



# HYDRAULIC MEGASTORE

Serving the Hydraulics Industry Worldwide

## Monobloc bell housings LMC Series

LMC series monobloc bell housings are used as connecting elements between B3-B5 flanged UNEL-MEC electric motors and a wide range of hydraulic pumps available on the international market.

Thanks to their considerable versatility and to the extensive range of pump flanges available, LMC series monobloc bell housings are compatible with electric motors from size 80, rated 0.5kW, up to 225, rated 37/45kW, and therefore suitable for most applications.

### Technical specifications

#### LMC

##### Materials

- **Monobloc bell housing**  
Pressure diecast aluminium alloy.
- **Pump flange**  
Pressure diecast aluminium alloy.
- **Foot bracket**  
Pressure diecast aluminium alloy.

##### Temperature

- -30°C - +80°C

### Compatibility with fluids

- **Monobloc bell housings compatible for use with:**
  - Mineral oils**  
Types HH-HLL-HM-HR-HV-HG, 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.

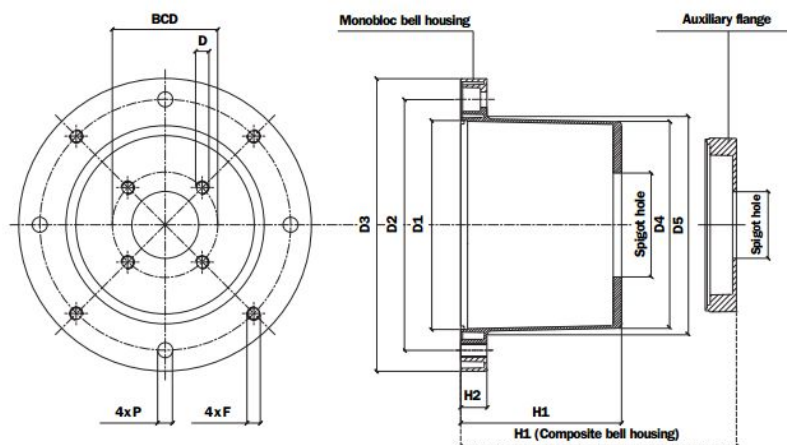


## How to use this catalogue

**This catalogue provides all the technical and dimensional data needed in order to ensure the correct selection of an LMC series bell housing.**

- Having established the rated power of the electric motor and type of pump that will be adopted to make up the unit, refer to the tables of combinations, locate the correct pairing of motor and pump, and identify the code of the pump flange.
- Table 2 presents all the combinations possible between motor base and pump flange. With this information, the customer can determine the exact distance H1 to be bridged by the LMC bell housing and consequently establish the correct code for ordering purposes.

## Monobloc bell housing



The auxiliary flange, if specified, is supplied already fitted to the bell housing .

- For loose components see pages 11-12-13
- Check that the pump interface dimensions are compatible with those of the bell housing.

### Machining tolerances

|  |           |
|--|-----------|
| <b>D1</b>                              | <b>F8</b> |
| <b>Spigot hole</b>                     | H7        |
| <b>H1</b>                              | ± 0.15mm  |
| <b>Concentricity of D1/spigot hole</b> | 0.15mm    |



**Table 1**

| Electric motor, 4-pole 1500m |           |          |        | Dimensions of LMC monobloc bell housing |                   |     |     |     |     |     |    |    |      |    |
|------------------------------|-----------|----------|--------|---|-------------------|-----|-----|-----|-----|-----|----|----|------|----|
| Frame Size                   | KW        | HP       | Shaft  | Bell housing code                       | Foot bracket code | D1  | D2  | D3  | D4  | D5  | H1 | H2 | F    | P  |
| 80                           | 0.52-0.75 | 0.75-1   | 19x40  | LMC 200                                 | PDM A 200         | 130 | 165 | 200 | 125 | 135 |    | 18 | M10  | 11 |
| 90                           | 1.1-1.5   | 1.5-2    | 24x50  | LMC 200                                 | PDM A 200         | 130 | 165 | 200 | 125 | 135 |    | 18 | M10  | 11 |
| 100-112                      | 2.2-4     | 3-5.5    | 28x60  | LMC 250                                 | PDM A 250         | 180 | 215 | 250 | 175 | 186 |    | 19 | M12  | 14 |
| 132                          | 5.5-7.5   | 7.5-12.5 | 38x80  | LMC 300                                 | PDM A 300         | 230 | 265 | 300 | 230 | 235 |    | 23 | M12  | 14 |
| 160                          | 11-15     | 15-20    | 42x110 | LMC 350                                 | PDM A 350         | 250 | 300 | 350 | 240 | 254 |    | 31 | M116 | 18 |
| 180                          | 18.5-22   | 25-30    | 48x110 | LMC 350                                 | PDM A 350         | 250 | 300 | 350 | 240 | 254 |    | 31 | M16  | 18 |
| 200                          | 37        | 45       | 55x140 | LMC 400                                 | /                 | 300 | 350 | 400 | 280 | 305 |    | 31 | M16  | -  |
| 225                          | 37-45     | 50-60    | 60x140 | LMC 450                                 | /                 | 350 | 400 | 450 | 320 | 350 |    | 31 | M16  | -  |

See table 2

## LMC bell housing, dimension H1

### Specified tightening torques for auxiliary flange

- FR\* 18Nm
- F5\* 100Nm
- F6\* 180Nm

**Table 2**

| Monobloc bell housing |     |            |
|-----------------------|-----|------------|
| Code                  | H1  | Weight(kg) |
| LMC200AFSJ***         | 100 | 0,75       |
| LMC200AFSW***         | 125 | 0,95       |
| LMC250AFSM***         | 114 | 1,50       |
| LMC250AFSQ***         | 138 | 1,60       |
| LMC250AFSR***         | 159 | 1,75       |
| LMC300AFST***         | 155 | 3,20       |
| LMC300AFSX***         | 170 | 3,30       |
| LMC350AFSY***         | 178 | 4,80       |
| LMC350AFSU***         | 194 | 4,90       |
| LMC400AFSV***         | 201 | 6,50       |
| LMC450AFSZ***         | 250 | 9,00       |

### Recommended tightening torques for motor/pump assembly bolts

- M6 10 Nm
- M8 24 Nm
- M10 50 Nm
- M12 84 Nm
- M14 135Nm
- M16 205 Nm
- M18 250 Nm
- M20 400 Nm
- M22 530 Nm
- M24 690 Nm

These values are calculated to exploit the performance of the bolt at 70% of its elastic limit. This means in practice that the shank of the bolt will be stressed typically to 60-70% of its limit of elasticity in the course of being tightened.

The values of indicated are valid for hexagon head bolts to UNI 5737 and hexagon socket screws to UNI 5931, property class 8.8, tightened by degrees using a torque wrench.

If bolts or screws are tightened using impact or hammer action drivers, the applied torque should be reduced by 10%.