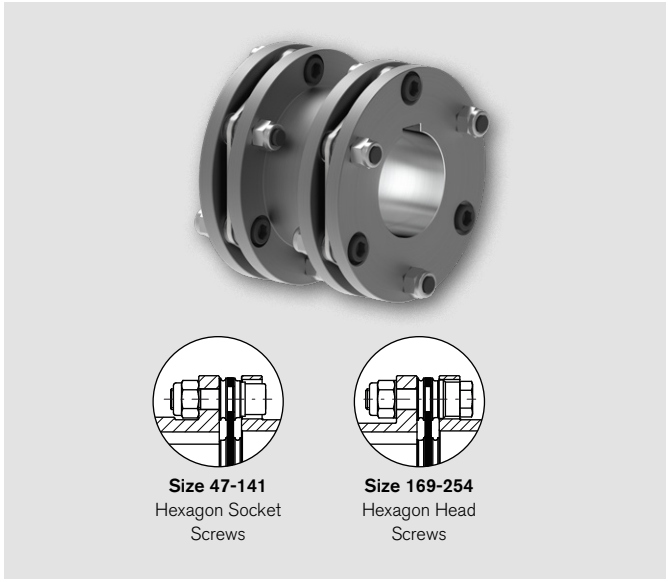
Steel Disc Couplings

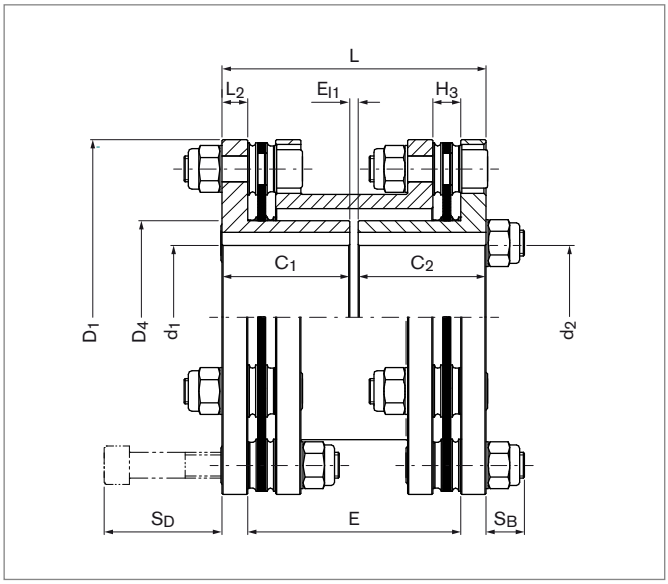
RINGFEDER® TND VDV

Inverted Hubs, 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)	$d_{1k};d_{2k}$ max 4)	C_1 / C_2	E_{I1}	E 5)	H_3	D_1	D_4	L_2	L	S_B	S_D	n_{Sc}
VDV	Nm	Nm	1/min	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
47	170	230	12200	10	25	33 39,5	4 31	60 100	7,5	70,5	37	5	70 110	7	24	6
63	320	420	9900	14	32	41 45	4 6	70 80	9	88	48	8	86 96	9	32	6
82	750	1050	7500	15	44	55 55	10 50	100 140	10,5	116	64	10	120 160	11	40	6
98	1350	1750	6200	19	50	59 60	4 42	100 140	12	140,5	77	11	122 162	15	47	6
118	2400	3000	5250	25	60	60 75	4 14	100 140	13	166,5	90,5	12	124 164	17	55	6
141	4000	5200	4400	30	75	81 90	6 28	140 180	15	198,5	114	14	168 208	18	64	6
169	6500	8500	3650	39	90	103 125	6 32	180 250	21	238	135	16	212 282	24	81	6
205	21000	26000	2950	59	115	142	10	250	28	295	170	22	294	27	112	8
254	36000	44000	2500	79	120	146 171	10 10	250 300	32,5	345	180	26	302 352	29	133	8

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Size	E [5]	Gw_{SB} [6]	J_{SB} [6]	C_{TdynHD}	C_{TdynHT}	Max. Permissible Misalignment [7]					
						axial		angular		radial	
						ΔK_aHD	ΔK_aHT	ΔK_wHD	ΔK_wHT	ΔK_rHD	ΔK_rHT
VDV	mm	kg	$10^{-3}kgm^2$	10^6 Nm/rad	10^6 Nm/rad	mm	mm	Degrees	Degrees	mm	mm
47	60	1,2	0,6	0,071	0,075	1	0,6	2	1,4	0,8	0,6
	100	1,4	0,66	0,059	0,062					1,5	1,1
63	70	2,4	2,04	0,126	0,139	1	0,8	2	1,4	1	0,7
	80	2,5	2,08	0,126	0,139					1,1	0,8
82	100	5,7	7,90	0,271	0,308	1,4	0,8	2	1,4	1,4	1,1
	140	6	8,32	0,246	0,277					2,1	1,5
98	100	8,8	18,36	0,513	0,543	2	1,2	2	1,4	1,5	1
	140	9,2	19,22	0,469	0,494					2,1	1,5
118	100	13,1	39,38	0,914	0,948	2,4	1,6	2	1,4	1,4	1
	140	13,8	41,44	0,855	0,884					2,1	1,5
141	140	22,6	100,41	1,306	1,362	2,8	1,6	2	1,4	2	1,5
	180	24,7	105,33	1,229	1,279					2,7	2
169	180	43,5	256,20	2,375	2,898	3	2,4	2	1,4	2,6	1,9
	250	46,2	273,61	2,231	2,686					3,8	2,7
205	250	93,4	862,77	8,265	8,389	2,2	1,2	1	0,8	1,8	1,5
254	250	132,8	1734,93	14,302	14,497	2,2	1,6	1	0,8	1,8	1,5
	300	136,6	1774,98	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_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

$C_{Tdyn}HD$ = Dynamic torsional stiffness with disc pack HD

$C_{Tdyn}HT$ = 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 VDV	118	HD	140	60	60

Further information on
RINGFEDER® TND VDV
on **www.ringfeder.com**

Technical Information

- Without further specifications, we deliver as standard: Bore tolerance H7; Keyway acc. to DIN 6885-1; Keyway width tolerance P9.
- 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.

RINGFEDER POWER TRANSMISSION