VOITH

Installation and Operating Manual

(Translation of the original installation and operating manual)

T...

Turbo Coupling with Constant Fill

including design as per ATEX directives:
Directive 94/9/EC (valid until April 19, 2016), Directive 2014/34/EU (valid from April 20, 2016)

Version 10 , 2016-01-11
3626-011000 en, Protection Class 0: public

Serial No. [1]		
Coupling type [2]		
Year of manufacture		
Mass (weight)		kg
Power transmission		kW
Input speed		rpm
Operating fluid	☐ mineral oil ☐ water ☐	
Filling volume		dm^3 (liters)
Number of screws z [3]		
Nominal response temperature of fusible plugs		°C
Connecting coupling type		
Sound pressure level $L_{PA,1m}$		dB
Installation position	☐ horizontal ☐ vertical	
Drive via	☐ outer wheel ☐ inner wheel	

1) Please indicate the serial number in any correspondence (→ Chapter 18).
2) T...: oil / TW...: water.
3) Determine and record the number of screws z (→ Chapter 10.1).

Please consult Voith Turbo in case that the data on the cover sheet are incomplete.

Flexible element coupling
Type EEK-M:

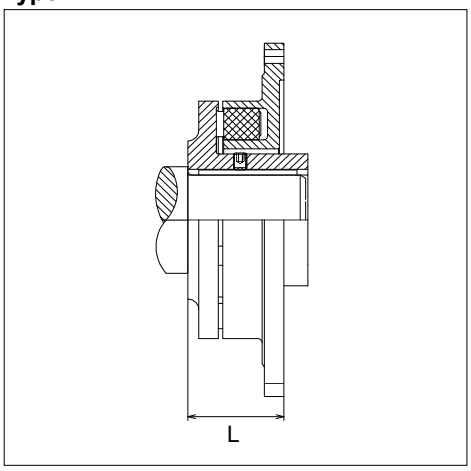

Fig. 28

Flexible element coupling
Type EEK-E:

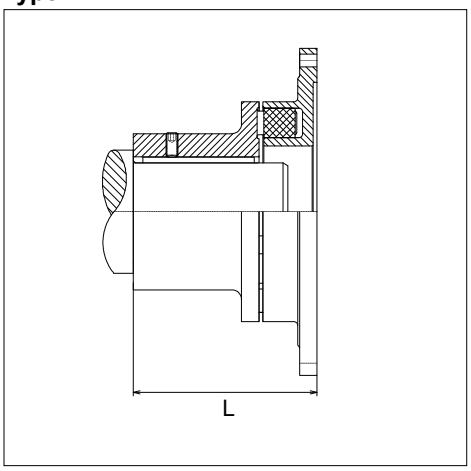

Fig. 29

Flexible cam coupling
Type ENK-SX:

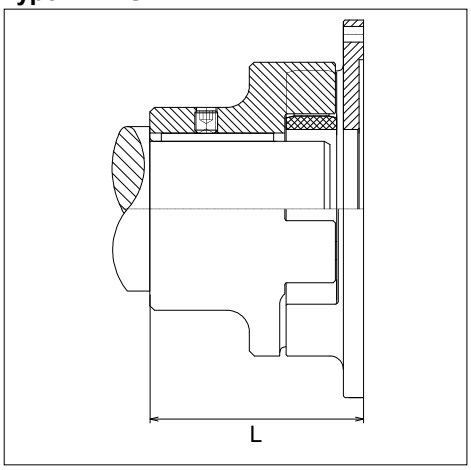

Fig. 30

Flexible cam coupling
Type ENK-SV:

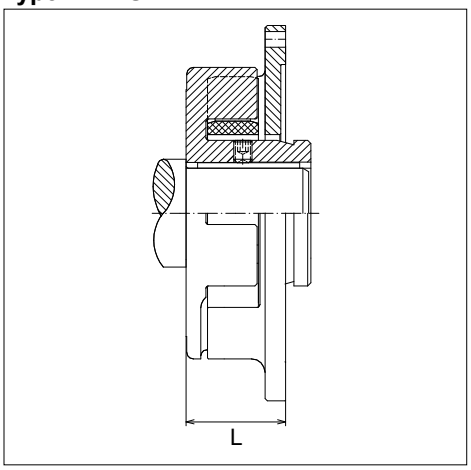

Fig. 31

Laid lengths L for flexible connecting couplings, as shown in Chapters 8.5.1 or 8.5.2:

	Laid lengths L in mm						
Coupling size and type	**ERK with coupling**	**EPK**	**EEK-E**	**EEK-M**	**ENK-SX**	**ENK-SV**	**Nor-Mex G**
154 T…	143 + 1	-	-	-	-	-	-
154 DT…	165 + 1	-	-	-	-	-	-
206 T…	183 + 1	-	-	-	-	-	-
206 DT…	223 + 1	-	-	-	110.5 ± 1.5	56.5 ± 1.5	-
274 T…	255 + 1	78 ± 1	-	-	158.5 ± 2	67 ± 2	-
274 DT…	295 + 1	78 ± 1	159 ± 2	67 ± 2	158.5 ± 2	67 ± 2	-
366 T…	-	78 ± 1	159 ± 2	67 ± 2	158.5 ± 2	67 ± 2	178.5 + 1
422 T…	-	102 ± 1	173 ± 2	72 ± 2	173 ± 2	72 ± 2	200.5 + 1.5
487 T…	-	106 ± 1	190 ± 2	88 ± 2	190 ± 2.5	87.5 ± 2.5	223.5 + 1.5
562 T…	-	116 ± 1	221 ± 2	103 ± 2	221 ± 2.5	102.5 ± 2.5	269.5 + 2
650 T…	-	152 ± 1.5	274 ± 2.5	126 ± 2.5	274 ± 2.5	125.5 ± 2.5	311.5 + 2
750 T…	-	163 ± 1.5	-	-	276 ± 2.5	127.5 ± 2.5	311.5 + 2 *) 335.0 + 2.5 *)
866 T…	-	189 ± 1.5	-	-	-	-	-
1000 T…	-	210 ± 1.5	-	-	-	-	-
1150 T…	-	210 ± 1.5	-	-	-	-	-
1150 DT…	-	210 ± 1.5	-	-	-	-	-

Table 11

*) Laid length L = 311.5 for Nor-Mex G – size 265
Laid length L = 335 for Nor-Mex G – size 295

Permissible reference diamentions of the flexible connecting couplings in mm

Coupling size	ERK	EPK	EEK-E EEK-M	ENK-SX ENK-SV	Nor-Mex G
154	< 6	-	-	-	-
206	< 6	-	-	> 13.5	-
274	< 8	-	< 8	> 14	-
366	-	< 12	< 8	> 14	< 10
422	-	< 12	< 8	> 15	< 10
487	-	< 12	< 9	> 15	< 10
562	-	< 12	< 11	> 12	< 10
650	-	< 12	< 10	> 12	< 7
750	-	< 12	-	-	< 7
866	-	< 12	-	-	-
1000	-	< 12	-	-	-
1150	-	< 12	-	-	-

Table 21

SAFETY INFORMATION

Lifetime of flexible element

An unusually quickly worn flexible element may be a sign of improper alignment.

- Align the flexible connecting coupling properly.

14.3.1 Maintenance report for flexible connecting coupling

Confirm the check or performance of the work by an "**X**" and/or enter the respective values.

Voith turbo coupling		**The maintenance work was performed by:**	
Size / type (→ Chapter 18):		after	Oper. hrs.
Serial No. (→ Chapter 18):			
		Name:	
Turbo coupling		Date:	
Approved for potentially explosive atmospheres	yes ☐ / no ☐	Signature:	

Flexible connecting coupling installed (→ cover sheet)**:**

	ERK	EPK	EEK-E EEK-M	ENK-SV ENK-SX	Nor-Mex G
Replace flexible elements after a max. period of [months]	60	60	36	36	36
Perm. reference dimension (→ Chapter 13.2.1)					
80% value [mm]					

Maintenance work:

		EEK, ENK, Nor-Mex G						
		ERK, EPK connecting couplings						
Maintenance work		Commissioning - new flexible element	Check, replace, if necessary	Check, replace, if necessary	Check, replace, if necessary	Check, replace, if necessary	Check, replace, if necessary	Replacement
Operating time [months]		0	3	12	24	36	48	60
1. Flexible element (new condition)	Actual ref. dimension							
	Name							
	Date							
	Signature							
Reduced operating time [months] (→ Chapter 13.2.2)								
2. Flexible element (1st replacement	Actual ref. dimension							
	Name							
	Date							
	Signature							
Reduced operating time [months] (→ Chapter 13.2.2)								
3. Flexible element (2nd replacement	Actual ref. dimension							
	Name							
	Date							
	Signature							
Reduced operating time [months] (→ Chapter 13.2.2)								

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20.4 Spare parts for connecting coupling

20.4.1 Connecting coupling on the input side

Flexible pad coupling type EPK

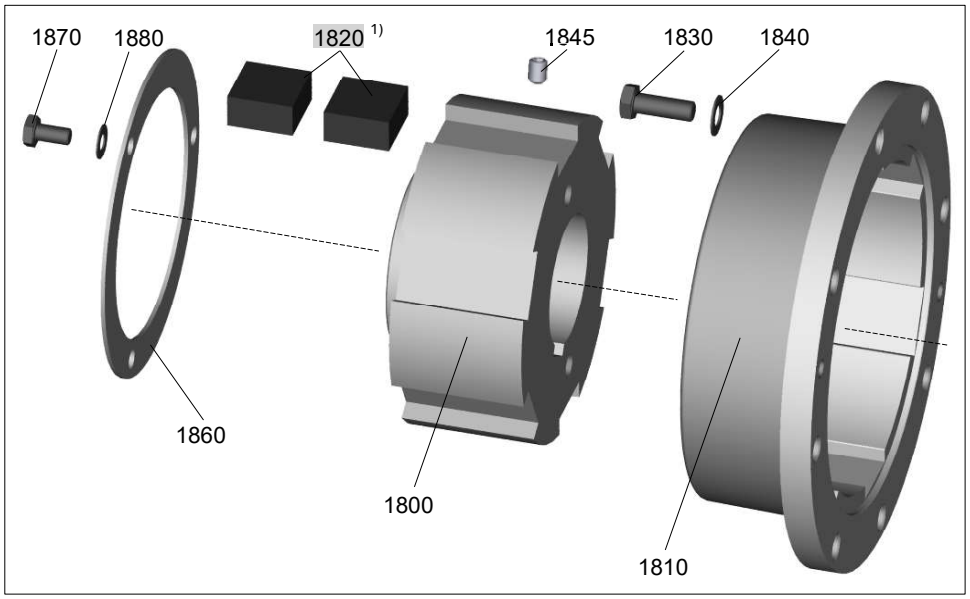

Fig. 52

1) Flexible element is available in various lengths.

Flexible element coupling type EEK

Outer shaft hub, type **EEK-E**

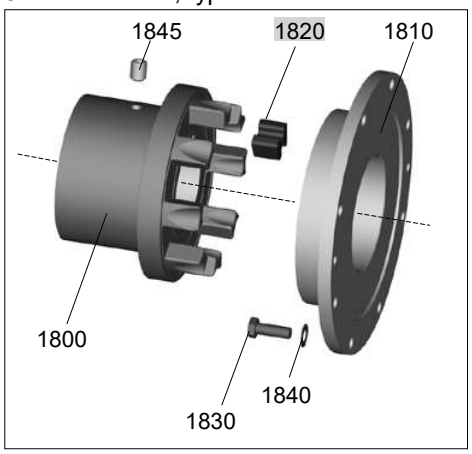

Fig. 53

Inner shaft hub, type **EEK-M**

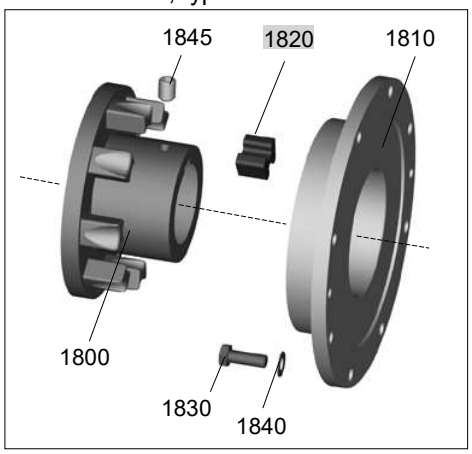

Fig. 54

Flexible cam coupling type ENK

Outer shaft hub, type **ENK-SX**

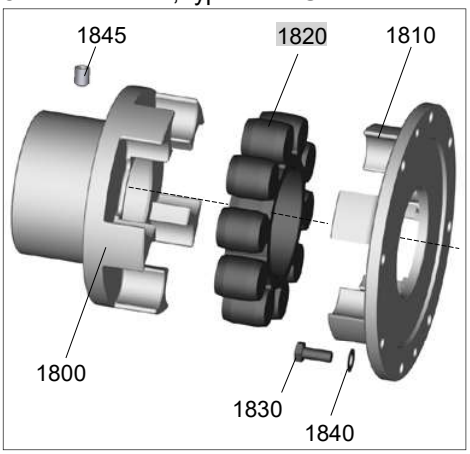

Fig. 55

Inner shaft hub, type **ENK-SV**

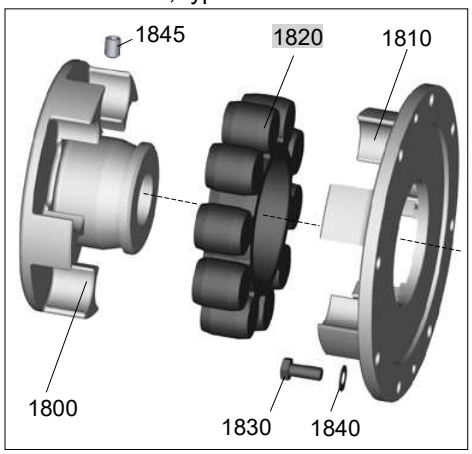

Fig. 56

Item No.	Screws and standard parts	EPK	EEK	ENK
1830	Hex. screw	X	X	X
1840	Lock washer	X	X	X
1845	Set screw	X	X	X
1870	Hex. screw	X	-	-
1880	Spring washer	X	-	-
	Connecting coupling parts / wearing parts (V)			
1800	Hub	X	X	X
1810	Ring / flange	X	X	X
1820	Flexible element (V)	X	X	X
1860	Sheet-metal holder	X	-	-

Table 32