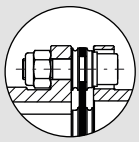
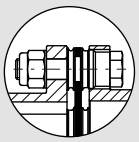
Steel Disc Couplings

RINGFEDER® TND XSX

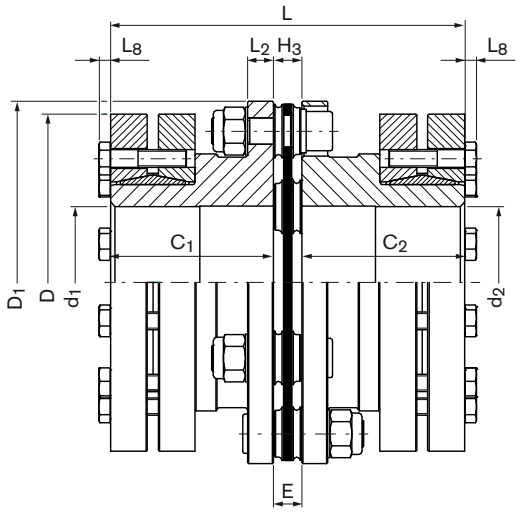
Hubs with RINGFEDER® Shrink Discs, Single-Jointed, without Spacer, Shaft-Hub Connection by Shrink Disc



Size 82-141
Hexagon Socket Screws



Size 169-254
Hexagon Head Screws



Size	T_{KN}HD [1]	T_{KN}HT [1]	n_{max}	$d_1;d_2$ [3] min	$d_1;d_2$ [3] max	C_1 / C_2	E	H_3	D_1	L_2	L	n_{Sc}
XSX	Nm	Nm	1/min	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
82	750	1050	3600	38	60	55	10,5	10,5	116	10	120,5	6
98	1350	1750	3600	50	70	60	12	12	140,5	11	132	6
118	2400	3000	3600	50	75	75	13	13	166,5	12	163	6
141	4000	5200	3400	65	95	90	15	15	198,5	14	195	6
169	6500	8500	3000	65	105	125	21	21	238	16	271	6
205	21000	26000	2500	95	145	160	28	28	295	22	348	8
254	36000	44000	2100	95	160	200	32,5	32,5	345	26	432,5	8

Size	Gw_{sp}	C_{Tdyn}HD	C_{Tdyn}HT	Max. Permissible Misalignment [7] axial ΔK_aHD	axial ΔK_aHT	angular ΔK_wHD	angular ΔK_wHT	radial ΔK_rHD	radial ΔK_rHT
XSX	kg	10^6 Nm/rad	10^6 Nm/rad	mm	mm	Degrees	Degrees	mm	mm
82	0,5	0,637	0,743	0,7	0,4	1	0,7	---	---
98	0,85	1,173	1,251	1	0,6	1	0,7	---	---
118	1,36	2	2,082	1,2	0,8	1	0,7	---	---
141	2,096	2,992	3,142	1,4	0,8	1	0,7	---	---
169	4,032	5,269	6,586	1,5	1,2	1	0,7	---	---
205	10,903	21,848	22,285	1,1	0,6	0,5	0,4	---	---
254	18,135	37,204	37,868	1,1	0,8	0,5	0,4	---	---

1) When selecting the coupling 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} or by the transmissible torque T of the shrink disc.

3) Bore tolerance H6 up to diameter 80 mm; Bore tolerance H7 from diameter 80 mm.

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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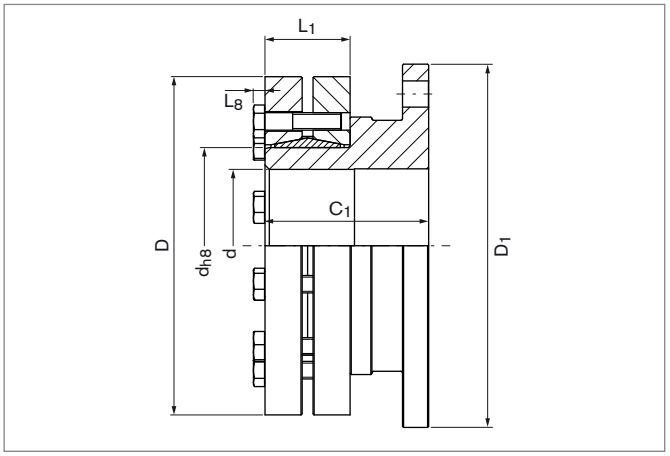
Shaft-Hub Connection by Shrink Discs RINGFEDER® RfN 4061



Shrink Discs RINGFEDER® RfN 4061						Sizing RINGFEDER® TND XSX						
d_{h8}	x	D	L_1	L_8	d	T	Size	D_1	C_1 / C_2	$T_{KN}HD$ [1]	$T_{KN}HT$ [1]	n_{max}	Gw_{hs}
mm			mm	mm	mm	Nm	XSX	mm	mm	Nm	Nm	1/min	kg
50	x	90	27,5	4	38	1350	82	116	55	750	1050	3600	2,3
					40	1500							
					42	1700							
55	x	100	30,5	4	42	1300	82	116	55	750	1050	3600	2,4
					45	1550							
					48	1800							
68	x	115	30,5	4	48	1700	82	116	55	750	1050	3600	2,8
					55	2250	98	140,5	60	1350	1750	3600	3,6
					60	2850	118	166,5	75	2400	3000	3600	5,8
75	x	138	32,5	5,3	55	2650	98	140,5	60	1350	1750	3600	4,4
					60	3300	118	166,5	75	2400	3000	3600	6,5
					65	4050							
80	x	145	32,5	5,3	60	3200	98	140,5	60	1350	1750	3600	4,6
					65	3900							
					70	4600							
90	x	155	39	5,5	65	4800	118	166,5	75	2400	3000	3600	7,2
					70	6050	141	198,5	90	4000	5200	3400	10,5
					75	7300	169	238	125	6500	8500	3000	19
115	x	185	56	6,4	75	9100	141	198,5	90	4000	5200	3400	12,6
					90	12100	169	238	125	6500	8500	3000	20
					95	14050							
140	x	230	60,5	7,5	95	15100	169	238	125	6500	8500	3000	24,4
					100	17550	205	295	160	21000	26000	2500	40
					105	20000	254	345	200	36000	44000	2100	60
165	x	290	71	10	105	25000	205	295	160	21000	26000	2500	48,8
					120	35500	254	345	200	36000	44000	2100	69
					125	39400							
185	x	330	86,4	10	125	43500	205	295	160	21000	26000	2500	60,4
					140	57350	254	345	200	36000	44000	2100	80
					145	62400							
200	x	350	86	10	145	69000	254	345	200	36000	44000	2100	77,7
					155	81000							
					160	87200							

The transmissible torque of the coupling is dependent on the selected disc pack as well as the type of the shaft-hub connection.
The lower torque limits the transmissibility and must be taken as a basis for the selection of the coupling.

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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_{1min} = Min. bore diameter d_1

d_{2min} = Min. bore diameter d_2

d_{1max} = Max. bore diameter d_1

d_{2max} = Max. bore diameter d_2

C_1 = Guided length in hub bore

C_2 = Guided length in hub bore

E = Distance between hubs

H_3 = Width of the disc pack

D_1 = Max. outer diameter

L_2 = Hub flange thickness

L = Total length

n_{Sc} = Quantity of screws

Gw_{sp} = Weight of spacer

Gw_{hs} = Weight of hub including shrink disc

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

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

$\Delta K_a HD$ = Max. permissible axial misalignment with disc pack HD

$\Delta K_a HT$ = Max. permissible axial misalignment with disc pack HT

$\Delta K_w HD$ = Max. permissible angular misalignment with disc pack HD

$\Delta K_w HT$ = Max. permissible angular misalignment with disc pack HT

$\Delta K_r HD$ = Max. permissible radial misalignment with disc pack HD

$\Delta K_r HT$ = Max. permissible radial misalignment with disc pack HT

Shrink Disc Selection

d_{h8} = Inner diameter

D = Outer diameter

L_1 = Min. installation length (without screws)

L_8 = Overhang length

d = Solid shaft diameter

T = Transmissible torque

Ordering example

Type	Size	Disc pack	Bore diameter d_1	Shrink Disc RfN 4061 for bore diameter d_1	Bore diameter d_2	Shrink Disc RfN 4061 for bore diameter d_2
TND XSX	98	HD	50	68 x 115	60	68 x 115

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

Technical Information

- The specified values for transmissible torques are valid as follows: Shaft tolerance h6 for shaft diameters up to 50 mm; Shaft tolerance g6 for shaft diameters from 50 mm; Surface quality $R_a \leq 3.2$ µm.
- 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 without screwed-on disc pack.

RINGFEDER POWER TRANSMISSION