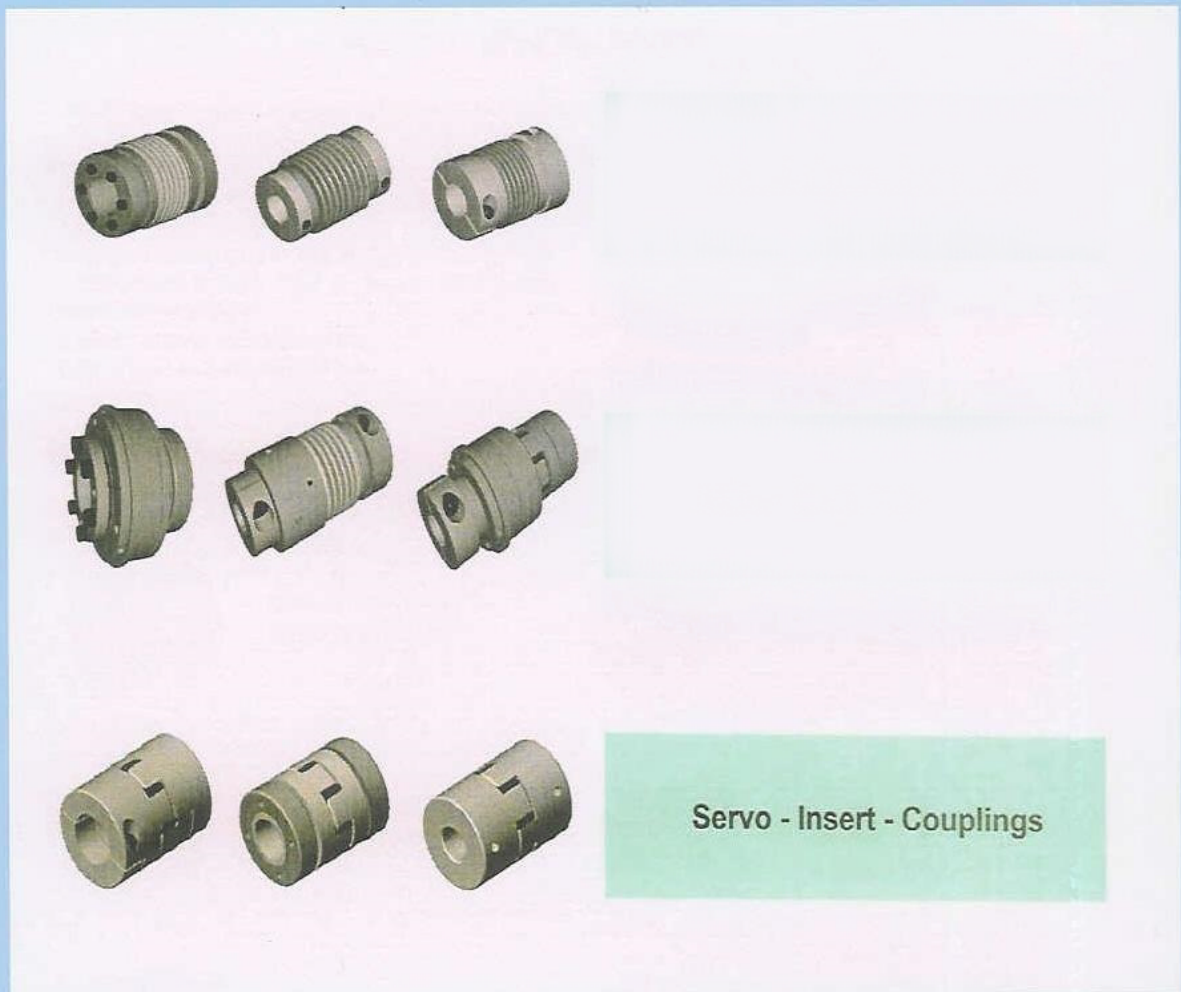




# KBK Couplings

Metal Bellows, Flexible Spider & Adjustable  
Overload-Protection-Clutch Safety Couplings



Servo - Insert - Couplings



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## Servo Insert Couplings



### KBE - 1

plug-in hub with set screw  
to connect two shafts  
torque: 0,5 - 300 Nm



### KBE - 2

plug - in hub with collet clamp  
easy assembling and disassembling  
torque: 10 - 500 Nm



### KBE - 3

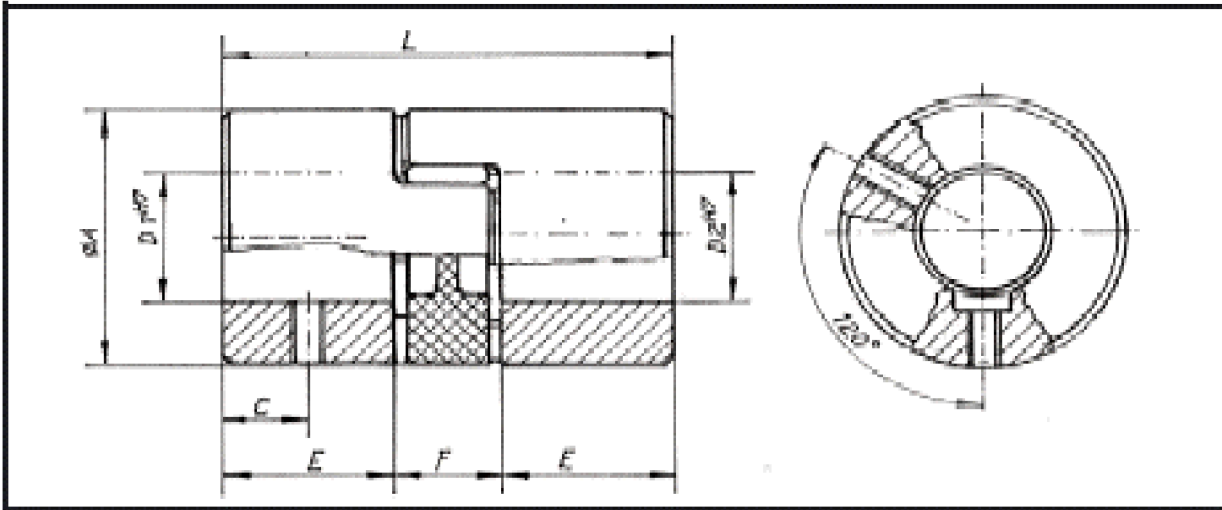
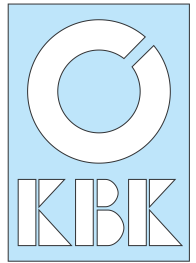
plug - in outer conical hub  
high concentricity  
torque: 10 - 500 Nm

## Special features

pluggable - compensating misalignment - backlashfree - damping vibrations

# Backlash-free Servo-insert Coupling Type KBE 1

with set screws



## Dimensions [mm]

Size	A	L	D1 - D2 min H7 max H7	E	F	C
7	14	22	3 - 7	7	8	3,5
9	20	30	4 - 9	10	10	5
14	30	35	4 - 14	11	13	5
19	40	66	6 - 24	25	16	10
24	55	78	8 - 28	30	18	10
28	65	90	10 - 38	35	20	15
38	80	114	12 - 45	45	24	15
42	95	126	14 - 42	50	26	20
48	105	140	15 - 48	56	28	20

## Technical Ratings

Size	Nominal Torque $M_N$ Nm	Moment of Inertia $J$ kg mm <sup>2</sup>	Weight per Hub $m$ kg	Screw DIN 912	Tightening Torque of screws $M_S$ Nm	Maximum Speed rpm 1/min
7	1,2	0,2	0,003	M3	1,3	34000
9	3	1,1	0,009	M3	1,3	24000
14	7,5	5,6	0,020	M4	3	16000
19	10	36	0,026	M5	6	12000
24	35	150	0,132	M5	6	8500
28	160	330	0,253	M6	11	7200
38	325	960	0,455	M8	25	6000
42	450	4900	1,850	M8	25	4800
48	525	8300	2,520	M8	25	4300

### Hub material

up to size 38: aluminium alloy  
size 42 and 48: steel

### Shore - hardness:

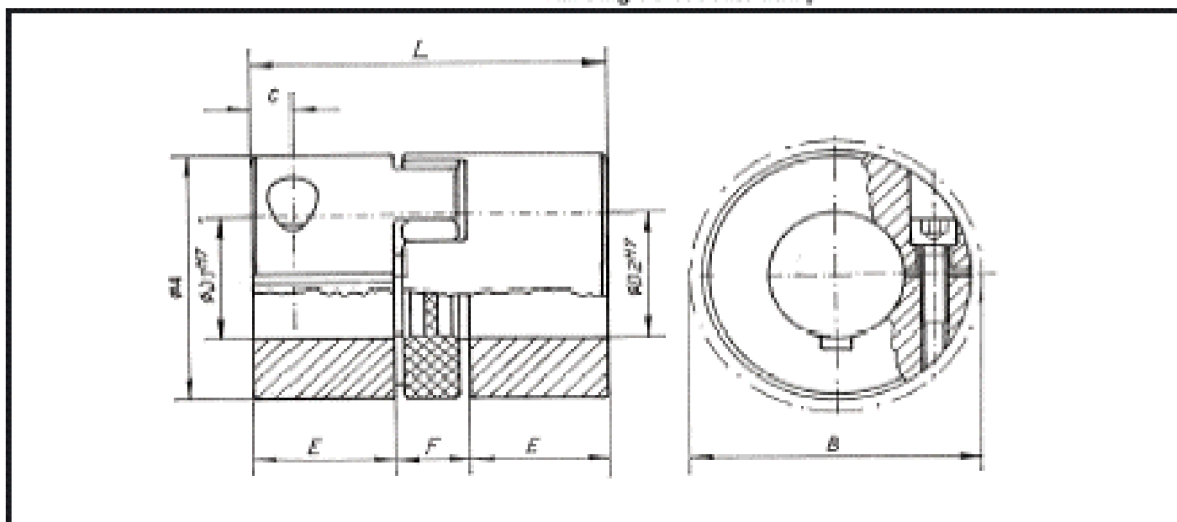
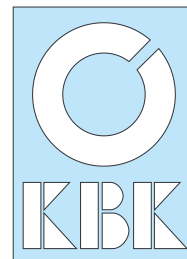
up to size 24: 92 Sh A (yellow)  
size 28 and bigger: 98 Sh A (red)

### Order code: KBE 1 - 14 - 10 H7 - 12 H7 - S

Type \_\_\_\_\_  
Size \_\_\_\_\_  
Bore D1 \_\_\_\_\_  
Bore D2 \_\_\_\_\_  
Options, e.g. different shore hardness or keyways

# Backlash-free Servo-insert CouplingType KBE 2

with single slot collet clamp



## Dimensions [mm]

Size	A	L	D1 - D2 min H7; max H7	E	F	C	B clearance
7	14	22	4 - 7	7	8	3,5	15
9	20	30	4 - 9	10	10	5	23,4
14	30	35	4 - 14	11	13	5	32,2
19	40	66	10 - 20	25	16	12	45,7

## Technical Ratings

Size	Nominal Torque <b>M<sub>N</sub></b> Nm	Moment of Inertia <b>J</b> kgmm <sup>2</sup>	Weight per Hub <b>m</b> kg	Screw DIN 912	Tightening Torque of Screws <b>M<sub>s</sub></b> Nm	Maximum speed <b>rpm</b> 1/min
7	1,2	0,2	0,003	M2	0,37	27000
9	3	1,1	0,009	M2,5	0,75	19000
14	12,5	5,6	0,02	M3	1,4	13000
19	17	36	0,026	M6	11	10000

## Transmissible Torque [ Nm ] depending on bore diameter [mm] and size

Bore	3	4	5	6	7	8	9	10	11	12	14	15	16	19	20
Size															
7	0,8	0,9	0,95	1	1,1										
9		2,1	2,2	2,3	2,4	2,5	2,6	2,7	2,8						
14		3,4	3,5	3,6	3,7	3,9	4	4,1	4,2	4,3	4,6	4,7	4,8		
19								27	27	29	30	31	32	32	34

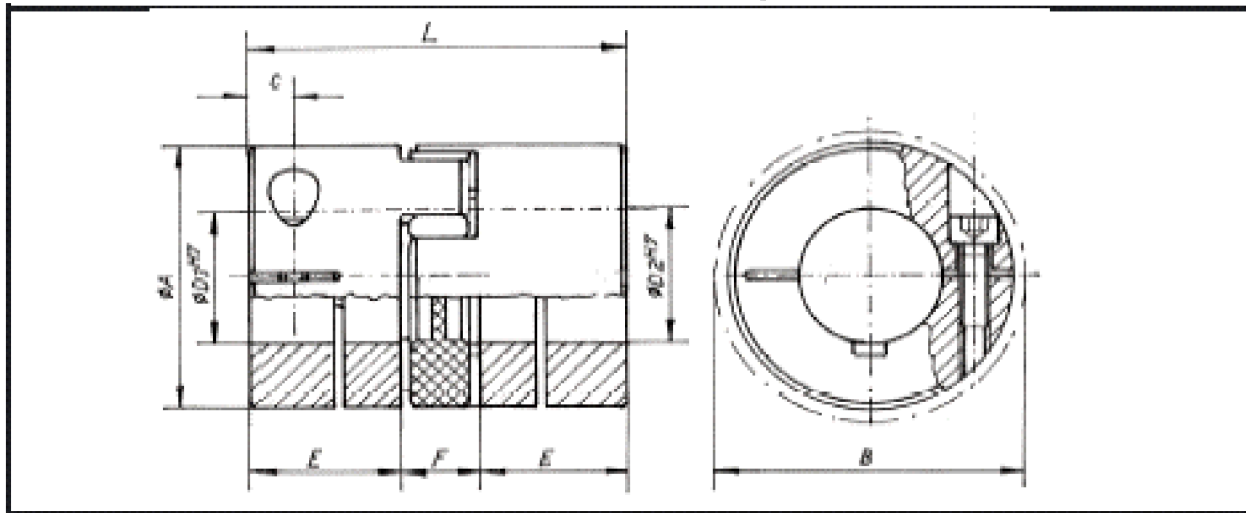
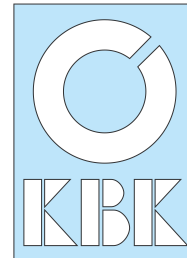
Hub material:  
aluminium alloy  
Insert made of polyurethan  
Shore hardness  
up to size 9: 92 Sh A (yellow)  
size 14 and bigger: 98 Sh A (red)

**Order code: KBE 2 - 14 - 10 H7 - 12 H7 - S**

Type \_\_\_\_\_  
Size \_\_\_\_\_  
Bore D1 \_\_\_\_\_  
Bore D2 \_\_\_\_\_  
Options, e. g. different shore hardness or keyway \_\_\_\_\_

# Backlash-free Servo-insert Coupling Type KBE 2

with double slot collet clamp



## Dimensions [mm]

Size	A	L	D1 - D2 min H7; max H7	E	F	C	B Clearance
24	55	78	15 - 28	30	18	14	56,4
28	65	90	19 - 35	35	20	15	72,6
38	80	114	20 - 45	45	24	20	83,3
42	95	126	28 - 45	50	26	20	88,8
48	105	140	25 - 50	56	28	22	90,6

## Technical Ratings

Size	Nominal Torque <b>M<sub>N</sub></b> Nm	Moment of Inertia <b>J</b> kgmm <sup>2</sup>	Weight per Hub <b>m</b> kg	Screw DIN 912	Tightening Torque of Screw <b>M<sub>S</sub></b> Nm	Maximum Speed <b>rpm</b> 1/min
24	60	150	0,13	M6	11	7000
28	160	330	0,25	M8	25	6000
38	325	960	0,45	M8	25	5000
42	450	4900	1,9	M8	25	4000
48	525	8300	2,5	M10	49	3600

## Transmissible Torque [ Nm ] depending on bore diameter [ mm ] and size

Bore	15	16	19	20	22	24	25	28	30	32	35	38	40	42	45	48	50
Size																	
24	39	43	44	46	47	49	50	52									
28			91	93,5	96	98	100	104	107	110	113						
38				107	110	112	114	118	121	123	127	131	134	137	141		
42								250	255	260	267	279	281	288	298		
48										445	457	470	472	508	520	534	543

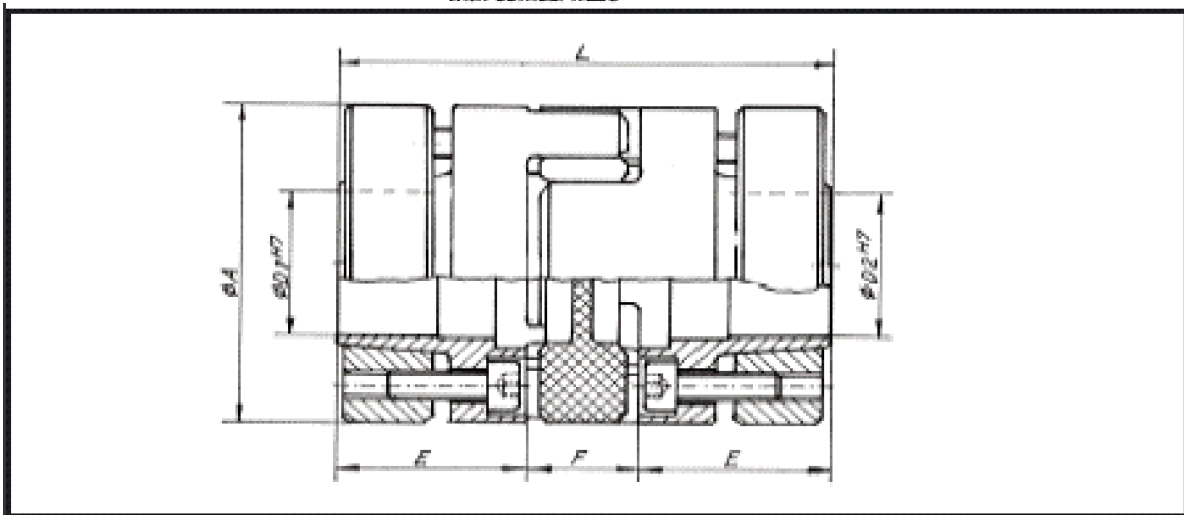
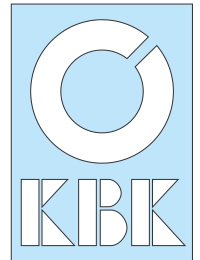
Hub Material:  
aluminium alloy  
Insert made of polyurethan  
Shoreardness 98 Sh A ( red)

**Order Code: KBE 2 - 38 - 20 H7 - 40 H7 - S**

Type \_\_\_\_\_  
Size \_\_\_\_\_  
Bore D1 \_\_\_\_\_  
Bore D2 \_\_\_\_\_  
Options, e.g. different shore hardness or keyway \_\_\_\_\_

# Backlash-free Servo-insert Coupling Type KBE 3

with conical hubs



## Dimensions [mm]

Size	A	L	D1 - D2 min H7; max H7	E	F
14	30	50	6 - 14	19	13
19	40	66	10 - 19	25	16
24	55	78	15 - 25	30	18
28	65	90	19 - 35	35	20
38	80	114	20 - 42	45	24
42	95	126	28 - 42	50	26
48	105	140	35 - 48	56	28

## Technical Ratings

Size	Nominal Torque <b>M<sub>N</sub></b> Nm	Moment of Inertia <b>J</b> kgmm <sup>2</sup>	Weight per Hub <b>m</b> kg	Screw DIN 912	Tightening Torque of Screws <b>M<sub>s</sub></b> Nm	Maximum Speed <b>rpm</b> 1/min
14	12,5	7	0,05	M3	1,34	25000
19	17	31	0,12	M4	2,9	19000
24	60	135	0,28	M5	6	14000
28	160	313	0,45	M5	6	12000
38	325	960	0,95	M6	10	10000
42	450	3200	2,3	M8	35	8000
48	525	5200	3,08	M8	35	7000

## Transmissible Torque [ Nm ] depending on bore diameter [ mm ] and size

Bore	10	11	14	15	16	17	18	19	20	22	24	25	28	30	32	35	38	40	42	45	48	
Size																						
14	10	12	22																			
19	42	46	60	65	69	74	79	84														
24				66	72	77	82	87	92	102	113	118										
28								175	205	225	235	266	287	308	339							
38									283	312	326	367	398	427	471	515	545					
42													420	460	500	563	627	670	714			
48																865	1040	1160	1080	1250	1450	

Hub Material:

aluminium alloy

up to size 38: aluminium alloy

sizes 42 and 48: steel

Insert made of polyurethan

Shore hardness 98 Sh A ( red)

**Order Code: KBE 3 - 48 - 40 H7 - 35 H7 - S**

Type \_\_\_\_\_

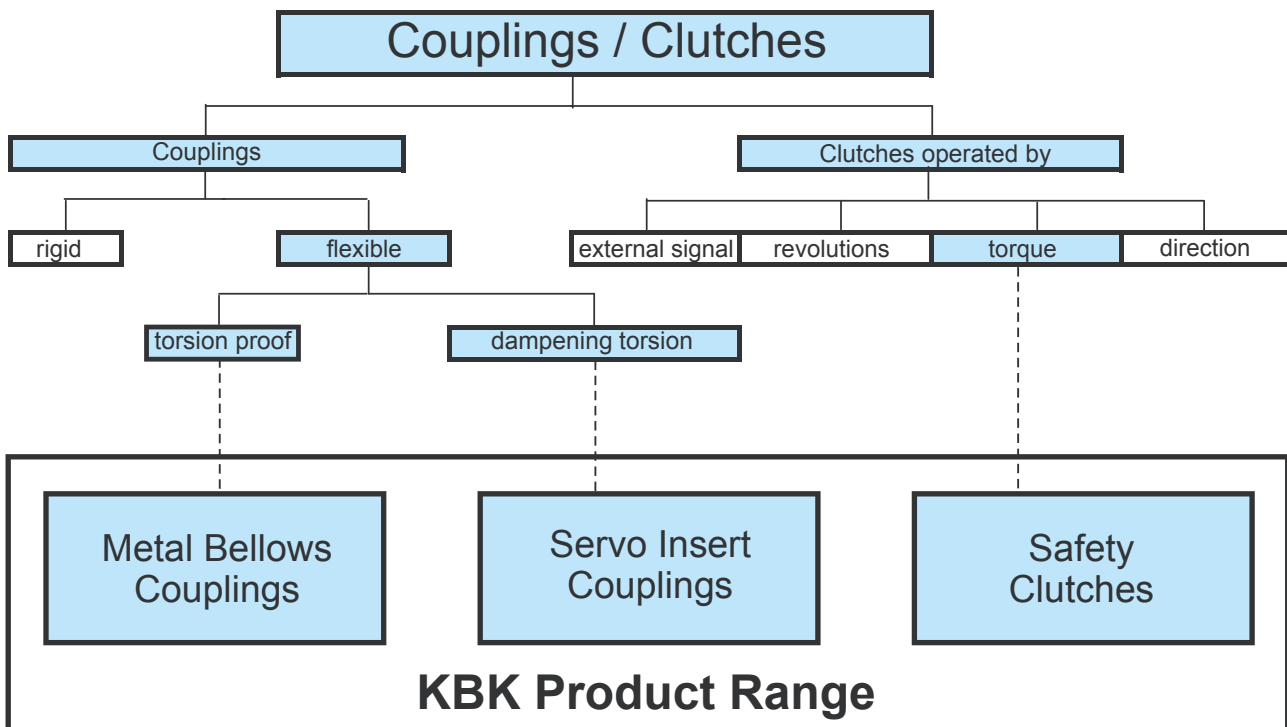
Size \_\_\_\_\_

Bore D1 \_\_\_\_\_

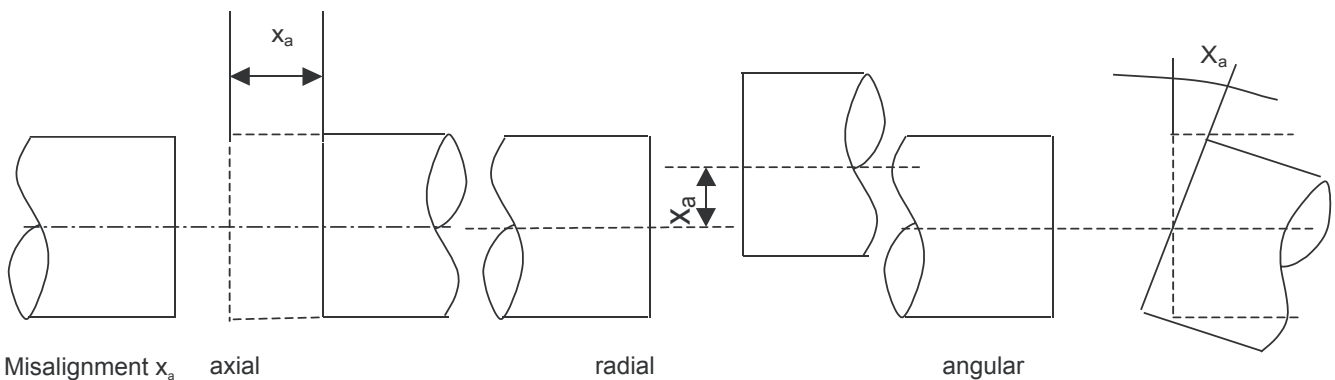
Bore D2 \_\_\_\_\_

Options, e.g.different shore hardness or keyway \_\_\_\_\_

Couplings connect shafts. According to their function, the VDI-Standard 2240 divides couplings and clutches.



Flexible couplings compensate axial, radial and angular misalignment of shafts.



Safety Clutches, operated by a change of torque switch off the drive in case of an overload.