

The Semiflex® series



Standard F series

Symbiosis of performance and compact design
Bore diameter up to 120 mm
Torque (T_{KN}) 44 Nm to 7.040 Nm



Compact Plus C series

For extremely axially limited space
Bore diameter up to 100 mm
Torque (T_{KN}) 69 Nm to 7.040 Nm



Dynamic D series

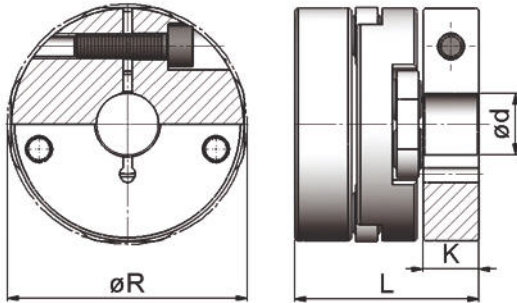
The light-weight aluminium series
Bore diameter up to 35 mm
Torque (T_{KN}) 40 Nm to 180 Nm

Semiflex®

Semiflex® is a high-precision coupling in a compact design and with no restoring forces. Semiflex® offers large radial misalignment capacity in a very small envelope. Semiflex® is, by design, free of restoring forces. For highly dynamic applications, Semiflex® is also available in an aluminium series.

Dynamic D series

The light-weight aluminium Semiflex® series with low moment of inertia. The series for highly dynamic applications.



Hub version 1: clamp hub

	T_{Kv} (Nm)	T_{Kmax} (Nm)	n_{max} (1/min)	ΔK_r (mm)	ΔK_n (mm)	ΔK_w (°)	C_1 (kNm/rad)	J (kg cm ²)	m (kg)	$\varnothing R$ (mm)	L (mm)	K (mm)	$\varnothing d_{max}$ (mm)
D 40	40	80	2.500	1,2	0,5	1	9	1,2	0,3	61,5	52	12	30
D 45	40	80	2.500	1,2	0,5	1	9	1,3	0,3	61,5	58	15	25
D 180	180	300	5.000	1,5	0,5	0,5	34	5,1	0,6	77	59	18	35
D 185	180	300	5.000	1,5	0,5	0,5	34	5	0,6	77	67	18	35

Order Example 1: D 45.11 Ø25 Ø25 Order Example 2: D 180.11 Ø30 Ø30

D 180	11	Ø30 Ø30
Type Semiflex® Dynamic D 180	both sides clamp hub	bore diameters

To ensure the correct selection of the Semiflex® please use our 'selection procedure and legend' page at the end to obtain the required information.

1. Calculation of the design torque. Please multiply your continuous torque by the required performance factor (table 1) and the required service factor (table 2) to get the design torque.

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Table 1: performance factor

speed range 1/min	service life (h)	performance factor
0-500	5.000	1,8
0-500	10.000	2,3
0-500	20.000	2,8
500-1.000	5.000	2,3
500-1.000	10.000	2,8
500-1.000	20.000	3,5
1.000-2.000	5.000	2,8
1.000-2.000	10.000	3,6
1.000-2.000	20.000	4,4
2.000-3.000	5.000	3,2
2.000-3.000	10.000	4
2.000-3.000	20.000	4,8

Table 2: service factor

uniform	1
light shocks	1,5
medium shocks	2
heavy shocks	2,5

2. Select a coupling size that has a continuous torque rating greater than your calculated design torque.
 3. Make sure that the peak torque of the application does not exceed the maximum torque rating of the coupling.
 4. Please check the coupling maximum speed to be sure it is under the rated maximum speed limit.

5. Make sure that the misalignment capability is sufficient. There is a trade-off between the radial, axial and angular misalignment capabilities. Be certain that the combined percentages of each do not exceed 100%.

Legend

Performance

T_{KN}	continuous torque rating of the coupling (Nm)
$T_{K\ max}$	maximum torque capacity of the coupling (Nm)
n_{max}	maximum speed of the coupling (1/min)
ΔK_r	maximum radial misalignment capacity (mm)
ΔK_a	maximum axial misalignment capacity (mm)
ΔK_w	maximum angular misalignment capacity (°)
C_T	torsional stiffness (kNm/rad)
J	moment of inertia (kg cm ²)
m	weight of the coupling (kg)

Dimensions

$\varnothing R$	swing diameter (mm)
H	disc thickness (mm)
L	coupling length (mm)
$\varnothing P$	hub boss diameter (mm)
K	total hub length (mm)
X	bolt mounting space (mm)
W	basic coupling length (mm)
$\varnothing F$	bolt pitch circle diameter (mm)
M	number of threaded holes x bolt size
$\varnothing d$	bore diameter (mm)