

# AKG series

IEC electric motor range from size 63 up to size 225





# Bell-housings & Couplings sizing

	p.
<b>AUTOMATIC</b>	<b>11</b>
<b>MANUALLY</b>	<b>12</b>

## SOFTWARE FOR AUTOMATIC CALCULATION

The web-based software program will allow you to select the most suitable MP Filtri's Bell-housings & Couplings in accordance with your process design requirements.

The program will automatically check your input design process prior to propose you the acceptable solutions and create an output in PDF report style format.

The MP Filtri Selection Tool software program is easy to use with a flexible fast design method and provides improved layout formats with full descriptions.

The web-based tool is available at MP Filtri website at following link:  
<https://www.mpfiltri.com/tools/>

The related, complete user guide is available as Manual and downloadable from the "Download" section of MP Filtri website, as well as scanning the following QR code:



**BELL-HOUSINGS  
& COUPLINGS**





# BELL-HOUSINGS & COUPLINGS SIZING

## A GUIDE TO SELECT THE CORRECT BELL-HOUSING AND DRIVE COUPLING MANUALLY

### DATA REQUIRED

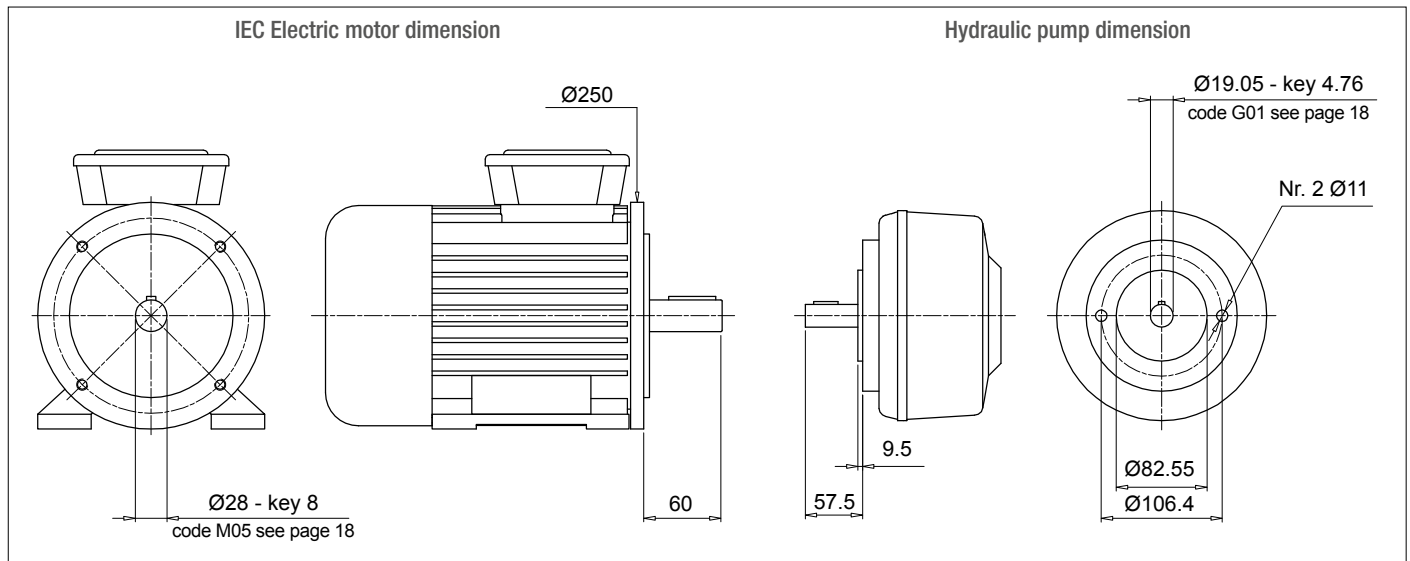
- Electric motor power/motor size
- Manufacturer and pump type

### TO VERIFY:

- 1 - Pump and motor shaft dimensions (see electric motor data sheet)
- 2 - Shaft and flange pump (see pump data sheet)

### Example:

- Electric motor 2.2 kW - size 100-112
- Atos pump code PFE31 - Shaft 1



### Bell-Housing's length calculation

- $H = 60 + 18 + 57.5 = 135.5$  mm (18 = Sp spider - see page 31)
- Choose type of bell-housing (LMC - LMS):  
For monobloc bell-housing LMC/LDC series see pages 75 ÷ 81  
For Low noise bell-housing LMS/LDS series see pages 81 ÷ 89  
For Multi-components 2-3 bell housing series see pages 91 ÷ 111

#### Note:

The length of bell-housing must be  $\geq$  than the length calculated (135.5 mm)

### Case A

#### Solution with monobloc bell-housing series **LMC/LDC**

Pages 75 ÷ 81 for IEC Electric motor size 100-112 - LMC250

LMC 250 bell-housing with height  $\geq 135.5$  - LMC250AFSQ

The bell-housing code must be completed with pump drilling code (see pages 60-61).

For the specific case:

Spigot hole 82.55 - PCD 106.4 - Nr.2 holes M10 : Drilling code 060

Definitive bell-housing code **LMC250AFSQ060**

### Case B

#### Solution with low noise bell-housing series **LMS/LDS**

Pages 83 ÷ 89 for IEC Electric motor size 100-112 - LMS250

LMS 250 bell-housing with height  $\geq 135.5$  - LMS250AFSA

The bell-housing code must be completed with pump drilling code (see pages 60-61).

For the specific case:

Spigot hole 82.55 - PCD 106.4 - Nr.2 holes M10 : Drilling code 060

Definitive bell-housing code **LMS250AFSA060**

### Coupling selection

#### Motor half-coupling (see page 26)

For IEC Electric motor size 100/112, the half-coupling is **SGEA21M05060**

#### Spider (see page 31)

For SGEA21, EGE2 - EGE2RR

(choose spider material on the base of the application, oil, temperature and cycle machine, etc.)

#### Pump half-coupling

Choose the drilling code - see pages 18-19 for shaft 19.05 - key 4.76 - code: **G01**

Pump half-coupling length = BH length - THK Spider - THK Spigot

$$\text{LMC} = 138 \text{ mm} - 60 - 18 - 9.5 = 50.5 \text{ mm}$$

$$\text{LMS} = 148 \text{ mm} - 60 - 18 - 9.5 = 60.5 \text{ mm}$$

LMC - Choose the half-coupling's length at page 26  $\leq$  50.5 mm.

LMS - Choose the half-coupling's length at page 26  $\leq$  60.5 mm.

LMC - Available length for SGEA21 = 50 mm

LMS - Available length for SGEA21 = 60 mm

Half coupling for LMC: **SGEA21G01050**

Half coupling for LMS: **SGEA21G01050**

**Note:** for multi pumps we recommend to use a specific support on the base of the pump's dimensions and weight.

The half-couplings series SGE\*\*\* allow secure transmission between the electric motor and the driven side; they are able to absorb shocks and vibration, in addition to compensating radial misalignment, angular and axial.

The assembly of the couplings can be horizontal/vertical, withstanding vibration and load reversals.

The complete range of couplings are extrapolated from the on-line software, with a length equal than the shaft on which must be mounted and they are completed with grub screw for fixing located on the key.

Available for cylindrical shaft with metric and imperial dimensions as well for splined shafts as per specification DIN, ISO and SAE.

## Admissible misalignment radial, angular and axial

### Max admissible radial misalignment

Half-coupling	R [mm]
SGE * 01	0.5
SGE * 21	1.0
SGE * 31	1.0
SGE * 40	1.0
SGE * 51	1.5
SGE * 60	1.5
SGE * 80	2.0
SGE * 90	2.0

### Max admissible angular misalignment

Half-coupling	$\beta$ [°]
SGE * 01	1.5°
SGE * 21	
SGE * 31	
SGE * 40	
SGE * 51	
SGE * 60	
SGE * 80	
SGE * 90	

### Max admissible angular alignment

Half-coupling	A [mm]
SGE * 01	2.0
SGE * 21	2.5
SGE * 31	3.0
SGE * 40	3.5
SGE * 51	3.5
SGE * 60	3.5
SGE * 80	4.0
SGE * 90	5.0

Standard ATEX Directive 2014/34/EU and UK Regulation S.I. 2016 No. 1107 (as amended)



Half-couplings are available to use in hazardous area.

The couplings are certified according to Standard ATEX Directive 2014/34/EU and UK Regulation S.I. 2016 No. 1107 (as amended) - Category certified 2G - Area 1 and 2.

Other information available on our web site "www.mpfiltri.com".

MP Filtri couplings are developed with:



Drawings 3D available on website [www.mpfiltri.com](http://www.mpfiltri.com) at section TOOLS.

Examples verification of the coupling

Torque transmitted by electric motor:

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

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

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

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

**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.

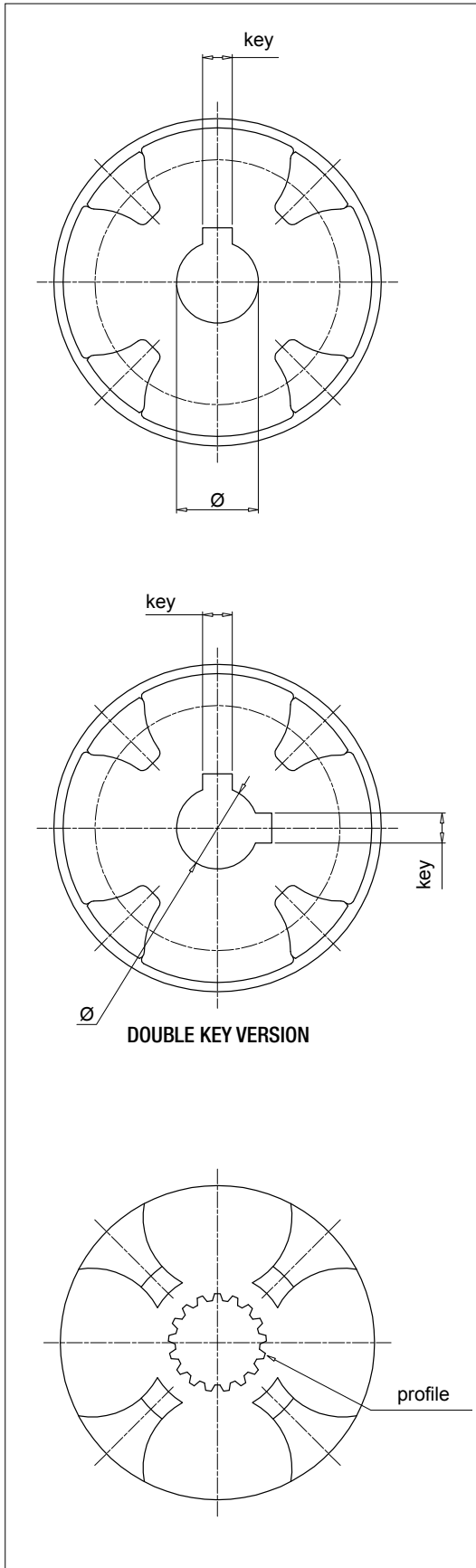
Determine the size of the coupling according to the type of installation and application envisaged, on the basis of the formulas and the following tables:

Table 2

Half-coupling type	External diameter [mm]	Nominal torque Me - Nm	Maximum transmissible torque Me - Nm		
<b>ROTAFIT</b>					
<b>SGEA01</b>	<b>SGEK01</b>	43	15	20	
<b>SGEA21</b>	<b>SGEK21</b>	68	160	190	
<b>SGEA31</b>	<b>SGEK31</b>	75	340	380	
<b>SGEA51</b>	<b>SGEK51</b>	109.5	550	620	<b>ALUMINIUM</b>
<b>SGEG01</b>		40	20	30	
<b>SGEG30</b>		80	400	450	
<b>SGEG40</b>	<b>SGEK40</b>	95	550	620	
<b>SGEG60</b>	<b>SGEK60</b>	120	760	850	
<b>SGEG80</b>	<b>SGEK80</b>	160	2200	2500	
<b>SGEG90</b>		200	5500	6100	<b>CAST IRON</b>
<b>SGES40</b>		95	550	620	
<b>SGES60</b>		120	760	850	
<b>SGES80</b>		180	2200	2500	<b>STEEL</b>

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).



Parallel shaft - Metric Dimensions

Ø [mm]	key [mm]	Code
12	4	<b>C00</b>
15	5	<b>C01</b>
16	4	<b>C02</b>
16	5	<b>C03</b>
17	5	<b>C04</b>
18	6	<b>C05</b>
20	5	<b>C06</b>
19	5	<b>C07</b>
30	10	<b>C08</b>
20	6	<b>C09</b>
16	5	<b>C10</b>
15	4	<b>C11</b>
22	6	<b>D00</b>
24	6	<b>D01</b>
25	8	<b>D02</b>
30	8	<b>D03</b>
32	10	<b>D04</b>
35	10	<b>D05</b>
40	12	<b>D06</b>
45	14	<b>D07</b>
50	14	<b>D08</b>
70	20	<b>D09</b>
22	8	<b>D10</b>
52	16	<b>D20</b>
8	3	<b>E00</b>
10	3	<b>E01</b>
22	5	<b>E02</b>
32	8	<b>E03</b>
35	8	<b>E04</b>
82	22	<b>E05</b>
25	7	<b>E06</b>
63	18	<b>E07</b>
9	3	<b>M00</b>
11	4	<b>M01</b>
14	5	<b>M02</b>
19	6	<b>M03</b>
24	8	<b>M04</b>
28	8	<b>M05</b>
38	10	<b>M06</b>
42	12	<b>M07</b>
48	14	<b>M08</b>
55	16	<b>M09</b>
60	18	<b>M10</b>
65	18	<b>M11</b>
75	20	<b>M12</b>
80	22	<b>M13</b>
90	25	<b>M14</b>
95	25	<b>M15</b>
100	28	<b>M16</b>
110	28	<b>M17</b>
85	22	<b>M18</b>

Parallel shaft - Imperial Dimensions

Ø		key		Code
[inch]	[mm]	[inch]	[mm]	
7/16"	11.11	1/8"	3.18	<b>G00</b>
3/4"	19.05	3/16"	4.76	<b>G01</b>
7/8"	22.22	3/16"	4.76	<b>G02</b>
7/8"	22.22	1/4"	6.35	<b>G03</b>
1"	25.4	3/16"	4.76	<b>G04</b>
1"	25.40	1/4"	6.35	<b>G05</b>
1 1/4"	31.75	1/4"	6.35	<b>G06</b>
1 1/4"	31.75	5/16"	7.94	<b>G07</b>
1 3/8"	34.94	5/16"	7.94	<b>G08</b>
1 1/2"	38.1	3/8"	9.52	<b>G09</b>
1 5/8"	41.27	3/8"	9.52	<b>H00</b>
1 3/4"	44.45	7/16"	11.11	<b>H01</b>
2"	50.8	1/2"	12.7	<b>H02</b>
2 11/32"	53.94	1/2"	12.7	<b>H03</b>
3/4"	19.02	1/8"	3.17	<b>H04</b>
1"	25.4	3/16"	4.76	<b>H05</b>
5/8"	15.87	3/16"	4.76	<b>H06</b>
17/32"	13.45	1/8"	3.18	<b>H07</b>
11/16"	17.46	3/16"	4.76	<b>H08</b>
1/2"	12.7	1/8"	3.18	<b>H09</b>
5/8"	15.87	5/32"	3.97	<b>L00</b>
7/8"	22.22	5/32"	4	<b>L01</b>
11/8"	28.58	1/4"	6.35	<b>L02</b>
3/4"	19.05	1/4"	6.35	<b>L03</b>
1 7/8"	47.63	1/2"	12.7	<b>L04</b>
3 3/8"	85.73	7/8"	22.23	<b>L05</b>
2 3/8"	60.33	5/8"	15.88	<b>L06</b>
2 3/8"	60.33	1/2"	12.7	<b>L07</b>
2 7/8"	73.03	3/4"	19.05	<b>L08</b>
3 5/8"	92.07	7/8"	22.22	<b>L09</b>
1 5/8"	41.6	15/32"	12	<b>L10</b>
1 1/8"	28.58	5/16"	7.94	<b>L15</b>

Parallel shaft - Double Key

Ø [mm]	key [mm]	Code
16.00	4.00	<b>C02***2H</b>
	5.00	
20.00	5.00	<b>C06***2M</b>
	6.00	
19.00	5.00	<b>C07***2L</b>
	6.00	
24.00	6.00	<b>D01***2N</b>
	8.00	
30.00	8.00	<b>D03***2P</b>
	10.00	
22.22	4.76	<b>G02***2E</b>
	6.35	
25.40	6.35	<b>G04***2F</b>
	4.76	
31.75	6.35	<b>G06***2G</b>
	7.94	

\*\*\* = coupling length



SAE Bore - ANS.B.92.1-1970

Profile	Nr. of Th	Code
17 th 8/16	17	<b>PD01</b>
14 th 12/24	14	<b>PD02</b>
16 th 12/24	16	<b>PD03</b>
17 th 12/24	17	<b>PD04</b>
9 th 16/32	9	<b>PD05</b>
11 th 16/32	11	<b>PD06</b>
12 th 16/32	12	<b>PD07</b>
13 th 16/32	13	<b>PD08</b>
15 th 16/32	15	<b>PD09</b>
21 th 16/32	21	<b>PD10</b>
23 th 16/32	23	<b>PD11</b>
27 th 16/32	27	<b>PD12</b>
40 th 16/32	40	<b>PD13</b>
20 th 24/48	20	<b>PD14</b>
21 th 24/48	21	<b>PD15</b>
23 th 24/48	23	<b>PD16</b>
25 th 24/48	25	<b>PD17</b>
26 th 24/48	26	<b>PD18</b>
27 th 12/48	27	<b>PD19</b>
28 th 24/48	28	<b>PD20</b>
29 th 24/48	29	<b>PD21</b>
32 th 24/48	32	<b>PD22</b>
21 th 32/64	21	<b>PD23</b>
30 th 32/64	30	<b>PD24</b>
33 th 32/64	33	<b>PD25</b>
23 th 40/80	23	<b>PD26</b>
36 th 48/96	36	<b>PD27</b>
41 th 48/96	41	<b>PD28</b>
47 th 48/96	47	<b>PD29</b>
13 th 8/16	13	<b>PD30</b>
15 th 8/16	15	<b>PD31</b>
14 th 16/32	14	<b>PD32</b>
40 th 16/32	40	<b>PD33</b>
33 th 16/32	33	<b>PD34</b>
9 th 20/40	9	<b>PD35</b>
10 th 16/32	10	<b>PD36</b>
25 th 20/40	25	<b>PD37</b>

Splined bore as per standard DIN5480

Profile	Nr. of Th	Code
W18 x 1.25 x 13	13	<b>PA01</b>
W20 x 1.25 x 14	14	<b>PA02</b>
W25 x 1.25 x 18	18	<b>PA03</b>
W28 x 1.25 x 21	21	<b>PA04</b>
W32 x 1.25 x 24	24	<b>PA05</b>
W38 x 1.25 x 29	29	<b>PA06</b>
W30 x 2 x 14	14	<b>PA07</b>
W32 x 2 x 14	14	<b>PA08</b>
W35 x 2 x 16	16	<b>PA09</b>
W37 x 2 x 17	17	<b>PA10</b>
W38 x 2 x 18	18	<b>PA11</b>
W40 x 2 x 18	18	<b>PA12</b>
W42 x 2 x 20	20	<b>PA13</b>
W45 x 2 x 21	21	<b>PA14</b>
W50 x 2 x 24	24	<b>PA15</b>
W55 x 2 x 26	26	<b>PA16</b>
W60 x 2 x 28	28	<b>PA17</b>
W70 x 2 x 34	34	<b>PA18</b>
W80 x 2 x 38	38	<b>PA19</b>
W60 x 3 x 18	18	<b>PA20</b>
W70 x 3 x 22	22	<b>PA21</b>
W75 x 3 x 24	24	<b>PA22</b>
W90 x 3 x 28	28	<b>PA23</b>
W105 x 3 x 34	34	<b>PA24</b>
W80 x 3 x 25	25	<b>PA25</b>
W50 x 1.25 x 38	38	<b>PA26</b>
W62 x 1.25 x 48	48	<b>PA27</b>
W40 x 1.5 x 25	25	<b>PA28</b>
W32 x 1.5 x 20	20	<b>PA29</b>
W40 x 1.25 x 30	30	<b>PA30</b>

Splined bore as per standard DIN5481

Profile	Nr. of Th	Code
8 x 10	28	<b>PC01</b>
10 x 12	30	<b>PC02</b>
12 x 14	31	<b>PC03</b>
15 x 17	32	<b>PC04</b>
17 x 20	33	<b>PC05</b>
21 x 24	34	<b>PC06</b>
26 x 30	35	<b>PC07</b>
30 x 34	36	<b>PC08</b>
60 x 65	41	<b>PC09</b>

Splined bore as per standard DIN5482

Profile	Nr. of Th	Code
A15 x 12	8	<b>PB01</b>
A17 x 14	9	<b>PB02</b>
A18 x 15	10	<b>PB03</b>
A20 x 17	12	<b>PB04</b>
A22 x 19	13	<b>PB05</b>
A25 x 22	14	<b>PB06</b>
A28 x 25	15	<b>PB07</b>
A30 x 27	16	<b>PB08</b>
A32 x 28	17	<b>PB09</b>
A35 x 31	18	<b>PB10</b>
A38 x 34	19	<b>PB11</b>
A40 x 36	20	<b>PB12</b>
A42 x 38	21	<b>PB13</b>
A45 x 41	22	<b>PB14</b>
A48 x 44	23	<b>PB15</b>
A50 x 45	24	<b>PB16</b>
A52 x 47	25	<b>PB17</b>
A55 x 50	26	<b>PB18</b>
A58 x 53	27	<b>PB19</b>
A60 x 55	28	<b>PB20</b>
A62 x 57	29	<b>PB21</b>
A65 x 60	30	<b>PB22</b>
A68 x 62	31	<b>PB23</b>
A70 x 64	32	<b>PB24</b>
A72 x 66	33	<b>PB25</b>
A75 x 69	34	<b>PB26</b>
A78 x 72	35	<b>PB27</b>
A80 x 74	36	<b>PB28</b>
A82 x 76	37	<b>PB29</b>
A85 x 79	38	<b>PB30</b>
A88 x 82	39	<b>PB31</b>
A90 x 84	40	<b>PB32</b>
A92 x 86	41	<b>PB33</b>
A95 x 89	42	<b>PB34</b>
A98 x 92	43	<b>PB35</b>
A100 x 94	44	<b>PB36</b>

## Technical data

### Couplings - IEC electric motor range from size 63 up to size 225

#### Materials

- Hubs: Aluminium, cast iron, steel
- Spider materials: NBR rubber 87 Sh A  
Polyurethane 95 Sh A

#### Compatibility with fluids

- Modular bell-housing components compatible for use with:
- Mineral oils types HH-HL-HM-HR-HV, to ISO 6743/4 standard
  - Water based emulsions types HFAE-HFAS, to ISO 6743/4 standard
  - Water glycol type HFC, to ISO 6743/4 standard: ask for anodized version

#### Special Applications

Any applications not covered by the normal indications contained in this catalogue must be evaluated and approved by MP Filtri Technical and Sales Department

#### Temperature

From -30 °C to +80 °C

#### Note

For temperatures outside this range, contact MP Filtri Technical and Sales Department



Standard ATEX Directive 2014/34/EU and UK Regulation S.I. 2016 No. 1107 (as amended).

On request, it's possible to certificate the AKG according to ATEX CAT. 2G - Areas 1 - 2

## IEC Electric motors

Coupling size	European standard size						German standard size			IEC Motors size
	0.5	1	2	3	3.5	4	ZB	ZF	ZG	
AKG02	●	●	●				●			IEC 63 Ø140 - Ø11x23
AKG03	●	●	●				●			IEC 71 Ø160 - Ø14x30
AKG04	●	●	●	●			●	●		IEC 80 Ø200 - Ø19x40
AKG05	●	●	●	●			●	●		IEC 90 Ø200 - Ø24x50
AKG07		●	●	●			●	●		IEC 110 Ø250 - Ø28x60
AKG07		●	●	●			●	●		IEC 112 Ø250 - Ø28x60
AKG11		●	●	●	●	●	●	●	●	IEC 132 Ø300 - Ø38x80
AKG12			●	●	●	●	●	●	●	IEC 160 Ø350 - Ø42x110
AKG13			●	●	●	●	●	●	●	IEC 180 Ø350 - Ø48x110
AKG16			●	●	●	●	●	●	●	IEC 200 Ø400 - Ø55x110
AKG18			●	●	●	●	●	●	●	IEC 225 Ø450 - Ø60x140




**KIT COUPLING FOR GEAR PUMPS**

Motors identification code Configuration example:

Size		Size	
<b>02</b>	63 B3-B5	<b>13</b>	180 B3-B5
<b>03</b>	71 B3-B5	<b>43</b>	63 B14
<b>04</b>	80 B3-B5	<b>44</b>	71 B14
<b>05</b>	90 B3-B5	<b>45</b>	80 B14
<b>07</b>	100/112 B3-B5	<b>46</b>	90 B14
<b>11</b>	132 B3-B5	<b>48</b>	100/112 B14
<b>12</b>	160 B3-B5		

Pump flange identification code  
**FS200** See pages 43 - 44 - 45

Pump identification code  
**Z** Revision index

ATEX certification identification code  
**EX** ATEX Directive 2014/34/EU and UK Regulation S.I. 2016 No. 1107 (as amended)   




**KIT COUPLING FOR PISTON PUMPS VANES AND SCREWS**

Motors identification code Configuration example:

Size		Size	
<b>M01</b>	80 B3-B5	<b>M07</b>	200 B3-B5
<b>M02</b>	90 B3-B5	<b>M08</b>	225 B3-B5
<b>M03</b>	100/112 B3-B5	<b>M09</b>	250 B3-B5
<b>M04</b>	132 B3-B5	<b>M10</b>	280 B3-B5
<b>M05</b>	160 B3-B5	<b>M11</b>	315 B3-B5
<b>M06</b>	180 B3-B5	<b>M12</b>	355 B3-B5

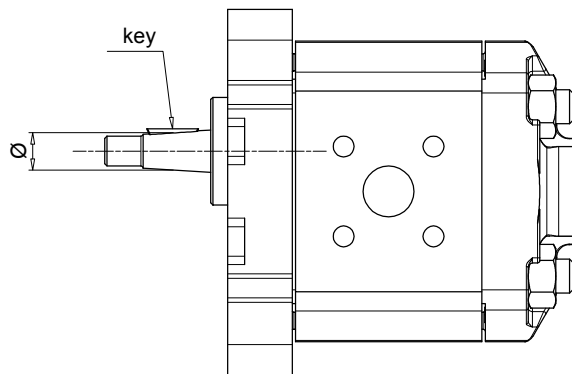
Electric motor identification code  
**M01** See software

Pump identification code  
**Z0000** See software

ATEX certification identification code  
**EX** ATEX Directive 2014/34/EU and UK Regulation S.I. 2016 No. 1107 (as amended)   

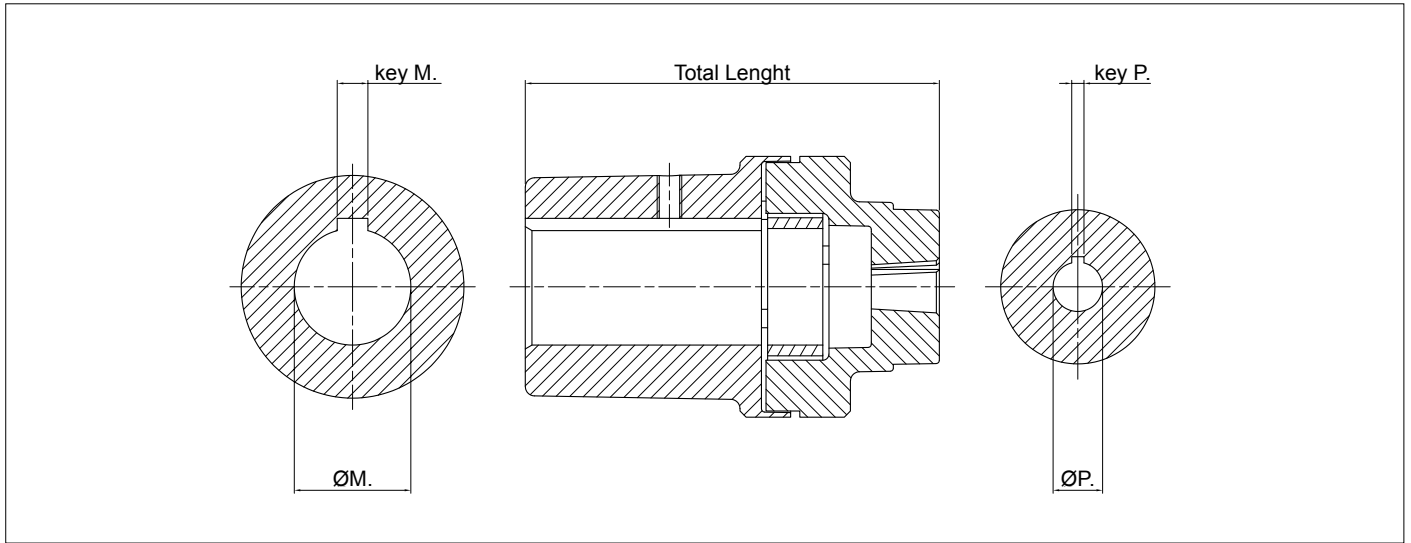
**NOTE:**

The complete code of the coupling kit can be selected following the selection of electric motor and hydraulic pump on the B&C selection software available on [www.mpfiltri.com](http://www.mpfiltri.com)



### Shaft identification

Pump group	d	Key	Shaft type	Pump half-coupling code
<b>05</b>	6.0	2.0	parallel	<b>FS05M</b>
	7.0	2.0	parallel	<b>FS05C</b>
<b>1</b>	9.7	2.4	tapered 1:8	<b>FS100</b>
	12.0	3.0	parallel	<b>FS1C0</b>
	13.9	3.0	tapered 1:8	<b>FS1M0</b>
<b>2</b>	17.2	3.2 - 4	tapered 1:8	<b>FS200</b>
	22.2	4.0	tapered 1:8	<b>FS300</b>
<b>3</b>	22.2	4.0	tapered 1:8	<b>FS300</b>
	22.2	4.0	tapered 1:8	<b>FS300</b>
	22.2	4.0	tapered 1:8	<b>FS300</b>
	22.2	4.0	tapered 1:8	<b>FS300</b>
<b>3.5</b>	25.6	4.76 - 5.0	tapered 1:8	<b>FS350</b>
	25.6	4.76 - 5.0	tapered 1:8	<b>FS350</b>
<b>4</b>	33.3	6.35 - 7.0	tapered 1:8	<b>FS400</b>
	33.3	6.35 - 7.0	tapered 1:8	<b>FS400</b>
<b>Bosch</b>	9.8	2.0	tapered 1:5	<b>FSZBR</b>
	16.9	3.0	tapered 1:5	<b>FSZFR</b>
	25.2	5.0	tapered 1:5	<b>FSZGR</b>



IEC Motors B3/5 - standard gear pump

IEC - Electric motors		Pump identification code	Components														
Motor size	Shaft end [Ø x L]		Motor half-coupling code	Spider code	Codice Semigiunto pompa	Complete coupling kit code	ØM.	Key M.	ØP.	Key P.	Tot. L.						
63	11x23	<b>FS05M</b>	SGEA01M01019	EGE 0	SGEA01FS05M	AKG02FS05MZEX	11	4	6	2	50						
		<b>FS05C</b>			SGEA01FS05C	AKG02FS05CZEX			7	2							
		<b>FS100</b>			SGEA01FS100	AKG02FS100ZEX			9.7-1.8	2.4							
		<b>FS1C0</b>			SGEA01FS1C0	AKG02FS1C0ZEX			12	3							
		<b>FS1M0</b>			SGEA01FS1M0	AKG02FS1MOZEX			13.9-1.8	3							
		<b>FSZBR</b>			SGEA01FSZBR	AKG02FSZBRZEX			9.8-1.5	2							
71	14x30	<b>FS05M</b>	SGEA01M02028	EGE 0	SGEA01FS05M	AKG03FS05MZEX	14	5	6	2	59						
		<b>FS05C</b>			SGEA01FS05C	AKG03FS05CZEX			7	2							
		<b>FS100</b>			SGEA01FS100	AKG03FS100ZEX			9.7-1.8	2.4							
		<b>FS1C0</b>			SGEA01FS1C0	AKG03FS1C0ZEX			12	3							
		<b>FS1M0</b>			SGEA01FS1M0	AKG03FS1MOZEX			13.9-1.8	3							
		<b>FSZBR</b>			SGEA01FSZBR	AKG03FSZBRZEX			9.8-1.5	2							
80	19x40	<b>FS05M</b>	SGEA01M03048	EGE 0	SGEA01FS05M	AKG04FS05MZEX	19	6	6	2	80						
		<b>FS05C</b>			SGEA01FS05C	AKG04FS05CZEX			7	2							
		<b>FS100</b>			SGEA01FS100	AKG04FS100ZEX			9.7-1.8	2.4							
		<b>FS1C0</b>			SGEA01FS1C0	AKG04FS1C0ZEX			12	3							
		<b>FS1M0</b>			SGEA01FS1M0	AKG04FS1MOZEX			13.9-1.8	3							
		<b>FSZBR</b>			SGEA01FSZBR	AKG04FSZBRZEX			9.8-1.5	2							
			<b>FS200</b>	SGEA21M03048	EGE 2	SGEA21FS200	AKG04FS200ZEX	19	6	17.2-1.8	3.5/4	94					
			<b>FSZFR</b>			SGEA21FSZFR	AKG04FSZFRZEX			16.9	3						
			<b>FS05M</b>			SGEA01M04048	EGE 0			SGEA01FS05M	AKG05FS05MZEX		24	8	6	2	80
			<b>FS05C</b>							SGEA01FS05C	AKG05FS05CZEX				7	2	
<b>FS100</b>	SGEA01FS100	AKG05FS100ZEX	9.7-1.8	2.4													
<b>FS1C0</b>	SGEA01FS1C0	AKG05FS1C0ZEX	12	3													
<b>FS1M0</b>	SGEA01FS1M0	AKG05FS1MOZEX	13.9-1.8	3													
<b>FSZBR</b>	SGEA01FSZBR	AKG05FSZBRZEX	9.8-1.5	2													
		<b>FS200</b>	SGEA21M04048	EGE 2	SGEA21FS200	AKG05FS200ZEX	24	8	17.2-1.8	3.5/4	94						
		<b>FSZFR</b>			SGEA21FSZFR	AKG05FSZFRZEX			16.9	3							
100 112	28x60	<b>FS100</b>	SGEA21M05055	EGE 2	SGEA21FS100	AKG07FS100ZEX	28	8	9.7-1.8	2.4	94						
		<b>FS1C0</b>			SGEA21FS1C0	AKG07FS1C0ZEX			12	3							
		<b>FS1M0</b>			SGEA21FS1M0	AKG07FS1MOZEX			13.9-1.8	3							
		<b>FSZBR</b>			SGEA21FSZBR	AKG07FSZBRZEX			25.2-1.5	5							
		<b>FS200</b>			SGEA21FS200	AKG07FS200ZEX			17.2-1.8	3.2/4							
		<b>FSZFR</b>			SGEA21FSZFR	AKG07FSZFRZEX			16.9-1.5	3							
		<b>FS25T</b>			SGEA21FS300	AKG07FS300ZEX			22.22-1.8	4							
		<b>FS300</b>			SGEA21FS300	AKG07FS300ZEX			22.22-1.8	4							
		<b>FS3M0</b>			SGEA21FS300	AKG07FS300ZEX			22.22-1.8	4							
		<b>FS3T0</b>			SGEA21FS300	AKG07FS300ZEX			22.22-1.8	4							

## IEC Motors B3/5 - standard gear pump

IEC - Electric motors Motor size	Shaft end [Ø x L]	Pump identification code	Components								
			Motor half-coupling code	Spider code	Pump half-coupling code	Complete coupling kit code	ØM.	Key M.	ØP.	Key P.	Tot. L.
132	38x80	<b>FS100</b>	SGEA31M06077	EGE 3	SGEA31FS100	AKG11FS100ZEX	38	10	9.7-1.8	2.4	135
		<b>FS1C0</b>			SGEA31FS1C0	AKG11FS1C0ZEX			12	3	
		<b>FS1M0</b>			SGEA31FS1M0	AKG11FS1M0ZEX			13.9-1.8	3	
		<b>FSZGR</b>			SGEA31FSZGR	AKG11FSZGRZEX			25.2-1.5	5	
		<b>FS200</b>			SGEA31FS200	AKG11FS200ZEX			17.2-1.8	3.2/4	
		<b>FSZFR</b>			SGEA31FSZFR	AKG11FSZFRZEX			16.9-1.5	3	
		<b>FS25T</b>			SGEA31FS25T	AKG11FS25TZEX			22.22-1.8	4	
		<b>FS300</b>			SGEA31FS300	AKG11FS300ZEX			22.22-1.8	4	
		<b>FS3M0</b>			SGEA31FS3M0	AKG11FS3M0ZEX			22.22-1.8	4	
		<b>FS3T0</b>			SGEA31FS3T0	AKG11FS3T0ZEX			22.22-1.8	4	
		<b>FS35M</b>			SGEA31FS35M	AKG11FS35MZEX			25.6-1.5	4.76/5	
		<b>FS350</b>			SGEA31FS350	AKG11FS350ZEX			25.6-1.5	4.76/5	
160	42x110	<b>FSZGR</b>	SGEA51M07109	EGE 5	SGEA51FSZGR	AKG12FSZGRZEX	42	12	25.2-1.5	5	167
		<b>FS200</b>			SGEA51FS200	AKG12FS200ZEX			17.2-1.8	3.2/4	
		<b>FSZFR</b>			SGEA51FSZFR	AKG12FSZFRZEX			16.9-1.5	3	
		<b>FS25T</b>			SGEA51FS25T	AKG12FS25TZEX			22.22-1.8	4	
		<b>FS300</b>			SGEA51FS300	AKG12FS300ZEX			22.22-1.8	4	
		<b>FS3M0</b>			SGEA51FS3M0	AKG12FS3M0ZEX			22.22-1.8	4	
		<b>FS3T0</b>			SGEA51FS3T0	AKG12FS3T0ZEX			22.22-1.8	4	
		<b>FS35M</b>			SGEA51FS35M	AKG12FS35MZEX			25.6-1.5	4.76/5	
		<b>FS350</b>			SGEA51FS350	AKG12FS350ZEX			25.6-1.5	4.76/5	
		180			48x110	<b>FSZGR</b>			SGEA51M08109	EGE 5	
<b>FS200</b>	SGEA51FS200		AKG13FS200ZEX	17.2-1.8		3.2/4					
<b>FSZFR</b>	SGEA51FSZFR		AKG13FSZFRZEX	16.9-1.5		3					
<b>FS25T</b>	SGEA51FS25T		AKG13FS25TZEX	22.22-1.8		4					
<b>FS300</b>	SGEA51FS300		AKG13FS300ZEX	22.22-1.8		4					
<b>FS3M0</b>	SGEA51FS3M0		AKG13FS3M0ZEX	22.22-1.8		4					
<b>FS3T0</b>	SGEA51FS3T0		AKG13FS3T0ZEX	22.22-1.8		4					
<b>FS35M</b>	SGEA51FS35M		AKG13FS35MZEX	25.6-1.5		4.76/5					
<b>FS350</b>	SGEA51FS350		AKG13FS350ZEX	25.6-1.5		4.76/5					
200	55x110		<b>FS200</b>	SGEA51M09109		EGE 5	SGEA51FS200	AKG16FS200ZEX			55
		<b>FS300</b>	SGEA51FS300		AKG16FS300ZEX		22.22-1.8	4			
		<b>FS3M0</b>	SGEA51FS3M0		AKG16FS3M0ZEX		22.22-1.8	4			
		<b>FS35M</b>	SGEA51FS35M		AKG16FS35MZEX		25.6-1.5	4.76/5			
		<b>FS350</b>	SGEA51FS350		AKG16FS350ZEX		25.6-1.5	4.76/5			
		<b>FSZFR</b>	SGEA51FSZFR		AKG16FSZFRZEX		16.9-1.5	3			
		<b>FSZGR</b>	SGEA51FSZGR		AKG16FSZGRZEX		25.2-1.5	5			
225	60x140	<b>FS300</b>	SGEG60M10110	EGE 6	SGEG60FS300	AKG18FS300ZEX	60	18	22.22-1.8	4	167
		<b>FS3M0</b>			SGEG60FS3M0	AKG18FS3M0ZEX			22.22-1.8	4	
		<b>FS35M</b>			SGEG60FS35M	AKG18FS35MZEX			25.6-1.5	4.76/5	
		<b>FS350</b>			SGEG60FS350	AKG18FS350ZEX			25.6-1.5	4.76/5	
		<b>FSZGR</b>			SGEG60FSZGR	AKG18FSZGRZEX			25.2-1.5	5	
250	65x140	<b>FS300</b>	SGEG60M11140	EGE 6	SGEG60FS300	AKG20FS300ZEX	65	18	22.22-1.8	4	168
		<b>FS3M0</b>			SGEG60FS3M0	AKG20FS3M0ZEX			22.22-1.8	4	
		<b>FS35M</b>			SGEG60FS35M	AKG20FS35MZEX			25.6-1.5	4.76/5	
		<b>FS350</b>			SGEG60FS350	AKG20FS350ZEX			25.6-1.5	4.76/5	
		<b>FSZGR</b>			SGEG60FSZGR	AKG20FSZGRZEX			25.2-1.5	5	
280	75x140	<b>FS300</b>	SGEG80M12140	EGE 8	SGEG80FS300	AKG22FS300ZEX	75	20	22.22-1.8	4	198
		<b>FS3M0</b>			SGEG80FS3M0	AKG22FS3M0ZEX			22.22-1.8	4	
		<b>FS35M</b>			SGEG80FS35M	AKG22FS35MZEX			25.6-1.5	4.76/5	
		<b>FS350</b>			SGEG80FS350	AKG22FS350ZEX			25.6-1.5	4.76/5	
		<b>FSZGR</b>			SGEG80FSZGR	AKG22FSZGRZEX			25.2-1.5	5	
315	80x170	<b>FS300</b>	SGEG80M13170	EGE 8	SGEG80FS300	AKG26FS300ZEX	80	22	22.22-1.8	4	228
		<b>FS3M0</b>			SGEG80FS3M0	AKG26FS3M0ZEX			22.22-1.8	4	
		<b>FS35M</b>			SGEG80FS35M	AKG26FS35MZEX			25.6-1.5	4.76/5	
		<b>FS350</b>			SGEG80FS350	AKG26FS350ZEX			25.6-1.5	4.76/5	
		<b>FSZGR</b>			SGEG80FSZGR	AKG26FSZGRZEX			25.2-1.5	5	

IEC Electric motors B14 mounting

IEC - Electric motors		Pump identification code	Components									
Motor size	Shaft end [Ø x L]		Motor half-coupling code	Spider code	Pump half-coupling code	Complete coupling kit code	ØM.	Key M.	ØP.	Key P.	Tot. L.	
63	11x23	<b>FS05M</b>	SGEA01M01019	EGE0	SGEA00FS05M	AKG43FS05MZEX	11	4	6	2	50	
		<b>FS05C</b>			SGEA01FS05C	AKG43FS05CZEX			7	2		
		<b>FS100</b>			SGEA01FS100	AKG43FS100ZEX			9.7-1:8	2.4		
		<b>FS1C0</b>			SGEA01FS1C0	AKG43FS1C0ZEX			12	3		
		<b>FS1M0</b>			SGEA01FS1M0	AKG43FS1M0ZEX			13.9-1:8	3		
		<b>FSZBR</b>			SGEA01FSZBR	AKG43FSZBRZEX			9.8-1:5	2		
71	14x30	<b>FS05M</b>	SGEA01M02028	EGE 0	SGEA01FS05M	AKG44FS05MZEX	14	5	6	2	59	
		<b>FS05C</b>			SGEA01FS05C	AKG44FS05CZEX			7	2		
		<b>FS100</b>			SGEA01FS100	AKG44FS100ZEX			9.7-1:8	2.4		
		<b>FS1C0</b>			SGEA01FS1C0	AKG44FS1C0ZEX			12	3		
		<b>FS1M0</b>			SGEA01FS1M0	AKG44FS1M0ZEX			13.9-1:8	3		
		<b>FSZBR</b>			SGEA01FSZBR	AKG44FSZBRZEX			9.8-1:5	2		
80	19x40	<b>FS05M</b>	SGEA01M03048	EGE 0	SGEA01FS05M	AKG45FS05MZEX	19	6	6	2	79	
		<b>FS05C</b>			SGEA01FS05C	AKG45FS05CZEX			7	2		
		<b>FS100</b>			SGEA01FS100	AKG45FS100ZEX			9.7-1:8	2.4		
		<b>FS1C0</b>			SGEA01FS1C0	AKG45FS1C0ZEX			12	3		
		<b>FS1M0</b>			SGEA01FS1M0	AKG45FS1M0ZEX			13.9-1:8	3		
		<b>FSZBR</b>			SGEA01FSZBR	AKG45FSZBRZEX			9.8-1:5	2		
			<b>FS200</b>	SGEA21M03048	EGE 2	SGEA21FS200	AKG45FS200ZEX	19	6	17.2-1:8	3.2/4	87
			<b>FSZFR</b>			SGEA21FSZFR	AKG45FSZFRZEX			16.9	3	
90	24x50	<b>FS05M</b>	SGEA01M04048	EGE 0	SGEA01FS05M	AKG46FS05MZEX	24	8	6	2	79	
		<b>FS05C</b>			SGEA01FS05C	AKG46FS05CZEX			7	2		
		<b>FS100</b>			SGEA01FS100	AKG46FS100ZEX			9.7-1:8	2.4		
		<b>FS1C0</b>			SGEA01FS1C0	AKG46FS1C0ZEX			12	3		
		<b>FS1M0</b>			SGEA01FS1M0	AKG46FS1M0ZEX			13.9-1:8	3		
		<b>FSZBR</b>			SGEA01FSZBR	AKG46FSZBRZEX			9.8-1:5	2		
			<b>FS200</b>	SGEA21M04048	EGE 2	SGEA21FS200	AKG46FS200ZEX	24	8	17.2-1:8	3.5/4	87
			<b>FSZFR</b>			SGEA21FSZFR	AKG46FSZFRZEX			16.9	3	
100 112	28x60	<b>FS05M</b>	SGEA21M05055	EGE 2	SGEA21FS05M	AKG48FS05MZEX	28	8	6	2	94	
		<b>FS05C</b>			SGEA21FS05C	AKG48FS05CZEX			7	2		
		<b>FS100</b>			SGEA21FS100	AKG48FS100ZEX			9.7-1:8	2.4		
		<b>FS1C0</b>			SGEA21FS1C0	AKG48FS1C0ZEX			12	3		
		<b>FS1M0</b>			SGEA21FS1M0	AKG48FS1M0ZEX			13.9-1:8	3		
		<b>FSZBR</b>			SGEA21FSZBR	AKG48FSZBRZEX			9.8-1:5	2		
		<b>FS200</b>			SGEA21FS200	AKG48FS200ZEX			17.2-1:8	3.5/4		
		<b>FSZFR</b>			SGEA21FSZFR	AKG48FSZFRZEX			16.9	3		