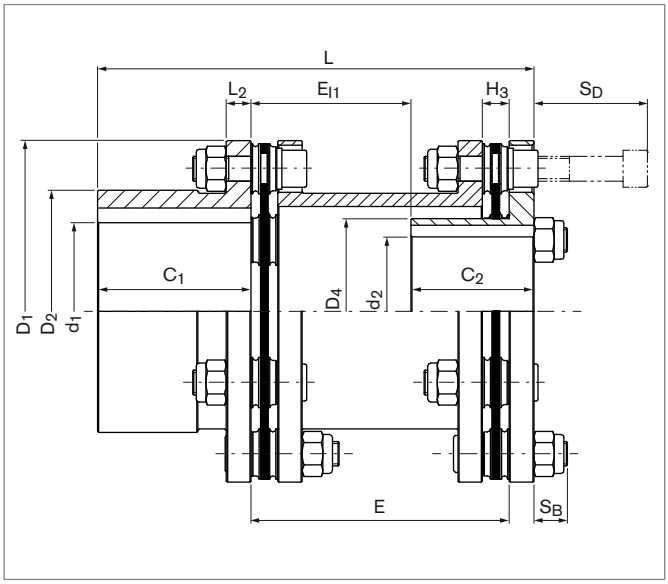
Steel Disc Couplings

RINGFEDER® TND HDV

Combination of Standard Hub and Inverted Hub, Double-Jointed, with Spacer, Shaft-Hub Connection by Keyway

Size 47-141
Hexagon Socket Screws

Size 169-254
Hexagon Head Screws



Size	$T_{KN}HD$ 1)	$T_{KN}HT$ 1)	n_{max} 2)	d_{pre} 3)	d_{1kmax} 4)	d_{2kmax} 4)	C_1/C_2	E_{l1}	E 5)	H_3	D_1	D_2	D_4	L_2	L	S_B	S_D	n_{Sc}
HDV	Nm	Nm	1/min	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
47	170	230	12200	10	32	25	39,5	25,5 65,5 105,5	60 100 140	7,5	70,5	47	37	5	105 145 185	7	24	6
63	320	420	9900	14	42	32	45	33 43 63 103	70 80 100 140	9	88	62,5	48	8	123 133 153 193	9	32	6
82	750	1050	7500	15	55	44	55	55 95 135	100 140 180	10,5	116	82	64	10	165 205 245	11	40	6
98	1350	1750	6200	19	65	50	60	51 91 131	100 140 180	12	140,5	98	77	11	171 211 251	15	47	6
118	2400	3000	5250	25	85	60	75	37 77 117	100 140 180	13	166,5	118	90,5	12	187 227 267	17	55	6
141	4000	5200	4400	30	95	75	90	64 104	140 180	15	198,5	141	114	14	244 284	18	64	6
169	6500	8500	3650	39	115	90	125	31 71 141	140 180 250	21	238	169	135	16	281 321 391	24	81	6

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Size	$T_{KN}HD$ [1]	$T_{KN}HT$ [1]	n_{max} [2]	d_{pre} [3]	d_{1kmax} [4]	d_{2kmax} [4]	C_1/C_2	E_{l1}	E [5]	H_3	D_1	D_2	D_4	L_2	L	S_B	S_D	n_{Sc}
HDV	Nm	Nm	1/min	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
205	21000	26000	2950	59	140	115	160	62 112	200 250	28	295	205	170	22	382 432	27	112	8
254	36000	44000	2500	79	175	120	200	50 76 126	224 250 300	32,5	345	254	180	26	450 476 526	29	133	8

Size	E [5]	Gw_{SB} [6]	J_{SB} [6]	C_{TdynHD}	C_{TdynHT}	Max. Permissible Misalignment [7] axial ΔK_aHD	axial ΔK_aHT	angular ΔK_wHD	angular ΔK_wHT	radial ΔK_rHD	radial ΔK_rHT
HDV	mm	kg	$10^{-3}kgm^2$	10^6 Nm/rad	10^6 Nm/rad	mm	mm	Degrees	Degrees	mm	mm
47	60	1,4	0,69	0,071	0,075	1,0	0,6	2	1,4	0,8	0,6
	100	1,6	0,75	0,059	0,062					1,5	1,1
	140	1,7	0,8	0,051	0,053					2,2	1,5
63	70	2,9	2,33	0,123	0,134	1,0	0,8	2	1,4	1	0,7
	80	2,9	2,37	0,123	0,134					1,1	0,8
	100	3	2,46	0,116	0,127					1,5	1,1
	140	3,2	2,63	0,105	0,114					2,1	1,6
82	100	5,4	8,83	0,271	0,308	1,4	0,8	2	1,4	1,4	1,1
	140	6,7	9,23	0,246	0,277					2,1	1,5
	180	7	9,65	0,226	0,251					2,8	2,1
98	100	9,9	20,35	0,513	0,543	2,0	1,2	2	1,4	1,5	1
	140	10,4	21,21	0,469	0,494					2,1	1,5
	180	10,8	22,07	0,433	0,454					2,8	2
118	100	16	46,28	0,914	0,948	2,4	1,6	2	1,4	1,4	1
	140	16,7	48,34	0,855	0,884					2,1	1,5
	180	17,3	50,39	0,803	0,829					2,8	2
141	140	26,4	98,01	1,306	1,362	2,8	1,6	2	1,4	2	1,5
	180	28,5	105,33	1,229	1,279					2,7	2
169	140	50,7	289,79	2,467	3,035	3	2,4	2	1,4	2	1,4
	180	52,3	299,74	2,375	2,898					2,6	1,9
	250	55	317,15	2,231	2,686					3,8	2,7
205	200	105	951,03	8,995	9,142	2,2	1,2	1	0,8	1,4	1,2
	250	107,8	975,71	8,265	8,389					1,8	1,5
254	224	169,2	2131,73	14,975	15,19	2,2	1,6	1	0,8	1,6	1,3
	250	171,2	2152,56	14,302	14,497					1,8	1,5
	300	175	2192,61	13,163	13,328					2,2	1,8

1) When selecting the size, it is essential to observe the instructions on coupling dimensioning in the document "Product Paper & Tech Paper RINGFEDER® Steel Disc Couplings". Short-term peak torque T_{kmax} is limited to 1.75 multiples of T_{KN}.

2) For longer spacers, check bending critical rotational speed.

3) Pre-bore has free tolerance.

4) Maximum finished bore with keyways according to DIN 6885-1.

5) Longer spacers on request.

6) Weight and mass moments of inertia for pre-bored hubs.

7) The maximum misalignment values must not apply simultaneously. The instructions on coupling dimensioning in the document "Product Paper & Tech Paper RINGFEDER® Steel Disc Couplings" are to be observed.

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Explanations

$T_{KN}HD$ = Nom. transmissible torque with disc pack HD

$T_{KN}HT$ = Nom. transmissible torque with disc pack HT

n_{max} = Max. rotational speed

d_{pre} = Diamater pre-bore

d_{1kmax} = Max. bore diameter d_1 with keyway acc. to DIN 6885-1

d_{2kmax} = Max. bore diameter d_2 with keyway acc. to DIN 6885-1

C_1 = Guided length in hub bore

C_2 = Guided length in hub bore

E_{l1} = Distance between hubs

E = Distance between hubs

H_3 = Width of the disc pack

D_1 = Max. outer diameter

D_2 = Outer diameter hub

D_4 = Outer diameter of the inverted hub

L_2 = Hub flange thickness

L = Total length

S_B = Protruding of the screw

S_D = Disassembly space

n_{Sc} = Quantity of screws

Gw_{SB} = Weight at smallest bore diameter

J_{SB} = Moment of inertia at smallest bore diameter

C_{TdynHD} = Dynamic torsional stiffness with disc pack HD

C_{TdynHT} = Dynamic torsional stiffness with disc pack HT

ΔK_aHD = Max. permissible axial misalignment with disc pack HD

ΔK_aHT = Max. permissible axial misalignment with disc pack HT

ΔK_wHD = Max. permissible angular misalignment with disc pack HD

ΔK_wHT = Max. permissible angular misalignment with disc pack HT

ΔK_rHD = Max. permissible radial misalignment with disc pack HD

ΔK_rHT = Max. permissible radial misalignment with disc pack HT

Ordering example

Type	Size	Disc pack	Distance between hubs E	Bore diameter d_1	Bore diameter d_2
TND HDV	118	HD	140	85	60

Further information on
RINGFEDER® TND HDV

Technical Information

- Without further specifications, we deliver as standard: Bore tolerance H7; Keyway acc. to DIN 6885-1; Keyway width tolerance P9; Set screw per hub.
- From a peripheral speed of 30 m/s, separate balancing of the individual coupling parts is recommended.
- Without further instructions on balancing, the coupling parts are balanced individually according to DIN 21940-11 in quality G 6,3 at 1,500 1/min. The hubs are balanced half key (before grooving), the spacer without screwed-on disc packs.