

Examples verification of the coupling

Torque transmitted by electric motor:

Mt: $9560 \times \text{kW} / \text{rpm} = \text{Nm}$

Me > $\text{Mt} \times \text{S} = \text{Nm}$

Where:

Mt: Torque transmitted by electric motor

Me: Torque transmitted by coupling

kW: Power of electric motor

Rpm: Revolutions per minute of electric motor

S: Service factor

Table 1

Small pumps, uniform load, low operating pressures e.g. rotary action machine tools - 5/8 work cycles per hour	1.3
Small pumps, uniform load, high working pressures e.g. lifting equipment - 120-150 work cycles per hour	1.5
Pumps, non-uniform load e.g. lifting equipment - 280-300 work cycles per hour	1.7

Example

Electric motor, 4 pole - 4 kW
hydraulic pump, uniform load, low operating pressure

Mt: $9560 \times 4 / 1500 = 25.45 \text{ Nm}$

Me > $25.49 \times 1.3 = 33 \text{ Nm}$

Half-coupling SGEA21 meets the above requirement.

Select the half-coupling of the calculated size from the motor half-couplings table.

Note: When selecting the coupling, remember that for pumps with splined shaft, only cast iron couplings of the SGEG series can be used.

Determine the size of the coupling according to the type of installation and application envisaged, on the basis of the formulas and the following tables:

Table 2

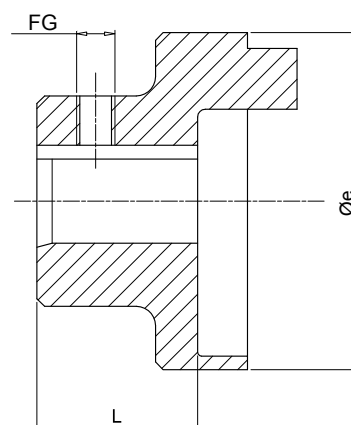
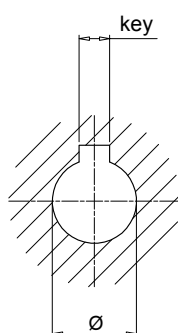
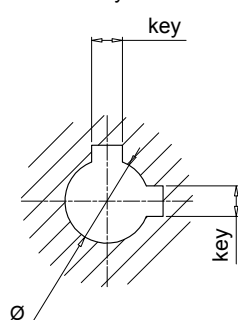
Half-coupling type	External diameter [mm]	Nominal torque Me - Nm	Maximum transmissible torque Me - Nm	
ROTAFIT				
SGEA01	SGEK01	44	10	20
SGEA21	SGEK21	70	95	190
SGEA31	SGEK31	85	190	380
SGEA51	SGEK51	109.5	310	620
				ALUMINIUM
SGEG01		40	10	20
SGEG30		80	190	380
SGEG40	SGEK40	95	310	620
SGEG60	SGEK60	120	430	860
SGEG80	SGEK80	160	1250	2500
SGEG90		200	5500	6100
				CAST IRON
SGES40		95	310	620
SGES60		120	430	860
SGES80		180	1250	2500
				STEEL

Nominal and maximum torque values are referred to couplings assembled with standard flexible spiders of the **EGE**** series (see page 31).

Where higher torques are to be transmitted, use flexible spiders of the **EGE**RR** series (see page 31).

Dimensions

Double key version



Notes:

- Screw not included
- Double key version pump side only

Motor half-coupling

IEC - Electric motors Motor size	Shaft end [Ø x L]	Half-coupling code	Dimensions [mm]					Weight [kg]
			Øe	L	Ø	key	FG	
63	11x23	SGEA01M01019	44.0	21	11	4	M5	0.07
71	14x30	SGEA01M02028	44.0	28	14	5	M5	0.08
80	19x40	SGEA01M03040	44.0	40	19	6	M5	0.12
		SGEA21M03040	70.0	40	19	6	M6	0.30
90	24x50	SGEA01M04048	44.0	48	24	8	M5	0.13
		SGEA21M04048	70.0	48	24	8	M6	0.28
100 - 112	28x60	SGEA21M05060	70.0	60	28	8	M6	0.33
		SGEA31M05060	85.0	60	28	8	M8	0.48
132	38x80	SGEA21M06080	70.0	80	38	10	M6	0.44
		SGEA31M06077	85.0	77	38	10	M8	0.78
		SGEA51M06077	109.5	77	38	10	M8	1.60
160	42x110	SGEA51M07109	109.5	109	42	12	M8	1.60
180	48x110	SGEA51M08109	109.5	109	48	14	M8	1.60
200	55x110	SGEA51M09109	109.5	109	55	16	M8	1.90

Pump half-couplings

Half-coupling code	Dimensions [mm]					Standard lengths [mm]										FG
	Ø min	Ø max	Øe	L min	L max	17	23	30	40	44	48	-	-	-	-	
SGEA01 *** **	11	19	44.0	17	50	17	23	30	40	44	48	-	-	-	-	M5
SGEA21 *** **	15	24	70.0	23	50	35	40	42	44	48	50	-	-	-	-	M6
SGEA21 *** **	25	28	70.0	40	60	40	42	44	48	50	55	58	60	-	-	M6
SGEA31 *** **	18	32	85.0	40	60	42	45	48	50	52	55	58	60	-	-	M8
SGEA31 *** **	38	42	85.0	60	80	60	65	70	77	80	-	-	-	-	-	M8
SGEA51 *** **	18	40	109.5	40	70	42	45	48	50	52	55	58	60	65	70	M8
SGEA51 *** **	38	55	109.5	70	109	70	75	80	85	90	95	100	105	109	-	M8

Complete the half-coupling code with the shaft's code and length

Example: **SGEA51D02040**

D02 - see page 18

040 - table "pump half-coupling - standard lengths"