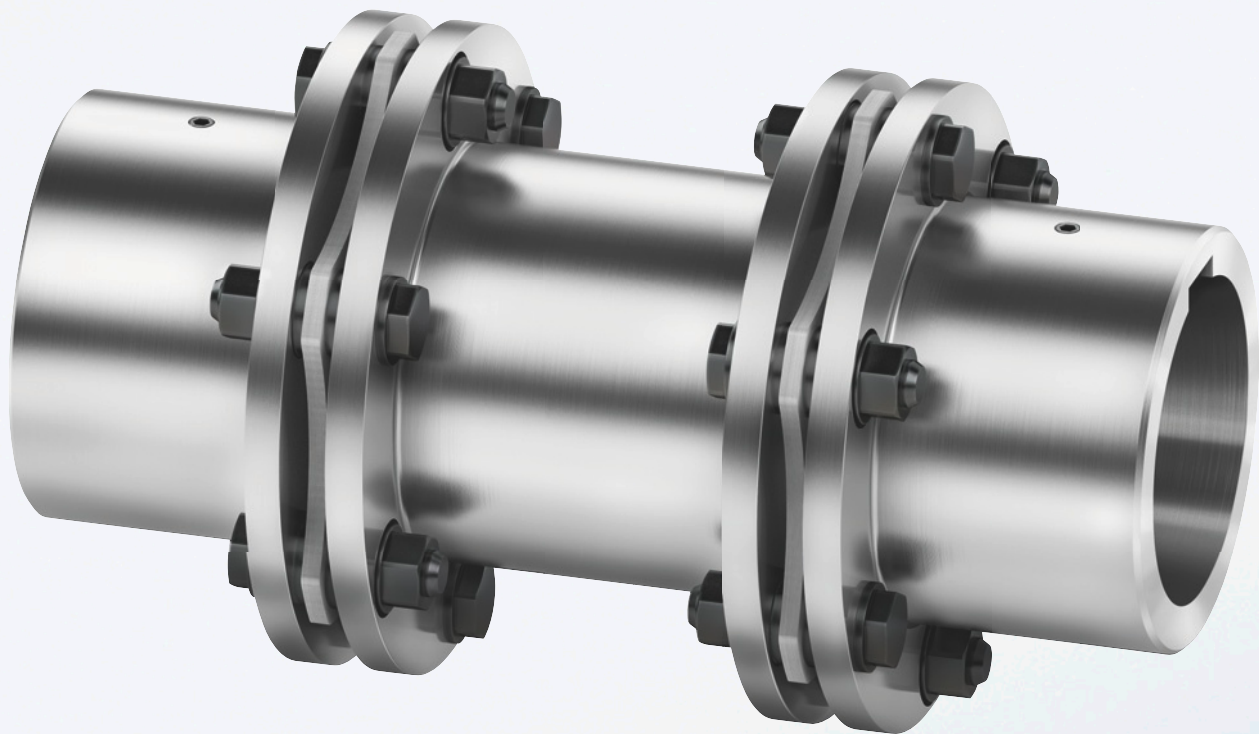


SIEMENS



FLENDER Standard Couplings
















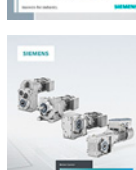


N-ARPEX

FLENDER couplings

Catalog
MD 10.1 N

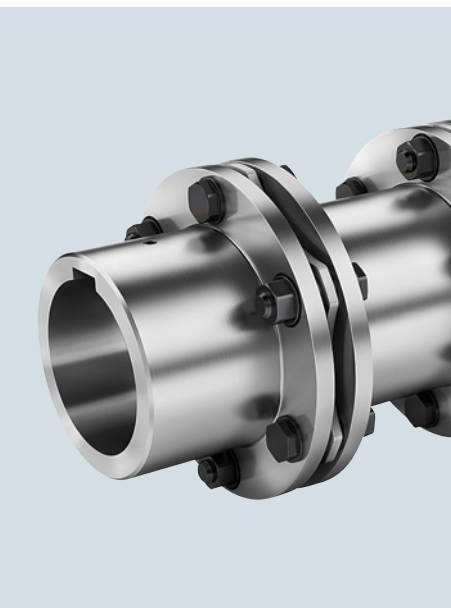
Edition
April
2017

Related catalogs

<p>ARPEX High Performance Couplings</p> <p>MD 10.2</p> <p>E86060-K5710-A121-A1-7600</p>		<p>Bucket Elevator Drives</p> <p>MD 20.2</p> <p>E86060-K5720-A121-A3-6300</p>	
<p>SIPEX and BIPEX-S Backlash-free Couplings</p> <p>MD 10.3</p> <p>E86060-K5710-A131-A1-7600</p>		<p>PLANUREX 2 Planetary Gear Units</p> <p>MD 20.3</p> <p>E86060-K5720-A131-A2-6300</p>	
<p>ARPEX Composite Couplings</p> <p>MD 10.5</p> <p>E86060-K5710-A151-A2-7400</p>		<p>Paper Machine Drives</p> <p>MD 20.5</p> <p>E86060-K5720-A151-A2-6300</p>	
<p>ARPEX Couplings Miniature</p> <p>MD 10.10</p> <p>E86060-K5710-A211-A2-6300</p>		<p>Conveyor Drives</p> <p>MD 20.6</p> <p>E86060-K5720-A161-A2-6300</p>	
<p>ARPEX Torque Limiters</p> <p>MD 10.11</p> <p>E86060-K5710-A221-A2-7400</p>		<p>Marine Reduction Gearboxes</p> <p>MD 20.7</p> <p>E86060-K5720-A171-A1-7400</p>	
<p>FLENDER SIP Standard Industrial Planetary Gear Units</p> <p>MD 31.1</p> <p>E86060-K5731-A111-A5-7600</p>		<p>DUORED 2 Helical Gear Units, Load-sharing</p> <p>MD 20.8</p> <p>E86060-K5720-A181-A1-6300</p>	
<p>Gear Units Sizes 3–22</p> <p>MD 20.1</p> <p>E86060-K5720-A111-A2-6300</p>		<p>Pinion Drive for Tube Mills</p> <p>MD 20.9</p> <p>E86060-K5720-A191-A1-7400</p>	
<p>Gear Units Sizes 23–28</p> <p>MD 20.11</p> <p>E86060-K5720-A211-A3-6300</p>		<p>SIMOGEAR Geared Motors Helical, parallel shaft, bevel, helical worm and worm geared motors</p> <p>MD 50.1</p> <p>E86060-K5250-A111-A5-7600</p>	
<p>Gear Units Fast Track</p> <p>MD 20.12</p> <p>E86060-K5720-A221-A1-6300</p>		<p>Industry Mall Information and Ordering Platform in the Internet:</p> <p>www.siemens.com/industrymall</p>	

Torsionally rigid all-steel couplings N-ARPEX ARN-6 series

6



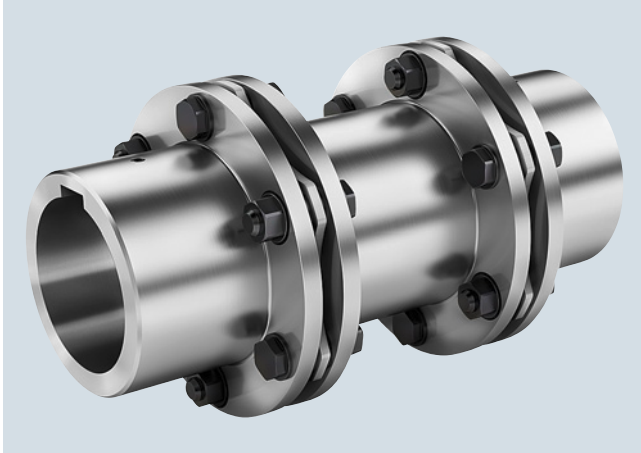
6/2	Overview
6/2	Benefits
6/2	Application
6/3	Design
6/4	Technical specifications
6/5	Type NEN
6/5	Selection and ordering data
6/6	Type BEB
6/6	Selection and ordering data
6/7	Type MCECM
6/7	Selection and ordering data
6/8	Clamping hub
6/8	Selection and ordering data
6/10	Other data
6/12	Bore specifications
6/13	Other design options

FLENDER Standard Couplings

Torsionally rigid all-steel couplings – N-ARPEX ARN-6 series


General


Overview




Couplings suitable for use in potentially explosive atmospheres.

Compliant with the current ATEX directive for:

CE  II 2G c IIC TX
 $-50\text{ °C} \leq T_a \leq +260\text{ °C X}$

CE  II 2D c TX
 $-50\text{ °C} \leq T_a \leq +260\text{ °C X}$

CE  I M2 c TX
 $-50\text{ °C} \leq T_a \leq +150\text{ °C X}$

Benefits

N-ARPEX ARN-6 series couplings are outstanding for their application-optimized construction. Types NEN, BEB, and MCECM meet the requirements of **API 610**. Couplings designed according to API 671 are also possible.

At speeds above 1800 rpm, the 5-part design with preassembled intermediate unit is used.

A special fly-away prevention secures the intermediate spacer if a plate breaks. The use of the N-ARPEX coupling is permitted in potentially explosive atmospheres according to the current **ATEX directive**.

Application

The N-ARPEX couplings of the ARN-6 series are used wherever reliable torque transmission is required despite unavoidable displacements of the shafts. They can be used universally in a temperature range of -50 °C (use down to -60 °C on request) up to $+280\text{ °C}$, are torsionally rigid, free of torsional backlash, and permit smooth running at a constant angular velocity. They are not subject to wear, are maintenance-free, and an unlimited service life can be expected if they are properly mounted.

They are particularly suitable for use in pump and compressor drives. Couplings with standardized intermediate spacer lengths are available for this that can be supplied from stock (see tables below).

Main applications of the ARN-6 series:

- Pumps
- Fans
- Compressors
- Generator and turbine drives
- Axial and radial blowers
- Paper making and printing machines
- Mixers, agitators
- Extruders
- Hoisting gear and running gear
- Marine drives
- Water screw drives



With the introduction of the new FLENDER N-ARPEX all-steel disk coupling, Siemens is writing a further chapter in the ongoing success story of the proven ARPEX coupling series.

An optimized plate pack and a revised component design enable transmission of even greater torques and speeds.

All in all, the new design of the plate packs, the enclosed flange geometry, the standard fly-away prevention of the intermediate spacer, and the FEM-optimized power distribution within the all-steel disk coupling clearly show that the development has been worthwhile.

FLENDER Standard Couplings

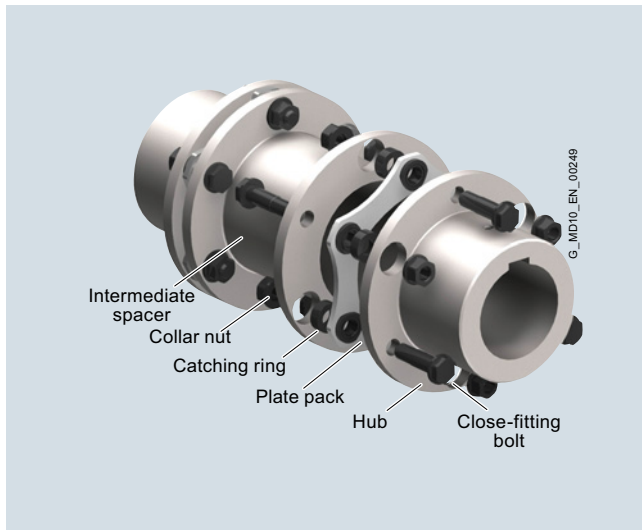
Torsionally rigid all-steel couplings – N-ARPEX ARN-6 series

General

Design

NEN

The design of an N-ARPEX type NEN of the ARN-6 series is shown in the following illustration. The coupling consists of two hubs, an intermediate spacer and two plate packs that can be bolted together with close-fitting bolts. The intermediate spacer is available in fixed lengths from stock. Other spacer lengths are made to order. The hubs are designed with threaded pull-off holes.



Design of the N-ARPEX coupling, ARN-6 series, type NEN

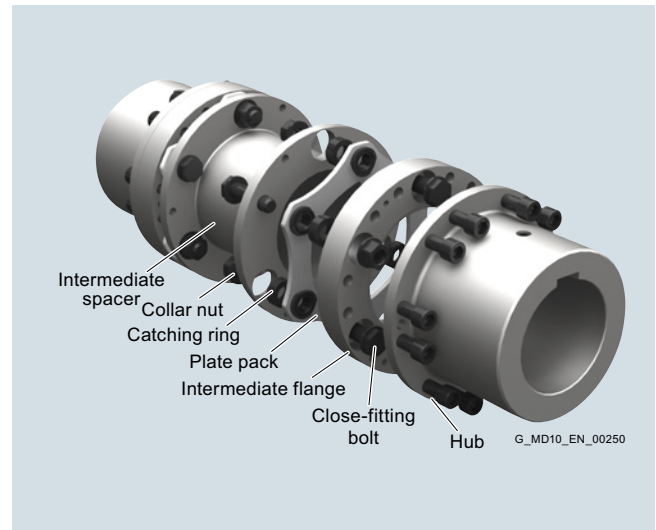
Variants of the N-ARPEX coupling, ARN-6 series

Type	Description
NEN, BEB	Variant with intermediate spacer, various fixed lengths available from stock
MCECM	Variant with preassembled intermediate unit, recess guide between hubs and preassembled intermediate unit, various fixed lengths available from stock

MCECM

The design of an N-ARPEX type MCECM of the ARN-6 series is shown in the following illustration. The coupling consists of two hubs and a preassembled intermediate unit (CEC) in which the plate packs are bolted to the intermediate spacer and centering flanges in the factory.

On site, it only remains to bolt the hubs to the centering flanges. The coupling is available in fixed lengths from stock. Other spacer lengths are made to order. The hubs are designed with threaded pull-off holes.



Design of the N-ARPEX coupling, ARN-6 series, type MCECM

Dimension sheets and 3D models of the standard types and application-specific coupling types are available in the selection module X:CAT NG at www.siemens.com/couplings.

FLENDER Standard Couplings

Torsionally rigid all-steel couplings – N-ARPEX ARN-6 series

General

Technical specifications

Performance data of type NEN, BEB, and MCECM

Size	Rated torque	Maximum torque	Overload torque	Fatigue torque				Maximum speed	Maximum permitted shaft misalignment (The radial misalignment $\pm\Delta K_r$ depends on the total length. Values are stated on page 6/10.)		Torsional stiffness for a plate pack (length-dependent torsional stiffness values are listed in the table on page 6/10)
				T_{KN}	T_{Kmax}	T_{KOL}	T_{Kw0}		$T_{Kw} = T_{Kw0} \times (1 - T_N/T_{KN})$	n_{Kmax}	
DA	T_{KN}	T_{Kmax}	T_{KOL}	T_{KN}	T_{KN}	T_{KN}	T_{KN}				
mm	Nm	Nm	Nm	Nm	Nm	Nm	Nm	rpm	mm		MNm/rad
86-6	350	700	875	175	131	88	44	24000	1.2	1.0°	0.132
103-6	500	1000	1250	250	188	125	63	20000	1.4		0.206
122-6	950	1900	2375	475	356	238	119	17000	2.0		0.463
133-6	1250	2500	3125	625	469	313	156	15000	2.2		0.608
159-6	2100	4200	5250	1050	788	525	263	13000	2.6		0.986
174-6	2400	5200	6500	1300	975	650	325	12000	3.0		1.188
184-6	3800	7600	9500	1900	1425	950	475	11000	3.2		1.826
203-6	5000	10000	12500	2500	1875	1250	625	10000	3.4		2.591
217-6	6200	12400	15500	3100	2325	1550	775	9500	3.4		3.285
251-6	10500	22000	27500	5500	4125	2750	1375	8000	4.1		4.707
268-6	13800	27600	34500	6900	5175	3450	1725	7500	4.2		5.635
291-6	18200	36400	45500	9100	6825	4550	2275	7000	4.6		8.269
318-6	23000	46000	57500	11500	8625	5750	2875	6500	5.0		10.936
343-6	28000	56000	70000	14000	10500	7000	3500	6000	5.3		12.151

The permitted shaft misalignments ΔK_a , ΔK_r and ΔK_w are maximum values and must not occur simultaneously (see the table below).

T_{Kmax} permitted five times per hour.

Length-dependent values, such as total length, torsional stiffness, radial misalignment, and total weight and mass moment of inertia are listed in the table on page 6/10.

The torsional stiffness of the plate pack refers to the nominal range of the coupling. For the determination of the torsional stiffness for a specific operating point outside the nominal range, consultation is required.

Permitted shaft misalignments for types NEN, BEB, and MCECM

Size	Permitted angular misalignment $\pm\Delta K_w$											
	0.0°	0.1°	0.2°	0.3°	0.4°	0.5°	0.6°	0.7°	0.8°	0.9°	1.0°	
DA	Permitted axial misalignment $\pm\Delta K_a$ in mm											
86-6	1.2	1.1	1.0	0.8	0.7	0.6	0.5	0.4	0.2	0.1	0.0	
103-6	1.4	1.3	1.1	1.0	0.8	0.7	0.6	0.4	0.3	0.1	0.0	
122-6	2.0	1.8	1.6	1.4	1.2	1.0	0.8	0.6	0.4	0.2	0.0	
133-6	2.2	2.0	1.8	1.5	1.3	1.1	0.9	0.7	0.4	0.2	0.0	
159-6	2.6	2.3	2.1	1.8	1.6	1.3	1.0	0.8	0.5	0.3	0.0	
174-6	3.0	2.7	2.4	2.1	1.8	1.5	1.2	0.9	0.6	0.3	0.0	
184-6	3.2	2.9	2.6	2.2	1.9	1.6	1.3	1.0	0.6	0.3	0.0	
203-6	3.4	3.1	2.7	2.4	2.0	1.7	1.4	1.0	0.7	0.3	0.0	
217-6	3.4	3.1	2.7	2.4	2.0	1.7	1.4	1.0	0.7	0.3	0.0	
251-6	4.1	3.7	3.3	2.9	2.5	2.1	1.6	1.2	0.8	0.4	0.0	
268-6	4.2	3.8	3.4	2.9	2.5	2.1	1.7	1.3	0.8	0.4	0.0	
291-6	4.6	4.1	3.7	3.2	2.8	2.3	1.8	1.4	0.9	0.5	0.0	
318-6	5.0	4.5	4.0	3.5	3.0	2.5	2.0	1.5	1.0	0.5	0.0	
343-6	5.3	4.8	4.2	3.7	3.2	2.7	2.1	1.6	1.1	0.5	0.0	

FLENDER Standard Couplings

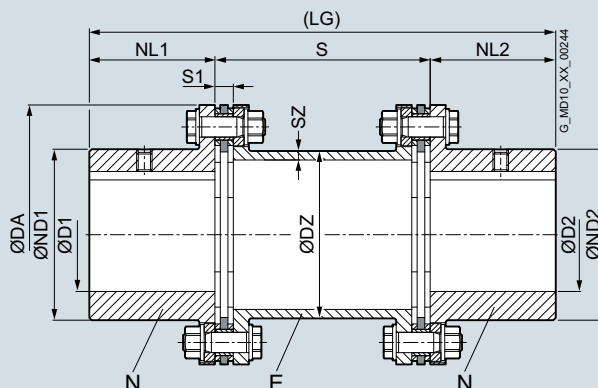
Torsionally rigid all-steel couplings – N-ARPEX ARN-6 series

Type NEN

Selection and ordering data

Torsionally rigid couplings of type NEN with radially freely dismountable intermediate spacer and fly-away prevention for securing the intermediate spacer if a plate breaks.

Standard coupling design in accordance with API 610. Coupling design in accordance with API 671 (up to $n = 1800$ rpm) possible.



Size	Rated torque T_{KN}	Maximum speed n_{max}	Dimensions in mm							Shaft distance V = Preferred dimension			Mass moment of inertia J	Article No. Further information on the structure of the Article No. is provided in Catalog MD 10.1, Chapter 3.	Weight m						
			Bore with keyway to DIN 6885-1 D1/D2	ND1/ND2	NL1/NL2	DZ	SZ	S1	S	V	A	B				C	D	E	F	kg	
86-6	350	24000	42	56	45	46	5.5	8.0	100	A	B	C				190	0.0017	2LC0370-0AA	■ ■ ■ -0A	■ 0	2.1
103-6	500	20000	55	73	55	63	4.0	8.4	100	A	B	C				210	0.0040	2LC0370-1AA	■ ■ ■ -0A	■ 0	3.1
122-6	950	17000	65	85	65	73	4.0	8.8	100	A	B	C	D	E		230	0.0097	2LC0370-2AA	■ ■ ■ -0A	■ 0	5.1
133-6	1250	15000	75	96	75	85	5.0	9.6	100	A	B	C	D	E		250	0.0150	2LC0370-3AA	■ ■ ■ -0A	■ 0	6.5
159-6	2100	13000	80	104	80	100	5.0	11.6	100	A	B	C	D	E		260	0.0301	2LC0370-4AA	■ ■ ■ -0A	■ 0	9.5
174-6	2400	12000	90	118	85	116	5.5	12.8	100	A	B	C	D	E		270	0.0465	2LC0370-5AA	■ ■ ■ -0A	■ 0	12.0
184-6	3800	11000	95	124	90	124	7.0	14.6	140		B	C	D	E		320	0.0729	2LC0370-6AA	■ ■ ■ -0A	■ 0	16.4
203-6	5000	10000	100	135	95	128	6.5	15.0	140		B	C	D	E		330	0.1099	2LC0370-7AA	■ ■ ■ -0A	■ 0	21.1
217-6	6200	9500	110	143	105	140	7.5	15.4	140		B	C	D	E		350	0.1516	2LC0370-8AA	■ ■ ■ -0A	■ 0	24.9
251-6	10500	8000	120	160	110	160	10.0	20.6	180		C	D	E		P	400	0.3078	2LC0371-0AA	■ ■ ■ -0A	■ 0	38.8
268-6	13800	7500	130	170	130	170	10.0	22.0	180		C	D	E		P	440	0.4550	2LC0371-1AA	■ ■ ■ -0A	■ 0	49.5
291-6	18200	7000	145	190	140	190	10.0	22.8	180		C	D	E		P	460	0.6805	2LC0371-2AA	■ ■ ■ -0A	■ 0	61.9
318-6	23000	6500	155	205	150	205	12.5	23.2	200		D	E	F		S	500	1.0788	2LC0371-3AA	■ ■ ■ -0A	■ 0	83.1
343-6	28000	6000	170	230	160	230	15.0	24.0	200		D	E	F		S	520	1.5633	2LC0371-4AA	■ ■ ■ -0A	■ 0	104.1

ØD1: • Without finished bore – Without order codes for diameter and tolerance
• With finished bore – With order codes for diameter and tolerance (Article No. without "-Z"; for an overview of order codes, see page 6/12)

ØD2: • Without finished bore – Without order codes for diameter and tolerance
• With finished bore – With order codes for diameter and tolerance (Article No. without "-Z"; for an overview of order codes, see page 6/12)

Shaft distance S: • Codes for metric (mm) = **A, B, C, D, E, F**
• Imperial (inches) = **M, N, P, S**

Hubs are designed with threaded pull-off holes.
Special lengths available on request.

The total lengths, the weights, and the mass moments of inertia apply to the entire coupling with maximum bores D1/D2 and the preferred shaft distance S.

Ordering example:

N-ARPEX coupling ARN-6 NEN, size 217-6, with shaft distance $S = 140$ mm (**2LC0370-8AA99-0AB0**),

Bore ØD1 50H7 mm, with keyway to DIN 6885-1 and set screw (**L1C** / for an overview of order codes, see page 6/12),

Bore ØD2 60H7 mm, with keyway to DIN 6885-1 and set screw (**M1E** / for an overview of order codes, see page 6/12)

Article No.:
2LC0370-8AA99-0AB0
L1C+M1E

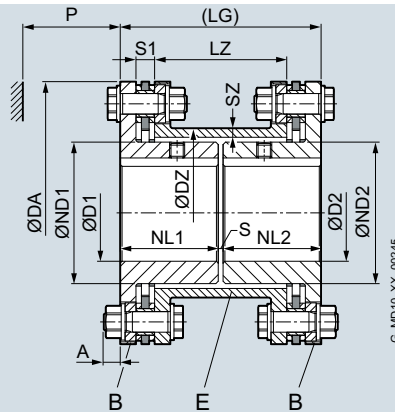
FLENDER Standard Couplings

Torsionally rigid all-steel couplings – N-ARPEX ARN-6 series

Type BEB

Selection and ordering data

Torsionally rigid couplings of type BEB with the smallest possible shaft distance.
Type BEB cannot be dismounted freely in the radial direction without moving the connected units.



Size	Rated torque T_{KN}	Maximum speed n_{max}	Dimensions in mm											Mass moment of inertia J	Article No. Further information on the structure of the Article No. is provided in Catalog MD 10.1, Chapter 3.	Weight m
			Shaft distance													
DA			Bore with keyway to DIN 6885-1 D1/D2	ND1/ND2	NL1/NL2	DZ	SZ	LZ	S1	S	A	P	LG	J		m
mm	Nm	rpm	max.											kgm ²		kg
86-6	350	24000	22	33	30	46	5.5	44.0	8.0	12	8	32	72	0.0013	2LC0370-0AB -0AA0	1.5
103-6	500	20000	38	53	34	63	4.0	43.2	8.4	4	8	32	72	0.0027	2LC0370-1AB -0AA0	2.0
122-6	950	17000	48	63	56	73	4.0	82.4	8.8	4	8	38	116	0.0078	2LC0370-2AB -0AA0	4.3
133-6	1250	15000	55	72	56	85	5.0	80.8	9.6	4	7	38	116	0.0114	2LC0370-3AB -0AA0	5.2
159-6	2100	13000	65	85	57	100	5.0	76.8	11.6	4	11	48	118	0.0251	2LC0370-4AB -0AA0	7.8
174-6	2400	12000	75	98	77	116	5.5	114.4	12.8	4	10	48	158	0.0407	2LC0370-5AB -0AA0	11.0
184-6	3800	11000	80	104	80	124	7.0	110.8	14.6	4	17	64	164	0.0637	2LC0370-6AB -0AA0	14.7
203-6	5000	10000	85	111	80	128	6.5	110.0	15.0	4	16	64	164	0.0925	2LC0370-7AB -0AA0	17.7
217-6	6200	9500	90	117	81	140	7.5	109.2	15.4	4	14	66	166	0.1286	2LC0370-8AB -0AA0	21.2
251-6	10500	8000	100	130	102	160	10.0	138.8	20.6	6	15	77	210	0.2716	2LC0371-0AB -0AA0	34.4
268-6	13800	7500	108	141	105	170	10.0	136.0	22.0	6	17	89	216	0.4019	2LC0371-1AB -0AA0	43.5
291-6	18200	7000	120	156	106	190	10.0	134.4	22.8	6	15	89	218	0.5832	2LC0371-2AB -0AA0	52.4
318-6	23000	6500	130	169	118	205	12.5	153.6	23.2	6	20	100	242	0.9384	2LC0371-3AB -0AA0	71.4
343-6	28000	6000	150	195	143	230	15.0	202.0	24.0	6	19	100	292	1.3845	2LC0371-4AB -0AA0	93.1
ØD1:																1
• Without finished bore – Without order codes for diameter and tolerance																9
• With finished bore – With order codes for diameter and tolerance (Article No. without "-Z"; for an overview of order codes, see page 6/12)																
ØD2:																1
• Without finished bore – Without order codes for diameter and tolerance																9
• With finished bore – With order codes for diameter and tolerance (Article No. without "-Z"; for an overview of order codes, see page 6/12)																

Hubs are designed with threaded pull-off holes.
Special lengths available on request.

The total lengths, the weights, and the mass moments of inertia apply to the entire coupling with maximum bores D1/D2 and the preferred shaft distance S.

Ordering example:

N-ARPEX coupling ARN-6 BEB, size 217-6, with shaft distance $S = 4$ mm (**2LC0370-8AB99-0AA0**),

Bore ØD1 50H7 mm, with keyway to DIN 6885-1 and set screw (**L1C** / for an overview of order codes, see page 6/12),

Bore ØD2 60H7 mm, with keyway to DIN 6885-1 and set screw (**M1E** / for an overview of order codes, see page 6/12)

Article No.:
2LC0370-8AB99-0AA0
L1C+M1E

FLENDER Standard Couplings

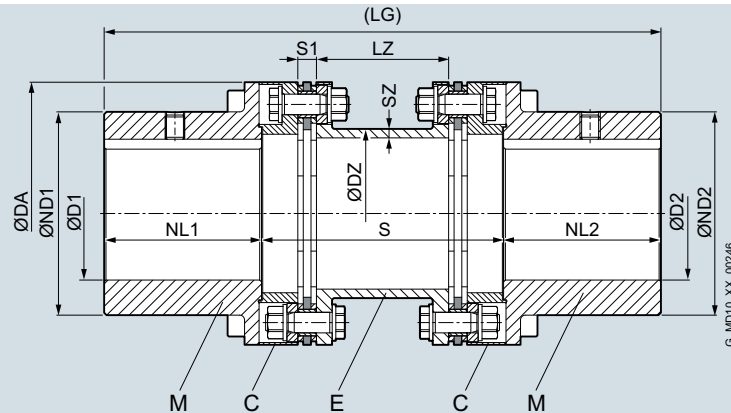
Torsionally rigid all-steel couplings – N-ARPEX ARN-6 series

Type MCECM

Selection and ordering data

Torsionally rigid couplings of type MCECM with radially freely dismountable preassembled intermediate unit and fly-away prevention for securing the intermediate spacer if a plate breaks.

Standard coupling design in accordance with **API 610**. Coupling design in accordance with **API 671** possible.



Size	Rated torque T_{KN}	Maximum speed n_{max}	Dimensions in mm										Mass moment of inertia J	Article No. Further information on the structure of the Article No. is provided in Catalog MD 10.1, Chapter 3.	Weight m		
			Bore with keyway to DIN 6885-1 D1/D2		ND1/ND2	NL1/NL2	DZ	SZ	LZ	S1	S	Shaft distance V = Preferred dimension				LG	
DA			max.														
mm	Nm	rpm								V			kgm ²			kg	
86-6	350	24000	42	62	42	46	5.5	84.0	8.0	140	A B C	N P S	224	0.0030	2LC0370-0AC	■ ■ -0A ■ 0	3.1
103-6	500	20000	55	72	55	63	4.0	83.2	8.4	140	A B C	N P S	250	0.0063	2LC0370-1AC	■ ■ -0A ■ 0	4.4
122-6	950	17000	70	91	70	73	4.0	82.4	8.8	140	B C D E	N P S	280	0.0155	2LC0370-2AC	■ ■ -0A ■ 0	7.6
133-6	1250	15000	80	103	80	85	5.0	80.8	9.6	140	B C D E	P S	300	0.0236	2LC0370-3AC	■ ■ -0A ■ 0	9.4
159-6	2100	13000	95	123	95	100	5.0	76.8	11.6	140	B C D E	P S	330	0.0539	2LC0370-4AC	■ ■ -0A ■ 0	15.0
174-6	2400	12000	105	136	105	116	5.5	74.4	12.8	140	B C D E	P S	350	0.0840	2LC0370-5AC	■ ■ -0A ■ 0	19.4
184-6	3800	11000	110	142	110	124	7.0	110.8	14.6	200	D E	P S	420	0.0853	2LC0370-6AC	■ ■ -0A ■ 0	25.6
203-6	5000	10000	115	150	115	128	6.5	110.0	15.0	200	D E	P S	430	0.1829	2LC0370-7AC	■ ■ -0A ■ 0	31.8
217-6	6200	9500	130	168	130	140	7.5	109.2	15.4	200	D E	S	460	0.2655	2LC0370-8AC	■ ■ -0A ■ 0	39.7
251-6	10500	8000	150	193	150	160	10.0	138.8	20.6	250	E	S	550	0.5583	2LC0371-0AC	■ ■ -0A ■ 0	62.7
268-6	13800	7500	160	206	160	170	10.0	136.0	22.0	250	E		570	0.7773	2LC0371-1AC	■ ■ -0A ■ 0	76.0
291-6	18200	7000	170	221	170	190	10.0	134.4	22.8	250	E		590	1.1127	2LC0371-2AC	■ ■ -0A ■ 0	92.4
318-6	23000	6500	190	245	190	205	12.5	153.6	23.2	300		F	680	1.9087	2LC0371-3AC	■ ■ -0A ■ 0	131.7
343-6	28000	6000	205	267	205	230	15.0	152.0	24.0	300		F	710	2.7346	2LC0371-4AC	■ ■ -0A ■ 0	161.6
ØD1:	<ul style="list-style-type: none"> Without finished bore – Without order codes for diameter and tolerance With finished bore – With order codes for diameter and tolerance (Article No. without "-Z"; for an overview of order codes, see page 6/12) 															1	
ØD2:	<ul style="list-style-type: none"> Without finished bore – Without order codes for diameter and tolerance With finished bore – With order codes for diameter and tolerance (Article No. without "-Z"; for an overview of order codes, see page 6/12) 															1	
Shaft distance S:	<ul style="list-style-type: none"> Codes for metric (mm) = A, B, C, D, E, F Imperial (inches) = N, P, S 																

Hubs are designed with threaded pull-off holes.
Special lengths available on request.

The total lengths, the weights, and the mass moments of inertia apply to the entire coupling with maximum bores D1/D2 and the preferred shaft distance S.

Plate packs in the CEC intermediate unit assembled at the factory.

Ordering example:

N-ARPEX coupling ARN-6 MCECM, size 217-6, with shaft distance $S = 200$ mm (**2LC0370-8AC99-0AD0**),

Bore ØD1 50H7 mm, with keyway to DIN 6885-1 and set screw (**L1C** / for an overview of order codes, see page 6/12),

Bore ØD2 60H7 mm, with keyway to DIN 6885-1 and set screw (**M1E** / for an overview of order codes, see page 6/12)

Article No.:
2LC0370-8AC99-0AD0
L1C+M1E

FLENDER Standard Couplings

Torsionally rigid all-steel couplings – N-ARPEX ARN-6 series

Clamping hub

Selection and ordering data

Clamping hub types 124 and 125 can be combined with any sleeve. It should be noted that the clamping hub can be used only as an N hub (hub core outside).

Function

N-ARPEX clamping hubs transmit the torque with the aid of an elastic press fit. By pulling the clamping ring on by means of the tightening screws the necessary surface pressure is applied in the "shaft/hub" contact area. After the tightening operation the clamping ring lies up against the clamping hub.

Transmissible torque

The clamping connections are designed to enable the specified maximum torques to be transmitted. These maximum torques may not be exceeded, even under overload conditions.

Fitting clearance and surface roughness

The transmissible torques take into account the maximum fitting clearance for the bore and shaft of quality IT6 and the maximum surface roughness. For other shaft tolerances reduced torques

or other bore tolerances must be used. The surface roughness of the shaft should be $R_a \leq 1.6 \mu\text{m}$.

The fit pairing G6/h6 should be used wherever possible.

Different shaft tolerances must be stated in the order. They are stated with "-Z" on the end of the Article No. and the order code "Y26" for the fit.

Ordering example:

N-ARPEX clamping hub type 124, size 133-6, "-Z" with supplementary data

(2LC0370-3LM90-0AA0-Z),

Shaft $\varnothing D1 = 40k6$

(LOW / for an overview of order codes for bore size, see page 6/12)

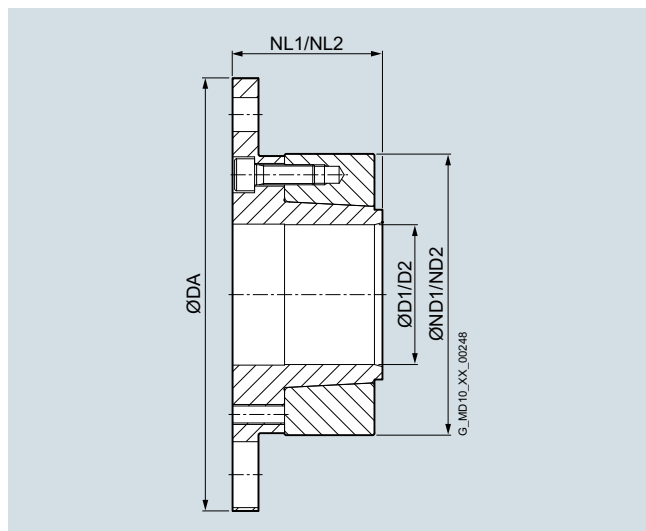
(Y26 / fit stated here)

Article No.:

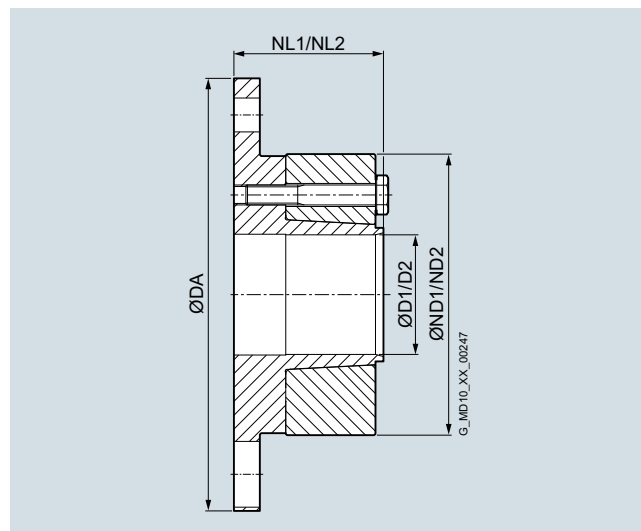
2LC0370-3LM90-0AA0-Z

LOW+Y26

(Y26:k6)



Clamping hub type 125 (standard version)



Clamping hub type 124

Size	Clamping hub Type	Dimensions in mm				Mass moment of inertia J	Article No.	Weight m
		D1	ND	NL	Keyway DIN 6885-1 min. max.			
mm					kgm ²	Further information on the structure of the Article No. is provided in Catalog MD 10.1, Chapter 3	kg	
86-6	124 125	19	25	50	0.0003	2LC0370-0LM90-0AA0 2LC0370-0LN90-0AA0	0.5	
103-6	124 125	25	38	67	0.0009	2LC0370-1LM90-0AA0 2LC0370-1LN90-0AA0	0.9	
122-6	124 125	30	42	77	0.0021	2LC0370-2LM90-0AA0 2LC0370-2LN90-0AA0	1.5	
133-6	124 125	32	50	88	0.0034	2LC0370-3LM90-0AA0 2LC0370-3LN90-0AA0	2.0	
159-6	124 125	35	60	105	0.0077	2LC0370-4LM90-0AA0 2LC0370-4LN90-0AA0	3.2	
174-6	124 125	40	70	120	0.0135	2LC0370-5LM90-0AA0 2LC0370-5LN90-0AA0	4.6	
184-6	124 125	45	70	126	0.0195	2LC0370-6LM90-0AA0 2LC0370-6LN90-0AA0	5.9	
203-6	124 125	50	80	139	0.0298	2LC0370-7LM90-0AA0 2LC0370-7LN90-0AA0	7.4	

FLENDER Standard Couplings

Torsionally rigid all-steel couplings – N-ARPEX ARN-6 series

Clamping hub

Selection and ordering data

Size DA	Clamping hub Type	Dimensions in mm				Mass moment of inertia J	Article No.	Weight m
		D1 Keyway DIN 6885-1 min. max.		ND	NL			
mm						kgm ²	Further information on the structure of the Article No. is provided in Catalog MD 10.1, Chapter 3	kg
217-6	124 125	60	90	147	90	0.0429	2LC0370-8LM90-0AA0 2LC0370-8LN90-0AA0	9.2
251-6	124 125	70	95	168	95	0.0837	2LC0371-0LM90-0AA0 2LC0371-0LN90-0AA0	14.0
268-6	124 125	75	100	175	115	0.1236	2LC0371-1LM90-0AA0 2LC0371-1LN90-0AA0	18.5
291-6	124 125	80	120	195	125	0.1907	2LC0371-2LM90-0AA0 2LC0371-2LN90-0AA0	22.9
318-6	124 125	85	120	209	140	0.2975	2LC0371-3LM90-0AA0 2LC0371-3LN90-0AA0	31.5
343-6	124 125	95	140	234	150	0.4539	2LC0371-4LM90-0AA0 2LC0371-4LN90-0AA0	39.6

Weight and mass moments of inertia apply to a clamping hub with maximum bore D1.

Dimensions and torques

Finished bore / shaft with standard fit	Size													
	86-6	103-6	122-6	133-6	159-6	174-6	184-6	203-6	217-6	251-6	268-6	291-6	318-6	343-6
D1 ^{G6} / _{h6} mm	Rated coupling torque T_{KN} Nm													
	350	500	950	1250	2100	2400	3800	5000	6200	10500	13800	18200	23000	28000
	Maximum transmissible torque of the clamping hub Nm													
19	400	-	-	-	-	-	-	-	-	-	-	-	-	-
20	460	-	-	-	-	-	-	-	-	-	-	-	-	-
22	470	-	-	-	-	-	-	-	-	-	-	-	-	-
24	350	-	-	-	-	-	-	-	-	-	-	-	-	-
25	370	480	-	-	-	-	-	-	-	-	-	-	-	-
28	-	870	-	-	-	-	-	-	-	-	-	-	-	-
30	-	1150	1770	-	-	-	-	-	-	-	-	-	-	-
32	-	1140	1830	2300	-	-	-	-	-	-	-	-	-	-
35	-	570	1420	2360	3050	-	-	-	-	-	-	-	-	-
38	-	830	1720	3040	2710	-	-	-	-	-	-	-	-	-
40	-	-	1370	2610	3660	3680	-	-	-	-	-	-	-	-
42	-	-	1670	2930	2180	4020	-	-	-	-	-	-	-	-
45	-	-	-	2120	3750	4110	5780	-	-	-	-	-	-	-
48	-	-	-	2480	4160	4930	6200	-	-	-	-	-	-	-
50	-	-	-	2240	2300	4300	5840	7190	-	-	-	-	-	-
55	-	-	-	-	3310	5370	6410	7970	-	-	-	-	-	-
60	-	-	-	-	3260	3730	5370	8840	7570	-	-	-	-	-
65	-	-	-	-	-	4700	6240	8890	10390	-	-	-	-	-
70	-	-	-	-	-	4150	5920	8460	10640	14050	-	-	-	-
75	-	-	-	-	-	-	-	7960	9590	15350	20710	-	-	-
80	-	-	-	-	-	-	-	7340	8850	13510	20120	31840	-	-
85	-	-	-	-	-	-	-	-	7890	16370	21130	31230	36420	-
90	-	-	-	-	-	-	-	-	6290	14300	20810	33300	39050	-
95	-	-	-	-	-	-	-	-	-	13310	18570	33530	35940	54230
100	-	-	-	-	-	-	-	-	-	-	14440	31710	37500	56580
110	-	-	-	-	-	-	-	-	-	-	-	29020	35200	56900
120	-	-	-	-	-	-	-	-	-	-	-	22600	31490	53580
130	-	-	-	-	-	-	-	-	-	-	-	-	-	50910
140	-	-	-	-	-	-	-	-	-	-	-	-	-	43600

The maximum transmissible torque of the clamping hub must not be exceeded!

Further finished bores and higher torques are available on request.

FLENDER Standard Couplings

Torsionally rigid all-steel couplings – N-ARPEX ARN-6 series

Other data

Technical specifications

Length-dependent data for types *NEN* and *MCECM*

Size	Shaft distance S	Type NEN					Type MCECM				
		$\pm\Delta K_r$ mm	C_{Tdn} MNm/rad	LG mm	J kgm ²	m kg	$\pm\Delta K_r$ mm	C_{Tdn} MNm/rad	LG mm	J kgm ²	m kg
86-6	100 mm	1.61	0.05	190	0.0017	2.1	0.91	0.06	184	0.0029	2.9
	140 mm	2.30	0.05	230	0.0018	2.3	1.61	0.05	224	0.0030	3.1
	180 mm	3.00	0.04	270	0.0019	2.5	2.30	0.05	264	0.0031	3.3
	3.5"	1.41	0.05	178.9	0.0017	2.0	–	–	–	–	–
	5"	2.08	0.05	217	0.0018	2.2	1.19	0.06	211	0.0032	3.2
	7"	2.96	0.05	267.8	0.0019	2.5	2.08	0.05	261.8	0.0033	3.5
	9"	–	–	–	–	–	2.96	0.05	312.6	0.0034	3.8
103-6	100 mm	1.60	0.09	210	0.0040	3.1	0.90	0.09	210	0.0061	4.2
	140 mm	2.30	0.08	250	0.0042	3.3	1.60	0.09	250	0.0063	4.4
	180 mm	2.99	0.08	290	0.0044	3.5	2.30	0.08	290	0.0065	4.6
	3.5"	1.40	0.09	198.9	0.0040	3.0	–	–	–	–	–
	5"	2.07	0.08	237	0.0042	3.2	1.18	0.09	237	0.0067	4.6
	7"	2.96	0.08	287.8	0.0044	3.5	2.07	0.08	287.8	0.0069	4.9
	9"	–	–	–	–	–	2.96	0.08	338.6	0.0072	5.2
122-6	100 mm	1.59	0.19	230	0.0097	5.1	–	–	–	–	–
	140 mm	2.29	0.17	270	0.0100	5.3	2.29	0.17	280	0.0155	7.6
	180 mm	2.99	0.16	310	0.0103	5.6	2.99	0.16	320	0.0158	7.9
	200 mm	3.34	0.15	330	0.0105	5.8	3.34	0.15	340	0.0160	8.1
	250 mm	4.21	0.14	380	0.0109	6.1	4.21	0.14	390	0.0164	8.4
	3.5"	1.40	0.19	218.9	0.0096	5.0	–	–	–	–	–
	5"	2.06	0.18	257	0.0099	5.3	1.18	0.20	267	0.0161	7.7
	7"	2.95	0.16	307.8	0.0103	5.6	2.06	0.18	317.8	0.0165	8.0
	9"	3.84	0.14	358.6	0.0107	5.9	2.95	0.16	368.6	0.0169	8.4
133-6	100 mm	1.58	0.26	250	0.0150	6.5	–	–	–	–	–
	140 mm	2.28	0.25	290	0.0156	6.9	1.58	0.26	300	0.0236	9.4
	180 mm	2.97	0.23	330	0.0163	7.3	2.28	0.25	340	0.0242	9.8
	200 mm	3.32	0.23	350	0.0166	7.4	2.62	0.24	360	0.0245	10.0
	250 mm	4.20	0.21	400	0.0174	7.9	3.50	0.22	410	0.0253	10.5
	3.5"	1.38	0.27	238.9	0.0148	6.4	–	–	–	–	–
	5"	2.05	0.25	277	0.0154	6.7	–	–	–	–	–
	7"	2.94	0.23	327.8	0.0162	7.2	2.05	0.25	337.8	0.0256	10.2
	9"	3.82	0.22	378.6	0.0170	7.7	2.94	0.23	388.6	0.0264	10.7
159-6	100 mm	1.54	0.43	260	0.0301	9.5	–	–	–	–	–
	140 mm	2.24	0.41	300	0.0312	9.9	1.54	0.43	330	0.0539	15.0
	180 mm	2.94	0.38	340	0.0322	10.4	2.24	0.41	370	0.0550	15.5
	200 mm	3.29	0.37	360	0.0328	10.6	2.59	0.39	390	0.0555	15.7
	250 mm	4.16	0.35	410	0.0341	11.2	3.46	0.37	440	0.0568	16.3
	3.5"	1.35	0.44	248.9	0.0298	9.3	–	–	–	–	–
	5"	2.01	0.41	287	0.0308	9.8	–	–	–	–	–
	7"	2.90	0.38	337.8	0.0322	10.4	2.01	0.41	367.8	0.0579	16.1
	9"	3.79	0.36	388.6	0.0335	11.0	2.90	0.38	418.6	0.0593	16.7
174-6	100 mm	1.52	0.54	270	0.0465	12.0	–	–	–	–	–
	140 mm	2.22	0.52	310	0.0484	12.6	1.52	0.54	350	0.0822	18.8
	180 mm	2.92	0.50	350	0.0502	13.2	2.22	0.52	390	0.0840	19.4
	200 mm	3.27	0.48	370	0.0511	13.5	2.57	0.51	410	0.0850	19.7
	250 mm	4.14	0.46	420	0.0534	14.3	3.44	0.48	460	0.0873	20.4
	3.5"	1.99	0.53	297	0.0478	12.4	–	–	–	–	–
	5"	2.88	0.50	347.8	0.0501	13.2	1.99	0.53	387.8	0.0882	20.1
	7"	3.77	0.47	398.6	0.0524	13.9	2.88	0.50	438.6	0.0905	20.9
	9"	–	–	–	–	–	–	–	–	–	–
184-6	140 mm	2.19	0.80	320	0.0729	16.4	–	–	–	–	–
	180 mm	2.89	0.76	360	0.0757	17.3	–	–	–	–	–
	200 mm	3.24	0.75	380	0.0771	17.7	2.19	0.80	420	0.0853	25.6
	250 mm	4.11	0.71	430	0.0805	18.7	3.06	0.75	470	0.0888	26.6
	3.5"	1.96	0.81	307	0.0720	16.2	–	–	–	–	–
	5"	2.85	0.76	357.8	0.0755	17.2	1.83	0.82	397.8	0.0829	25.0
	7"	3.73	0.72	408.6	0.0790	18.2	2.72	0.77	448.6	0.0865	26.0

FLENDER Standard Couplings

Torsionally rigid all-steel couplings – N-ARPEX ARN-6 series

Other data

Technical specifications

Size	Shaft distance S	Type NEN					Type MCECM				
		$\pm\Delta K_r$ mm	C_{Tdn} MNm/rad	LG mm	J kgm ²	m kg	$\pm\Delta K_r$ mm	C_{Tdn} MNm/rad	LG mm	J kgm ²	m kg
203-6	140 mm	2.18	1.08	330	0.1099	21.1	–	–	–	–	–
	180 mm	2.88	1.02	370	0.1128	21.8	–	–	–	–	
	200 mm	3.23	0.99	390	0.1142	22.2	2.18	1.08	430	0.1829	31.8
	250 mm	4.10	0.93	440	0.1178	23.2	3.05	1.01	480	0.1865	32.8
	5"	1.95	1.10	317	0.1089	20.8	–	–	–	–	–
	7"	2.84	1.02	367.8	0.1126	21.8	1.83	1.12	407.8	0.1797	31.1
	9"	3.73	0.96	418.6	0.1163	22.8	2.72	1.03	458.6	0.1834	32.1
217-6	140 mm	2.17	1.41	350	0.1516	24.9	–	–	–	–	–
	180 mm	2.87	1.34	390	0.1559	25.9	–	–	–	–	–
	200 mm	3.22	1.31	410	0.1580	26.4	2.17	1.41	460	0.2655	39.1
	250 mm	4.09	1.23	460	0.1634	27.6	3.05	1.32	510	0.2732	40.9
	5"	1.95	1.43	337	0.1502	24.6	–	–	–	–	–
	7"	2.83	1.34	387.8	0.1556	25.9	–	–	–	–	–
	9"	3.72	1.26	438.6	0.1611	27.1	2.17	1.41	488.6	0.2976	43.6
251-6	180 mm	2.78	2.04	400	0.3078	38.8	–	–	–	–	–
	200 mm	3.13	2.00	420	0.3120	39.5	–	–	–	–	–
	250 mm	4.00	1.91	470	0.3224	41.3	2.78	2.04	550	0.5583	62.7
	7"	2.74	2.04	397.8	0.3073	38.7	–	–	–	–	–
	9"	3.63	1.95	448.6	0.3179	40.5	2.55	2.06	528.6	0.5403	60.7
268-6	180 mm	2.76	2.45	440	0.4550	49.5	–	–	–	–	–
	200 mm	3.11	2.40	460	0.4601	50.3	–	–	–	–	–
	250 mm	3.98	2.29	510	0.4727	52.3	2.72	2.45	570	0.7773	76.0
	7"	2.72	2.45	437.8	0.4544	49.4	–	–	–	–	–
	9"	3.61	2.34	488.6	0.4673	51.4	–	–	–	–	–
291-6	180 mm	2.74	3.58	460	0.6805	61.9	–	–	–	–	–
	200 mm	3.09	3.52	480	0.6877	62.8	–	–	–	–	–
	250 mm	3.97	3.35	530	0.7057	65.0	2.73	3.59	590	1.1127	92.4
	7"	2.71	3.59	457.8	0.6797	61.8	–	–	–	–	–
	9"	3.59	3.42	508.6	0.6980	64.0	–	–	–	–	–
318-6	200 mm	3.09	4.75	500	1.0788	83.1	–	–	–	–	–
	250 mm	3.96	4.55	550	1.1064	86.1	–	–	–	–	–
	300 mm	4.83	4.37	600	1.1340	89.1	3.07	4.75	680	1.9087	131.7
	9"	3.58	4.64	528.6	1.0946	84.8	–	–	–	–	–
343-6	200 mm	3.07	5.53	520	1.5633	104.1	–	–	–	–	–
	250 mm	3.94	5.37	570	1.6095	108.1	–	–	–	–	–
	300 mm	4.82	5.21	620	1.6557	112.1	3.05	5.53	710	2.7346	161.6
	9"	3.57	5.43	548.6	1.5898	106.4	–	–	–	–	–

Permitted radial misalignments and dynamic coupling stiffnesses of type BEB

Size	Type BEB	Size	Type BEB
DA mm	$\pm\Delta K_r$ mm	DA mm	$\pm\Delta K_r$ mm
86-6	0.91	203-6	2.18
103-6	0.90	217-6	2.17
122-6	1.59	251-6	2.78
133-6	1.58	268-6	2.76
159-6	1.54	291-6	2.74
174-6	2.22	318-6	3.09
184-6	2.19	343-6	3.94

The values for torsional stiffness apply to the entire coupling (without the hubs and customer shafts) and refer to the rated torque of the coupling T_{KN} . For the determination of the torsional stiffness for a specific operating point outside the nominal range, consultation is required.

For other shaft distances, the permitted radial misalignment of types NEN, BEB, and MCECM can be determined by the following formulas:

$$\text{NEN: } \Delta K_r = (S-S_1) \times \tan(\Delta K_W)$$

$$\text{BEB and MCECM: } \Delta K_r = (LZ + S_1) \times \tan(\Delta K_W)$$

FLENDER Standard Couplings

Torsionally rigid all-steel couplings – N-ARPEX ARN-6 series

Bore specifications

Options

The order codes listed in the tables below designate bore size D1 or D2.

For additional options, please refer to the necessary order codes from [Chapter 3 of Catalog MD 10.1](#).

This is implemented with the bore tolerance H7 with a keyway according to DIN 6885-1 and a set screw.

Bore diameter metric in mm

Bore diameter	Order code for bore diameter		Bore diameter	Order code for bore diameter		Bore diameter	Order code for bore diameter	
	ØD1 H7	ØD2 H7		ØD1 H7	ØD2 H7		ØD1 H7	ØD2 H7
6	L0A	M0A	38	L0V	M0V	120	L1S	M1S
7	L0B	M0B	40	L0W	M0W	125	L1T	M1T
8	L0C	M0C	42	L0X	M0X	130	L1U	M1U
9	L0D	M0D	45	L1A	M1A	135	L2X	M2X
10	L0E	M0E	48	L1B	M1B	140	L1V	M1V
11	L0F	M0F	50	L1C	M1C	145	L3A	M3A
12	L0G	M0G	55	L1D	M1D	150	L1W	M1W
14	L0H	M0H	60	L1E	M1E	155	L3B	M3B
16	L0J	M0J	65	L1F	M1F	160	L1X	M1X
18	L0K	M0K	70	L1G	M1G	165	L3C	M3C
19	L0L	M0L	75	L1H	M1H	170	L2A	M2A
20	L0M	M0M	80	L1J	M1J	175	L3D	M3D
22	L0N	M0N	85	L1K	M1K	180	L2B	M2B
24	L0P	M0P	90	L1L	M1L	185	L3E	M3E
25	L0Q	M0Q	95	L1M	M1M	190	L2C	M2C
28	L0R	M0R	100	L1N	M1N	195	L3F	M3F
30	L0S	M0S	105	L1P	M1P	200	L2D	M2D
32	L0T	M0T	110	L1Q	M1Q			
35	L0U	M0U	115	L1R	M1R			

Bore diameter imperial in inches

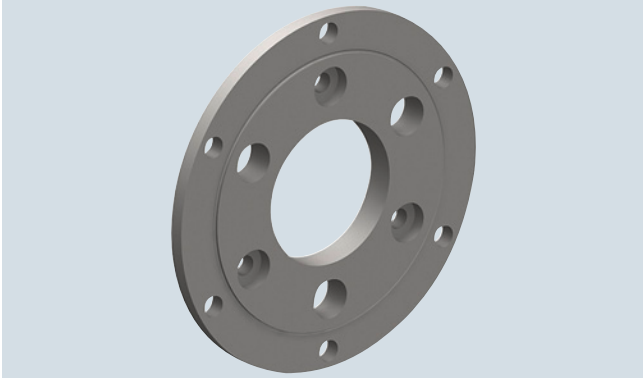
Bore diameter	Order code for bore diameter		Bore diameter	Order code for bore diameter		Bore diameter	Order code for bore diameter	
	ØD1 H7	ØD2 H7		ØD1 H7	ØD2 H7		ØD1 H7	ØD2 H7
0.1875	L5A	M5A	2.0625	L6H	M6H	3.875	L7Q	M7Q
0.25	L5B	M5B	2.125	L6J	M6J	3.9375	L7R	M7R
0.3125	L5C	M5C	2.1875	L6K	M6K	4	L7S	M7S
0.375	L5D	M5D	2.25	L6L	M6L	4.125	L9E	M9E
0.5	L5E	M5E	2.3125	L6M	M6M	4.1875	L7T	M7T
0.5625	L5F	M5F	2.375	L6N	M6N	4.25	L7U	M7U
0.625	L5G	M5G	2.4375	L6P	M6P	4.375	L7V	M7V
0.6875	L5H	M5H	2.5	L6Q	M6Q	4.4375	L7W	M7W
0.75	L5J	M5J	2.5625	L6R	M6R	4.5	L7X	M7X
0.8125	L5K	M5K	2.625	L6S	M6S	4.75	L8A	M8A
0.875	L5L	M5L	2.6875	L6T	M6T	4.875	L8B	M8B
0.9375	L5M	M5M	2.75	L6U	M6U	4.9375	L8C	M8C
1	L5N	M5N	2.8125	L6V	M6V	5	L8D	M8D
1.0625	L5P	M5P	2.875	L6W	M6W	5.1875	L8E	M8E
1.125	L5Q	M5Q	2.9375	L6X	M6X	5.25	L8F	M8F
1.1875	L5R	M5R	3	L7A	M7A	5.4375	L8G	M8G
1.25	L5S	M5S	3.0625	L7B	M7B	5.5	L8H	M8H
1.3125	L5T	M5T	3.125	L7C	M7C	5.75	L8J	M8J
1.375	L5U	M5U	3.1875	L7D	M7D	5.9375	L8K	M8K
1.4375	L5V	M5V	3.25	L7E	M7E	6	L8L	M8L
1.5	L5W	M5W	3.3125	L7F	M7F	6.25	L8M	M8M
1.5625	L5X	M5X	3.375	L7G	M7G	6.5	L8N	M8N
1.625	L6A	M6A	3.4375	L7H	M7H	6.75	L8P	M8P
1.6875	L6B	M6B	3.5	L7J	M7J	7	L8Q	M8Q
1.75	L6C	M6C	3.5625	L7K	M7K	7.25	L8R	M8R
1.8125	L6D	M6D	3.625	L7L	M7L	7.5	L8S	M8S
1.875	L6E	M6E	3.6875	L7M	M7M	7.75	L8T	M8T
1.9375	L6F	M6F	3.75	L7N	M7N	8	L8U	M8U
2	L6G	M6G	3.8125	L7P	M7P			

FLENDER Standard Couplings

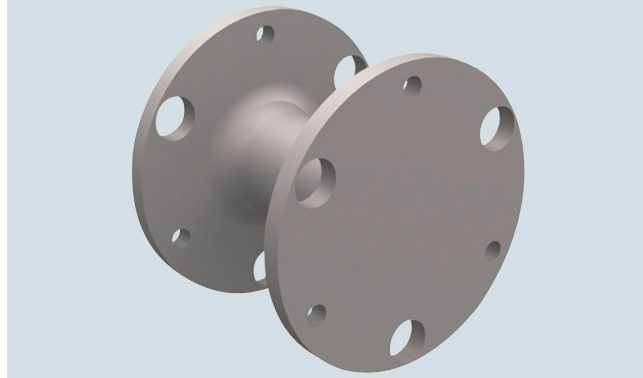
Torsionally rigid all-steel couplings – N-ARPEX ARN-6 series

Other design options

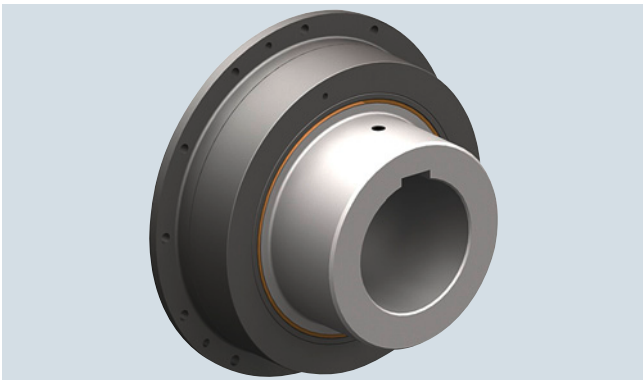
Overview



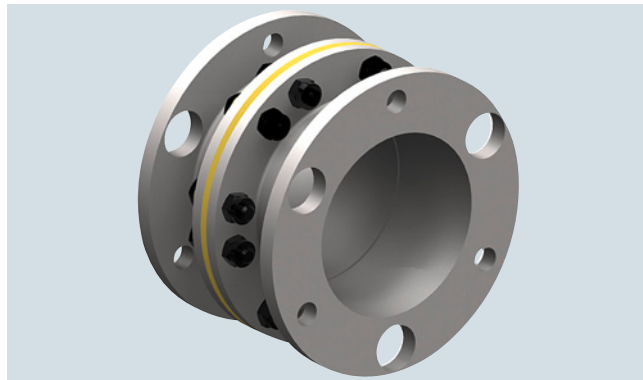
Flange version for adaptation to a customer flange



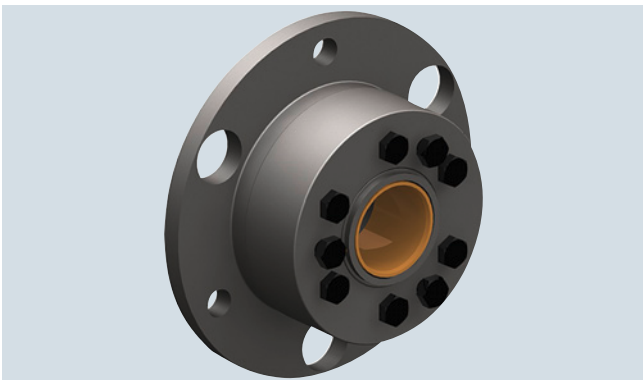
Intermediate spacer as a torsion shaft for reducing the torsional stiffness



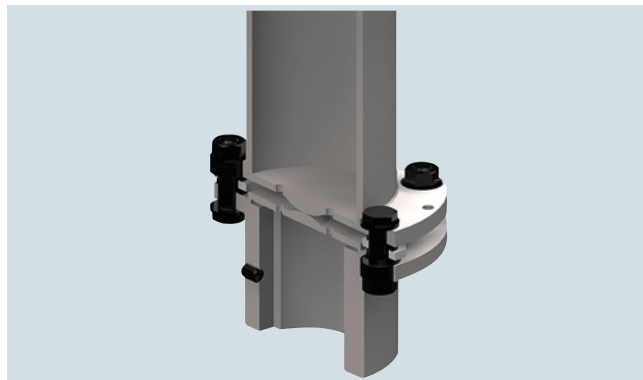
Slipping flanges for overload protection against brief high-frequency torque shock loads



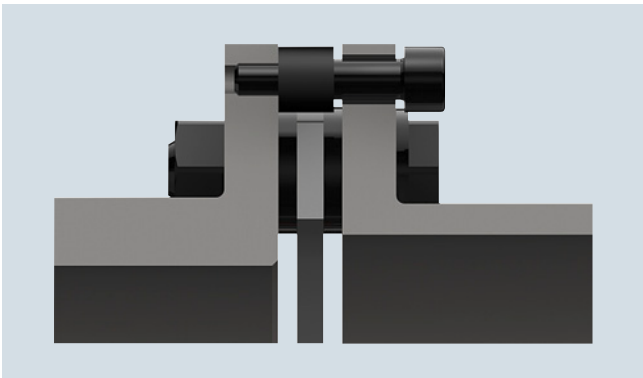
Version for avoiding leakage currents between the connected units



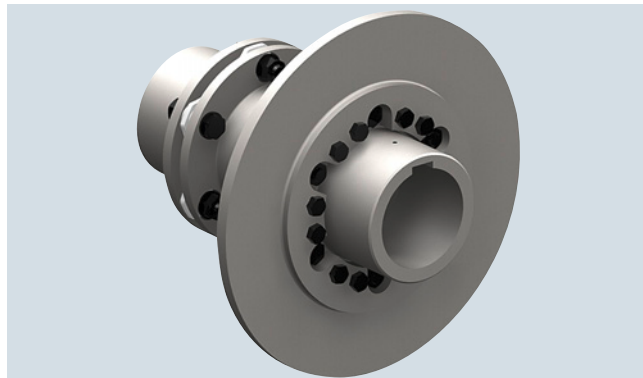
Slipping hubs for overload protection against brief high-frequency torque shock loads



Vertical support for avoiding excessive axial loading of the plate packs by the weight of the intermediate spacer



Axial backlash limiter



Brake disk/brake drum

Siemens AG
Process Industries and Drives
Mechanical Drives
Postfach 13 64
46393 BOCHOLT
GERMANY

Subject to change without prior notice
Article No. E86060-K5710-E121-A1-7600
V6.MKKATA.MDT.100 / Dispo 18408
KG 0417 2. ROT 16 En
Printed in Germany
© Siemens AG 2017

The information provided in this catalog contains merely general descriptions or characteristics of performance which in case of actual use do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract. Availability and technical specifications are subject to change without notice.

All product designations may be trademarks or product names of Siemens AG or supplier companies whose use by third parties for their own purposes could violate the rights of the owners.