LME - LMEK series

Engine power range from 3 to 35 Hp

Bell-Housings & Couplings sizing

SOFTWARE FOR AUTOMATIC CALCULATION

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

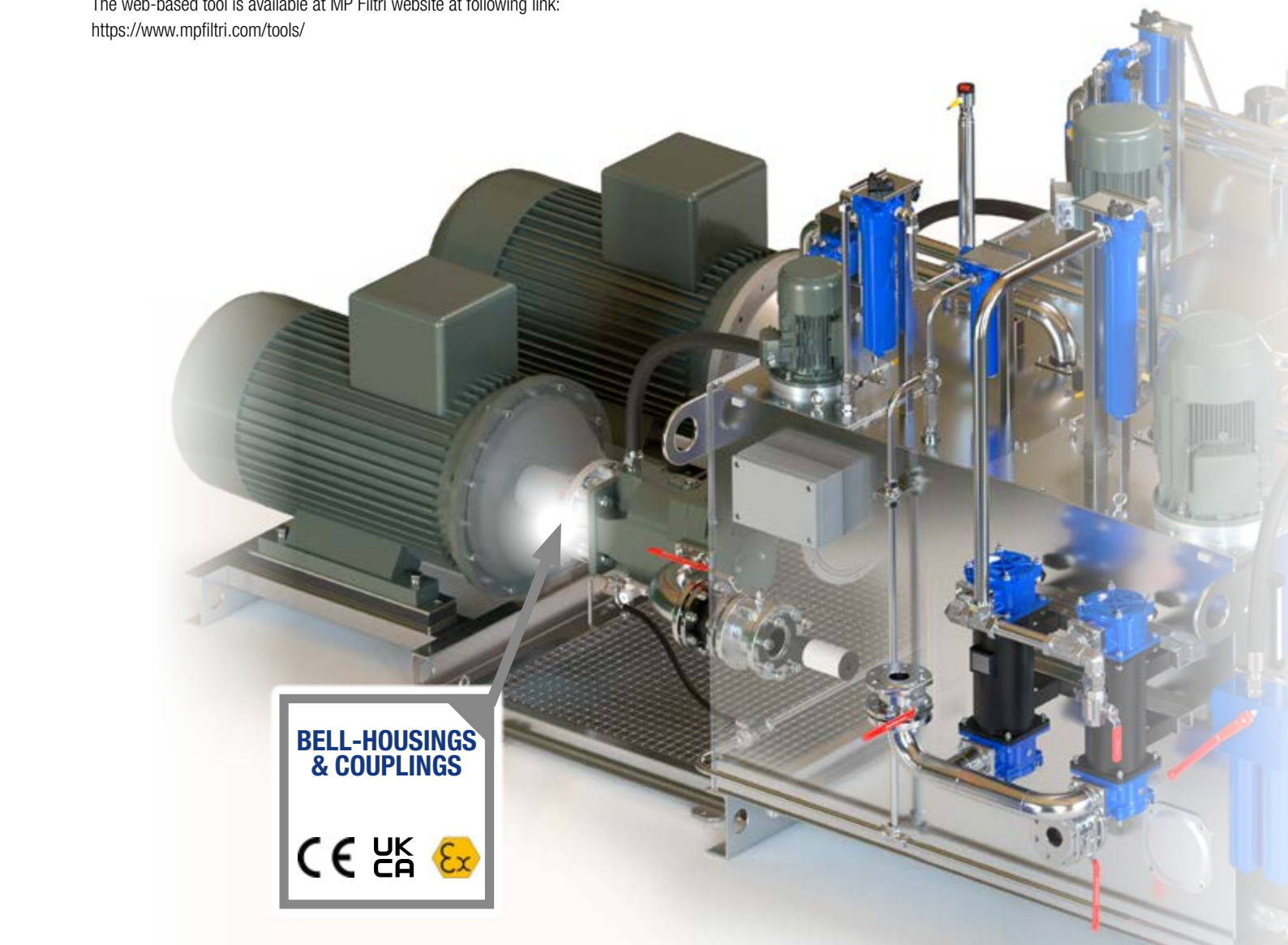
The program will automatically check your input design process prior to propose you the acceptable solutions and create an output in PDF report style format.

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

Scan or click me!



BELL-HOUSINGS & COUPLINGS SIZING

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

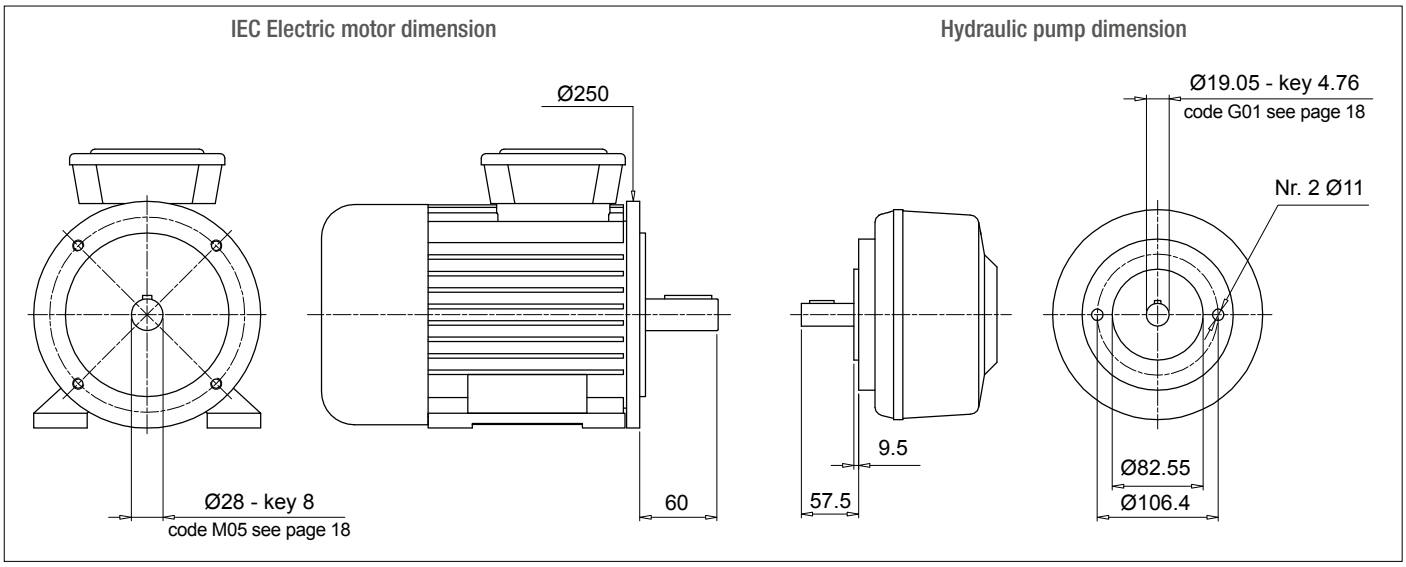
DATA REQUIRED

- 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 ≥ 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 ≥ 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 ≥ 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
LMC = 138 mm - 60 - 18 - 9.5 = 50.5 mm
LMS = 148 mm - 60 - 18 - 9.5 = 60.5 mm

LMC - Choose the half-coupling's length at page 26 ≤ 50.5 mm.
LMS - Choose the half-coupling's length at page 26 ≤ 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.

Noise is a particularly pervasive problem so much so that there have been statutory regulations in place now for some years, designed to limit harmful occupational exposure.
Many of the machines used in industry today are equipped with oil-hydraulic systems, which happen to be a major source of noise.

1 THEORY AND DEFINITION OF NOISE

From a health and hygiene standpoint, noise can be defined as an unpleasant and undesirable sound, or an unpleasant and annoying or intolerable auditory sensation (noise being any sound phenomena that may be accompanied by sensations of disturbance and pain). By definition, acoustic phenomena are oscillatory in character, propagated in a flexible medium and causing pressure variations at the points, and the areas adjacent to those points, through which they pass.

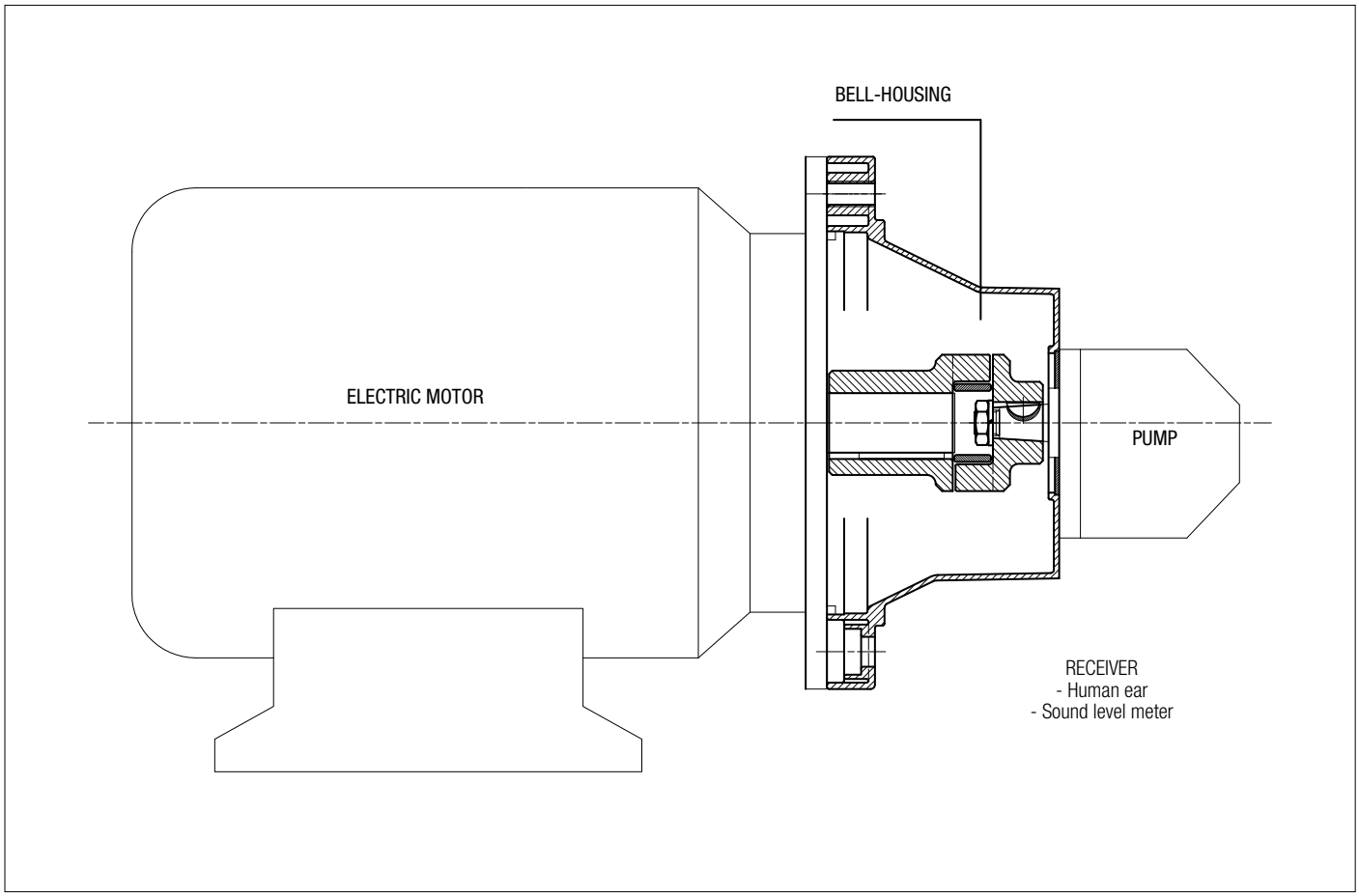
2 SOUND

Technically considered, certain elements must be present simultaneously for acoustic phenomena to occur:

- Sound source
- Transmission medium
- Receive

The electric motor and the pump, together with the drive coupling, are the SOURCE OF THE NOISE. The Bell-housing is the noise transmission MEDIUM. Depending on whether the monobloc bell-housing is a rigid or low noise type, there will be variations in the flexible properties of the transmission medium. The acoustic phenomena are dissimilar in the two cases, given the differences in pressure variation and particle displacement.

MOTOR AND PUMP UNIT



Low noise bell-housing will help to attenuate the transmission of vibrations and the emission of noise generated by the system.
Self-evidently, however, the mere adoption of a low noise bell-housing will achieve little unless the motor and pump are correctly installed on the machine or on the tank of the hydraulic power unit.

Should be followed in order to achieve best possible results and correct installation:

1 MOTOR AND PUMP UNIT MOUNTED HORIZONTALLY ON OIL TANK LID

- The suction pipe attached to the pump must be rigid and fitted using a resilient bulkhead flange of the FTA series, which helps to cushion the vibrations propagated between the pipe and the tank lid.
  If pipes need to be bent, the radius of curvature must be at least 3 times the pipe diameter.
  Do not use elbow fittings, as these will significantly increase pressure losses.

- The pressure pipeline of the pump must be flexible and long enough to include bends with the minimum radius of curvature recommended by the manufacturer for the specified operating pressure.

- The return pipeline running from the service to the filter must be flexible.
  Where oil is returned directly to the tank of the hydraulic power unit through a rigid pipe, it is advisable to use a resilient bulkhead flange of the FTR series, which helps to cushion the vibrations propagated between the pipe and the tank lid.

- Anti-vibration devices (resilient mounts or damping rods) must be located under the feet of the electric motor or the PDM foot brackets, depending on the mounting position of the motor.

- The lids of hydraulic oil tanks must be sturdy enough to support the load they carry.

2 MOTOR AND PUMP UNIT MOUNTED HORIZONTALLY ON MACHINE

- As a matter of good practice, the oil tank and motor-pump unit should be mounted on a single supporting frame of strength sufficient to support the load.

- If the hydraulic system is fitted with a side-mounted filter, the suction pipeline to the pump must be flexible and long enough to include bends with the minimum radius of curvature recommended by the manufacturer.

- If the suction filter is not side mounted, the pipeline should be rigid and installed in conjunction with a compensating coupling.

- The pressure pipeline of the pump must be flexible, and long enough to include bends with the minimum radius of curvature recommended by the manufacturer for the specified operating pressure.

- The return pipeline running from the service to the filter must be flexible.
  Where oil is returned directly to the tank of the hydraulic power unit through a rigid pipe, it is advisable to use a resilient bulkhead flange of the FTR series, which helps to cushion the vibrations propagated between the pipe and the tank lid.

- Anti-vibration devices (resilient mounts or damping rods) must be located under the feet of the electric motor or the PDM foot brackets, depending on the mounting position of the motor.

FINAL CONSIDERATION

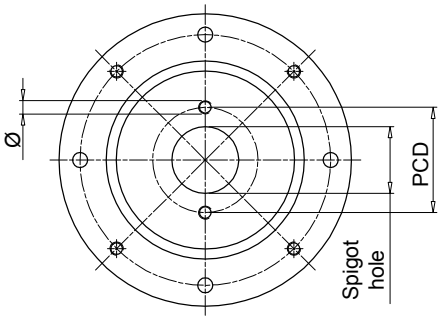
For best results, in any event, the motor-and-pump unit should be incorporated into the hydraulic system in such a way that no one component is rigidly associated with another, resulting in the propagation of vibration, and consequently noise.

RECOMMENDED TIGHTENING TORQUES FOR MOTOR/PUMP FIXING ON THE BELL-HOUSING

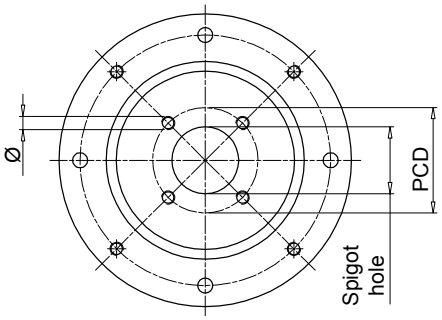
M6	10 N·m	M16	205 N·m
M8	15 N·m	M18	280 N·m
M10	50 N·m	M20	400 N·m
M12	84 N·m	M22	530 N·m
M14	135 N·m	M24	690 N·m

Note: The above guidelines are indicative only and subordinate to the solutions adopted ultimately by design engineers.

Valid configuration for bell-housing up to Ø400

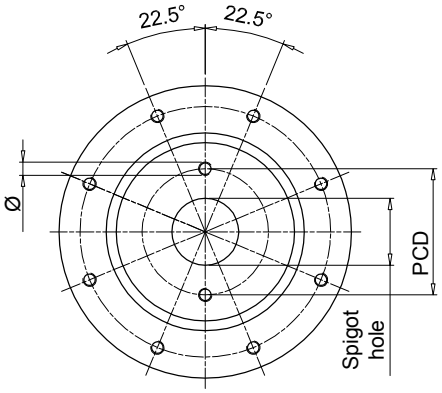


Bell-housing with nr. 2 holes at pump interface, aligned with through holes at motor interface.

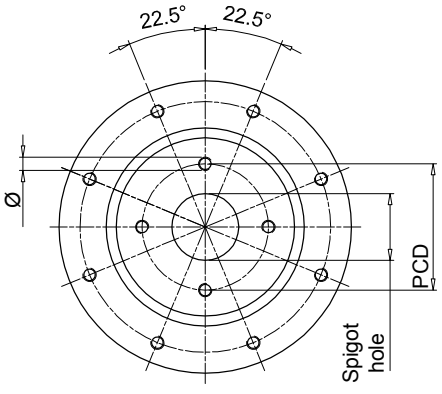


Bell-housing with nr. 4 holes at pump interface, aligned with thread holes at motor interface.

Valid configuration for bell-housing from Ø450 to Ø660



Bell-housing with nr. 2 holes at pump interface + 22.5° compared to through holes at motor interface.



Bell-housing with nr. 4 holes at pump interface + 22.5° compared to thread holes at motor interface.

Spigot hole [mm]	PCD	Ø	Nr. holes	Code	Type
40	72.00	M8	2	**191**	-
45.2	88.90	M8	4	**096**	-
	71.80	M8	4	**120**	-
50	80.00	M8	2	**052**	ISO3019-2-50-B2
	93.00	M10	2	**053**	-
	60.00	M5	4	**280**	-
	63.00	Ø7	4	**057**	-
	93.00	M8	2	**287**	-
50.8	82.50	M8	2	**050**	SAE A-A 50-2
56	76.00	M6	4	**234**	-
57.15	106.40	Ø11	2	**212**	-
60	74.00	M10	4	**098**	-
	98.50	M6	4	**147**	-
	75.00	M6	4	**227**	-
62.7	157.20	M12	4	**231**	-
63	100.00	M8	2	**042**	ISO3019-2-63-B2
	125.00	M6	4	**043**	-
	85.00	M8	4	**044**	-
	80.00	M8	2	**051**	-
	80.00	Ø8.5	4	**058**	-
	100.00	M10	2	**062**	-
	82.00	M8	4	**168**	ISO3019-2-63-B4
	90.00	M8	4	**271**	-
65	90.00	M8	4	**073**	-
70	84.00	Ø7	4	**289**	-
71.8	88.90	M10	4	**047**	-
75	102.00	M10	4	**139**	-
80	100.00	M8	4	**024**	ISO3019-2-80-B4
	103.20	M8	2	**045**	ISO3019-2-80-B2
	100.00	Ø11	4	**059**	-
	100.00	M10	2	**061**	-
	110.00	M10	2	**063**	-
	140.00	M10	2	**064**	-
	115.00	M10	2	**065**	-
	100.00	M10	4	**067**	-
	106.40	M10	2	**083**	-
	130.00	M8	4	**087**	-
	100.00	Ø8.5	4	**093**	-
	113.00	M12	4	**104**	-
	95.00	M8	4	**169**	-
	103.00	M8	4	**242**	-
	110.00	M10	4	**272**	-
82.55	106.40	M10	2	**060**	SAE A 82-2
	105.00	M10	4	**097**	-
	106.40	M8	2	**254**	-
	146.00	M12	2	**260**	-
	110.00	M10	2	**284**	-
85	106.40	M10	2	**066**	-
90	112.00	M8	2	**134**	-
	105.00	M8	4	**156**	-
	118.00	Ø9	2	**163**	-
	112.00	Ø9	2	**164**	-
92	140.00	M8	4	**088**	-
	145.00	M10	4	**089**	-

"-": configuration out of ISO & SAE Standard

Spigot hole [mm]	PCD	Ø	Nr. holes	Code	Type
95	115.00	M8	4	**137**	-
	127.00	M10	4	**131**	-
98.4	125.00	Ø11	4	**128**	-
100	125.00	M10	2	**023**	ISO3019-2-100-B4
	125.00	M10	4	**025**	ISO3019-2-100-B2
	125.00	Ø11	4	**031**	-
	125.00	M5	4	**032**	-
	190.00	Ø15	4	**038**	-
	125.00	Ø13	4	**041**	-
	125.00	M12	2	**071**	-
	140.00	M12	2	**072**	-
	146.00	M12	2	**075**	-
	126.00	M10	2	**106**	-
	120.00	M8	4	**122**	-
	160.00	M10	4	**141**	-
	150.00	M10	4	**150**	-
101.6	161.50	M12	4	**029**	-
	146.00	M12	2	**070**	SAE B 101-2
	127.00	M12	4	**125**	-
	146.00	M10	2	**159**	-
	127.00	M10	4	**224**	-
105	146.00	M12	2	**076**	-
110	175.00	M10	4	**110**	-
	130.00	M8	4	**154**	-
	200.00	M10	4	**202**	-
	135.00	M10	4	**219**	-
	145.00	M12	4	**273**	-
112	140.00	M12	2	**074**	-
	140.00	M10	2	**138**	-
	130.00	M10	4	**264**	-
115	180.00	M12	4	**198**	-
116	160.00	M14	2	**084**	-
120	210.00	M16	2	**094**	-
	145.00	M10	4	**155**	-
	150.00	Ø13	4	**267**	-
125	160.00	M12	4	**026**	ISO3019-2-125-B4
	160.00	Ø13	4	**033**	-
	160.00	M12	2	**079**	-
	180.00	M16	2	**082**	ISO3019-2-125-B2
	155.00	M10	4	**102**	-
	160.00	Ø17	4	**113**	-
	200.00	M12	4	**114**	-
	181.20	M16	2	**136**	-
	200.00	M16	4	**200**	-
	180.00	ø20	4	**215**	-
	170.00	ø18	4	**237**	-
127	161.50	M12	4	**021**	-
	181.20	M16	2	**080**	SAE C 127-2
	161.50	M14	4	**140**	-
130	165.00	Ø11	4	**054**	-
	150.00	M12	4	**068**	-
	181.20	M16	2	**085**	-
	165.00	M12	4	**124**	-
	165.00	M14	4	**135**	-

"-": configuration out of ISO & SAE Standard

Spigot hole [mm]	PCD	Ø	Nr. holes	Code	Type
130	165.00	M10	4	**253**	-
135	160.00	M10	4	**151**	-
	175.40	M12	4	**220**	-
140	180.00	M14	4	**077**	ISO3019-2-140-B4
	180.00	M12	2	**081**	-
	165.00	M10	4	**157**	-
	200.00	M16	4	**176**	ISO3019-2-140-B2
	165.00	Ø11	4	**223**	-
	180.00	M16	2	**232**	-
150	185.00	M16	4	**069**	-
152.4	228.60	M16	4	**022**	-
	228.60	M18	2	**090**	-
	228.60	M18	4	**108**	-
	217.50	Ø17	4	**118**	-
	228.60	M20	2	**166**	SAE D 152-2
	228.60	M20	4	**192**	SAE D 152 -4
	190.50	M8	4	**207**	-
160	200.00	M16	4	**027**	ISO3019 - 2 -160 B4
	200.00	Ø17	4	**035**	-
	200.00	M16	2	**091**	-
	224.00	M20	2	**092**	ISO3019 - 2 -160 B2
	200.00	M12	2	**107**	-
	230.00	M22	4	**111**	-
	185.00	M12	4	**152**	-
	224.00	M16	4	**184**	-
	230.00	Ø22	4	**228**	-
162	188.00	M12	4	**263**	-
165.1	317.35	M20	4	**143**	SAE E 165 - 4
	317.35	M24	2	**145**	SAE E 165 - 2
	229.00	M20	4	**201**	-
	317.35	M18	4	**204**	-
175	200.00	M12	4	**153**	-
	230.00	M18	2	**185**	-
177.8	350.00	M24	4	**146**	SAE F 177 - 4
	216.00	M12	4	**222**	-
	350.00	M24	2	**203**	SAE F 177 - 2
180	216.00	Ø13	4	**055**	-
	216.00	M16	4	**078**	-
	224.00	M16	4	**112**	ISO3019 - 2 -180 B4
	216.00	M12	4	**132**	-
	215.00	M22	4	**148**	-
	230.00	M22	4	**226**	-
200	250.00	M20	4	**028**	ISO3019 - 2 -200 B4
	250.00	Ø22	4	**095**	-
	280.00	M24	2	**117**	-
	230.50	M12	4	**214**	-
203.2	254.00	M14	4	**210**	-
205	240.00	M16	4	**133**	-
224	280.00	M20	4	**144**	ISO3019 - 2 -224 B4
	280.00	Ø22	4	**205**	-
250	310.00	M24	4	**238**	-
	315.00	M20	4	**282**	ISO3019 - 2 -250 B4
275	355.00	M16	4	**233**	-
	355.00	Ø18	4	**281**	-

"-": configuration out of ISO & SAE Standard

Technical data

Bell-housing - Engine power range from 3 to 35 Hp

Materials
- Bell-housing: Pressure die casting Aluminium
- Couplings: Steel NBR 75 Shore A
- Gasket: Special paper - Guarnital

Versions:
- Single-drilled bell-housing for pump group 1 or 2, with pump centering ring included (see pages 116-117).
- Bell-housing with Multi -Drilling machined for pump group 1 and 2, with pump centering ring to be ordered separately (see page 118).
- Bell-Housing for Kubota engines and pump group 1 or 2, ZF, Bosch SAE A 2 BOLT, SAE B 2 BOLT and SAE C 2 BOLT.
- Available for:
  serie Super Mini Z482 - Z602 - D722 - D902
  serie 05 D1105 - D1305 - V1505

Compatibility with fluids

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.
In order to ensure maximum reliability of the application, internal combustion engines up to 13.5 kW require the exclusive use of aluminium couplings and 95 Shore A polyurethane elastic inserts (see page 120).
For Kubota 05 series and super mini series engines, steel couplings with vulcanised rubber must be used.

Temperature

From -30 °C to +80 °C

Standard

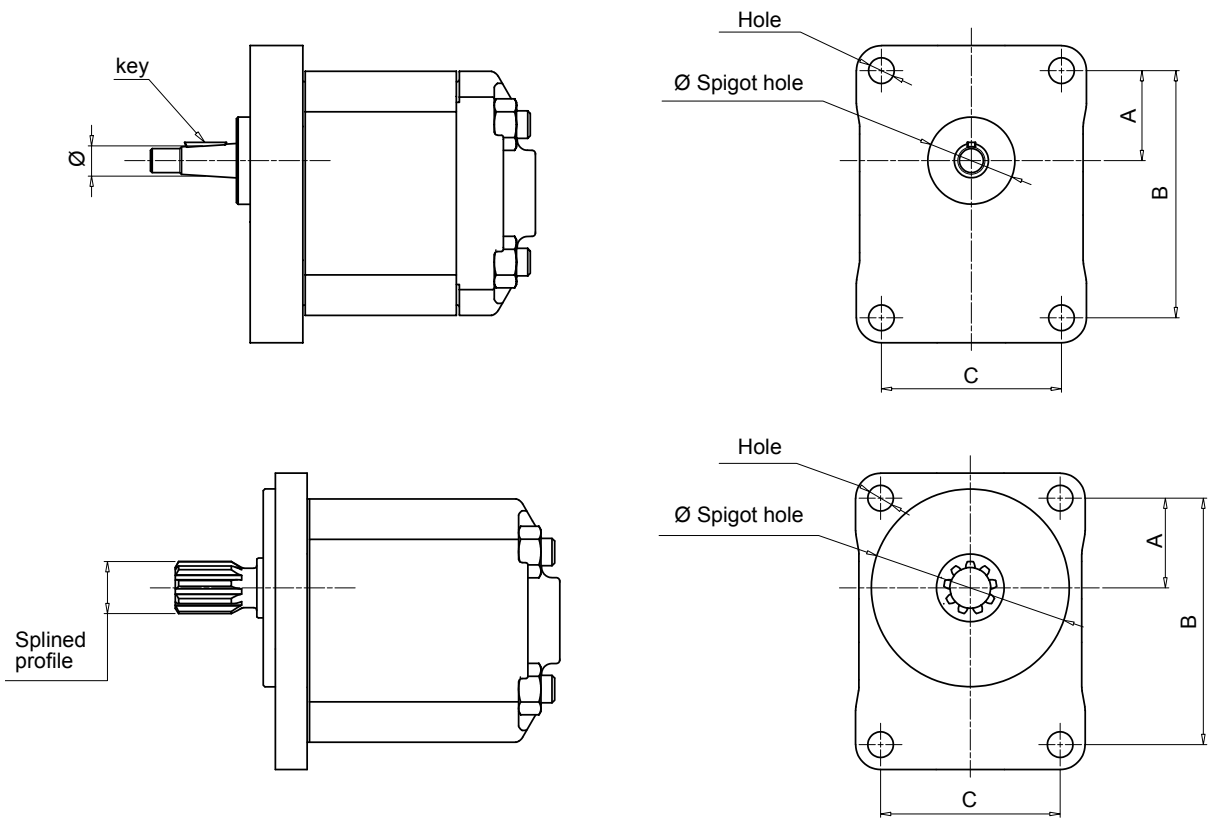
The couplings GKS series are in conformity to normative DIN 740/2.
- Fatigue test: 2 000 000 cycles with nominal torque and frequency 10 Hz.

Note

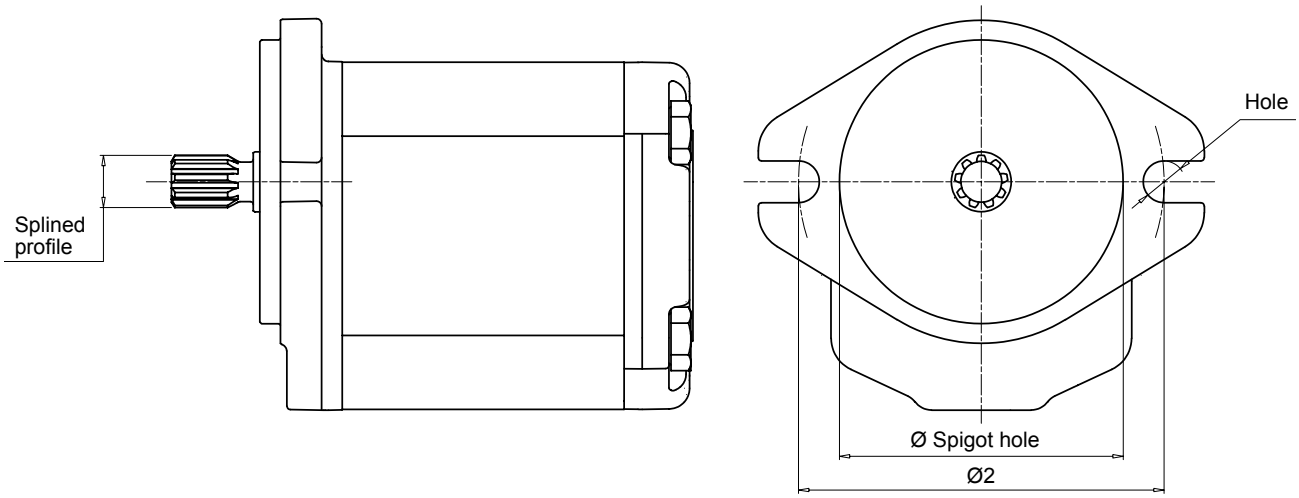
For temperatures outside this range, contact MP Filtri Technical and Sales Department

Our Bell-Housings are available for flanges standard according to the SAE standard.

Designation of pump flange and shaft



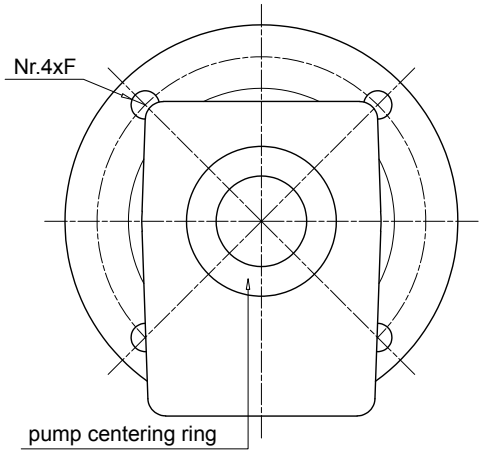
Pump group	Ø Spigot hole	Dimensions A	B	C	Hole	Pump flange code	Ø	Key	Shaft type Tapered	Splined
1	25.4	26.2	72	85	M6	**FS100**	9.7	2.4	1:8	-
1	30	24.5	73	56	M6	**FS1M0**	12	3	1:8	-
2	36.5	32.5	96	71.5	M8	**FS200**	17.2	3.2 - 4	1:8	9th 16/32 DP
Bosh ZF	80	34.5	100	72	M8	**FSZFR**	16.9	3	1:5	9th 16/32 DP

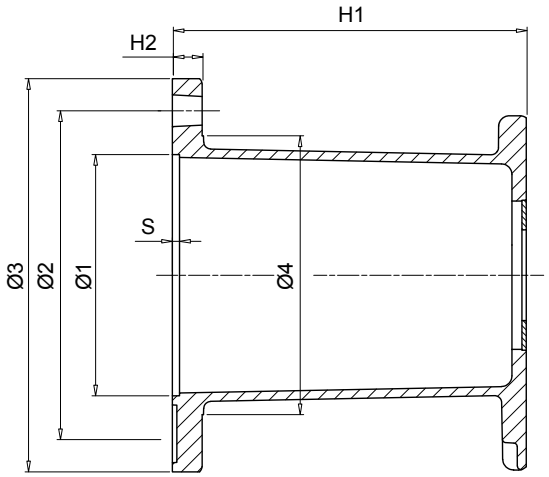


Pump group	Ø Spigot hole	Dimensions Ø2	Hole	Nr. of holes	Pump flange code	Shaft type Splined
SAE A 2BOLT	82.5	106.4	M10	2	**S060**	9th 16/32 DP
SAE B 2BOLT	101.6	146	M12	2	**S070**	13th 16/32 DP
SAE C 2BOLT	127	181.2	M16	2	**S080**	14th 12/24 DP

Dimensions

Combinations for Internal combustion engine 3 - 5.5 Hp

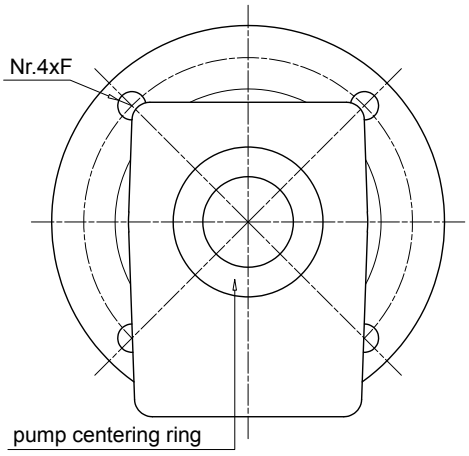


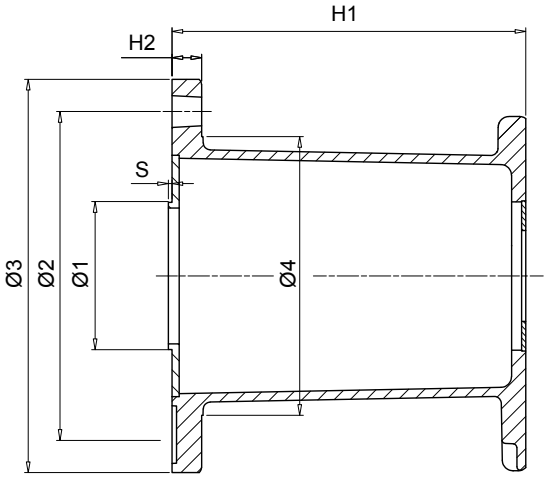


Female centering Ø 67.5 - Gear pumps

Dimensions [mm]								Weight
Ø1	Ø2	Ø3	Ø4	H1	H2	S	F	[kg]
67.5	92	110	78	99	8	3	8	0.5

Power kW	Power Hp	Shaft end	Pump code	Bell-Housing code	SG code motor side	Spider code	SG code pump side	Spigot hole	Complete kit code
2.2-4	3-5.5	Ø 18 - Key 5 ISO 3019-2-E	**FS100**	LME110T099FS100	SGEA01C05056P10	EGE0RR	SGEA01FS100P10	ANCA002	AKA110C05FS100P10
			FS1M0	LME110T099FS1M0	SGEA01C05056P10	EGE0RR	SGEA01FS1M0P10	ANCA003	AKA110C05FS1M0P10
2.2-4	3-5.5	Ø 19.05 - Key 4.76 SAE straight shaft	**FS100**	LME110T099FS100	SGEA01G01056P10	EGE0RR	SGEA01FS100P10	ANCA002	AKA110G01FS100P10
			FS1M0	LME110T099FS1M0	SGEA01G01056P10	EGE0RR	SGEA01FS1M0P10	ANCA003	AKA110G01FS1M0P10





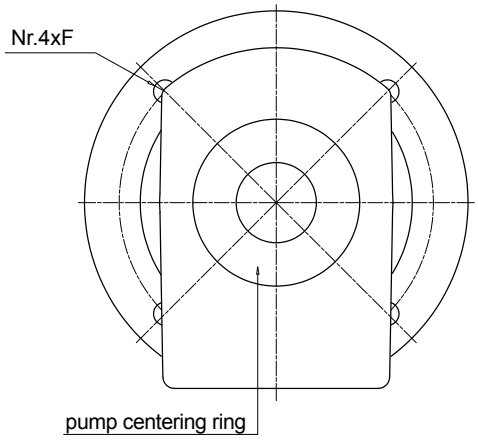
Male centering ring Ø 41.2 - Gear pumps

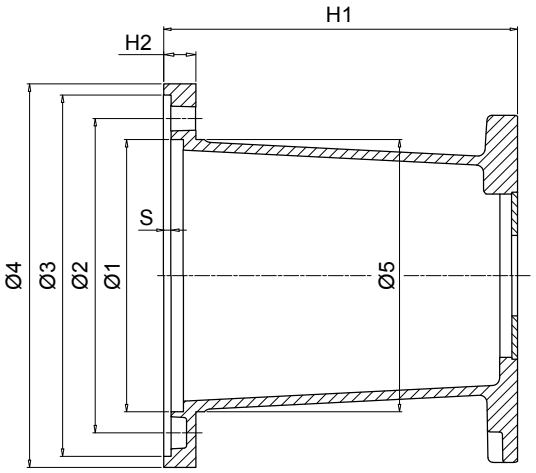
Dimensions [mm]								Weight
Ø1	Ø2	Ø3	Ø4	H1	H2	S	F	[kg]
41.2	92	110	78	99	8	3	8	0.5

Power kW	Power Hp	Shaft end	Pump code	Bell-Housing code	SG code motor side	Spider code	SG code pump side	Spigot hole	Complete kit code
2.2-4	3-5.5	Ø 18 - Key 5 ISO 3019-2-E	**FS100**	LME110T099FS100MM	SGEA01C05056P10	EGE0RR	SGEA01FS100P10	ANCA002	AKA110C05FS100P10MM
			FS1M0	LME110T099FS1M0MM	SGEA01C05056P10	EGE0RR	SGEA01FS1M0P10	ANCA003	AKA110C05FS1M0P10MM
2.2-4	3-5.5	Ø 19.05 - Key 4.76 SAE straight shaft	**FS100**	LME110T099FS100MM	SGEA01G01056P10	EGE0RR	SGEA01FS100P10	ANCA002	AKA110G01FS100P10MM
			FS1M0	LME110T099FS1M0MM	SGEA01G01056P10	EGE0RR	SGEA01FS1M0P10	ANCA003	AKA110G01FS1M0P10MM

NOTE: Pump side centering rings are included in the bellhousing

Combinations for internal combustion engine 7 - 18 Hp

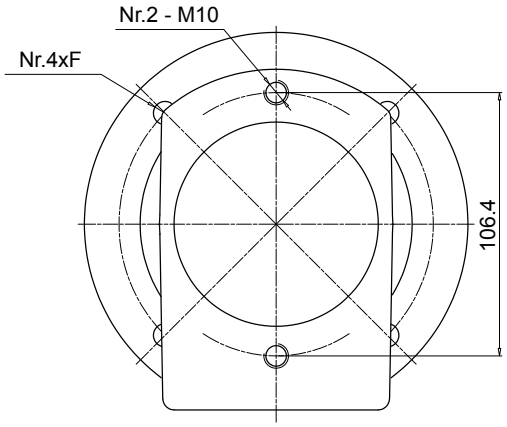


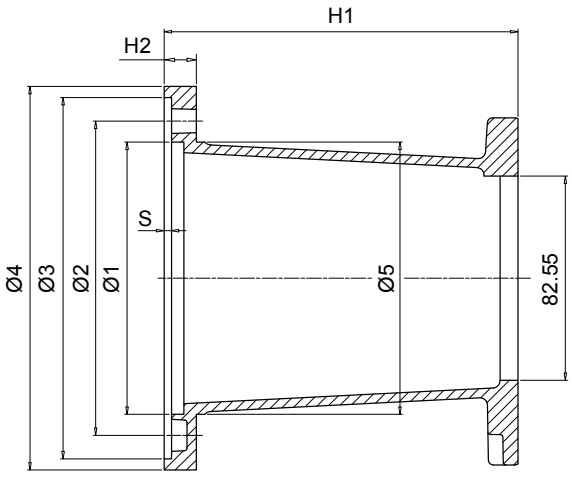


Gear pumps

Dimensions [mm] Ø1	Ø2	Ø3	Ø4	Ø5	H1	H2	S	F	Weight [kg]
110	127	146	155	110	143	13	3	10	1.0

Power kW	Hp	Shaft end	Pump code	Bell-Housing code	SG code motor side	Spider code	SG code pump side	Spigot hole	Complete kit code
5-13.5	7-18	Ø 25 - Key 7 ISO 3019-2-E	**FS100**	LME155T140FS100	SGEA21E06076P10	EGE2RR	SGEA21FS100P10	ANCC002	AKA155E06FS100P10
			FS1C0	LME155T140FS1M0	SGEA21E06076P10	EGE2RR	SGEA21FS1C0P10	ANCC003	AKA155E06FS1C0P10
			FS1M0	LME155T140FS1M0	SGEA21E06076P10	EGE2RR	SGEA21FS1M0P10	ANCC003	AKA155E06FS1M0P10
			FS200	LME155T140FS200	SGEA21E06076P10	EGE2RR	SGEA21FS200P10	ANCC004	AKA155E06FS200P10
		Ø 25.4 - Key 6.35 SAE straight shaft	**FS100**	LME155T140FS100	SGEA21G040762FP10	EGE2RR	SGEA21FS100P10	ANCC002	AKA155G04FS100P10
			FS1C0	LME155T140FS1M0	SGEA21G040762FP10	EGE2RR	SGEA21FS1C0P10	ANCC003	AKA155 G04FS1C0P10
			FS1M0	LME155T140FS1M0	SGEA21G040762FP10	EGE2RR	SGEA21FS1M0P10	ANCC003	AKA155 G04FS1M0P10
			FS200	LME155T140FS200	SGEA21G040762FP10	EGE2RR	SGEA21FS200P10	ANCC004	AKA155 G04FS200P10





Pump SAE A 2 BOLT

Dimensions[mm] Ø1	Ø2	Ø3	Ø4	Ø5	H1	H2	S	F	Weight [kg]
110	127	146	155	110	143	13	3	10	1.0

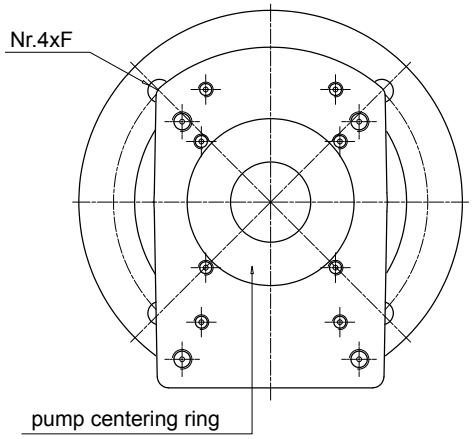
Power kW	Hp	Shaft end	Pump code	Bell-Housing code	SG code motor side	Spider code	SG code pump side	Spigot hole	Complete kit code
5-13.5	7-18	Ø 25 - Key 7 ISO 3019-2-E	**SAE A 2 BOLT**	LME155T140S060	SGEA21E06076P10	EGE2RR	SGEA21G01030P10	-	AKG155E06SAEAP10
		Ø 25.4 - Key 6.35 SAE straight shaft	**SAE A 2 BOLT**	LME155T140S060	SGEA21G040762FP10	EGE2RR	SGEA21G01030P10	-	AKG155G04SAEAP10

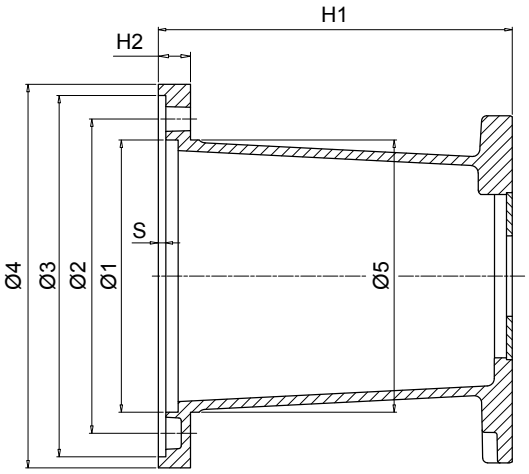
NOTE: Pump side centering rings are included in the bellhousing

Dimensions

Combinations for Internal combustion engine 7 - 18 Hp

BELL-HOUSING MULTI-DRILLING FOR GROUP 1 AND 2





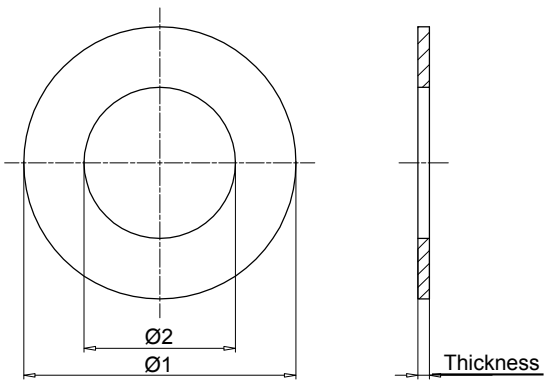
Dimensions [mm]									Weight
Ø1	Ø2	Ø3	Ø4	Ø5	H1	H2	S	F	[kg]
110	127	146	155	110	143	13	3	10	1.0

Gear pumps

Power kW	Power Hp	Shaft end	Pump code	Bell-Housing code	SG code motor side	Spider code	SG code pump side	Spigot hole
5-13.5	7-18	Ø 25 - Key 7 ISO 3019-2-E	**FS100 +**	LME155T140FS100M3	SGEA21E06076P10	EGE2RR	SGEA21FS100P10	ANCC002
			FS1C0 +	LME155T140FS100M3	SGEA21E06076P10	EGE2RR	SGEA21FS1C0P10	ANCC003
			FS1M0 +	LME155T140FS100M3	SGEA21E06076P10	EGE2RR	SGEA21FS1M0P10	ANCC003
			FS200	LME155T140FS100M3	SGEA21E06076P10	EGE2RR	SGEA21FS200P10	ANCC004
		Ø 25.4 - Key 6.35 SAE straight shaft	**FS100 +**	LME155T140FS100M3	SGEA21G040762FP10	EGE2RR	SGEA21FS100P10	ANCC002
			FS1C0 +	LME155T140FS100M3	SGEA21G040762FP10	EGE2RR	SGEA21FS1C0P10	ANCC003
			FS1M0 +	LME155T140FS100M3	SGEA21G040762FP10	EGE2RR	SGEA21FS1M0P10	ANCC003
			FS200	LME155T140FS100M3	SGEA21G040762FP10	EGE2RR	SGEA21FS200P10	ANCC004

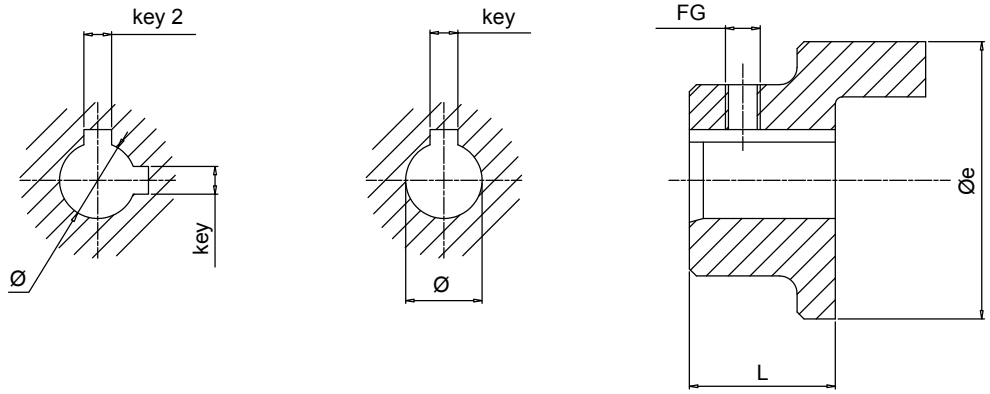
NOTE: Pump side centering rings are not included in the bellhousing

Pump centering ring



Pump centering ring code	Dimensions [mm] Ø1	Ø2	Thickness
ANCA002	50	25.4	1.0
ANCA003	50	30.0	1.0
ANCC002	67.5	25.4	2.0
ANCC003	67.5	30.0	2.0
ANCC004	67.5	36.5	2.0

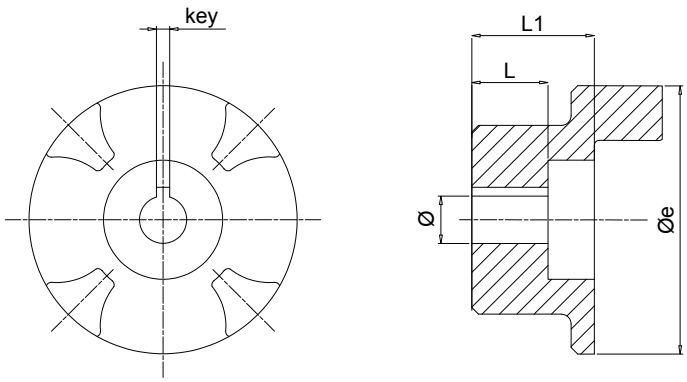
Motor half-coupling



Half-coupling code	Dimensions [mm]						Weight [kg]
	Øe	L	Ø	Key	Key 2	FG	
SGEA01C05056P10	40	56	18.00	5.00	6.00	M5	0.13
SGEA01G01056P10	40	56	19.05	4.76	-	M5	0.13
SGEA21E06076P10	65	76	25.00	7.00	-	M6	0.35
SGEA21G040762FP10	65	76	25.40	4.76	6.35	M6	0.35

NOTE: Double key version pump side only

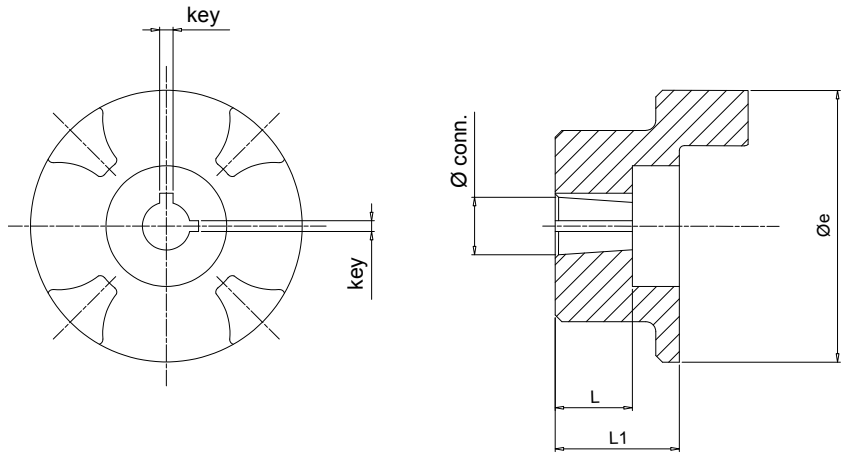
Half-coupling for gear pumps



Half-coupling code	Dimensions [mm]					Weight [kg]
	Øe	L	L1	Ø	Key	
SGEA01FS05CP10	40	10.0	17.0	7	2	0.08
SGEA01FS1C0P10	40	-	17.0	12	3	0.13
SGEA21FS1C0P10	65	14.5	21.5	12	3	0.48

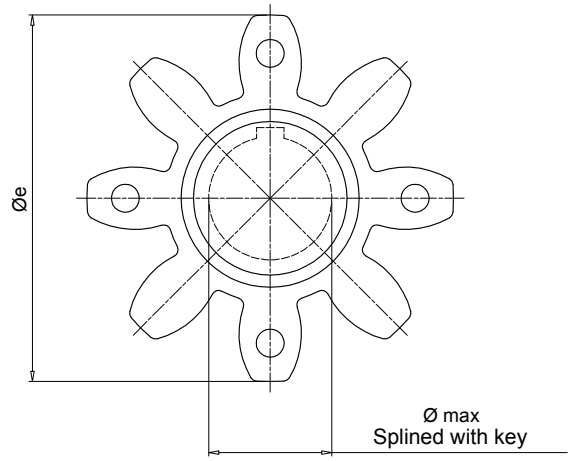
Dimensions

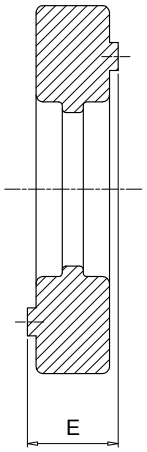
Half-coupling for gear pumps



Half-coupling code	Dimensions [mm] Øe	L	L1	Ø	Key	Weight [kg]	Tapered
SGEA01FS100P10	40	14.5	16.0	9.7	2.4	0.12	1:8
SGEA01FS1M0P10	40	16.0	16.0	13.9	3.0	0.30	1:8
SGEA21FS100P10	65	14.5	21.5	9.7	2.4	0.33	1:8
SGEA21FS1M0P10	65	18.5	21.5	13.9	3.0	0.78	1:8
SGEA21FS200P10	65	21.5	21.5	17.2	3.2 - 4	1.60	1:8

Spider EGE**RR series





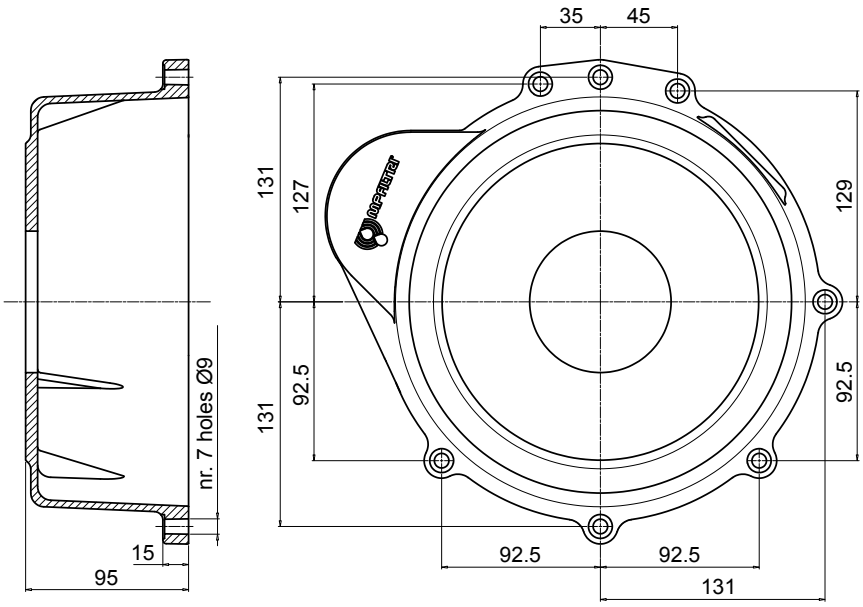
Notes:
Made in polyurethane Laripur LPR202-95A, red colour, are suitable for applications where high levels of torque are transmitted.

Code	Half-coupling code	Dimensions [mm] E	Øe	Ø max	Nominal torque Nm	Max torque Nm	Weight [kg]
EGE0RR	SGEA01	15	40	16	15	30	0.006
EGE2RR	SGEA21	18	65	25	115	230	0.02

Version for extreme temperatures available on request.
For further information, contact MP Filtri Technical and Sales Department.

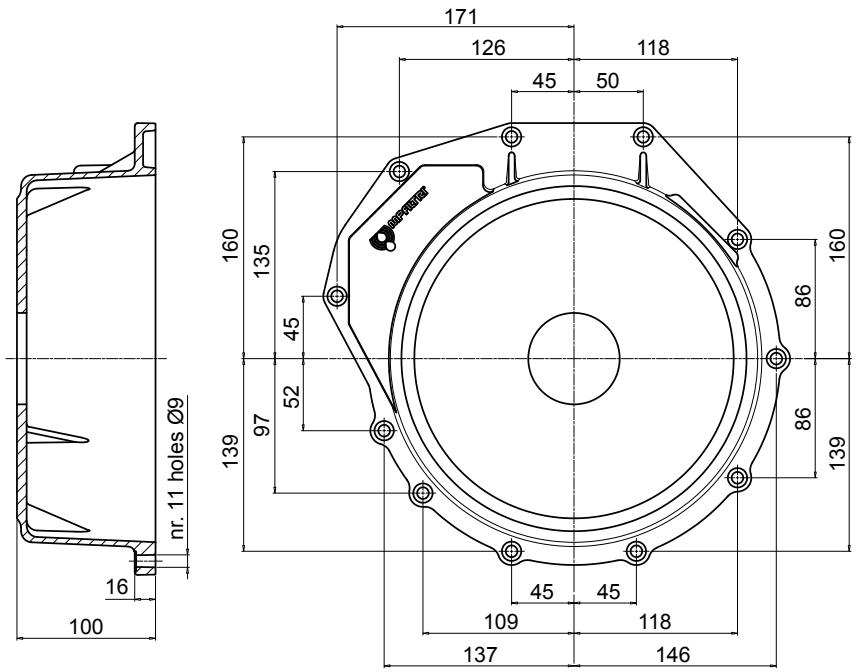
LMEK - Bell-Housing for Kubota engines

Kubota SUPER MINI



Motor series	Bell-Housing code	Weight [kg]
Kubota SUPER MINI	LMEKSM095FS100	1.7
	LMEKSM095FS1M0	
	LMEKSM095FS200	
	LMEKSM095FSZFR	
	LMEKSM095SAEA	
	LMEKSM095SAEA4B	
	LMEKSM095SAEB	
	LMEKSM095SAEB4B	

Kubota SERIES 05

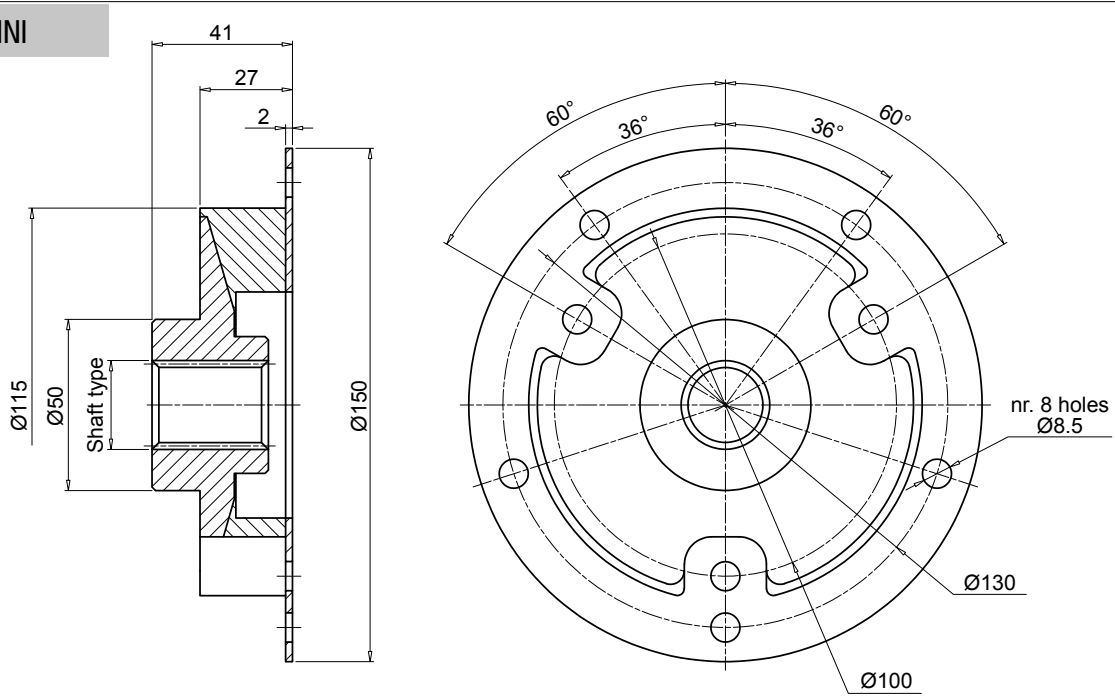


Motor series	Bell-Housing code	Weight [kg]
Kubota SERIES 05	LMEK05100FS100	2.5
	LMEK05100FS1M0	
	LMEK05100FS200	
	LMEK05100FSZFR	
	LMEK05100SAEA	
	LMEK05100SAEA4B	
	LMEK05100SAEB	
	LMEK05100SAEB4B	
	LMEK05100SAEC	

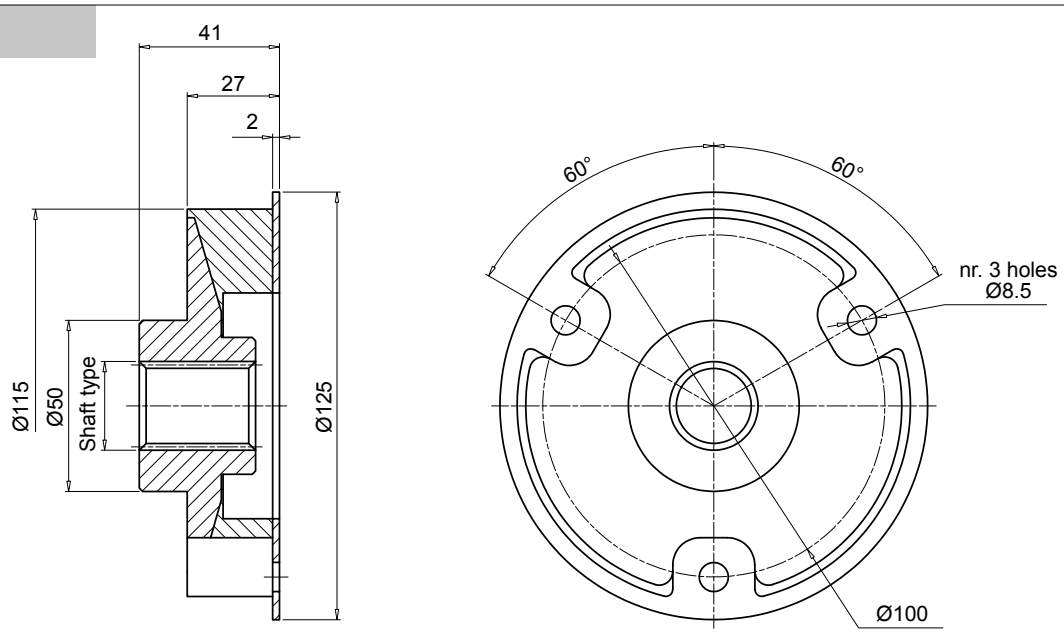
Dimensions

Coupling for Kubota motors

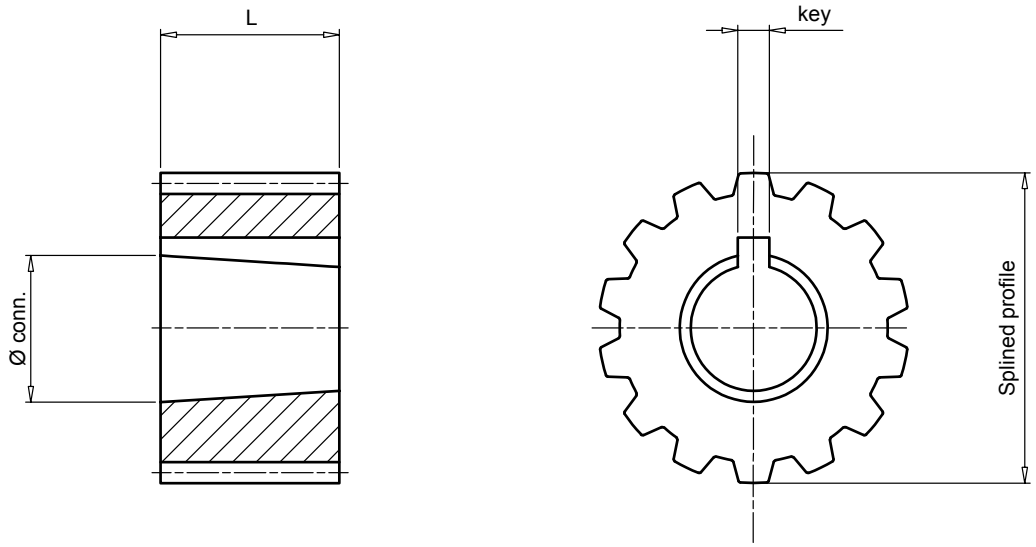
GKSM SUPER MINI



GKS5 SERIES 05



Motor series	Drilling code	Shaft tapered	Shaft splined	Couples code	Bushing code	Material	Tkn [Nm]	Tkm [Nm]	Tkp [Nm]	Max disalligneament radial	Max disalligneament angular	Max RPM	Weight [kg]
Kubota Super Mini	**FS100**	1:8	-	GKSMPB06	BCKFS100	NBR 70 Shore A	100	196	296	0.5 mm	1.5°	6000	0.95
	FS1M0	1:8	-	GKSMPB06	BCKFS1M0								
	FS200	1:8	-	GKSMPB06	BCKFS200								
	FSZFR	1:5	-	GKSMPB06	BCKFSZFR								
	SAE A	-	9th 16/32 DP	GKSMPD05	-								
	SAE B	-	13th 16/32 DP	GKSMPD08	-								
Kubota Series 05	**FS100**	1:8	-	GKS5PB06	BCKFS100	NBR 70 Shore A	100	196	296	0.5 mm	1.5°	6000	0.85
	FS1M0	1:8	-	GKS5PB06	BCKFS1M0								
	FS200	1:8	-	GKS5PB06	BCKFS200								
	FSZFR	1:5	-	GKS5PB06	BCKFSZFR								
	SAE A	-	9th 16/32 DP	GKS5PD05	-								
	SAE B	-	13th 16/32 DP	GKS5PD08	-								
	SAE C	-	14th 12/24 DP	GKS5PD02	-								



Pump group code	Bushing code	Splined profile DIN 5482B	No. teeth	Shaft tapered	Dimensions Ø Conn.	Key	L
FS100	BCKFS100	25x22	14	1:8	8	2.4	14.5
FS1M0	BCKFS1M0			1:8	12	3	16
FS200	BCKFS200			1:8	14.2	3.2	22
FSZFR	BCKFSZFR			1:5	13	3	20

Kubota Motors - Super Mini

		Components				
Motor series	Pump code	Shaft type	Bell-housing code	Couples code	Bushing code	Coupling code
Kubota Super Mini	**FS100**	Tapered 1:8	LMEKSM095FS100	GKSMPB06	BCKFS100	AKALMEK095FS100BC
	FS1M0	Tapered 1:8	LMEKSM095FS1M0	GKSMPB06	BCKFS1M0	AKALMEK095FS1M0BC
	FS200	Tapered 1:8	LMEKSM095FS200	GKSMPB06	BCKFS200	AKALMEK095FS200BC
	FSZFR	Tapered 1:5	LMEKSM095FSZFR	GKSMPB06	BCKFSZFR	AKALMEK095FSZFRBC
	FS200	9th 16/32 DP	LMEKSM095FS200	GKSMPD05	-	AKALMEK095FS200PD05
	FSZFR	9th 16/32 DP	LMEKSM095FSZFR	GKSMPD05	-	AKALMEK095FSZFRPD05
	SAE A	9th 16/32 DP	LMEKSM095SAEA	GKSMPD05	-	AKALMEK095SAEAPD05
	SAE B	13th 16/32 DP	LMEKSM095SAEB	GKSMPD08	-	AKALMEK095SAEBPD08

Kubota Motors - Series 05

		Components				
Motor series	Pump code	Shaft type	Bell-housing code	Couples code	Bushing code	Coupling code
Kubota Series 05	**FS100**	Tapered 1:8	LMEK05100FS100	GKS5PB06	BCKFS100	AKALMEK100FS100BC
	FS1M0	Tapered 1:8	LMEK05100FS1M0	GKS5PB06	BCKFS1M0	AKALMEK100FS1M0BC
	FS200	Tapered 1:8	LMEK05100FS200	GKS5PB06	BCKFS200	AKALMEK100FS200BC
	FSZFR	Tapered 1:5	LMEK05100FSZFR	GKS5PB06	BCKFSZFR	AKALMEK100FSZFRBC
	FS200	9th 16/32 DP	LMEK05100FS200	GKS5PD05	-	AKALMEK100FS200PD05
	FSZFR	9th 16/32 DP	LMEK05100FSZFR	GKS5PD05	-	AKALMEK100FSZFRPD05
	SAE A	9th 16/32 DP	LMEKSM095SAEA	GKS5PD05	-	AKALMEK100SAEAPD05
	SAE B	13th 16/32 DP	LMEKSM095SAEB	GKS5PD08	-	AKALMEK100SAEBPD08
	SAE C	14th 12/24 DP	LMEKSM095SAEC	GKS5PD02	-	AKALMEK100SAECPD02

COMPLETE KIT (BELL-HOUSING & COUPLINGS) FROM 3 TO 13.5 Hp

Configuration example: AKA155 | G04 | FS200 | P10

Internal combustion engine identification code

110	3 - 5.5 Hp
155	5.5 - 13.5 Hp

Shaft end codes

C05	Ø18 - Key 5
G01	Ø19.05 - Key 4.76
E06	Ø25 - Key 7
G04	Ø25.4 - Key 4.76 / 6.35

Pump interface codes

FS100	Gr. 1
FS1M0	Gr. 1M
FS200	Gr. 2
SAE A	2 BOLT

COMPLETE KIT (BELL-HOUSING & COUPLINGS) FROM 13.5 TO 35 Hp

Configuration example: AKALMEK | 095 | FS100 | BC

Kubota engine identification code

LMEK	Complete kit for Kubota motors

Bell-Housing

95	Super Mini series
100	Series 05

Pump interface codes

FS100	Gr. 1
FS1M0	Gr. 1M
FS200	Gr. 2
FSZFR	Gr. ZF Bosh
SAE A	2 BOLT
SAE B	2 BOLT
SAE C	2 BOLT

Coupling type

BC	Splined profile with bushing
PD02	Splined profile
PD05	Splined profile
PD08	Splined profile

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