PRODUCT DATASHEET

CB-E MICRO GEAR PUMPS

Small-displacement gear pumps from 0.27 to 1.91 cm³/rev for compact DC power packs and small hydraulic systems.

The CB-E is a compact, lightweight gear pump for small hydraulic systems at medium to high pressure. A gear pair runs between two aluminium bearing blocks inside a housing with front and rear covers, giving high mechanical and volumetric efficiency with a low noise level. Twelve sizes cover 0.27 to 1.91 cm³/rev, with four inlet/outlet arrangements, three shaft options and clockwise or anti-clockwise rotation — so the pump can be matched to almost any micro power pack.

CB-E MICRO GEAR PUMP



0.27–1.91 cm³	160 bar	3000 rpm	12 sizes
Displacement per revolution	Rated pressure (up to 1.5 size)	Rated speed	CW or CCW, 4 port layouts

KEY FEATURES

- Compact 50 × 53 mm body with Ø22 spigot and 2 × Ø5.5 mounting holes
- Four inlet/outlet layouts: rear or side in, front or side out
- Clockwise or anti-clockwise rotation
- Aluminium bearing blocks for high efficiency (82 – 88%) and low noise
- Tang, straight-key or Woodruff-key drive shaft
- BSPP, NPT or metric port options — see the order code on page 4

Need help choosing a pump?

Talk to us about sizing, PTO fitment, lead times and pricing.

CALL 01535 617880
EMAIL sales@cchydraulics.co.uk
WEB www.cchydraulics.co.uk

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Technical Data

Pressures, speed, flow and length for all twelve CB-E sizes.

CB-E0.88F



PRESSURE RATINGS

P1 — rated (continuous) pressure.
P2 — maximum (intermittent) pressure.
P3 — peak pressure.

Sizes up to CB-E1.5 are rated at 160 bar; the largest, CB-E1.9, at 120 bar.

RANGE DATA

Model	Displacement cm³/rev	P1 bar	P2 bar	P3 bar	Rated speed rpm	Efficiency	Flow at 3000 rpm L/min	Flow at 2000 rpm L/min	L mm
CB-E0.26	0.27	160	180	200	3000	82%	0.66	0.44	61.2
CB-E0.32	0.33	160	180	200	3000	82%	0.81	0.54	61.7
CB-E0.38	0.39	160	180	200	3000	82%	0.96	0.64	62.2
CB-E0.5	0.49	160	180	200	3000	85%	1.25	0.83	63
CB-E0.6	0.61	160	180	200	3000	85%	1.56	1.04	64
CB-E0.63	0.64	160	180	200	3000	85%	1.63	1.09	64.2
CB-E0.75	0.76	160	180	200	3000	86%	1.96	1.31	65.2
CB-E0.88	0.88	160	180	200	3000	86%	2.27	1.51	66.2
CB-E1.0	1.00	160	180	200	3000	86%	2.58	1.72	67.2
CB-E1.25	1.25	160	180	200	3000	86%	3.23	2.15	69.2
CB-E1.5	1.54	160	180	200	3000	86%	3.97	2.65	71.5
CB-E1.9	1.91	120	140	160	3000	88%	5.04	3.36	74.5

Flows are actual flows: displacement × speed × the efficiency shown. Pressures converted from the supplier's MPa figures (16 MPa = 160 bar). Displacement in in³/rev: 0.0165 (0.26) to 0.1165 (1.9).

TYPICAL USES

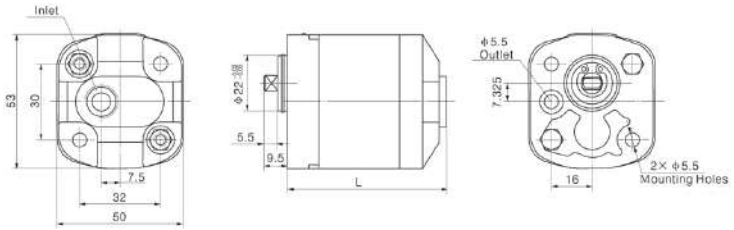
Micro DC power packs for cab tilts, ramps, covers, small tail-lifts and platforms, and other small hydraulic systems where a compact, quiet pump is needed.

PRODUCT DATASHEET

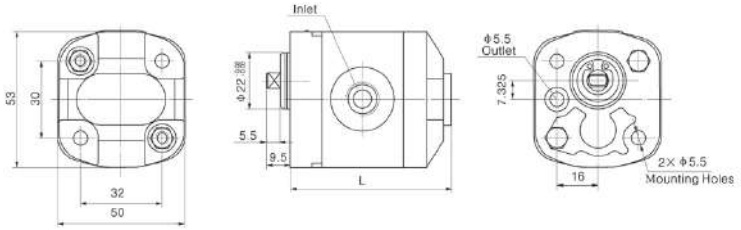
Outline Dimensions

Four inlet/outlet arrangements on a common body — length L varies by size (see page 2). All dimensions in millimetres.

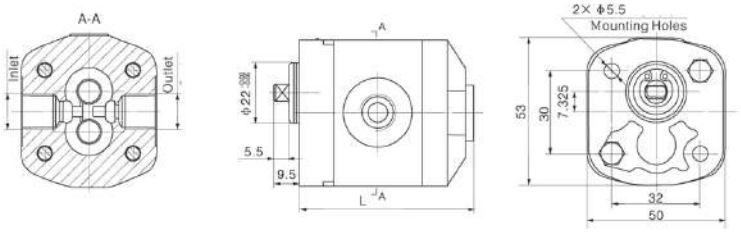
REAR IN / FRONT OUT



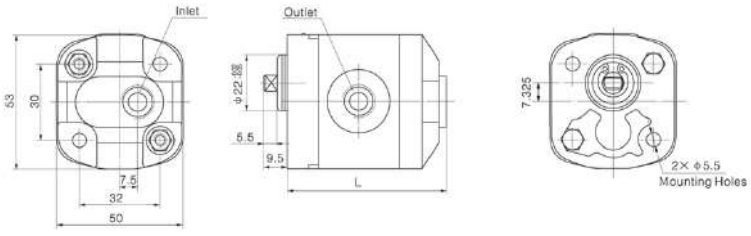
SIDE IN / FRONT OUT



SIDE IN / SIDE OUT



REAR IN / SIDE OUT



Reference	Dimension	Notes
Body	50 × 53 mm	Width × height
Spigot	Ø22	Locates in the power pack end head
Mounting holes	2 × Ø5.5	On 32 × 30 mm centres
Front outlet	Ø5.5	7.325 mm off shaft centre, into the end head

PRODUCT DATASHEET

Order Code & Options

How to build a CB-E part number — displacement, port layout, rotation and shaft.

CB-E [displacement] [ports] [rotation] [shaft]

Example: CB-E0.88F = 0.88 cm³/rev, rear in G1/4 / front out (standard ports), anti-clockwise, tang drive

INLET / OUTLET POSITION AND PORTS

Code	Inlet / outlet
(none)	Rear in G1/4 / front out
A	Rear in NPT 1/4 / front out
B	Side in G1/4 / front out
C	Side in M10 × 1.5 / front out
D	Side in G1/4 / side out G1/4
E	Side in M10 × 1 / side out M10 × 1

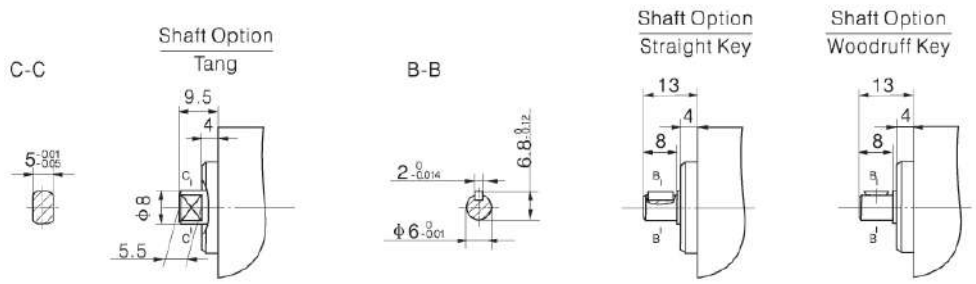
Code	Inlet / outlet
F	Rear in G1/4 / side out G1/8
G	Side in Z1/8 / side out Z1/8
K	Front in / front out
N	Rear in NPT 3/8 / front out
R	Rear in G3/8 / front out

ROTATION AND SHAFT

Code	Rotation
(none)	Clockwise (CW)
F	Anti-clockwise (CCW)

Code	Shaft
(none)	Tang
P	Straight key
WK	Woodruff key

SHAFT OPTIONS — TANG, STRAIGHT KEY AND WOODRUFF KEY



CHOOSING A SIZE

Displacement needed = flow (L/min) × 1000 ÷ (motor speed × efficiency). For example, 1.5 L/min from a DC motor at about 2000 rpm needs 1.5 × 1000 ÷ (2000 × 0.86) 0.87 cm³/rev — the **CB-E0.88**. Check the working pressure is within P1 and confirm the port layout and rotation match the end head.

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