

Containment shroud – material oxide ceramics



Technical data – Internal rotor and containment shroud

Size	TK max. [Nm] with ~ 20 °C	Dimensions [mm]													
		Internal rotor						Containment shroud							
		Finish bore ¹⁾ d _f		D _{I1}	L _{I1}	G _I	S _I		D _{S1}	D _{S2}	D _{S3}	D _{S4}	Z _S	L _S = L _{total}	
		min.	max.				min.	max.							
SA 110/16	30				45										
SB 110/16	70	14	55	72	65	M8	4	28,0	132	151	168	9	12	115	
SC 110/16	100				85			9,0							
SB 135/20	110				65			46,5							
SC 135/20	155	20	70	90	85	M10	4	26,5	157	167	180	5,5	12	143	
SD 135/20	210				110			4,0							
SC 165/24	220				85			28,0							
SD 165/24	300	24	90	110	110	M12	4	4,0	196	210	225	6,6	12	150	
SE 165/24	390				130			17,0						185	
SD 200/30	430														
SE 200/30	550	38	90	130	135	M16	4	4,0	229	246	265	9	12	185	

Technical data – External rotor, flange hub and general

Size	Dimensions [mm]											General		
	External rotor					Flange hub						ΔS	Total length* (incl. flange hub)	
	DA1	DA2	DA3	LA1	GA	Max. finish bore ¹⁾ d _f	DF1	DF2	LF1	LF2	GF		min.	max.
SA 110/16				41,3									165,5	195,5
SB 110/16	130	138	150	61,3	M6	55	85	153	87,5	45,5	M10	18,7	171,5	195,5
SC 110/16				81,3									191,5	196,5
SB 135/20				70,3								18,2	215	224
SC 135/20	158	167	176	90,3	M6	70	100	176	89	67	M12		215	224
SD 135/20				110,3								20,7	220	220
SC 165/24				90,3									18,5	225
SD 165/24	186	195	204	110,3	M6	75	110	204	94	70	M16		229	229
SE 165/24				130,3								20,7	260	260
SD 200/30														
SE 200/30	220	230	240	130,3	M6	80	120	240	120	88	M16	25,7	280	280

* Total length excl. flange hub = LS

Technical data

Size	TK max. [Nm] with 20 °C	Internal rotor			Containment shroud			External rotor (+ optional flange hub)		
		Standard material		Max. temperature	Standard material		Max. pressure	Standard material		Max. temperature
		Hub	Magnets	t _{max.} [°C]	Hub	Cont. shroud	P _N /P _{max.} [bar]	Hub	Magnets	t _{max.} [°C]
SA 110/16	25	1.4571	Sm2Co17	300	Aluminium	ZrO2MgO	25/37,5	S355J2G3	Sm2Co17	300
SB 110/16	60	1.4571	Sm2Co17	300	Aluminium	ZrO2MgO	25/37,5	S355J2G3	Sm2Co17	300
SC 110/16	95	1.4571	Sm2Co17	300	Aluminium	ZrO2MgO	25/37,5	S355J2G3	Sm2Co17	300
SB 135/20	100	1.4571	Sm2Co17	300	Aluminium	ZrO2MgO	25/37,5	S355J2G3	Sm2Co17	300
SC 135/20	145	1.4571	Sm2Co17	300	Aluminium	ZrO2MgO	25/37,5	S355J2G3	Sm2Co17	300
SD 135/20	200	1.4571	Sm2Co17	300	Aluminium	ZrO2MgO	25/37,5	S355J2G3	Sm2Co17	300
SC 165/24	210	1.4571	Sm2Co17	300	Aluminium	ZrO2MgO	25/37,5	S355J2G3	Sm2Co17	300
SD 165/24	280	1.4571	Sm2Co17	300	Aluminium	ZrO2MgO	25/37,5	S355J2G3	Sm2Co17	300
SE 165/24	370	1.4571	Sm2Co17	300	Aluminium	ZrO2MgO	25/37,5	S355J2G3	Sm2Co17	300
SD 200/30	430	1.4571	Sm2Co17	300	Aluminium	ZrO2MgO	25/37,5	S355J2G3	Sm2Co17	300
SE 200/30	550	1.4571	Sm2Co17	300	Aluminium	ZrO2MgO	25/37,5	S355J2G3	Sm2Co17	300

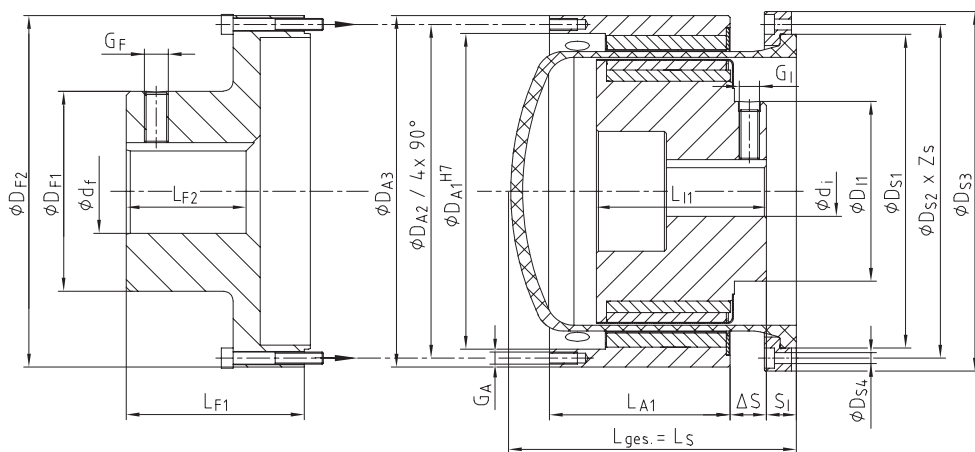
Ordering example:

MINEX® SB 135/20	NdFeB	d _i Ø20mm	d _a Ø24mm	Oxidkeramik ZrO ₂ MgO
Coupling size	NdFeB – t _{max.} = 150 °C Sm2Co17 – t _{max.} = 300 °C	Finish bore (H7), feather keyway acc. to DIN 6885 sheet 1 (JS9)		Containment shroud type

Examples of application

Like with the types with containment shroud made of PEEK, MINEX® couplings with containment shroud made of ceramics are an economic, energy-efficient alternative to the types made of metal. Again they do not generate any eddy current losses and as a result do not generate any heat so that usually expensive cooling measures can be done without. Compared to PEEK, the containment shrouds made of ceramics are characterized by higher resistance to pressure and an excellent temperature resistance.

Typical applications: vacuum pumps, fan drives, compressors, agitators, PU foaming lines.

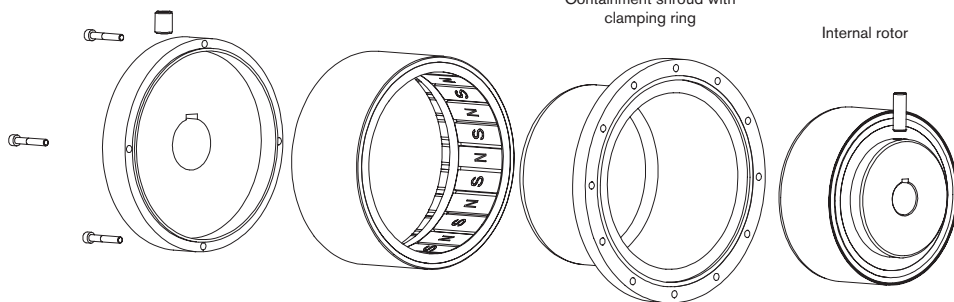


Optional flange hub with bore DA

External rotor

Containment shroud with clamping ring

Internal rotor



Use in explosive applications

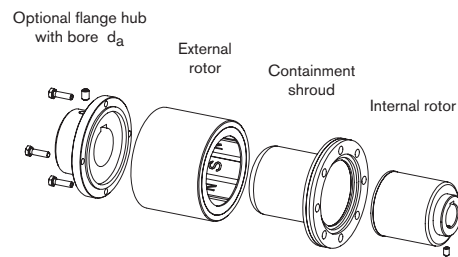
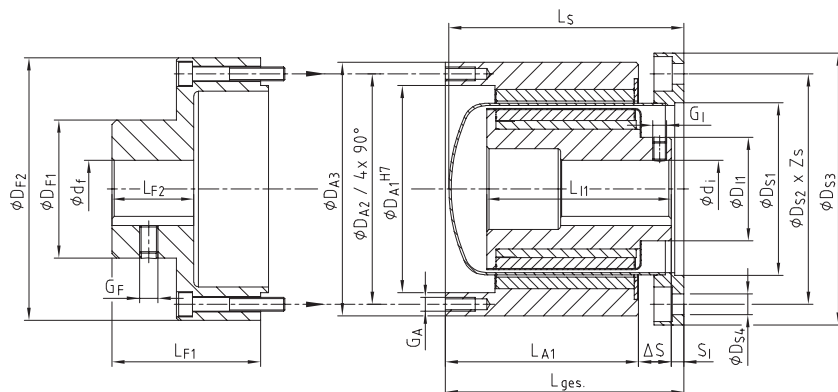
MINEX® couplings with containment shrouds made of oxide ceramics are suitable for power transmission in drives used in potentially explosive atmospheres. They are certified and confirmed according to EC directive 94/9/EC (ATEX 95) as components of category II and thus suitable for the use in hazardous locations of zone 2G.

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Please read through our information included in the respective Type Examination Certificate and the operating and mounting instructions at www.ktr.com.

Containment shroud – material Hastelloy



Technical data – Materials, temperature and pressure resistance

Size	TK max. [Nm] with 20 °C	Internal rotor			Containment shroud			External rotor (+ optional flange hub)		
		Standard material		Max. temperature	Standard material		Max. pressure	Standard material		Max. temperature
		Hub	Magnets	t _{max.} [°C]	Hub	Cont. shroud	P _N /P _{max.} [bar]	Hub	Magnets	t _{max.} [°C]
SA 75/10	10	1.4571	Sm2Co17	300	1.4571	2.4602**	25/37,5	S355J2G3	Sm2Co17*	300
SB 75/10	24	1.4571	Sm2Co17	300	1.4571	2.4602**	25/37,5	S355J2G3	Sm2Co17*	300
SC 75/10	40	1.4571	Sm2Co17	300	1.4571	2.4602**	25/37,5	S355J2G3	Sm2Co17*	300
SA 110/16	25	1.4571	Sm2Co17	300	1.4571	2.4856	25/37,5	S355J2G3	Sm2Co17*	300
SB 110/16	60	1.4571	Sm2Co17	300	1.4571	2.4856	25/37,5	S355J2G3	Sm2Co17*	300
SC 110/16	95	1.4571	Sm2Co17	300	1.4571	2.4856	25/37,5	S355J2G3	Sm2Co17*	300
SB 135/20	100	1.4571	Sm2Co17	300	1.4571	2.4856	25/37,5	S355J2G3	Sm2Co17*	300
SC 135/20	145	1.4571	Sm2Co17	300	1.4571	2.4856	25/37,5	S355J2G3	Sm2Co17*	300
SD 135/20	200	1.4571	Sm2Co17	300	1.4571	2.4856	25/37,5	S355J2G3	Sm2Co17*	300
SC 165/24	210	1.4571	Sm2Co17	300	1.4571	2.4856	25/37,5	S355J2G3	Sm2Co17	300
SD 165/24	280	1.4571	Sm2Co17	300	1.4571	2.4856	25/37,5	S355J2G3	Sm2Co17	300
SE 165/24	370	1.4571	Sm2Co17	300	1.4571	2.4856	25/37,5	S355J2G3	Sm2Co17	300
SD 200/30	430	1.4571	Sm2Co17	300	1.4571	2.4856	16/24	S355J2G3	Sm2Co17	300
SE 200/30	550	1.4571	Sm2Co17	300	1.4571	2.4856	16/24	S355J2G3	Sm2Co17	300
SD 250/38	670	1.4571	Sm2Co17	300	1.4571	2.4856	16/24	S355J2G3	Sm2Co17	300
SE 250/38	820	1.4571	Sm2Co17	300	1.4571	2.4856	16/24	S355J2G3	Sm2Co17	300
SF 250/38	1000	1.4571	Sm2Co17	300	1.4571	2.4856	16/24	S355J2G3	Sm2Co17	300

* External rotor alternatively available with magnets made of NdFeB (t_{max.} = 150°)

** Containment shroud size 75 alternatively available made of stainless steel 1.4571 (P_N/P_{MAX} = 16/24 bar)

Ordering
example:

MINEX® SB 75/10	NdFeB	d _i Ø20mm	d _a Ø24mm	Hastelloy
Coupling size	NdFeB – t _{max.} = 150 °C Sm2Co17 – t _{max.} = 300 °C	Finish bore (H7), feather keyway acc. to DIN 6885 sheet 1 (JS9)		Containment shroud type stainl. steel 1.4571 or Hastelloy

Examples of application

MINEX® couplings with containment shroud made of Hastelloy are the most common type for pump drives and other applications with liquids in the average and higher performance range. Subject to their high resistance to pressure and temperature they cover a wide application range.

Inside the rotating magnetic field metallic containment shrouds generally cause losses of eddy current which are converted into heat and which may require cooling measures. On applications with pumps the heat produced can basically be dissipated by the medium to be pumped. If higher pressure resistance than covered by the KTR standard is required, KTR provide for customized special solutions.

Typical applications: gear pumps, centrifugal pumps, screw spindle pumps, agitators, PU foaming lines.

Use in explosive applications

MINEX® couplings with containment shroud made of stainless steel are suitable for power transmission in drives in hazardous locations. They are certified and confirmed according to EC directive 94/9/EC (ATEX 95) as components of category II and thus suitable for the use in hazardous locations of zone 2G.



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If the couplings operate in hazardous locations, the user has to provide for special measures. Please read through our information included in the respective Type Examination Certificate and the operating and mounting instructions at www.ktr.com.

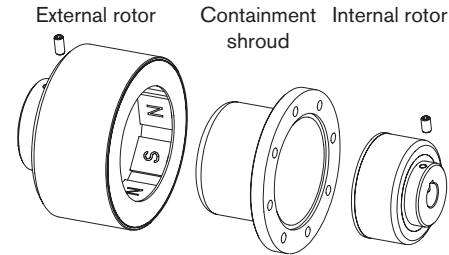
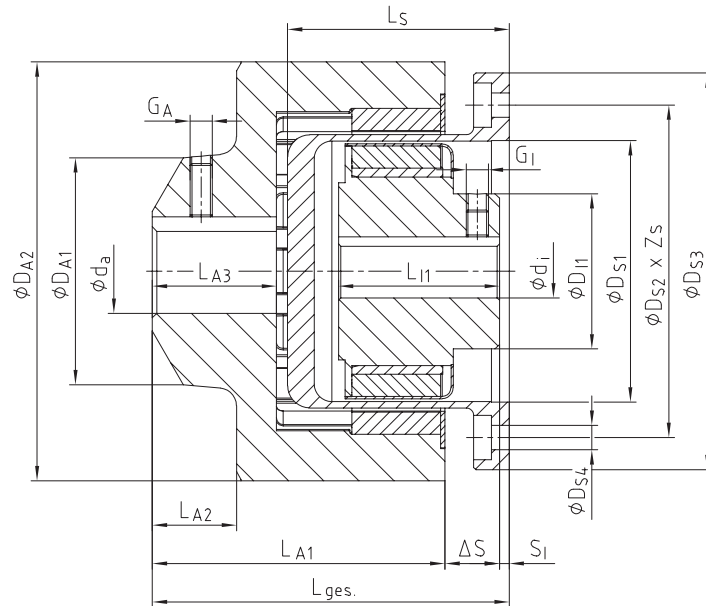
Technical data – External rotor and general

Size	Dimensions [mm]																												
	Internal rotor						Containment shroud						External rotor						Flange hub						General				
	Finish bore ¹⁾		D _{I1}	L _{I1}	G _I	S _I		D _{S1}	D _{S2}	D _{S3}	D _{S4}	Z _S	L _S	D _{A1}	D _{A2}	D _{A3}	L _{A1}	G _A	d _{f max.}	D _{F1}	D _{F2}	L _{F1}	L _{F2}	G _F	ΔS	Overall length ²⁾ incl. flange hub			
	d _{i min.}	d _{i max.}				min.	max.																			min.	max.		
SA 75/10			39,5			46,5										41,3									12,2	140	164,5		
SB 75/10	12	32	45	58	M6	4	26,5	75	100	118	9	8	102	90	100	110	61,3	M6	42	60	114	64,5	35,5	M8	12,2	142	164,5		
SC 75/10			80			4,0										83,8								14,2	166,5	166,5			
SA 110/16			45			55,0										41,3											177,5		
SB 110/16	14	55	80	65	M8	4	35,0	110	133	153	9	12	115	126	135	145	61,3	M6	55	85	150	99,5	59,5	M10	18,7	183,5	214,5		
SC 110/16			85			15,0										81,3											203,5		
SB 135/20			65			50,5										70,3											190,5	204,5	
SC 135/20	20	70	90	85	M10	4	30,5	135	158	178	9	16	139	150	160	170	90,3	M6	70	100	170	65,5	48,5	M12	18,2	190,5	204,5		
SD 135/20			110			8,0										110,3									20,7	200,5			
SC 165/24			85			61,5										90,3											18,2	233	
SD 165/24	24	80	110	110	M12	6	39,0	163,5	192	218	11	12	170	180	188	198	110,3	M6	75	110	198	77	60	M16	20,7	234	247		
SE 165/24			130			19,0										130,3											234		
SD 200/30			135			24,0										130,3											234		
SE 200/30	38	90	130		M16	6		200	252	278	11	12	180	212	222	232	130,3	M6	80	120	232	120	98	M12	25,7	282	300		
SD 250/38			115			46,0										110,3											282		
SE 250/38	38	100	165	135	M16	6	26,0	255	285	315	13,5	12	182	272	282	292	130,3	M6	100	150	300	140	93	M16	25,7	302	322		
SF 250/38			155			6,0										150,3											322		

¹⁾ Bore H7 with keyway to DIN 6885, sheet 1 (JS9)

²⁾ * Total length excl. flange hub = L_S

Containment shroud – material stainless steel



Technical data – Internal rotor and containment shroud

Size	TK max. [Nm] with ~ 20 °C	Dimensions [mm]												
		Internal rotor							Containment shroud					
		Finish bore ¹⁾ di		D _{I1}	L _{I1}	G _I	S _I		D _{S1}	D _{S2}	D _{S3}	D _{S4}	Z _S	L _S
		min.	max.				min.	max.						
SA 22/4	0,15	5	9	20	20	M3	2,0	2,0	21,5	38	46	4,5	8	29
SA 34/10	1	5	12	20	22	M3	2,0	5,5	34	46	55	4,5	4	30,5
SA 46/6	3	8	16	28	33	M4	6,5	7,0	46	64	78	4,5	8	45
SA 60/8	7	12	22	35	36,3	M5	1,7	5,5	59	75	89	5,5	8	50
SB 60/8	14			36	56	M5	0,0	4,0						

Technical data – External rotor and general

Size	Dimensions [mm]										
	External rotor							General			
	Finish bore ¹⁾ da		D _{A1}	D _{A2}	G _A	L _{A1}	L _{A2}	L _{A3}	ΔS	L _{total}	
	min.	max.								min.	max.
SA 22/4	5	11	18	38	M4	35	8,5	11	5	42	42
SA 34/10	5	14	22	53	M4	38,8	10,5	13	5,3	46	49,5
SA 46/6	5	24	40	69,5	M5	53	16	22	9	69	69,5
SA 60/8	9	32	50	94,5	M6	66	19	28	12	80	83,3
SB 60/8	9	38			M8	93,3	15	30		105,2	109,2

¹⁾ Bore H7 with keyway to DIN 6885, sheet 1 [JS9]

Ordering
example:

MINEX® SA 60/8	NdFeB	d _i Ø20mm	d _a Ø24mm
Coupling size	NdFeB – t _{max.} = 150 °C Sm2Co17 – t _{max.} = 300 °C	Finish bore (H7), feather keyway acc. to DIN 6885 sheet 1 (JS9)	

Examples of application

MINEX® couplings with containment shroud made of stainless steel are the most common type for pump drives and other applications with liquids in the lower performance range. Subject to their high resistance to pressure and temperature they cover a wide application range. The magnetic rotors are available from stock in an unbored or pilot bored design. If requested, the parts can be finish bored according to ISO fit H7 with feather keyway to DIN 6885, sheet 1- JS9.

Inside the rotating magnetic field metallic containment shrouds generally cause losses of eddy current which are converted into heat and which may require cooling measures. On applications with pumps the heat produced can basically be dissipated by the medium to be pumped. If higher pressure resistance than covered by the KTR standard is required, KTR provide for customized special solutions.

Typical applications: gear pumps, centrifugal pumps, screw spindle pumps, agitators, PU foaming lines.

Use in explosive applications

MINEX® couplings with containment shroud made of stainless steel are suitable for power transmission in drives in hazardous locations. They are certified and confirmed according to EC directive 94/9/EC (ATEX 95) as components of category II and thus suitable for the use in hazardous locations of zone 2G.

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If the couplings operate in hazardous locations, the user has to provide for special measures. Please read through our information included in the respective Type Examination Certificate and the operating and mounting instructions at www.ktr.com.

Technical data – Materials, temperature and pressure resistance

Size	T _{K max} [Nm] with 20 °C	Internal rotor			Containment shroud			External rotor (+ optional flange hub)		
		Standard material		Max. temperature	Standard material		Max. pressure	Standard material		Max. temperature
		Hub	Magnets	t _{max} [°C]	Hub	Cont. shroud	P _N /P _{max} [bar]	Hub	Magnets	t _{max} [°C]
SA 22/4	0,15	1.4462	NdFeB	150	1.4571	1.4571	60/90	S355J2G3	NdFeB	150
SA 34/10	1	1.4462	NdFeB	150	1.4571	1.4571	16/24	S355J2G3	NdFeB	150
SA 46/6	3	1.4571	Sm2Co17	300	1.4571	1.4571	16/24	S355J2G3	Sm2Co17	300
SA 60/8	7	1.4571	Sm2Co17	300	1.4571	1.4571	40/60	S355J2G3	Sm2Co17*	300
SB 60/8	14	1.4571	Sm2Co17	300	1.4571	1.4571	40/60	S355J2G3	Sm2Co17*	300

* External rotor alternatively available with magnets made of NdFeB (t_{max} =150°C)

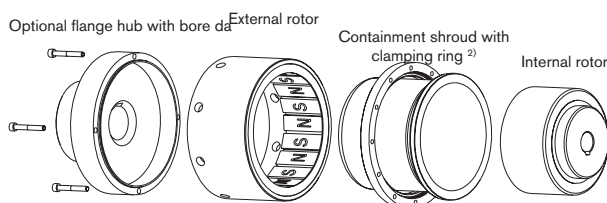
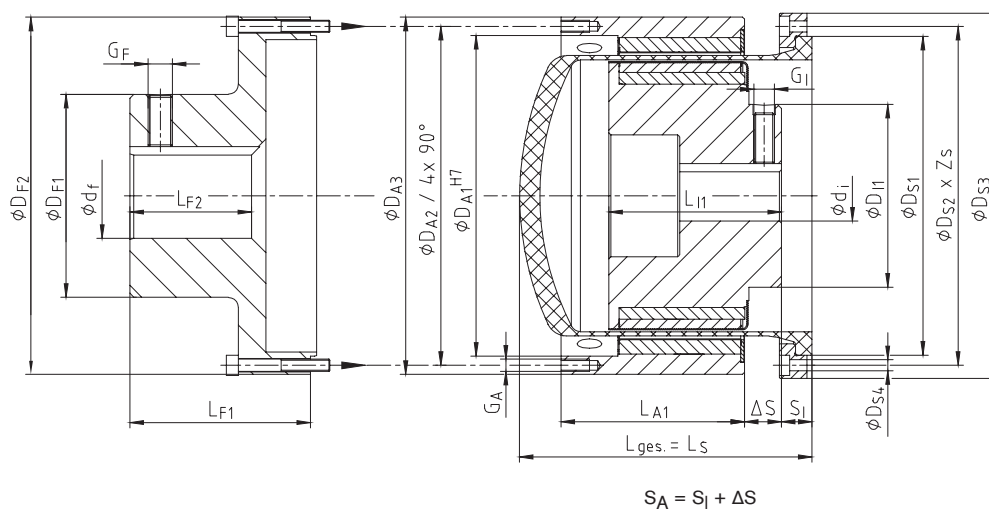
Examples of application

MINEX® couplings with containment shroud made of PEEK are an economic, energy-efficient alternative to the types made of metal. They do not generate any eddy current losses and as a result do not generate any heat so that usually expensive cooling measures can be done without. Moreover, they are characterized by low susceptibility to fracture, low weight and easy handling. They are ideally suitable for applications with low demands on temperature and pressure resistance.

Typical applications: vacuum pumps, fan drives, compressors, agitators, PU foaming lines.

Depending on
pressure and temperature resistance

Temperature [°C]	Perm. nominal/testing pressure	
	P _N [bar]	P _{MAX} [bar]
40	14	21
70	13	19,5
100	12	18
130	10	15



²⁾ Containment shroud size 75 also available as a single-part design!

Use in potentially explosive atmospheres

MINEX® couplings with containment shrouds made of carbon fibre reinforced PEEK are suitable for power transmission on drives used in potentially explosive atmospheres. They are certified and confirmed according to EC directive 94/9/EC (ATEX 95) as components of category II and thus suitable for the use in potentially explosive atmospheres of zone 2G.

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If the couplings operate in potentially explosive atmospheres, the user has to provide for special measures. Please read through the information included in the respective Type Examination Certificate and the operating and mounting instructions at www.ktr.com.