Accessories for electric positioning systems

FESTO

Key features

At a glance

Elastomer spider couplings EAMC → page 3

- Three-piece coupling with clamping hub, suitable for force-locked and backlash-free transmission of medium and high torques between electric motors and axes.
- System product for positioning technology
- Outside Ø 16, 20, 30, 40, 42, 56, 65, 67 mm

Coupling hubs EAMC-H → page 8

- Coupling hub and elastomer spider is suitable for the force-locked and backlash-free transmission of small and medium torques between electric motors and axes with a coupling cam interface.
- System product for positioning technology
- Outside Ø 10, 15, 25, 30, 35 mm

Elastomer spider couplings EAMD, with expanding mandrel → page 10

- Three-piece coupling with expanding mandrel and clamping hub, suitable for force-locked and backlash-free transmission of medium and high torques between electric motors and axes with hollow shaft.
- System product for positioning technology
- Outer Ø 16, 19, 21, 25, 28, 30, 32, 33, 42, 56, 67, 75 mm

Connecting shafts KSK → page 15

Electric axes are often combined to form multi-axis systems. When designing gantry systems with a medium centre distance between the axes and heavy loads, it is particularly important that the two basic axes are actuated synchronously. For these systems, two axes with toothed belt drive are generally coupled with a shared motor and synchronised using a connecting shaft.
Range of applications:

- For synchronising toothed belt axes EGC and ELGA or cantilever axes ELCC
- For torsion-resistant transmission of the necessary torque
- For slip-free transmission of an identical feed speed
- To compensate for tolerances and misalignments between the two axes

Type codes

001	Series	
EAMC	Coupling	

002	Coupling type	
	Annular gear coupling	
H	Coupling hub	

003	Collar diameter [mm]	
10	10	
15	15	
16	16	
19	19	
20	20	
25	25	
30	30	
35	35	
40	40	
42	42	
56	56	
65	65	
67	67	

004	Length	
5	5 mm	
7	7 mm	
10	10 mm	
13	13 mm	
20	20 mm	
30	30 mm	
32	32 mm	
35	35 mm	
50	50 mm	
58	58 mm	
62	62 mm	
66	66 mm	
90	90 mm	

005	Elastomer spider interface	
GB5	GB5	
GB8	GB8	
GB16	GB16	

006	Inside diameter 1	
3	3 mm	
4	4 mm	
5	5 mm	
6	6 mm	
6.35	6.35 mm	
8	8 mm	
9	9 mm	
10	10 mm	
11	11 mm	
12	12 mm	
14	14 mm	
15	15 mm	
19	19 mm	
20	20 mm	
22	22 mm	
24	24 mm	
25	25 mm	
XX	Closed	

007	Inside diameter 2	
	Not relevant	
5	5 mm	
6	6 mm	
6.35	6.35 mm	
8	8 mm	
9	9 mm	
10	10 mm	
11	11 mm	
12	12 mm	
14	14 mm	
15	15 mm	
16	16 mm	
19	19 mm	
20	20 mm	
22	22 mm	
24	24 mm	
25	25 mm	
32	32 mm	

008	Hardness of elastomer insert	
	Standard	
U	64 Sh D	

Datasheet

Elastomer spider coupling EAMC

- Ø - Diameter
16 ... 67 mm

General technical data

Type		EAMC-16-20	EAMC-19-20	EAMC-20-30	EAMC-30-32
Mass moment of inertia	[kg mm²]	0.28	0.38	1.06	5.87
Tightening torque for clamping screw	[Nm]	0.5	0.5	0.76	4
Max. speed	[rpm]	10000	10000	9000	8000
Corrosion resistance class CRC[1)]		1			
Materials	Hubs	Aluminium			
	Ring gear	Polyurethane			
Note on materials		RoHS-compliant			
LABS (PWIS) conformity		VDMA24364-B2-L			

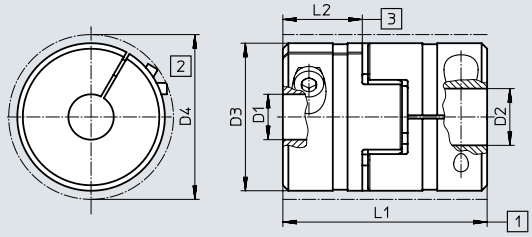
Type		EAMC-30-35	EAMC-40-66	EAMC-42-50	EAMC-42-66
Mass moment of inertia	[kg mm²]	6.1	42.3	34.8	45.5
Tightening torque for clamping screw	[Nm]	2.9	10.5	8	8
Max. speed	[rpm]	8000	6500	6000	6000
Corrosion resistance class CRC[1)]		1			
Materials	Hubs	Aluminium			
	Ring gear	Polyurethane			
Note on materials		RoHS-compliant			
LABS (PWIS) conformity		VDMA24364-B2-L			

Type		EAMC-56-58	EAMC-65-90	EAMC-67-62
Mass moment of inertia	[kg mm²]	128	417	280
Tightening torque for clamping screw	[Nm]	15	25	35
Max. speed	[rpm]	5500	4500	4500
Corrosion resistance class CRC[1)]		1		
Materials	Hubs	Aluminium		
	Ring gear	Polyurethane		
Note on materials		RoHS-compliant		
LABS (PWIS) conformity		VDMA24364-B2-L		

1) Corrosion resistance class CRC 1 to Festo standard FN 940070
Low corrosion stress. Dry indoor applications or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, or parts that are covered in the application (e.g. drive trunnions).

Datasheet

Dimensions and ordering data Download CAD data ➔ www.festo.com



[1] Nominal length with axial offset compensation
[2] Min. installation ø (interfering contour of the clamping screw)
[3] Insertion depth

ø [mm]	D1 ø H7	D2 ø H7	D3 ø	D4 ø	L1	L2	Transferable torque [Nm]	Weight [g]	Part no.	Type
16	3	5	16	17	20±1	6.5	0.2	8	**562672**	**EAMC-16-20-3-5**
	3	6	16	17	20±1	6.5	0.2	8	**562671**	**EAMC-16-20-3-6**
	3	8	16	17	20±1	6.5	0.2	8	**2310368**	**EAMC-16-20-3-8**
	4	5	16	17	20±1	6.5	0.7	8	**562674**	**EAMC-16-20-4-5**
	4	6	16	17	20±1	6.5	0.7	8	**562673**	**EAMC-16-20-4-6**
	4	8	16	17	20±1	6.5	0.7	8	**562675**	**EAMC-16-20-4-8**
	5	5	16	17	20±1	6.5	1.1	8	**562676**	**EAMC-16-20-5-5**
	5	6	16	17	20±1	6.5	1.1	8	**543419**	**EAMC-16-20-5-6**
	5	8	16	17	20±1	6.5	1.1	8	**562677**	**EAMC-16-20-5-8**
	6	6	16	17	20±1	6.5	1.6	8	**543420**	**EAMC-16-20-6-6**
	6	8	16	17	20±1	6.5	1.6	8	**1232854**	**EAMC-16-20-6-8**
19	5	9	19	19	20±1	6.5	1.1	9	**8126386**	**EAMC-19-20-5-9**
20	5	6	20	24	30	10	2.2	20	**558902**	**EAMC-20-30-5-6**
	6	6	20	24	30	10	2.3	20	**558901**	**EAMC-20-30-6-6**
	6	10	20	24	30	10	2.3	20	**1451964**	**EAMC-20-30-6-10**
30	5	6	30	30	32±1	10.3	3.5	48	**561333**	**EAMC-30-32-5-6**
	5	8	30	30	32±1	10.3	3.5	48	**562678**	**EAMC-30-32-5-8**
	6	6	30	30	32±1	10.3	6.5	48	**558312**	**EAMC-30-32-6-6**
	6	6.35	30	30	32±1	10.3	6.5	48	**551002**	**EAMC-30-32-6-6.35**
	6	8	30	30	32±1	10.3	6.5	48	**533708**	**EAMC-30-32-6-8**
	6	9	30	30	32±1	10.3	6.5	48	**551003**	**EAMC-30-32-6-9**
	6	10	30	30	32±1	10.3	6.5	48	**562681**	**EAMC-30-32-6-10**
	6	11	30	30	32±1	10.3	6.5	48	**3187577**	**EAMC-30-32-6-11**
	6	12	30	30	32±1	10.3	6.5	48	**8099435**	**EAMC-30-32-6-12**
	6	14	30	31.4	32±1	10.3	6.5	48	**1233256**	**EAMC-30-32-6-14**
	6.35	8	30	30	32±1	10.3	6.5	48	**543421**	**EAMC-30-32-6.35-8**
	6.35	10	30	30	32±1	10.3	6.5	48	**562679**	**EAMC-30-32-6.35-10**
	8	8	30	30	32±1	10.3	12.5	48	**543422**	**EAMC-30-32-8-8**
	8	9	30	30	32±1	10.3	12.5	48	**543423**	**EAMC-30-32-8-9**
	8	10	30	30	32±1	10.3	12.5	48	**558029**	**EAMC-30-32-8-10**
	8	11	30	30	32±1	10.3	12.5	48	**551004**	**EAMC-30-32-8-11**
	8	12	30	30	32±1	10.3	12.5	48	**8115760**	**EAMC-30-32-8-12**
	8	14	30	31.4	32±1	10.3	12.5	48	**562682**	**EAMC-30-32-8-14**
	9	10	30	30	32±1	10.3	12.5	48	**562680**	**EAMC-30-32-9-10**
	10	10	30	30	32±1	10.3	12.5	48	**2310372**	**EAMC-30-32-10-10**
	10	11	30	30	32±1	10.3	12.5	48	**565008**	**EAMC-30-32-10-11**
	10	14	30	31.4	32±1	10.3	12.5	48	**562683**	**EAMC-30-32-10-14**

Datasheet

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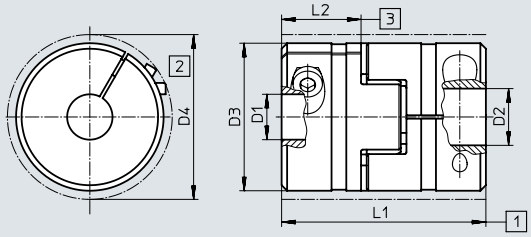

[1] Nominal length with axial offset compensation
[2] Min. installation ø (interfering contour of the clamping screw)
[3] Insertion depth

ø [mm]	D1 ø H7	D2 ø H7	D3 ø	D4 ø	L1	L2	Transferable torque [Nm]	Weight [g]	Part no.	Type
30	6	8	30	31.4	35±0.7	11	7.5	45	**123041**	**EAMC-30-35-6-8**
	6	10	30	31.4	35±0.7	11	7.5	45	**1453062**	**EAMC-30-35-6-10**
	6	11	30	31.4	35±0.7	11	7.5	45	**123843**	**EAMC-30-35-6-11**
	6.35	8	30	31.4	35±0.7	11	7.5	45	**530088**	**EAMC-30-35-6.35-8**
	6.35	12	30	31.4	35±0.7	11	7.5	45	**550995**	**EAMC-30-35-6.35-12**
	8	8	30	31.4	35±0.7	11	8	45	**123044**	**EAMC-30-35-8-8**
	8	9	30	31.4	35±0.7	11	8	45	**557390**	**EAMC-30-35-8-9**
	8	10	30	31.4	35±0.7	11	8	45	**123050**	**EAMC-30-35-8-10**
	8	11	30	31.4	35±0.7	11	8	45	**123042**	**EAMC-30-35-8-11**
	8	12	30	31.4	35±0.7	11	8	45	**123043**	**EAMC-30-35-8-12**
	8	14	30	31.4	35±0.7	11	8	45	**1453063**	**EAMC-30-35-8-14**
	12	12	30	31.4	35±0.7	11	9.4	45	**123052**	**EAMC-30-35-12-12**
40	10	12	40	45.8	66±0.85	25	21	139	**1452794**	**EAMC-40-66-10-12**
	11	11	40	45.8	66±0.85	25	21	139	**530090**	**EAMC-40-66-11-11**
	11	12	40	45.8	66±0.85	25	21	139	**525864**	**EAMC-40-66-11-12**
	11	14	40	45.8	66±0.85	25	21	139	**1452798**	**EAMC-40-66-11-14**
	11	15	40	45.8	66±0.85	25	21	139	**550998**	**EAMC-40-66-11-15**
	12	14	40	45.8	66±0.85	25	21	139	**1452803**	**EAMC-40-66-12-14**
	12	15	40	45.8	66±0.85	25	21	139	**123850**	**EAMC-40-66-12-15**
	12	20	40	45.8	66±0.85	25	21	139	**123851**	**EAMC-40-66-12-20**
	15	16	40	45.8	66±0.85	25	21	139	**123846**	**EAMC-40-66-15-16**
	15	19	40	45.8	66±0.85	25	21	139	**123844**	**EAMC-40-66-15-19**
	15	20	40	45.8	66±0.85	25	21	139	**123845**	**EAMC-40-66-15-20**
	15	22	40	45.8	66±0.85	25	21	139	**3307627**	**EAMC-40-66-15-22**
	20	24	40	45.8	66±0.85	25	21	139	**176034**	**EAMC-40-66-20-24**
	XX[1)]	15	40	45.8	66±0.85	25	–	139	**176036**	**EAMC-40-66-XX-15**
	XX[1)]	20	40	45.8	66±0.85	25	–	139	**176037**	**EAMC-40-66-XX-20**

1) Hub predrilled to a diameter of 5 mm. Drilled hole max. 20 mm

Datasheet

Dimensions and ordering data

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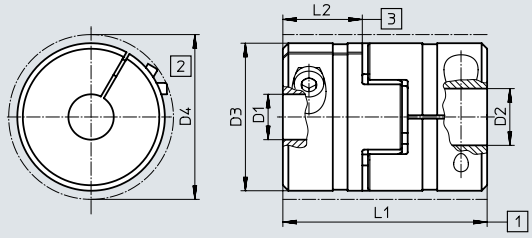


[1] Nominal length with axial offset compensation
[2] Min. installation ⌀ (interfering contour of the clamping screw)
[3] Insertion depth

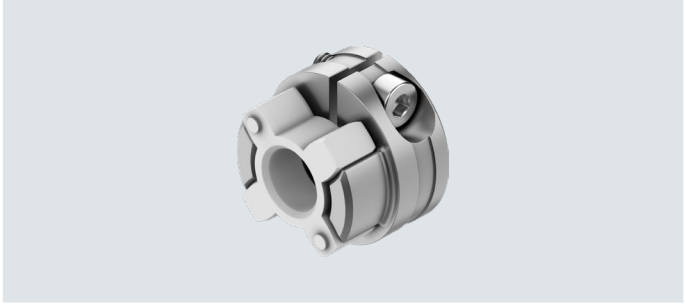
⌀ [mm]	D1 ⌀ H7	D2 ⌀ H7	D3 ⌀	D4 ⌀	L1	L2	Transferable torque [Nm]	Weight [g]	Part no.	Type
42	8	16	42	44.5	50±2	17	17	148	**8186207**	**EAMC-42-50-8-16**
	8	19	42	44.5	50±2	17	17	140	**2310376**	**EAMC-42-50-8-19**
	9	12	42	44.5	50±2	17	17	146	**1732001**	**EAMC-42-50-9-12**
	10	12	42	44.5	50±2	17	17	145	**1455666**	**EAMC-42-50-10-12**
	11	12	42	44.5	50±2	17	17	138	**543424**	**EAMC-42-50-11-12**
	12	12	42	44.5	50±2	17	17	138	**533709**	**EAMC-42-50-12-12**
	12	14	42	44.5	50±2	17	17	142	**1455671**	**EAMC-42-50-12-14**
	12	14	42	44.5	50±2	17	17	143	**8099432**	**EAMC-42-50-12-14-U**
	12	16	42	44.5	50±2	17	17	140	**1232880**	**EAMC-42-50-12-16**
	12	16	42	44.5	50±2	17	17	141	**8099433**	**EAMC-42-50-12-16-U**
	12	19	42	44.5	50±2	17	17	138	**551005**	**EAMC-42-50-12-19**
	12	20	42	44.5	50±2	17	17	135	**2138701**	**EAMC-42-50-12-20**
	12	24	42	44.5	50±2	17	17	130	**558314**	**EAMC-42-50-12-24**
	11	12	42	44.5	66±2	25	17	166	**558313**	**EAMC-42-66-11-12**
56	19	19	56	57	58±2	19.9	60	288	**1485673**	**EAMC-56-58-19-19**
	19	20	56	57	58±2	19.9	60	286	**3181801**	**EAMC-56-58-19-20**
	19	22	56	57	58±2	19.9	60	283	**8099430**	**EAMC-56-58-19-22**
	19	24	56	57	58±2	19.9	60	279	**1485674**	**EAMC-56-58-19-24**
	19	25	56	57	58±2	19.9	60	277	**558315**	**EAMC-56-58-19-25**
	20	22	56	57	58±2	19.9	60	281	**8134825**	**EAMC-56-58-20-22**
	20	25	56	57	58±2	19.9	60	275	**8203734**	**EAMC-56-58-20-25-U**
	22	24	56	57	58±2	19.9	60	274	**8134826**	**EAMC-56-58-22-24**
	22	25	56	57	58±2	19.9	60	272	**8099431**	**EAMC-56-58-22-25**
	24	25	56	57	58±2	19.9	60	268	**558316**	**EAMC-56-58-24-25**
	25	25	56	57	58±2	19.9	60	266	**8203733**	**EAMC-56-58-25-25-U**
65	15	24	65	72.6	90±1.1	35	80	535	**530940**	**EAMC-65-90-15-24**
	25	32	65	72.6	90±1.1	35	92	535	**1745817**	**EAMC-65-90-25-32**
	XX[2)]	25	65	72.6	90±1.1	35	–	535	**176038**	**EAMC-65-90-XX-25**
67	24	24	66.5	68	62±2	21.25	143	436	**1451407**	**EAMC-67-62-24-24**
	24	25	66.5	68	62±2	21.25	143	434	**3187895**	**EAMC-67-62-24-25**
	24	32	66.5	68	62±2	21.25	143	417	**1485796**	**EAMC-67-62-24-32**

2) Hub predrilled to a diameter of 9.5 mm. Drilled hole max. 38 mm

Datasheet

Coupling hubs EAMC-H

- Ø - Diameter
10 ... 35 mm



General technical data

Type		EAMC-H-10-5-GB5	EAMC-H-15-7-GB8	EAMC-H-25-10-GB8	EAMC-H-30-10-BG16	EAMC-H-35-13-GB16
Mass moment of inertia	[kg mm²]	0.022	0.191	1.04	3.2	5.8
Tightening torque for clamping screw	[Nm]	0.25	1	1.2	4	4
Max. speed	[rpm]	10000	10000	10000	8000	8000
Corrosion resistance class CRC[1)]		1				
Materials	Hubs	Aluminium				
	Ring gear	Polyurethane				
Note on materials		RoHS-compliant				
LABS (PWIS) conformity		VDMA24364-B2-L				

1) Corrosion resistance class CRC 1 to Festo standard FN 940070
Low corrosion stress. Dry indoor applications or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, or parts that are covered in the application (e.g. drive trunnions).

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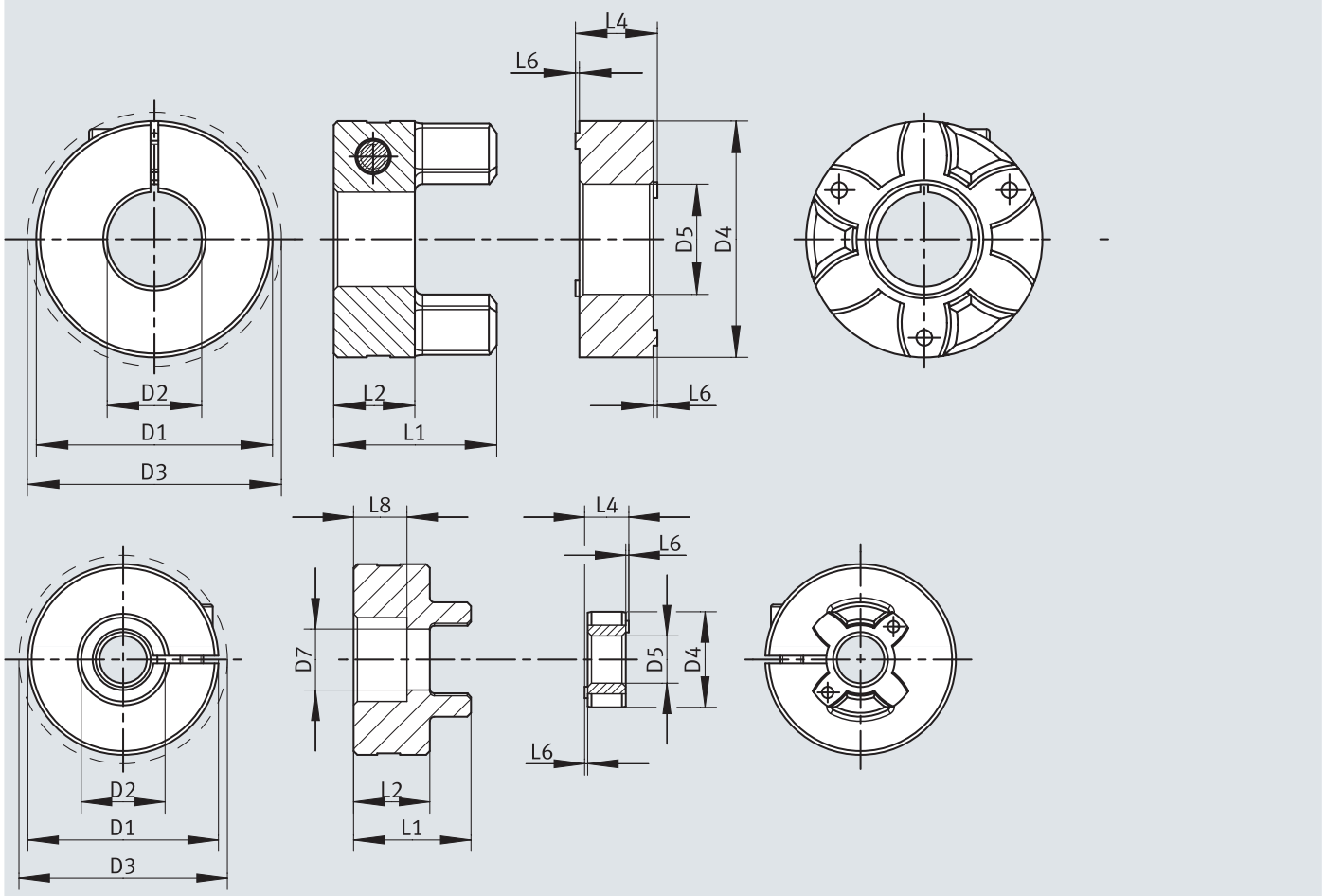

ø [mm]	D1 ø h9	D2 ø H7	D3 ø	D4 ø	D5	D7	L1	L2	L4	L6	L8	Transferable torque [Nm]	Weight [g]	Part no.	Type
10	10.8	5	12.5	10	–	–	9.5	5	4.6	0.3	–	0.6	2	**8228646**	**EAMC-H-10-5-GB5-5**
15	17	5	19.4	15	6.2	–	12.4	7	5.8	0.4	–	1.5	5	**8228647**	**EAMC-H-15-7-GB8-5**
	17	6	19.4	15	6.2	–	12.4	7	5.8	0.4	–	2	5	**8228648**	**EAMC-H-15-7-GB8-6**
	17	6.35	19.4	15	6.2	–	12.4	7	5.8	0.4	–	2	5	**8228649**	**EAMC-H-15-7-GB8-6.35**
	17	8	19.4	15	6.2	–	12.4	7	5.8	0.4	–	2	4	**8228650**	**EAMC-H-15-7-GB8-8**
25	25	9	27.6	25	6.2	–	15.4	10	5.8	0.4	–	2	13	**8228651**	**EAMC-H-25-10-GB8-9**
	25	11	27.6	25	6.2	8	15.4	10	5.8	0.4	7	2	12	**8228652**	**EAMC-H-25-10-GB8-11**
	25	14	27.6	25	6.2	8	15.4	10	5.8	0.4	7	2	11	**8228653**	**EAMC-H-25-10-GB8-14**
30	30	6.35	32.9	30	14	–	20.7	10.3	10.4	0.5	–	6	26	**8228654**	**EAMC-H-30-10-GB16-6.35**
	30	8	32.9	30	14	–	20.7	10.3	10.4	0.5	–	7.5	26	**8228655**	**EAMC-H-30-10-GB16-8**
	30	9	32.9	30	14	–	20.7	10.3	10.4	0.5	–	8.5	25	**8228656**	**EAMC-H-30-10-GB16-9**
	30	10	32.9	30	14	–	20.7	10.3	10.4	0.5	–	9.5	25	**8228657**	**EAMC-H-30-10-GB16-10**
	30	11	32.9	30	14	–	20.7	10.3	10.4	0.5	–	10.5	25	**8228658**	**EAMC-H-30-10-GB16-11**
	30	12	32.9	30	14	–	20.7	10.3	10.4	0.5	–	11.5	24	**8228659**	**EAMC-H-30-10-GB16-12**
	30	14	32.9	30	14	–	20.7	10.3	10.4	0.5	–	13.5	23	**8228660**	**EAMC-H-30-10-GB16-14**
35	35	19	37.1	35	14	13	23.4	13	10.4	0.5	12	15	31	**8228661**	**EAMC-H-35-13-GB16-19**

Type codes

001	Series	
EAMD	Ring gear coupling with expanding mandrel	

002	Collar diameter [mm]	
16	16	
19	19	
21	21	
25	25	
28	28	
30	30	
32	32	
33	33	
42	42	
56	56	
67	67	
75	75	

003	Collar length [mm]	
15	15	
22	22	
32	32	
40	40	
46	46	
51	51	
54	54	
62	62	
82	82	

004	Inside diameter 1	
5	5 mm	
6	6 mm	
6.35	6.35 mm	
8	8 mm	
9	9 mm	
10	10 mm	
11	11 mm	
12	12 mm	
14	14 mm	
16	16 mm	
18	18 mm	
19	19 mm	
20	20 mm	
22	22 mm	
24	24 mm	
25	25 mm	
32	32 mm	
40	40 mm	

005	Expanding mandrel diameter [mm]	
8	8	
10	10	
16	16	
23	23	
32	32	

006	Expanding mandrel length [mm]	
X10	10	
X12	12	
X20	20	
X32	32	
X25	25	
X27	27	

007	Ring gear hardness	
	Standard	
U	64 Sh D	

Datasheet

Elastomer spider coupling EAMD, with expanding mandrel

- Ø - Diameter
16 ... 75 mm

General technical data

Type		EAMD-16-15	EAMD-19-15	EAMD-21-15	EAMD-25-22	EAMD-28-22	EAMD-30-22
Mass moment of inertia	[kg mm²]	0.355	0.445	0.45	3.2	3.5	4.0
Tightening torque for clamping screw D1	[Nm]	0.5	0.5	0.5	2	2	2
Tightening torque for clamping screw D2	[Nm]	2	2	2	4	4	4
Max. speed	[rpm]	10000	10000	10000	8000	8000	8000
Corrosion resistance class CRC[1)]		1					
Materials	Hubs	Aluminium					
	Ring gear	Polyurethane					
Note on materials		RoHS-compliant					
LABS (PWIS) conformity		VDMA24364-B2-L					

Type		EAMD-32-32	EAMD-33-22	EAMD-42-40	EAMD-42-48	EAMD-56-46	EAMD-56-54	EAMD-56-56
Mass moment of inertia	[kg mm²]	14.5	4.6	39	45	151	172	172
Tightening torque for clamping screw D1	[Nm]	4	2	8	8	15	15	12
Tightening torque for clamping screw D2	[Nm]	9	4	9.5	9.5	32	32	32
Max. speed	[rpm]	8000	8000	6000	6000	5500	5500	5500
Corrosion resistance class CRC[1)]		1						
Materials	Hubs	Aluminium						
	Ring gear	Polyurethane						
Note on materials		RoHS-compliant						
LABS (PWIS) conformity		VDMA24364-B2-L						

Type		EAMD-56-62	EAMD-67-51	EAMD-67-65	EAMD-67-82	EAMD-67-96	EAMD-75-51	EAMD-75-51
Mass moment of inertia	[kg mm²]	192	374	430	831	886	425	425
Tightening torque for clamping screw D1	[Nm]	15	35	32	35	32	35	35
Tightening torque for clamping screw D2	[Nm]	32	60	60	60	60	60	60
Max. speed	[rpm]	5500	4500	4500	4500	4500	4500	4500
Corrosion resistance class CRC[1)]		1						
Materials	Hubs	Aluminium						
	Ring gear	Polyurethane						
Note on materials		RoHS-compliant						
LABS (PWIS) conformity		VDMA24364-B2-L						

1) Corrosion resistance class CRC 1 to Festo standard FN 940070
Low corrosion stress. Dry indoor applications or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, or parts that are covered in the application (e.g. drive trunnions).

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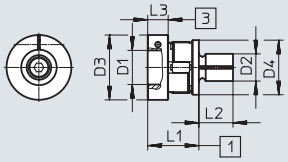
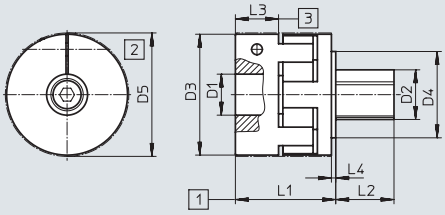
EAMD-16/EAMD-19



EAMD-...



[1] Nominal length with axial offset compensation
[2] Min. installation ø (interfering contour of the clamping screw)
[3] Insertion depth

ø [mm]	D1 ø H7	D2 ø H7	D3 ø	D4 ø	D5 ø	L1	L2	L3	L4	Transferable torque [Nm]	Weight [g]	Part no.	Type
16	5	8	16	–	17	15±1	10	6.5	–	1.2	13	**4819892**	**EAMD-16-15-5-8X10**
	6	8	16	–	17	15±1	10	6.5	–	1.5	12.8	**4819883**	**EAMD-16-15-6-8X10**
	6.35	8	16	–	17	15±1	10	6.5	–	1.6	12.8	**561292**	**EAMD-16-15-6.35-8X10**
	8	8	16	–	17	15±1	10	6.5	–	2	12	**1184697**	**EAMD-16-15-8-8X10**
19	9	8	19	–	19	15±1	10	6.5	–	2	13.5	**557999**	**EAMD-19-15-9-8X10**
	10	8	19	–	19	15±1	10	6.5	–	2	13	**557998**	**EAMD-19-15-10-8X10**
21	11	8	21	–	21.5	15±1	10	6.5	–	2	13.7	**4820350**	**EAMD-21-15-11-8X10**
	12	8	21	–	21.5	15±1	10	6.5	–	2	13.5	**4820335**	**EAMD-21-15-12-8X10**
25	6.35	10	25	22	25	22+1	12	8.1	1	3.6	43.7	**561293**	**EAMD-25-22-6.35-10X12**
	8	10	25	22	25	22+1	12	8.1	1	8	43.4	**5010861**	**EAMD-25-22-8-10X12**
	9	10	25	22	25	22+1	12	8.1	1	9	43.2	**3717923**	**EAMD-25-22-9-10X12**
	10	10	25	22	25	22+1	12	8.1	1	9	43.5	**1453860**	**EAMD-25-22-10-10X12**
	11	10	25	22	25	22+1	12	8.1	1	9	43.5	**558000**	**EAMD-25-22-11-10X12**
	12	10	25	22	25	22+1	12	8.1	1	9	42.1	**5029897**	**EAMD-25-22-12-10X12**
28	14	10	28	22	28	22±1	12	8.1	1	9	43	**1453861**	**EAMD-28-22-14-10X12**
30	16	10	30	22	30	22±1	12	8.1	1	9	44.8	**5030235**	**EAMD-30-22-16-10X12**
32	9	16	32	25	32	32±1	20	10.3	1.5	12.5	127	**5038002**	**EAMD-32-32-9-16X20**
	10	16	32	25	32	32±1	20	10.3	1.5	16	126	**5273329**	**EAMD-32-32-10-16X20-U**
	11	16	32	25	32	32±1	20	10.3	1.5	12.5	126	**558001**	**EAMD-32-32-11-16X20**
	11	16	32	25	32	32±1	20	10.3	1.5	12.5	126	**8086050**	**EAMD-32-32-11-16X20-U**
	12	16	32	25	32	32±1	20	10.3	1.5	12.5	125	**8070762**	**EAMD-32-32-12-16X20**
	14	16	32	25	32	32±1	20	10.3	1.5	12.5	124	**1377840**	**EAMD-32-32-14-16X20**
	14	16	32	25	32	32±1	20	10.3	1.5	12.5	124	**8086051**	**EAMD-32-32-14-16X20-U**
	16	16	32	25	32	32±1	20	10.3	1.5	12.5	123	**1184858**	**EAMD-32-32-16-16X20**
33	19	10	33	22	33	22±1	12	8.1	1	9	46.1	**5030024**	**EAMD-33-22-19-10X12**

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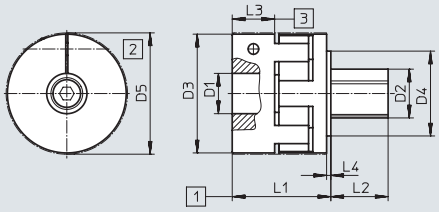
EAMD-...



[1] Nominal length with axial offset compensation
[2] Min. installation ø (interfering contour of the clamping screw)
[3] Insertion depth

ø [mm]	D1 ø H7	D2 ø H7	D3 ø	D4 ø	D5 ø	L1	L2	L3	L4	Transferable torque [Nm]	Weight [g]	Part no.	Type
42	10	16	42	25	44.5	40±2	25	17	1.5	17	199	**5200227**	**EAMD-42-40-10-16X25**
	11	16	42	25	44.5	40±2	25	17	1.5	17	198	**5200234**	**EAMD-42-40-11-16X25**
	11	16	42	25	44.5	40±2	25	17	1.5	21	198	**8203729**	**EAMD-42-40-11-16X25-U**
	12	16	42	25	44.5	40±2	25	17	1.5	17	198	**5200241**	**EAMD-42-40-12-16X25**
	12	16	42	25	44.5	40±2	25	17	1.5	21	198	**8203728**	**EAMD-42-40-12-16X25-U**
	14	16	42	25	44.5	40±2	25	17	1.5	21	196	**3420022**	**EAMD-42-40-14-16X25-U**
	16	16	42	25	44.5	40±2	25	17	1.5	17	194	**5153079**	**EAMD-42-40-16-16X25**
	16	16	42	25	44.5	40±2	25	17	1.5	21	194	**8203726**	**EAMD-42-40-16-16x25-U**
	18	16	42	25	44.5	40±2	25	17	1.5	17	192	**5056644**	**EAMD-42-40-18-16X25**
	19	16	42	25	44.5	40±2	25	17	1.5	17	190	**558002**	**EAMD-42-40-19-16X25**
	19	16	42	25	44.5	40±2	25	17	1.5	21	190	**8203727**	**EAMD-42-40-19-16x25-U**
	20	16	42	25	44.5	40±2	25	17	1.5	17	189	**1188350**	**EAMD-42-40-20-16X25**
	20	16	42	25	44.5	40±2	25	17	1.5	21	189	**1781043**	**EAMD-42-40-20-16X25-U**
	22	16	42	25	44.5	40±2	25	17	1.5	17	186	**5046328**	**EAMD-42-40-22-16X25**
	16	16	42	25	44.5	48±2	25	25	1.5	17	217	**8121126**	**EAMD-42-48-16-16X25**
	19	16	42	25	44.5	48±2	25	25	1.5	17	212	**8121127**	**EAMD-42-48-19-16X25**
56	14	23	56	40	57	46.5±2	27	20	2	38	424	**5062229**	**EAMD-56-46-14-23X27**
	16	23	56	40	57	46.5±2	27	20	2	48	422	**8166642**	**EAMD-56-46-16-23X27**
	18	23	56	40	57	46.5±2	27	20	2	57	419	**5063729**	**EAMD-56-46-18-23X27**
	19	23	56	40	57	46.5±2	27	20	2	60	418	**558003**	**EAMD-56-46-19-23X27**
	19	23	56	40	57	46.5±2	27	20	2	60	418	**8164975**	**EAMD-56-46-19-23X27-U**
	20	23	56	40	57	46.5±2	27	20	2	60	416	**558004**	**EAMD-56-46-20-23X27**
	20	23	56	40	57	46.5±2	27	20	2	65	416	**8165049**	**EAMD-56-46-20-23X27-U**
	24	23	56	40	57	46.5±2	27	20	2	60	409	**558005**	**EAMD-56-46-24-23X27**
	24	23	56	40	57	46.5±2	27	20	2	75	409	**8134726**	**EAMD-56-46-24-23X27-U**
	25	23	56	40	57	46.5±2	27	20	2	60	407	**1188801**	**EAMD-56-46-25-23X27**
	25	23	56	40	57	46.5±2	27	20	2	75	407	**1781045**	**EAMD-56-46-25-23X27-U**
	32	23	56	40	57	46.5±2	27	20	2	60	390	**5063745**	**EAMD-56-46-32-23X27**
	18	23	56	40	57	54.5±2	27	20	2	60	466	**5225774**	**EAMD-56-54-18-23X27**
	19	23	56	40	57	54.5±2	27	20	2	60	464	**5215476**	**EAMD-56-54-19-23X27**
	22	23	56	40	57	54.5±2	27	20	2	60	457	**5226828**	**EAMD-56-54-22-23X27**
	20	23	56	40	57	62.5±2	27	20	2	60	507	**5228153**	**EAMD-56-62-20-23X27**

Datasheet

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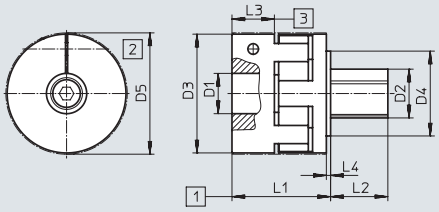
EAMD-...



[1] Nominal length with axial offset compensation
[2] Min. installation ø (interfering contour of the clamping screw)
[3] Insertion depth

ø [mm]	D1 ø H7	D2 ø H7	D3 ø	D4 ø	D5 ø	L1	L2	L3	L4	Transferable torque [Nm]	Weight [g]	Part no.	Type
67	16	32	66.5	–	68	51±2	32	21.25	–	93	750	**5071095**	**EAMD-67-51-16-32x32-U**
	19	32	66.5	–	68	51±2	32	21.25	–	113	745	**3398671**	**EAMD-67-51-19-32X32-U**
	20	32	66.5	–	68	51±2	32	21.25	–	120	744	**3717812**	**EAMD-67-51-20-32X32-U**
	22	32	66.5	–	68	51±2	32	21.25	–	133	740	**5070937**	**EAMD-67-51-22-32X32-U**
	24	32	66.5	–	68	51±2	32	21.25	–	143	736	**558008**	**EAMD-67-51-24-32X32-U**
	25	32	66.5	–	68	51±2	32	21.25	–	150	734	**558006**	**EAMD-67-51-25-32X32-U**
	32	32	66.5	–	68	51±2	32	21.25	–	192	717	**1379269**	**EAMD-67-51-32-32X32-U**
	32	32	66.5	–	68	65±2	32	21.25	–	192	816	**8196716**	**EAMD-67-65-32-32X32-U**
	24	32	66.5	–	68	65±2	32	21.25	–	200	787	**8196714**	**EAMD-67-65-40-32X32-U**
	24	32	66.5	–	68	82±2	32	21.25	–	143	1559	**558009**	**EAMD-67-82-24-32X32-U**
	25	32	66.5	–	68	82±2	32	21.25	–	150	1557	**558007**	**EAMD-67-82-25-32X32-U**
	32	32	66.5	–	68	82±2	32	21.25	–	192	1540	**1379270**	**EAMD-67-82-32-32X32-U**
	32	32	66.5	–	68	96±2	32	21.25	–	180	1636	**8197587**	**EAMD-67-96-32-32x32-U**
75	40	32	75	–	75	51±2	32	21.25	–	200	741	**5078084**	**EAMD-75-51-40-32x32-U**

Type codes

001	Series	
KSK	Connecting shaft	

002	Product version	
	Standard	
A	Deviating design	

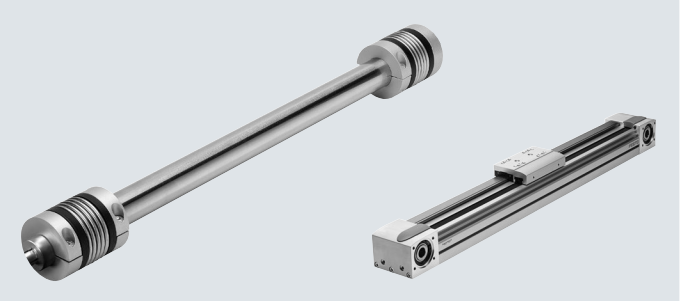
003	Size [mm]	
50	50	
70	70	
80	80	
120	120	
185	185	

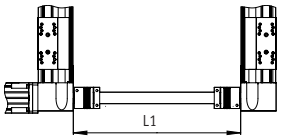
004	Nominal length [mm]	
...	200 ... 2000 mm	

Datasheet

Connecting shafts KSK
For toothed belt axis EGC-TB-KF

- Ø - Size
50, 70, 80, 120 and 185





Nominal length L1 = Clear span between the drive covers

The total mass is calculated as follows:
$m_{total} = m_0 + m_L \times L1$

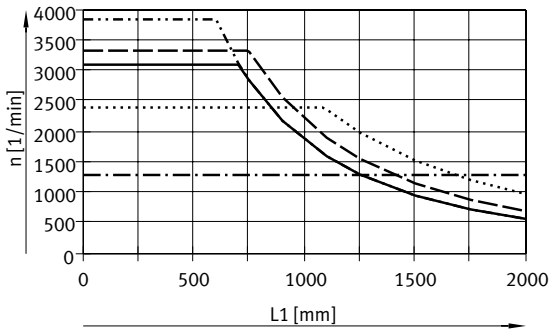
The moment of inertia is calculated as follows:
$J_{total} = J_0 + J_L \times L1$

General technical data						
Size		50	70	80	120	185
Design		Connecting tube with a coupling at each end as well as two drive shaft adapters for adapting the hollow shaft				
Mounting position		Horizontal (vertical on request)				
Nominal length L1	[mm]	200 ... 2000			250 ... 2000	350 ... 2000
Basic moment of inertia J_0 with L1 = 0 mm	[kg mm²]	34	35	159	1390	7261
Additional moment of inertia J_L per 1 m nominal length	[kg mm²/m]	34	34	80	333	1946
Max. permissible axial offset	[mm]	±2				±5
Basic weight m_0 with L1 = 0 mm	[kg]	0.28	0.29	0.53	2.28	5.29
Additional weight m_L per 1 m nominal length	[kg/m]	0.32	0.32	0.48	0.8	1.89

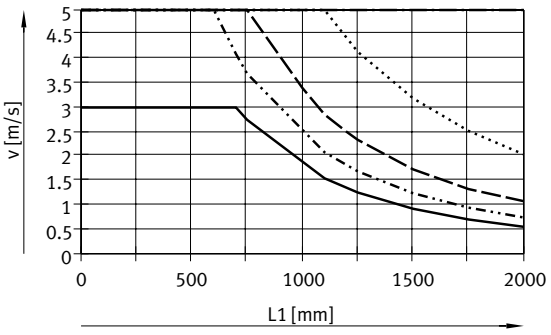
Operating and environmental conditions		
Ambient temperature	[°C]	–10 ... +60
Corrosion resistance class CRC[1)]		2
Materials		
Coupling, hub		Wrought aluminium alloy
Coupling, bellows		High-alloy steel
Connecting tube, drive shaft adapters		High-alloy steel
Note on materials		RoHS-compliant
		Contains paint-wetting impairment substances

1) Corrosion resistance class CRC 2 to Festo standard FN 940070
Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements that are in direct contact with a normal industrial environment.

Max. rotational speed n as a function of nominal length L1



Max. speed v as a function of nominal length L1



KSK-50
KSK-70
KSK-80
KSK-120
KSK-185

Datasheet

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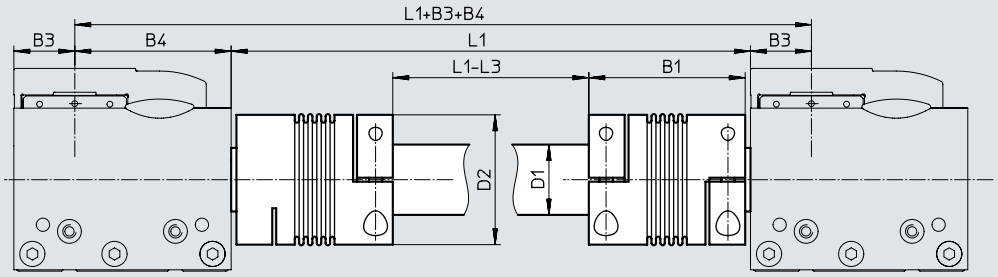
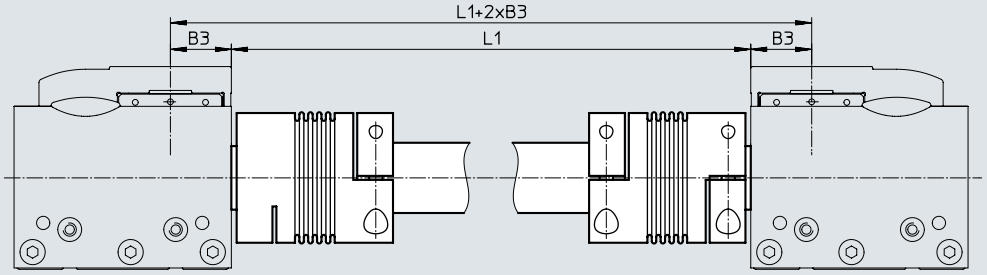
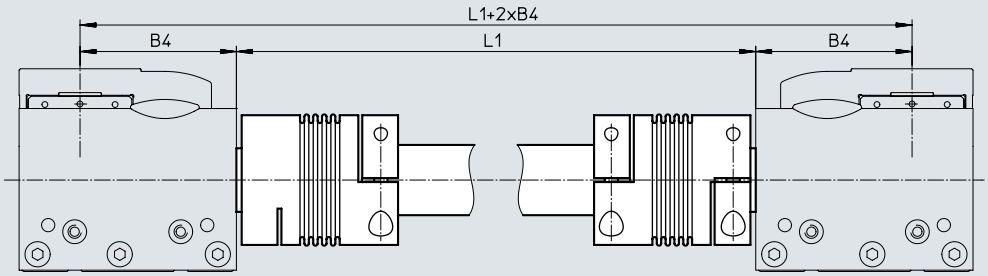
Internal/external guide



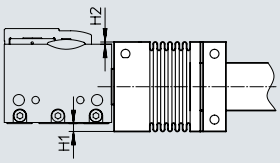
Internal guide



External guide



Projection of coupling



Size of axis [mm]	B1	B3	B4	D1 ø	D2 ø	H1	H2	L1	L3	Part no.	Type
50	50	12.5	35.5	21.27	40	4	1	1)	102.2	**563710**	**KSK-50-...**
70	50	17.5	51.5	21.27	40	–	–		103.7	**562520**	**KSK-70-...**
80	59	23	59	26.52	49	–	–		122	**562521**	**KSK-80-...**
120	94	35	85	41.6	81	–	1		192	**562522**	**KSK-120-...**
185	111	55	131	65.4	110	–	–		228	**562523**	**KSK-185-...**

1) Clear span between the drive covers

Note

The nominal length L1 must be specified in the type code when ordering. The nominal length L1 indicates the clear span between the drive covers in this case.

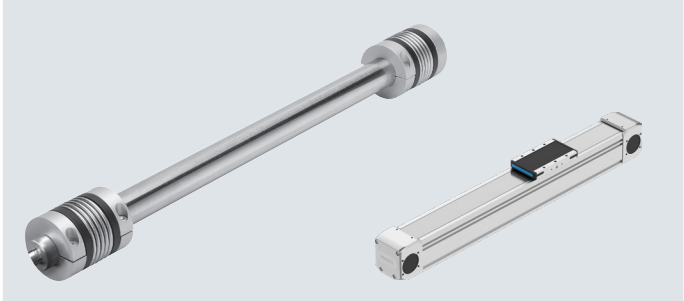
Order example:
Two toothed belt axes EGC-70-...-TB-KF are to be linked using a connecting shaft with a nominal length L1 = 1000 mm.

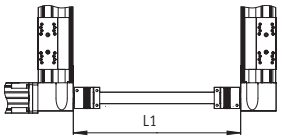
The following connecting shaft is required:
Type: KSK-70-1000
Part no. 562520

Datasheet

Connecting shafts KSK
For toothed belt axis ELGD-TB-KF

- Ø - Size
70 and 80





Nominal length L1 = Clear span between the drive covers

The total mass is calculated as follows:
$m_{total} = m_0 + m_L \times L1$

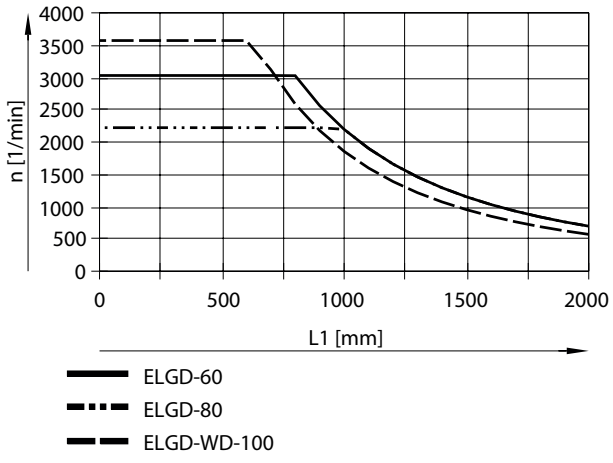
The moment of inertia is calculated as follows:
$J_{total} = J_0 + J_L \times L1$

General technical data			
Size		70	80
Design		Connecting tube with a coupling at each end as well as two drive shaft adapters for adapting the hollow shaft	
Mounting position		Horizontal (vertical on request)	
Nominal length L1	[mm]	200 ... 2000	
Basic moment of inertia J_0 with L1 = 0 mm	[kg mm²]	35	159
Additional moment of inertia J_L per 1 m nominal length	[kg mm²/m]	34	80
Max. permissible axial offset	[mm]	±2	
Basic weight m_0 with L1 = 0 mm	[kg]	0.29	0.53
Additional weight m_L per 1 m nominal length	[kg/m]	0.32	0.48

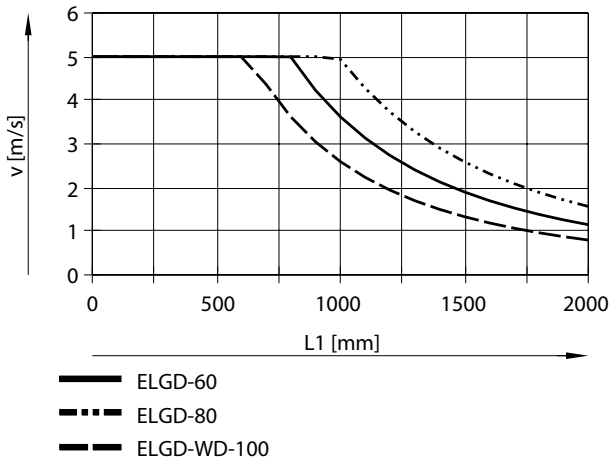
Operating and environmental conditions		
Ambient temperature	[°C]	–10 ... +60
Corrosion resistance class CRC[1)]		2
Materials		
Coupling, hub		Wrought aluminium alloy
Coupling, bellows		High-alloy steel
Connecting tube, drive shaft adapters		High-alloy steel
Note on materials		RoHS-compliant
		Contains paint-wetting impairment substances

1) Corrosion resistance class CRC 2 to Festo standard FN 940070
Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements that are in direct contact with a normal industrial environment.

Max. rotational speed n as a function of nominal length L1



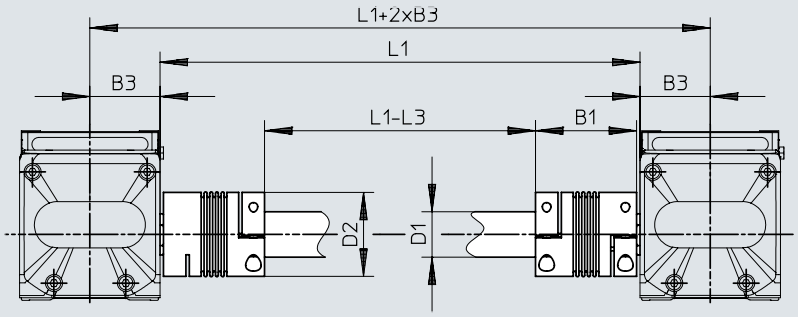
Max. speed v as a function of nominal length L1



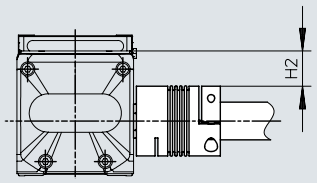
Datasheet

Dimensions and ordering data Download CAD data ➔ www.festo.com

Internal/external guide



Distance to the clutch



	B1	B3	H2	D1 ø H7	D2 ø	L1	L3	Part no.	Type
ELGD-TB-60 with KSK-80	59	31	12.9	26.5	49	1)	121.7	**562521**	**KSK-80-...**
ELGD-TB-80 with KSK-80	59	41	24.8	26.5	49		122	**562521**	**KSK-80-...**
ELGD-TB-WD-100 with KSK-70	50	51	14.5	21.27	40		103.4	**562520**	**KSK-70-...**

1) Clear span between the drive covers

Note

The nominal length L1 must be specified in the type code when ordering. The nominal length L1 indicates the clear span between the drive covers in this case.

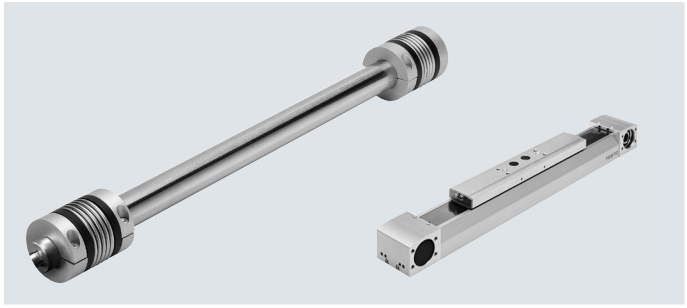
Order example:
Two toothed belt axes ELGA-TB-KF-80-... are to be linked using a connecting shaft with a nominal length L1 = 1000 mm.

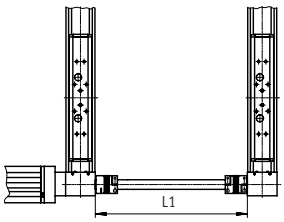
The following connecting shaft is required:
Type: KSK-80-1000
Part no. 562521

Datasheet

Connecting shafts KSK
For toothed belt axis ELGA-TB-RF

- Ø - Size
A-70, 80, 120





Nominal length L1 = Clear span between the drive covers

The total mass is calculated as follows:
$m_{total} = m_0 + m_L \times L1$

The moment of inertia is calculated as follows:
$J_{total} = J_0 + J_L \times L1$

General technical data

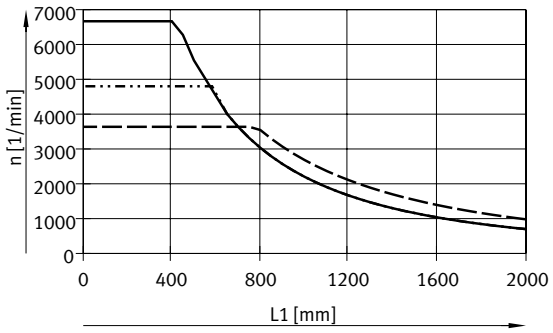
Size		A-70	80	120
Design		Connecting tube with a coupling at each end as well as 2 drive shafts adapters for adapting the hollow shaft. With the KSK-185, 2 plugs are additionally supplied for inserting into the tube ends		
Mounting position		Horizontal (vertical on request)		
Nominal length L1	[mm]	200 ... 2000		250 ... 2000
Basic moment of inertia J_0 with L1 = 0 mm	[kg mm²]	161	159	1390
Additional moment of inertia J_L per 1 m nominal length	[kg mm²/m]	80	80	333
Max. permissible axial offset	[mm]	±2		
Basic weight m_0 with L1 = 0 mm	[kg]	0.54	0.53	2.28
Additional weight m_L per 1 m nominal length	[kg/m]	0.48	0.48	0.8

Operating and environmental conditions

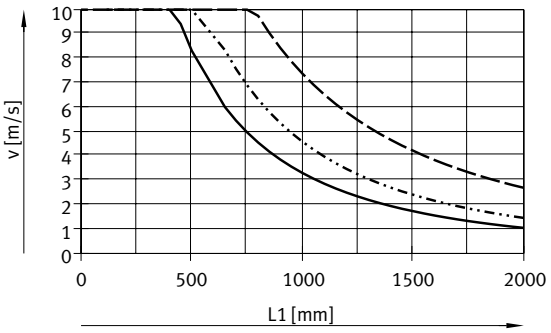
Ambient temperature	[°C]	–10 ... +60
Corrosion resistance class CRC[1)]		2
Materials		
Coupling, hub		Wrought aluminium alloy
Coupling, bellows		High-alloy steel
Connecting tube, drive shaft adapters		High-alloy steel
Note on materials		RoHS-compliant
		Contains paint-wetting impairment substances

1) Corrosion resistance class CRC 2 to Festo standard FN 940070
Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements that are in direct contact with a normal industrial environment.

Max. rotational speed n as a function of nominal length L1



Max. speed v as a function of nominal length L1

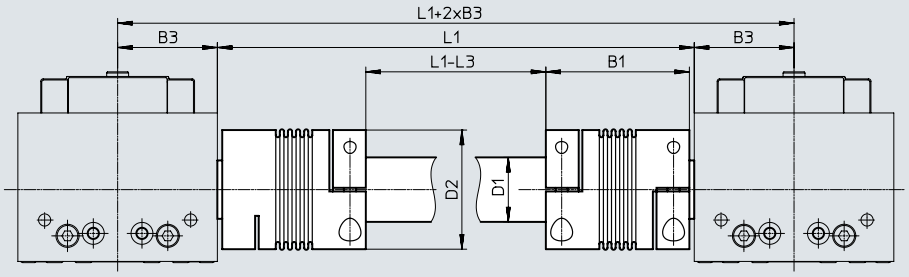


KSK-A-70
KSK-80
KSK-120

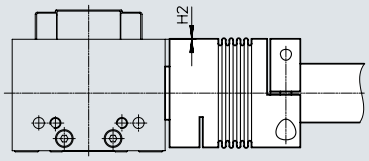
Datasheet

Dimensions and ordering data Download CAD data ➔ www.festo.com

Internal/external guide



Projection of coupling



Size of axis [mm]	B1	B3	D1 ø H7	D2 ø	H2	L1	L3	Part no.	Type
70	59	34.5	26.52	49	0.2	1)	122	**2261462**	**KSK-A-70-...**
80	59	41	26.52	49	–		122	**562521**	**KSK-80-...**
120	94	60	41.6	81	–		192	**562522**	**KSK-120-...**

1) Clear span between the drive covers

Note

The nominal length L1 must be specified in the type code when ordering. The nominal length L1 indicates the clear span between the drive covers in this case.

Order example:
Two toothed belt axes ELGA-TB-RF-80-... are to be linked using a connecting shaft with a nominal length L1 = 1000 mm.

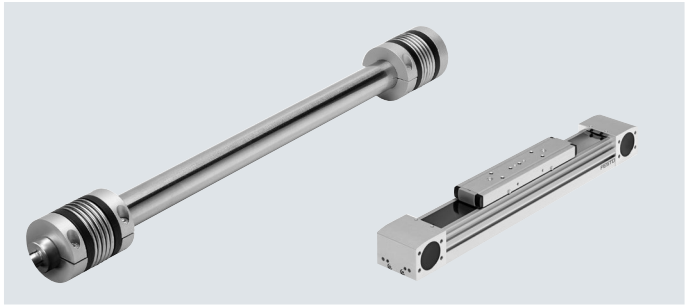
The following connecting shaft is required:
Type: KSK-80-1000
Part no. 562521

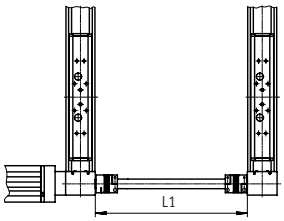
Datasheet

Connecting shafts KSK
For toothed belt axis ELGA-TB-KF

- Ø - Size
A-70, 80, 120, 185

The connecting shaft KSK-185 is used in combination with the toothed belt axis ELGA-TB-KF-150.





Nominal length L1 = Clear span between the drive covers

The total mass is calculated as follows:
$m_{total} = m_0 + m_L \times L1$

The moment of inertia is calculated as follows:
$J_{total} = J_0 + J_L \times L1$

General technical data

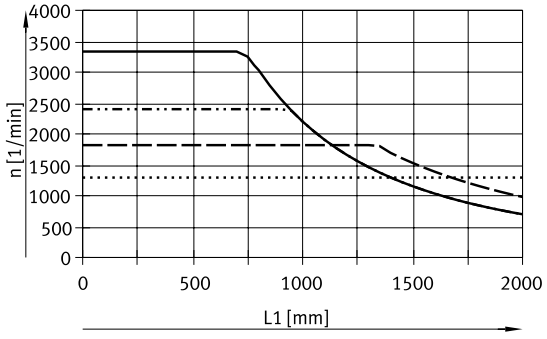
Size		A-70	80	120	185
Design		Connecting tube with a coupling at each end as well as two drive shaft adapters for adapting the hollow shaft. With the KSK-185, 2 plugs are additionally supplied for inserting into the tube ends			
Mounting position		Horizontal (vertical on request)			
Nominal length L1	[mm]	200 ... 2000		250 ... 2000	350 ... 2000
Basic moment of inertia J_0 with L1 = 0 mm	[kg mm²]	161	159	1390	7261
Additional moment of inertia J_L per 1 m nominal length	[kg mm²/m]	80	80	333	1946
Max. permissible axial offset	[mm]	±2			±5
Basic weight m_0 with L1 = 0 mm	[kg]	0.54	0.53	2.28	5.29
Additional weight m_L per 1 m nominal length	[kg/m]	0.48	0.48	0.8	1.89

Operating and environmental conditions

Ambient temperature	[°C]	–10 ... +60
Corrosion resistance class CRC[1)]		2
Materials		
Coupling, hub		Wrought aluminium alloy
Coupling, bellows		High-alloy steel
Connecting tube, drive shaft adapters		High-alloy steel
Note on materials		RoHS-compliant
		Contains paint-wetting impairment substances

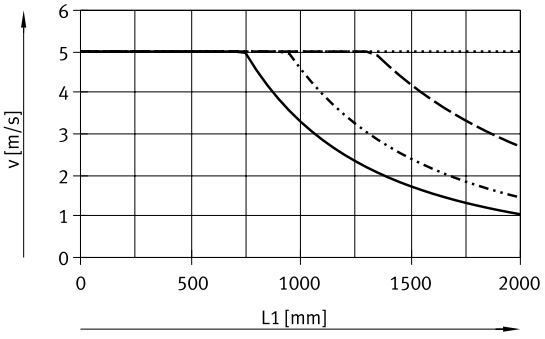
1) Corrosion resistance class CRC 2 to Festo standard FN 940070
Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements that are in direct contact with a normal industrial environment.

Max. rotational speed n as a function of nominal length L1



KSK-A-70
KSK-80
KSK-120
KSK-185

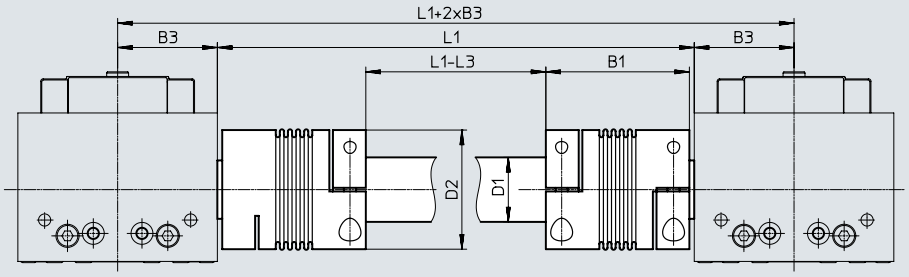
Max. speed v as a function of nominal length L1



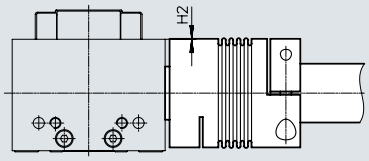
Datasheet

Dimensions and ordering data Download CAD data ➔ www.festo.com

Internal/external guide



Projection of coupling



Size of axis [mm]	B1	B3	D1 Ø H7	D2 Ø	H2	L1	L3	Part no.	Type
70	59	34.5	26.52	49	0.2	1)	122	**2261462**	**KSK-A-70-...**
80	59	41	26.52	49	–		122	**562521**	**KSK-80-...**
120	94	60	41.6	81	–		192	**562522**	**KSK-120-...**
185[2)]	111	77	65.4	110	–		228	**562523**	**KSK-185-...**

1) Clear span between the drive covers
2) For ELGA-TB-KF-150

Note

The nominal length L1 must be specified in the type code when ordering. The nominal length L1 indicates the clear span between the drive covers in this case.

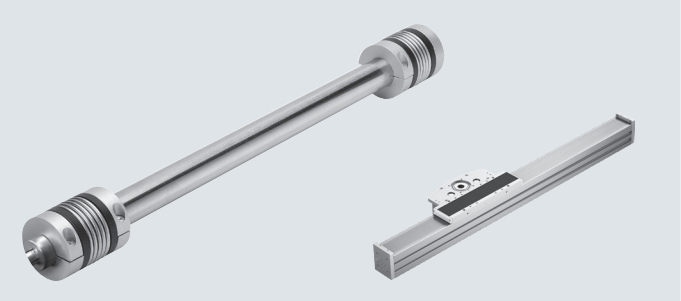
Order example:
Two toothed belt axes ELGA-TB-KF-80-... are to be linked using a connecting shaft with a nominal length L1 = 1000 mm.

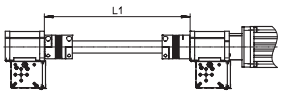
The following connecting shaft is required:
Type: KSK-80-1000
Part no. 562521

Datasheet

Connecting shafts KSK
For cantilever axis ELCC-TB-KF

- Ø - Size
80, 120, 185





Nominal length L1 = Clear span between the drive covers

The total mass is calculated as follows:
$m_{total} = m_0 + m_L \times L1$

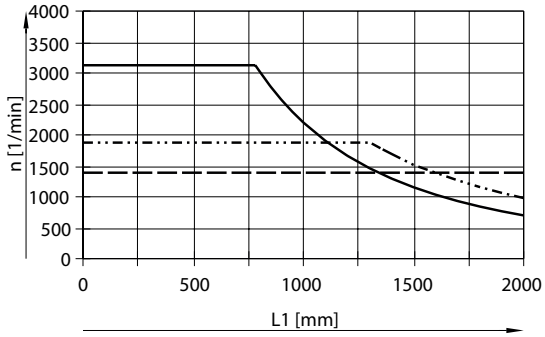
The moment of inertia is calculated as follows:
$J_{total} = J_0 + J_L \times L1$

General technical data				
Size		80	120	185
Design		Connecting tube with a coupling at each end as well as two drive shaft adapters for adapting the hollow shaft. With the KSK-185, 2 plugs are additionally supplied for inserting into the tube ends		
Mounting position		Horizontal (vertical on request)		
Nominal length L1	[mm]	200 ... 2000	250 ... 2000	350 ... 2000
Basic moment of inertia J_0 with L1 = 0 mm	[kg mm²]	159	1390	7261
Additional moment of inertia J_L per 1 m nominal length	[kg mm²/m]	80	333	1946
Max. permissible axial offset	[mm]	±2		±5
Basic weight m_0 with L1 = 0 mm	[kg]	0.53	2.28	5.29
Additional weight m_L per 1 m nominal length	[kg/m]	0.48	0.8	1.89

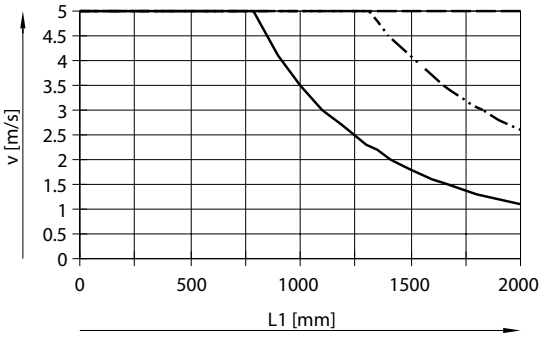
Operating and environmental conditions		
Ambient temperature	[°C]	–10 ... +60
Corrosion resistance class CRC[1)]		2
Materials		
Coupling, hub		Wrought aluminium alloy
Coupling, bellows		High-alloy steel
Connecting tube, drive shaft adapters		High-alloy steel
Note on materials		RoHS-compliant
		Contains paint-wetting impairment substances

1) Corrosion resistance class CRC 2 to Festo standard FN 940070
Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements that are in direct contact with a normal industrial environment.

Max. rotational speed n as a function of nominal length L1



Max. speed v as a function of nominal length L1

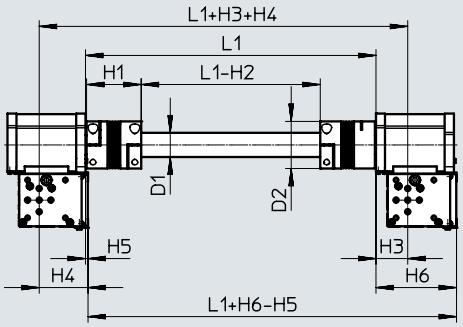


KSK-80
KSK-120
KSK-185

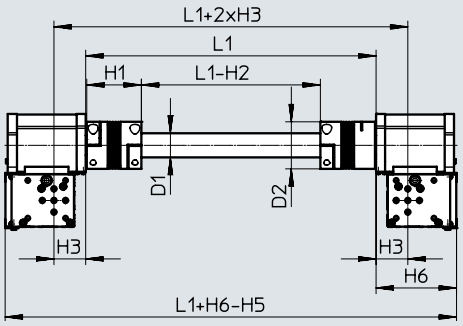
Datasheet

Dimensions and ordering data Download CAD data ➔ www.festo.com

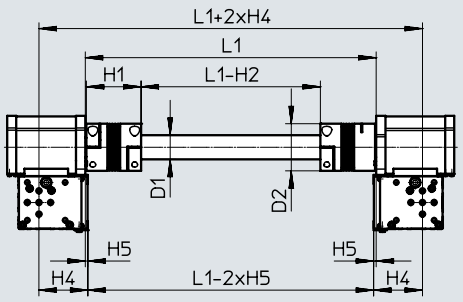
Axis mounting surfaces facing the same direction



Axis mounting surfaces facing outwards



Axis mounting surfaces facing one another



Size of axis [mm]	D1 Ø H7	D2 Ø	H1	H2	H3	H4	H5	H6	L1	Part no.	Type
60	26.6	49	59	122	43.1	27.1	8.5	78.6	1)	**562521**	**KSK-80-...**
70	26.6	49	59	122	48	53.5	10.5	112		**562521**	**KSK-80-...**
90	41.7	81	94	192	54.6	79.6	4.4	138.6		**562522**	**KSK-120-...**
110	65.5	110	111	228	73.6	85.6	11.4	170.6		**562523**	**KSK-185-...**

1) Clear span between the contact surfaces

Note

The nominal length L1 must be specified in the type code when ordering. The nominal length L1 indicates the clear span between the drive covers in this case.

Order example:
Two cantilever axes ELCC-TB-KF-70-... are to be linked using a connecting shaft with a nominal length L1 = 1000 mm.

The following connecting shaft is required:
Type: KSK-80-1000
Part no. 562521