525	148	303	140	192	213	69	341	390
32FK525	157	359	160	252	234	97	392	453
36FK525	178	510	160	319	319	157	505	710
40FK525	201	730	209	523	344	241	646	774
45FK525	262	1115	237	758	491	379	1294	1887
	weight	Wk²	weight	Wk²	weight	Wk²	weight	Wk²
SIZE	Element	assembly J	Dru mass	ım J	mass	hub J	Sp mass	ider J
16FK500	mass 34	2.18	mass 23	0.80	34	0.28	66	2.23
18FK500	37	2.10	30	1.30	38	0.38	69	2.65
20FK500	40	3.78	33	1.81	44	0.67	83	3.83
22FK500	43	4.79	36	2.44	60	1.05	103	5.17
24FK500	46	5.9	42	3.36	64	1.39	116	6.31
26FK525	60	8.84	49	4.63	74	1.81	135	9.26
28FK525	63	10.60	53	5.90	78	2.31	153	11.37
30FK525	67	12.75	63	8.08	97	2.90	155	16.42
32FK525	71	15.11	72	10.60	106	4.08	178	19.07
36FK525	81	21.47	72	13.43	145	6.61	229	29.90
40FK525	91	30.73	95	22.01	156	9.00	210	32.59
45FK525	119	46.94	107	31.91	223	15.95	587	79.44
SI	Kg	Kg-m²	Kg	Kg-m²	Kg	Kg-m²	Kg	Kg-m²

<sup>\*</sup> The data displayed in the catalog is current and subject to change without previous notice.

#### NOTES:

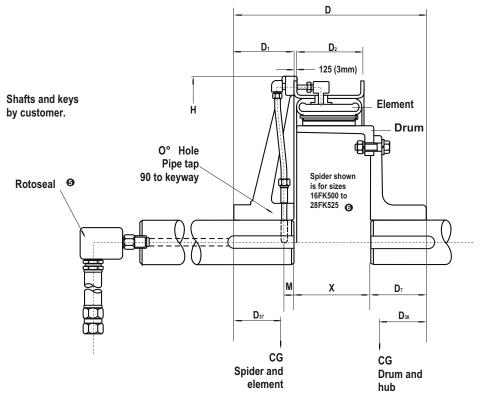
- 1- Refers to basic part number only. Does not include union or hose. When ordering, please specify the number of air inlets and the type of connection.
- 2- Dynamic torque is shown, while the static torque is about 25% greater. In each application, the torque depends on the air pressure and the velocity.
- 3- Based upon minimum bores. Rotoseal and hose not included.
- 4- NPT threads.
- 5- Refer to rotoseal section for mounting and dimension information.
- 6- Refer to FK Spider piping and configuration catalog page for other sizes.
- 7- Based upon minimum bores.





# FK Clutch Applications Gap mounted arrangement - Dimensional data

Size 16 to 45



ENGI	LISH	lb.in @ 75 psi						Dimen	sions i	in inche	es					
16FK500	206060	35200	C2	344	2.00	4.88	18.31	5.50	6.63	5.75	5.20	5.30	24.00	1.44	3/8-18	7.06
18FK500	206070	44000	C2	383	2.25	5.00	18.31	5.50	6.63	5.75	5.30	5.40	26.00	1.44	3/8-18	7.06
20FK500	206080	53600	C2	440	2.50	5.00	18.31	5.50	6.63	5.75	5.30	5.50	28.00	1.44	3/8-18	7.06
22FK500	206090	62300	C2	534	2.75	5.69	19.56	6.00	6.63	6.50	5.40	5.80	30.00	1.44	3/8-18	7.06
24FK500	206100	75000	C2	594	2.75	5.69	20.06	6.50	6.63	6.50	5.60	5.90	32.00	1.44	3/8-18	7.06
26FK525	206110	92400	C2	703	2.75	5.69	20.50	6.50	6.94	6.50	5.90	6.00	34.63	1.44	3/8-18	7.50
28FK525	206120	106000	C2	766	2.75	5.69	21.50	7.50	6.94	6.50	6.60	6.00	36.63	1.44	3/8-18	7.50
30FK525	206130	121000	C2	842	3.00	6.31	23.00	7.50	6.94	8.00	6.80	7.20	38.63	1.44	3/8-18	7.50
32FK525	206140	137000	C2	943	3.00	6.06	23.00	7.50	6.94	8.00	6.60	7.40	40.63	1.44	3/8-18	7.50
36FK525	206150	172000	C2	1162	4.00	7.00	25.00	8.50	6.94	9.00	7.10	7.70	45.25	1.44	1/2-14	7.50
40FK525	206160	211000	D2	1218	4.00	7.00	25.00	8.50	6.94	9.00	7.60	8.10	49.25	1.44	1/2-14	7.50
45FK525		260000	D2	2284	4.38	9.88	28.50	11.00	6.94	10.00	8.80	8.30	54.25	1.44	1/2-14	7.50
Size	Part number	Mr. 2 Torque rating	Rotoseal size	weight mass	min Bore i	max range max	D	D <sub>1</sub>	D₂	D <sub>7</sub>	<b>D</b> <sub>37</sub>	<b>D</b> <sub>38</sub>	н	M	0	х
16FK500	206060	3978	C2	156	51	124	465	140	168	146	132	135	610	37	3/8-18	179
18FK500	206070	4973	C2	173	57	127	465	140	168	146	135	137	660	37	3/8-18	179
20FK500	206080	6058	C2	199	64	127	465	140	168	146	135	140	711	37	3/8-18	179
22FK500	206090	7041	C2	242	70	144	497	152	168	165	137	147	762	37	3/8-18	179
24FK500	206100	8477	C2	269	70	144	510	165	168	165	142	150	813	37	3/8-18	179
26FK525	206110	10443	C2	318	70	144	521	165	176	165	150	152	879	37	3/8-18	191
28FK525	206120	11981	C2	347	70	144	546	191	176	165	168	152	930	37	3/8-18	191
30FK525	206130	13676	C2	381	76	160	584	191	176	203	173	183	981	37	3/8-18	191
32FK525	206140	15484	C2	427	76	154	584	191	176	203	168	188	1032	37	3/8-18	191
36FK525	206150	19440	C2	527	102	178	635	216	176	229	180	196	1149	37	1/2-14	191
40FK525	206160	23848	D2	552	102	178	635	216	176	229	193	206	1251	37	1/2-14	191
45FK525	206170	29386	D2	1036	111	251	724	279	176	254	224	211	1378	152	1/2-14	191
SI		N-m @ 5.2 bar		kg					Dimen	sions ir	millím	eters				

<sup>\*</sup> The data displayed in the catalog is current and subject to change without previous notice.

#### **FK Clutch Applications**

# Gap mounted arrangement - Technical and dimensional data





	Part number  Element assembly drum							Part	t number		
SIZE	Element a	assembly	Drum	drum	Spider	SIZE	Element	assembly	Drum	drum	Spider
	one inlet	four inlets	Diuiii	hub	Spidei		one inlet	four inlets	Drain	hub	Орійсі
12FK350	100397		212027	203031	204041	26FK525	100411	100411	212034	203111	204111
14FK400	100399		212028	203051	204051	28FK525	100413	100413	212035	203121	204121
16FK500	100401	100401	212029	203061	204061	30FK525	100415	100415	212036	203131	204131
18FK500	100403	100403	212030	203071	204071	32FK525	100418	100418	212037	203141	204141
20FK500	100405	100405	212031	203081	204081	36FK525	100419	100419	212038	203151	204151
22FK500	100407	100407	212032	203091	204091	40FK525	100421	100421	212039	203161	204161
24FK500	100409	100409	212033	203101	204101	45FK525	100423	100423	212040	203171	204171
										_	
	lb	lb-ft²	lb		lb-ft²	lb	lb-ft²	lb	lb-ft²		
12FK35	<b>50</b> 58	24	61		13	22	0.8	46	8.1	İ	
14FK40	<b>10</b> 75	42	83		24	54	3.2	50	11.2		
16FK50	151	106	109	9	43	74	6.6	146	53		
18FK50	166	144	126	3	63	83	9	152	63		
20FK50	180	185	139	)	87	97	16	183	91		
22FK50	194	233	152	2	117	133	25	227	123		
24FK50	209	292	173	3	156	142	33	257	150		
26FK52	<b>272</b>	432	198	3	211	164	43	298	220		
28FK52	<b>25</b> 286	517	216	3	268	172	55	337	270		
30FK52	<b>25</b> 302	621	237	7	337	213	69	341	390		
32FK52	<b>.5</b> 321	736	254		413	234	97	392	453		
36FK52	<b>25</b> 366	1052	287		597	319	157	505	710		
40EK52	113	1502	327	7	840	3//	21/	464	774		

401 1020	410	1002	021	0.10	0-1-1			
45FK525	537	2293	369	1212	491	379	1294	1887
	weight	Wk²	weight	Wk²	weight	Wk²	weight	Wk²
SIZE	Element	assembly	Dr	um	dru	m hub	S	oider
	mass	J	mass	J	mass	J	mass	J
12FK350	26	1.01	28	0.55	10	0.03	21	0.34
14FK400	34	1.76	38	1.01	24	0.13	23	0.47
16FK500	68	4.46	49	1.81	34	0.28	66	2.23
18FK500	75	6.06	57	2.65	38	0.38	69	2.65
20FK500	82	7.79	63	3.65	44	0.67	83	3.83
22FK500	88	9.80	69	4.93	60	1.05	103	5.17
24FK500	95	12.29	78	6.57	64	1.39	116	6.30
26FK525	123	18.18	90	8.88	74	1.81	135	9.26
28FK525	130	21.76	98	11.28	78	2.31	153	11.37
30FK525	137	26.14	107	14.19	97	2.90	155	16.42
32FK525	146	30.98	115	17.39	106	4.08	178	19.07
36FK525	166	44.28	130	25.13	145	6.61	229	29.89
40FK525	187	63.23	148	35.36	156	9.00	210	32.58
45FK525	244	96.53	167	51.02	223	15.95	587	79.44
SI	Kg	Kg-m²	Kg	Kg-m²	Kg	Kg-m²	Kg	Kg-m²
* The date of	diamles and in th	a aatalaa ia a	umant and aub	inat ta abanga	without provi	oue netice	-	•

<sup>\*</sup> The data displayed in the catalog is current and subject to change without previous notice.

#### NOTES:

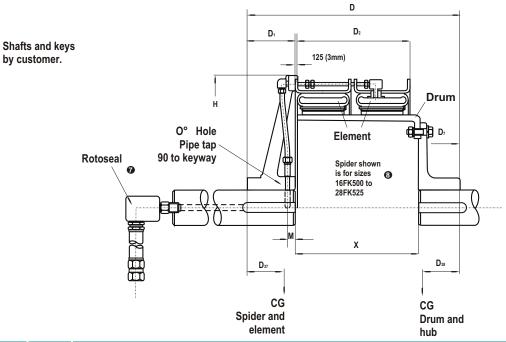
- 1- Refers to basic part number only. Does not include union or hose. When ordering, please specify the number of air inlets and the type of connection.
- 2- Dynamic torque is shown, while the static torque is about 25% greater. In each application, the torque depends on the air pressure and the velocity.
- 3- Based upon minimum bores. Rotoseal and hose not included.
- 4- M (in)= 0,268 (H/2 radius of bore) + 0,34 M (mm) = 6.8 (H/2 - radius of bore) + 8.7
- 5- NPT thread.
- 6- Pipe tap not required. Thru hole diameter 0.44 in (11 mm).
- 7- Refer to rotoseal section for mounting and dimension information.
- 8- Refer to FK Spider piping and configuration catalog page for other sizes.
- 9- Based upon minimum bores.





# FK Clutch Applications Gap mounted arrangement - Dimensional data

Size 12 to 45 Dual



ENGI	LISH	lb.in @ 75 psi		lb				Dime	ension	s in inc	hes					
12FK350	206141	26600	C2	187	1.50	2.63	17.75	4.00	10.13	3.25	6.20	5.80	18.00	4	0	10.50
14FK400	206151	39400	C2	262	2.00	3.56	20.84	4.34	11.13	5.00	7.40	6.70	20.00	4	6	11.50
16FK500	206160	70400	C2	480	2.00	4.13	25.25	5.50	13.63	5.75	8.00	8.00	24.00	1.44	3/8-18	14.00
18FK500	206170	88000	C2	527	2.25	4.38	25.25	5.50	13.63	5.75	8.10	8.00	26.00	1.44	3/8-18	14.00
20FK500	206180	107200	C2	599	2.25	3.81	25.25	5.50	13.63	5.75	7.70	8.10	28.00	1.44	3/8-18	14.00
22FK500	206190	124600	C2	706	2.75	4.50	26.50	6.00	13.63	6.50	7.90	8.30	30.00	1.44	3/8-18	14.00
24FK500	2062200	150000	C2	781	2.75	4.50	27.00	6.50	13.63	6.50	8.10	8.30	32.00	1.44	3/8-18	14.00
26FK525	206210	184800	D2	932	2.75	4.50	27.63	6.50	14.25	6.50	8.70	8.40	34.63	1.44	3/8-18	14.63
28FK525	206220	212000	D2	1011	2.75	3.81	28.75	7.50	14.44	6.50	9.30	8.70	36.63	1.44	3/8-18	14.75
30FK525	206230	242000	D2	1093	3.00	4.50	30.25	7.50	14.44	8.00	9.50	9.50	38.63	1.44	3/8-18	14.75
32FK525	206240	274000	D2	1201	3.00	4.00	30.25	7.50	14.44	8.00	9.30	9.70	40.63	1.44	3/8-18	14.75
36FK525	206250	344000	D2	1477	4.00	5.75	32.25	8.50	14.44	9.00	9.70	9.90	45.25	1.44	1/2-14	14.75
40FK525	206260	422000	R2	1548	4.00	4.88	32.25	8.50	14.44	9.00	10.40	10.10	49.25	1.44	1/2-14	14.75
45FK525	206270	520000	R2		4.38	8.00	35.75	11.00	14.44	10.00	10.70	10.10	54.25	6.00	1/2-14	14.75
Size	Part	Mr. 2 Torque	Rotoseal	weight	min Bore	max range	D	D <sub>1</sub>	D <sub>2</sub>	<b>D</b> 7	<b>D</b> 37	<b>D</b> 38	н	М	<b>5</b>	Х
3126	number	rating	size	mass	min	max		<u> </u>				<b>-</b> 36				
12FK350	206141	3006	C2	85	38	67	451	102	257	83	157	147	457	4	6	267
14FK400	206151	4453	C2	119	51	90	529	110	283	127	188	170	508	0	6	292
16FK500	206160	7957	C2	217	51	105	641	140	346	146	203	203	610	37	3/8-18	356
18FK500	206170	9946	C2	239	57	111	641	140	346	146	206	203	660	37	3/8-18	356
20FK500	206180	12116	C2	271	64	97	641	140	346	146	196	206	711	37	3/8-18	356
22FK500	206190	14082	C2	320	70	114	673	152	346	165	201	211	762	37	3/8-18	356
24FK500	2062200	16953	C2	354	70	114	686	165	346	165	206	211	813	37	3/8-18	356
26FK525	206210	20887	D2	422	70	114	702	165	362	165	221	213	879	37	3/8-18	372
28FK525	206220	23961	D2	458	70	97	730	191	367	165	236	221	930	37	3/8-18	375
30FK525	206230	27352	D2	495	76	114	768	191	367	203	241	241	981	37	3/8-18	375
32FK525	206240	30969	D2	544	76	102	768	191	367	203	236	246	1032	37	3/8-18	375
36FK525	206250	38880	D2	669	102	146	819	216	367	229	246	251	1149	37	1/2-14	375
40FK525	206260	47697	R2	7021	102	124	819	216	367	229	264	257	1251	37	1/2-14	375
45FK525	206270	58773	R2	1220	111	203	908	279	367	254	272	257	1378	152	1/2-14	375
S	ı	N-m @ 5.2 bar		lb				Dime	nsions	in milli	meters	;				

<sup>\*</sup> The data displayed in the catalog is current and subject to change without previous notice.

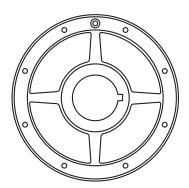


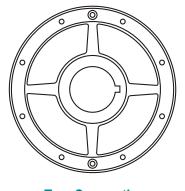


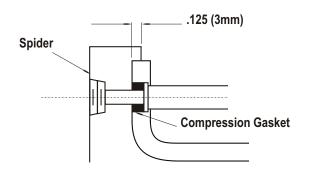
# **FK Spider Conection and Configuration**



#### Element sizes 6 to 14



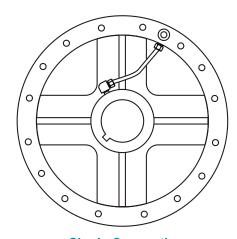


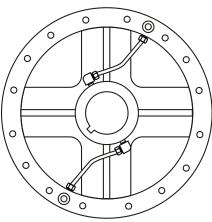


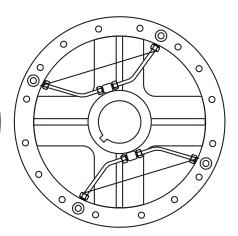
**Single Connection** 

**Two Connections** 

#### Element sizes 16 to 45



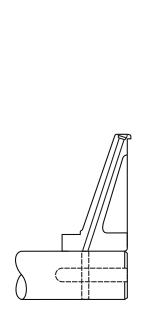




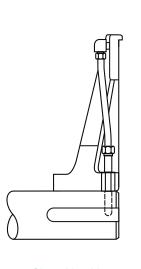
**Single Connection** 

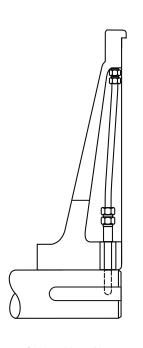
**Two Connections** 

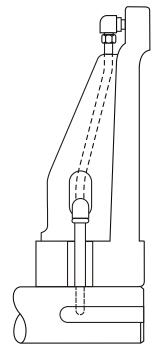
**Four Connections** 



Ssizes 6 to 14







Sizes 16 to 28

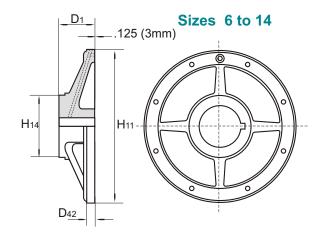
Ssizes 30 to 40

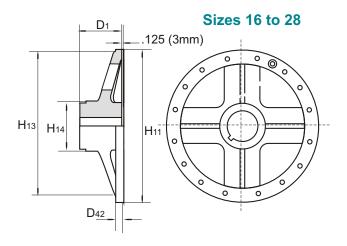
Size 45

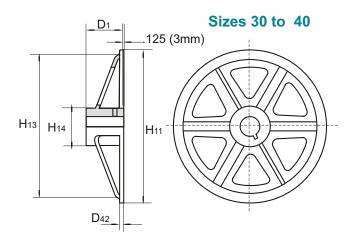


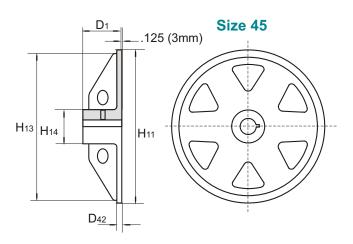
# FK Mounting Components Spider - Technical and dimensional data

Size 6 to 45 Single and Dual









#### NOTES:

1- Based upon minimun bores.

	Part n	umber			E	English u	nits						SI units			
Size	Single	Multi-	Weight	Wk²		Dimensi	ions in inc	ches		IVIGOO	o J		Dimension	ons in mil	imeters	
	connection	connection	(lb)	(lb·ft²)	D <sub>1</sub>	D <sub>42</sub>	H <sub>11</sub>	H <sub>13</sub>	H <sub>14</sub>	(kg)	(kg·m²)	D <sub>1</sub>	D <sub>42</sub>	H <sub>11</sub>	H <sub>13</sub>	H <sub>14</sub>
8FK250	204020	204021	19	2.3	2.88	0.56	13.25	N/A	4.00	8.6	0.10	73	14	337	N/A	102
10FK300	204030	204031	40	5.3	3.56	0.62	15.75	N/A	6.00	18	0.22	91	16	400	N/A	152
12FK350	204040	204041	46	8.1	4.00	0.59	18.00	N/A	6.00	21	0.34	102	15	457	N/A	152
14FK400	204050	204051	50	11.2	4.34	0.59	20.00	N/A	6.00	23	0.47	110	15	508	N/A	152
16FK500	N/A	204060	146	53	5.50	1.06	24.00	21.25	7.00	66	2.23	140	27	610	540	178
18FK500	N/A	204071	152	63	5.50	1.06	26.00	23.25	8.00	69	2.65	140	27	660	591	203
20FK500	N/A	204081	183	91	5.50	1.06	28.00	25.25	8.00	83	3.83	140	27	711	641	203
22FK500	N/A	204091	227	123	6.00	1.06	30.00	27.00	8.50	103	5.17	152	27	762	686	216
24FK500	N/A	204101	257	150	6.50	1.06	32.00	29.00	8.50	117	6.31	165	27	813	737	216
26FK525	N/A	204111	298	220	6.50	1.06	34.63	31.00	9.00	135	9.26	165	27	880	787	229
28FK525	N/A	204121	337	270	7.50	1.06	36.63	33.50	9.00	153	11.36	191	27	930	851	229
30FK525	N/A	204131	341	390	7.50	1.69	38.63	35.00	9.50	155	16.41	191	43	981	889	241
32FK525	N/A	204141	392	453	7.50	1.69	40.63	37.00	9.50	178	19.07	191	43	1032	940	241
36FK525	N/A	204151	505	710	8.50	1.69	45.25	41.50	11.38	229	29.89	216	43	1149	1054	289
40FK525	N/A	204161	464	774	8.50	1.69	49.25	46.75	11.00	210	32.58	216	43	1251	1187	279
45FK525	N/A	204171	1294	1887	11.00	1.31	54.25	50.48	16.50	587	79.44	279	33	1378	1282	419

<sup>\*</sup> The data displayed in the catalog is current and subject to change without previous notice.



## **FK Mounting Components**

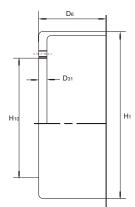
## Internal Flange Drums - Technical and dimensional data

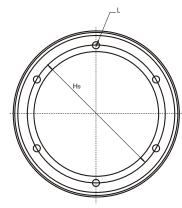
#### Size 6 to 45 Single and Dual



	F	art numbe	r
Size	Single	drum	Dual drum
	Thru holes	Tapped holes	Thru holes
6FK200	212204	212004	N/A
8FK250	212205	212005	N/A
10FK300	212206	212006	N/A
12FK350	212207	212007	212027
14FK400	212208	212008	212028
16FK500	212209	212009	212029
18FK500	212210	212010	212030
20FK500	212211	212011	212031
22FK500	212212	212012	212032

	F	Part numbe	r
Size	Single	drum	Dual drum
	Thru holes	Tapped holes	Thru holes
24FK500	212213	212013	212033
26FK525	212214	212014	212034
28FK525	212215	212015	212035
30FK525	212216	212016	212036
32FK525	212217	212017	212037
36FK525	212218	212018	212038
40FK525	212219	212019	212039
45FK525	212220	212020	212040





ENGLIGH			Dimer	sions in ir	nches		4		Weight	Wk²		Weight	Wk²
ENGLISH	Sir	ngle and du	ıal drum		No.	Thru	Tapped	D 6	lb	lb fk²	<b>D</b> 6	lb	lb fk²
6FK200	0.50	6	4.250	3.500	6	0.406	3/8-16	3.00	5.5	0.3			
8FK250	0.75	8	5.250	4.250	8	0.406	3/8-16	3.50	12.5	1.1			
10FK300	0.75	10	7.250	6.250	6	0.531	1/2-13	4.06	19	2.7			
12FK350	0.75	12	7.250	6.250	6	0.531	1/2-13	4.68	30	5.9	10.19	61	13
14FK400	0.75	14	9.250	8.250	6	0.531	1/2-13	5.18	38	10.5	11.19	83	24
16FK500	0.75	16	12.000	10.750	6	0.781	3/4-10	6.62	50	19	13.56	109	43
18FK500	1.00	18	13.500	12.125	8	0.781	3/4-10	6.62	67	31	13.56	126	63
20FK500	1.00	20	16.000	14.625	8	0.781	3/4-10	6.62	72	43	13.56	139	87
22FK500	1.00	22	18.500	16.75	10	0.781	3/4-10	6.62	79	58	13.56	152	117
24FK500	1.00	24	19.750	18.000	12	0.781	3/4-10	6.62	93	80	13.56	173	156
26FK525	1.00	26	21.500	19.500	14	0.781	3/4-10	7.06	108	110	14.19	198	211
28FK525	1.00	28	23.500	21.500	16	0.781	3/4-10	7.06	117	140	14.31	216	268
30FK525	1.00	30	25.000	23.000	18	0.781	3/4-10	7.06	140	192	14.31	237	337
32FK525	1.00	32	27.000	25.000	18	0.781	3/4-10	7.06	160	252	14.31	254	413
36FK525	1.00	36	31.000	29.000	20	0.781	3/4-10	7.06	160	319	14.31	287	597
40FK525	1.00	40	34.500	32.500	16	0.781	3/4-10	7.06	209	523	14.31	327	840
45FK525	1.00	45	39.500	37.500	10	1.031	3/4-10	7.06	237	758	14.31	369	1212
Size	<b>D</b> 31	H <sub>1</sub> 2	Н₃	H <sub>10</sub> <sup>3</sup>	L	(Bolt hole	es)	Sing	le drum		Du	al drum	
6FK200	13	152	108.0	88.9	6	10	3/8-16	76	2.5	0.01			
8FK250	19	203	133.4	108.0	8	10	3/8-16	89	5.7	0.05			
10FK300	19	254	184.2	158.8	6	13	1/2-13	103	8.6	0.11			
12FK350	19	305	184.2	158.8	6	13	1/2-13	119	14	0.25	259	28	0.55
14FK400	19	356	235.0	209.6	6	13	1/2-13	132	17	0.44	284	38	1.01
16FK500	19	406	304.8	273.1	6	20	3/4-10	168	23	0.80	344	49	1.81
18FK500	25	457	342.9	308.0	8	20	3/4-10	168	30	1.30	344	57	2.65
20FK500	25	508	406.4	371.5	8	20	3/4-10	168	33	1.81	344	63	3.66
22FK500	25	559	469.9	425.5	10	20	3/4-10	168	36	2.44	344	69	4.92
24FK500	25	610	501.7	457.2	12	20	3/4-10	168	42	3.36	344	78	6.57
26FK525	25	660	546.1	495.3	14	20	3/4-10	179	49	4.63	360	90	8.88
20111020							0/4 40	470	53	5.89	363	00	11.28
28FK525	25	711	596.9	546.1	16	20	3/4-10	179	55	5.09	303	98	
	25 25	711 762	596.9 635.0	546.1 584.2	16 18	20	3/4-10	179	63	8.08	363	107	14.18
28FK525													
28FK525 30FK525	25	762	635.0	584.2	18	20	3/4-10	179	63	8.08	363	107	14.18
28FK525 30FK525 32FK525	25 25	762 813	635.0 685.8	584.2 635.0	18 18	20 20	3/4-10 3/4-10	179 179	63 72	8.08 10.60	363 363	107 115	14.18 17.39
28FK525 30FK525 32FK525 36FK525	25 25 25	762 813 914	635.0 685.8 787.4	584.2 635.0 736.6	18 18 20	20 20 20	3/4-10 3/4-10 3/4-10	179 179 179	63 72 72	8.08 10.60 13.43	363 363 363	107 115 130 148 167	14.18 17.39 25.13
28FK525 30FK525 32FK525 36FK525 40FK525	25 25 25 25 25 25	762 813 914 1016	635.0 685.8 787.4 876.3 1003.3	584.2 635.0 736.6 825.5	18 18 20 16 10	20 20 20 20 20 26	3/4-10 3/4-10 3/4-10 3/4-10	179 179 179 179	63 72 72 95	8.08 10.60 13.43 22.01	363 363 363 363	107 115 130 148	14.18 17.39 25.13 35.36

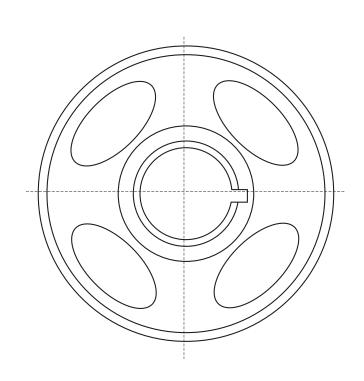
NOTES:

- 1- Dual drum is only avaible with tapped holes.
- 2- Tolerance: +0,000/-0,010 in. (+0,00/-0,25 mm.)
- 3- Tolerance by size: 6 to 40+0,003/-0,000 in. (+0,08/-0,00 mm.) 45 +0,005/-0,00 in. (+0,13/-0,00 mm.)

<sup>\*</sup> The data displayed in the catalog is current and subject to change without previous notice.



# $\mathbf{D}_7$ $D_6$ Н H<sub>14</sub>



Integral Drum and Hub - Technical and dimensional data

ENGI	LISH	lb	lb ft²		Dim	ension	s in inc	hes	
6FK200	212314	10	0.3	0.00	2.00	2.38	2.88	6	3.25
8FK250	212315	19	0.8	0.00	2.00	2.88	3.50	8	4.38
10FK300	212316	33	2.5	1.75	3.00	3.50	4.00	10	4.88
12FK350	212317	53	5.4	2.00	3.50	4.00	4.50	12	6.13
14FK400	212318	65	8.5	2.00	4.50	4.25	5.00	14	6.50
18FK500	212320	90	16	2.25	4.50	3.75	6.00	18	7.00
24FK500	212323	437	129	4.50	6.00	5.75	8.50	24	10.50
	Part	Weight	Wk²	min	max				
SIZE	number	Mass	J	Bor min	e max	D <sub>6</sub>	D₁	Hı	H <sub>14</sub>
6FK200					_	<b>D</b> €	73	H <sub>1</sub>	H <sub>14</sub>
	number	Mass	J	min	max				
6FK200	number 222314	Mass 4.5	J 0.01	min 0	max 51	60	73	152	83
6FK200 8FK250	number 222314 212315	Mass 4.5 8.6	0.01 0.03	min 0 0	51 51	60 73	73 89	152 203	83 111
6FK200 8FK250 10FK300	number 222314 212315 212316	4.5 8.6 15	0.01 0.03 0.11	min 0 0 44	51 51 76	60 73 89	73 89 102	152 203 254	83 111 124
6FK200 8FK250 10FK300 12FK350	222314 212315 212316 212317	Mass 4.5 8.6 15 24	J 0.01 0.03 0.11 0.23	min 0 0 44 51	51 51 76 89	60 73 89 102	73 89 102 114	152 203 254 305	83 111 124 156
6FK200 8FK250 10FK300 12FK350 14FK400	number 222314 212315 212316 212317 212318	Mass 4.5 8.6 15 24 29	J 0.01 0.03 0.11 0.23 0.36	min 0 0 44 51 51	max 51 51 76 89 114	60 73 89 102 108	73 89 102 114 127	152 203 254 305 356	83 111 124 156 165

<sup>\*</sup> The data displayed in the catalog is current and subject to change without previous notice.

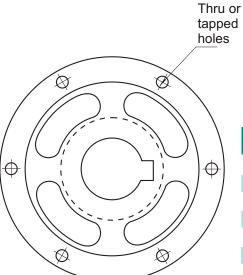
#### NOTES:

1- Based upon minimun bores.

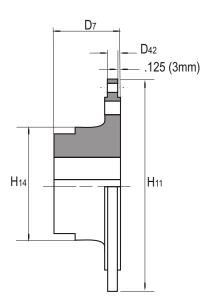
## **FK Mounting Components** Drum Hub - Technical and dimensional data

Size 6 to 45 Single and Dual









#### NOTES:

1- Based upon minimun bores.

ENGLISH	Thru	Tapped	Weight	Wk²	Dimensions in inches					
_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	holes	holes	lb	lb ft²	min	max				
6FK200	203010	203011	9	0.50	1.50	2.50	2.75	0.63	5.00	3.75
8FK250	203020	203021	12	0.50	1.50	2.50	2.75	0.63	6.00	4.00
10FK300	203030	203031	18	0.88	1.50	3.00	3.25	0.63	8.25	5.00
12FK350	203030	203031	18	0.88	1.50	3.00	3.25	0.63	8.25	5.00
14FK400	203050	203051	46	3.50	2.25	4.50	5.00	0.63	10.25	7.00
16FK500	203060	203061	68	6.50	1.75	4.50	5.75	0.75	13.50	7.00
18FK500	203070	203071	74	6.50	2.25	4.75	5.75	0.75	15.00	7.50
20FK500	203080	203081	93	8.50	2.75	4.75	5.75	0.75	17.50	7.50
22FK500	203090	203091	131	29.00	2.75	5.25	6.50	0.75	20.00	8.50
24FK500	203100	203101	132	30.00	2.75	5.25	6.50	0.75	21.50	8.50
26FK525	203110	203111	160	46.00	2.75	5.50	6.50	0.75	23.00	9.00
28FK525	203120	203121	175	61.00	2.75	5.50	6.50	0.75	25.00	9.00
30FK525	203130	203131	214	78.00	3.00	6.00	8.00	0.75	26.50	9.50
32FK525	203140	203141	222	102.00	3.00	6.00	8.00	0.75	28.50	9.50
36FK525	203150	203151	305	159.00	4.00	7.00	9.00	0.75	32.50	11.00
40FK525	203160	203161	358	247.00	4.00	7.00	9.00	0.75	36.00	11.00
45FK525	203170	203171	541	461.00	4.38	8.25	10.00	0.75	41.50	13.50
SIZE	Part n	umber				ore	D <sub>7</sub>	<b>D</b> <sub>42</sub>	H <sub>11</sub>	H <sub>14</sub>
6FK200	203010	203011	4.1	0.02	38	64	70	16	127	95
8FK250	203020	203021	5.4	0.02	38	64	70	16	152	102
10FK300	203030	203031	8.2	0.04	38	76	83	16	210	127
12FK350	203030	203031	8.2	0.04	38	76	83	16	210	127
14FK400	203050	203051	21	0.15	57	114	127	16	260	178
16FK500	203060	203061	31	0.27	44	114	146	19	343	178
18FK500	203070	203071	34	0.27	57	121	146	19	381	191
20FK500	203080	203081	42	0.36	70	121	146	19	445	191
22FK500	203090	203091	59	1.22	70	133	165	19	508	216
24FK500	203100	203101	60	1.26	70	133	165	19	546	216
26FK525	203110	203111	73	1.94	70	140	165	19	584	229
28FK525	203120	203121	79	2.57	70	140	165	19	635	229
30FK525	203130	203131	97	3.28	76	152	203	19	673	241
32FK525	203140	203141	101	4.29	76	152	203	19	724	241
36FK525	203150	203151	138	6.69	102	178	229	19	826	279
40FK525	203160	203161	162	10.40	102	178	229	19	914	279
45FK525	203170	203171	245	19.41	111	210	254	19	1054	343
SI	Thru	Tapped	lb	Kg ·m²	min max					
- 01	holes	holes	Weight `	J	Dimensions in millimeters					

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