



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

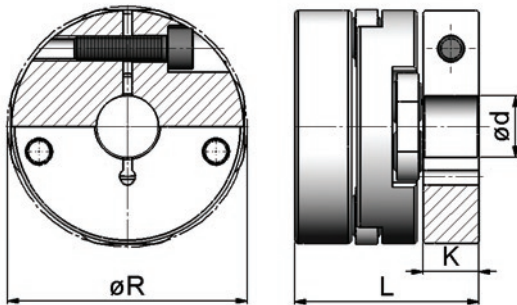
The light-weight aluminum series
Bore diameter up to 35 mm
Torque (T_{KN}) 40 Nm to 180 Nm

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 aluminum series.

Dynamic D series

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



Hub version 1: clamp hub

	T_{KN} (Nm)	T_{Kmax} (Nm)	n_{max} (1/min)	ΔK_r (mm)	ΔK_a (mm)	ΔK_w (°)	C_r (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 $\varnothing 25$ $\varnothing 25$ Order Example 2: D 180.11 $\varnothing 30$ $\varnothing 30$

D 180	11	$\varnothing 30$ $\varnothing 30$
Type Semiflex® Dynamic D 180	both sides clamp hub	bore diameters

To ensure the correct selection of the Semiflex® please use the TD Calculator of the column Semiflex® or please use our selection procedure and legend area to download 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.

An alternative:

simply use under www.schmidt-kupplung.com the

TD Calculator of the column Semiflex®

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%.

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 within the rated maximum speed.

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)

Dimension

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