

BELL-HOUSING & COUPLING SIZING

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

DATA REQUIRED

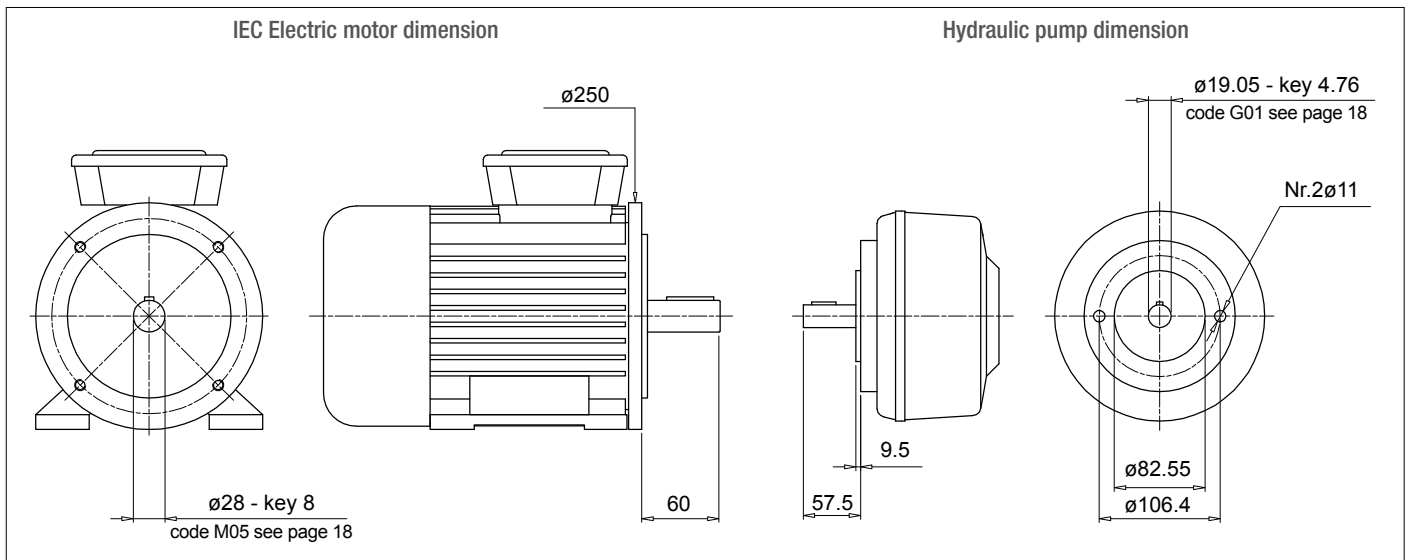
- Electric motor power/motor size
- Manufacturer and pump type

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 ≥ 135.5 - LMC250AFSQ

The bell-housing code must be completed with pump drilling 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 ≥ 135.5 - LMS250AFSA

The bell-housing code must be completed with pump drilling 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**

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**

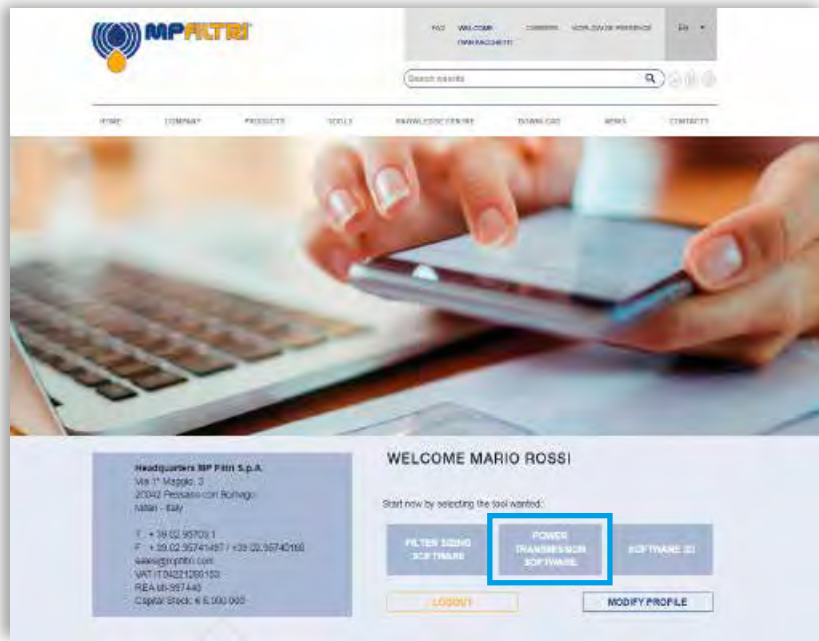
SOFTWARE FOR AUTOMATIC CALCULATION

available on the web site www.mpfiltri.com

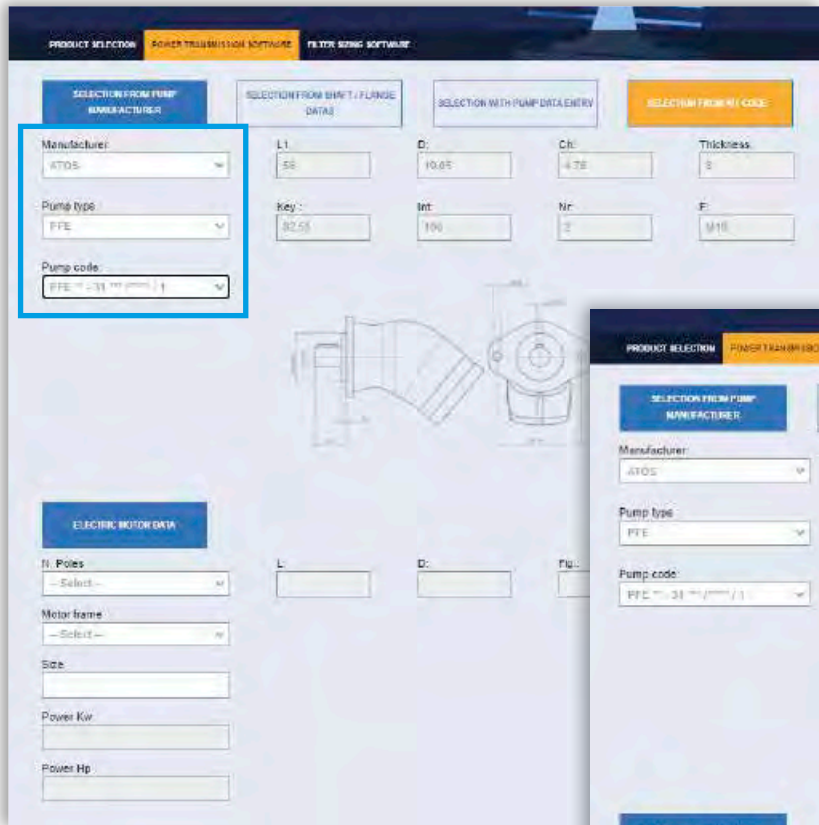
The screenshot shows a web-based software interface for selecting pump and motor components. At the top, there are three tabs: 'PRODUCT SELECTION', 'POWER TRANSMISSION SOFTWARE' (which is highlighted in orange), and 'FILTER SIZING SOFTWARE'. Below the tabs, there are four main selection buttons: 'SELECTION FROM PUMP MANUFACTURER' (blue), 'SELECTION FROM SHAFT / FLANGE DATA' (light blue), 'SELECTION WITH PUMP DATA ENTRY' (light blue), and 'SELECTION FROM KIT CODE' (orange). Under the 'SELECTION FROM PUMP MANUFACTURER' button, there are three dropdown menus: 'Manufacturer:' (with a '- Select -' option), 'Pump type:', and 'Pump code:'. Below these is a blue button labeled 'ELECTRIC MOTOR DATA'. Under this button, there are several input fields: 'N. Poles' (dropdown menu with '- Select -'), 'Motor frame' (dropdown menu with '- Select -'), 'Size' (text input), 'Power Kw' (text input), and 'Power Hp' (text input). To the right of these fields are four more input fields labeled 'L:', 'D:', 'Fig:', and 'Ch:'. The background of the interface is light blue with a faint image of a pump.

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

Step 1 Select "POWER TRANSMISSION SOFTWARE" after login



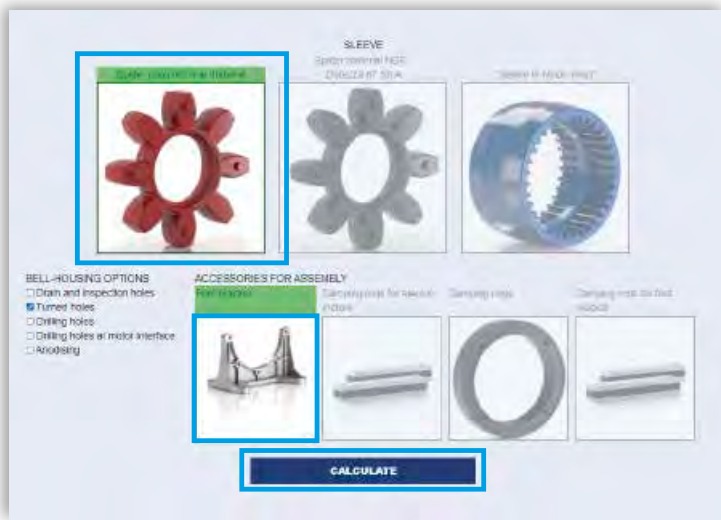
Step 2 Choose Manufacturer: select "Pump type" and "Pump code"



Step 3 Choose N Poles of "Electric motors": select "Motor frame" and "Size"



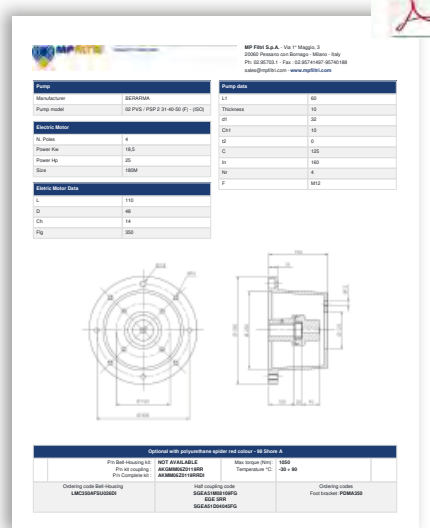
Step 4 Choose the insert and eventual Bell-Housings option and accessories for assembly: click on "CALCULATE"



Step 5 Select the option requested and download the report.



Step 6 Download PDF



You can't find the pump on the system?

NEW FEATURE!!

Insert pump's dimension on the section "SELECTION WITH PUMP DATA ENTRY" and follow the instructions to achieve the couplings components code

