

# BELL-HOUSING & COUPLING SIZING

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

### DATA REQUIRED

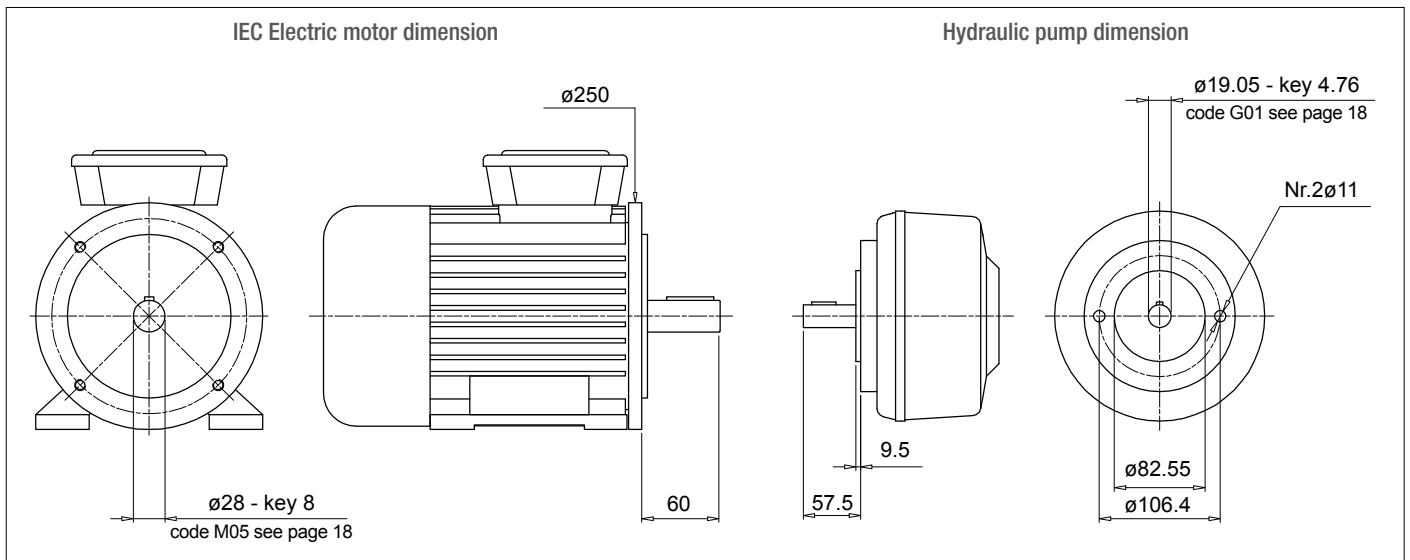
- Electric motor power/motor size
- Manufacturer and pump type

### 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 63 ÷ 69  
For Low noise bell-housing LMS/LDS series see pages 71 ÷ 77  
For Multi-components 2-3 bell housing series see pages 79 ÷ 99

#### 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 63 ÷ 69 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 drilling pump code (see pages 48-49).

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 71 ÷ 77 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 drilling pump code (see pages 48-49).

For the specific case:

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

Definitive bell-housing code **LMS250AFSA060**

# BELL-HOUSING & COUPLING SIZING

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### Coupling selection

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

For IEC Electric motor size 100/112, the half-coupling is **SGEA21M05060FG**

#### 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: **SGEA21G01050FG**

Half coupling for LMS: **SGEA21G01050FG**

### SOFTWARE FOR AUTOMATIC CALCULATION

available on the web site [www.mpfiltri.com](http://www.mpfiltri.com)

Vane / Piston / Screw pumps

AKA  
AKMM03Z0066

Pump  
Manufacturer: ATOS  
Pump type: PFE  
Pump model: PFE31 Shaft 1

HYDRAULIC PUMP - Technical Data  
L1: 57.5  
d1: 19.05  
Ch: 4.76  
s: 9.5  
PD: 82.55  
Int: 106  
Nr: 2  
F: M10

Electric Motor  
N. Poles: 2P  
Type: 83-85  
Size: 100-112  
Kw: 3-4  
Hp: 4-5,44

ELECTRIC MOTOR - Technical Data  
L: 60  
d1: 28  
Flg.: 250  
Ch: 8

Coupling material  
 Aluminium  Cast iron  Allow alternative material

Result  
Coupling: M03 - 20066  
Drilling Pump: S060  
Pump Shaft: G01  
Motor Shaft: M05

Result  
Monobloc Bellhousing:   
Modular Bellhousing:   
Silenced Bellhousing:

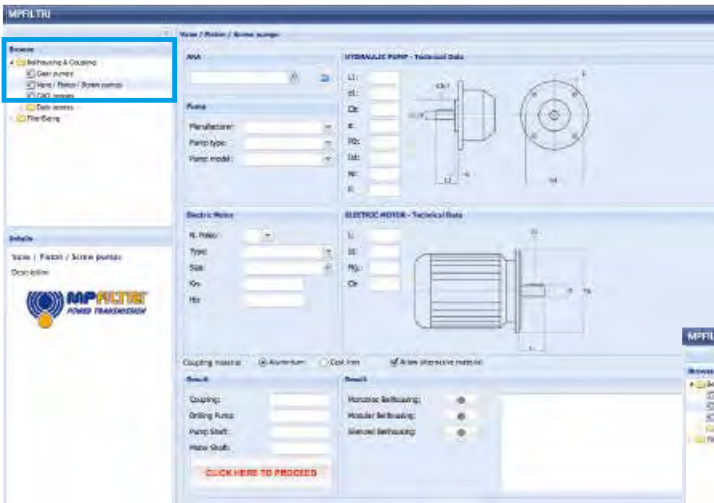
Monobloc Bellhousing:  
Pump half-coupling with grub screw  
For other solution please contact technical department

Modular Bellhousing: OK  
Silenced Bellhousing: OK

CLICK HERE TO PROCEED

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

### Step 1 Select "BELL-HOUSING & COUPLING"



### Step 2 Choose Manufacturer: select "Pump type" and "Pump model"



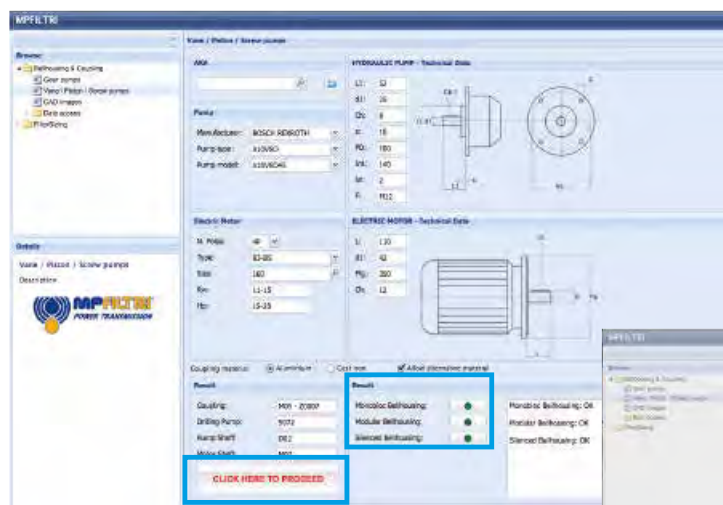
### Step 3 Choose nr° of poles of "Electric motors": select "Electric motors type" and "Electric motors size"



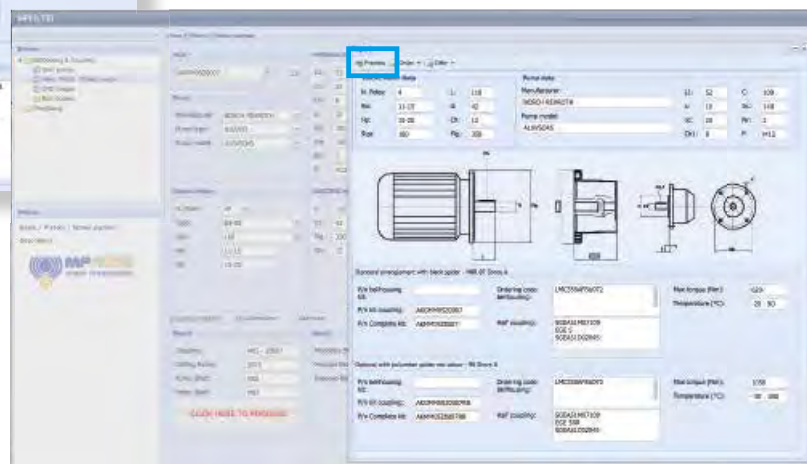
### Step 4 Choose Coupling material



**Step 5** Push **"CLICK HERE TO PROCEED"**, then choose best solution for your application.

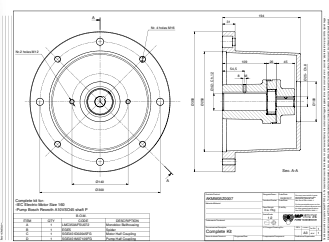


**Step 6** Push **"PREVIEW"** to download the reports.



**Step 7** 

Download PDF Datasheet and "DXF Drawing" of your selection



You can't find the pump on the system?

**NEW FEATURE!!**

Insert pump's dimension on the section **"INSERT PUMP"** and follow the instructions to achieve the couplings components code

