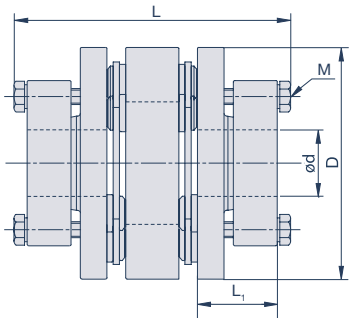
Diskflex GDT | Aluminium

Conical clamp hub design



Specifications

Size	D	L	L_1	M	T_A	max. rpm	T_{KN}	C_T	g	Misalignment		
	mm	mm	mm		Nm	min^{-1}	Nm	Nm/rad	g	angular °	radial mm	axial mm
GDT56	56	70,8	24,7	M5	8	7.700	60	10.000	280	1	0,2	0,6
GDT66	66	91	30	M6	13	7.000	120	15.000	460	1	0,2	0,6
GDT88	88	110,2	35,2	M6	13	6.000	200	35.000	970	1	0,2	0,6
GDT110	108	114	35,9	M6	13	4.500	350	70.000	1.530	1	0,25	1

M= Screw size, T_A= Tightening torque, T_{KN}= Nominal torque, C_T= Torsional stiffness, g= Mass

Bore diameters

Size	d (mm)																			
	10	11	12	14	15	16	18	19	20	22	24	25	28	30	32	35	40	45	50	60
GDT56	•	•	•	•	•	•	•	•	•	•	•	•								
GDT66					•	•	•	•	•	•	•	•	•	•	•					
GDT88									•	•	•	•	•	•	•	•	•	•		
GDT110														•	•	•	•	•	•	•

The GDT version is also available as an intermediate shaft coupling in sizes 56-88. The length of the intermediate sleeve can be customised. The total length of the intermediate shaft coupling can be up to max. 2,000 mm. Please ask our application consultants about this.

Ordering example:
GDT56 ø10 ø10
Diskflex Size 56, Bore 10 and 10

The various technical parameters play a decisive role in the selection of the Diskflex. Parameters such as maximum speeds, occurring shaft misalignments and drive torque should be taken into account. The required coupling size can be roughly calculated using the following formula:

Serie GDC, ZDC, GDT

$T_{KN} > T_A \times C_S$

The nominal torque T_{KN} of the selected coupling size should be greater than the drive torque T_A in Nm (results from the manufacturer‘s specification of the drive motor) multiplied by the operating factors of the application.

For servo applications, it should be noted that the acceleration torque of these servomotors is many times higher than their rated torques. The design is based on the highest peak torque to be regularly transmitted on the drive side (for servomotors, this is e.g. the maximum acceleration torque in Nm)

Shock factor C_S

	Continuous motion sequence	Dynamic motion sequence with frequent start-stop	Dynamic motion sequence with frequent reversing operation
Factor C_S	1,0	2,0	4,0

Please note the maximum permissible bore diameter and the corresponding displacement capacity for the selected coupling size. These can be found in the table for the corresponding coupling size.

Serie GTR

$T_{KN} > T_A \times C_S \times C_D \times C_T$

Impact factor C_S

	uniform load	non-uniform load	impact load
Factor C_S	1	2	3-4

Direction factor C_D

	continuous, one-sided direction of rotation	alternating direction of rotation, reversing operation
Factor C_D	1,0	1,2

Temperature factor C_T

	Operating temperature <= 150°C	Operating temperature 150°C – 200°C	Operating temperature 200°C - 250°C
Factor C_T	1,0	1,0 - 1,15	1,15 - 1,25

„briefly and concisely ... explained“

OUR PICTOGRAMS

- High temperature resistance
- Vibration damping
- Axially pluggable
- High radial misalignment
- Backlash-free
- Torsionally rigid
- High angular misalignment
- High speeds
- Electrically insulating
- Corrosion resistant