



Technical Catalogue



KCB Series
Gear Pump

KCB SERIES GEAR PUMP

1. Application

It applies to delivering non-corrosive lubricating-oil or equivalent liquid without solid particles and fibres at temperature below 80°C and with the viscosity of $5 \times 10^{-6} \sim 1.5 \times 10^{-3} \text{ m}^2/\text{s}$ (5-1500cSt).

2. Application Scope

It can give performance as transfer pump or booster pump in oil delivery system. It can be also applied as a fuel pump for delivery system, pressurization and injection in fuel supply system and in all industry fields as lubricating pump.



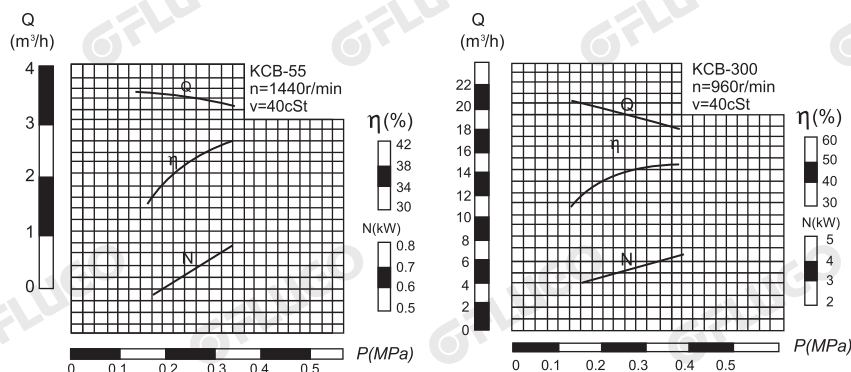
3. Structure Features

- KCB Series gear pumps are mainly composed of gears, axles, pump body, pump, cap safety valve and axle-end seals etc. The heat-treated gears have the advantage of higher hardness and intensity, and rotate with the axles inside the replaceable bearing sleeves. All of pump's part can be lubricated by delivered medium when working.
- The pump is properly designed with leakage and return chute, which lets the gears bear the least torque force and reduces load and wear on bearings in order to raise pump's efficiency.
- It is also designed with safety valve for protection against overload, The full return flow Pressure of the safety valve is 1.5 times higher than the rated exhaust pressure of the pump, It can be also adjusted within the allowance of exhaust pressure range according to circumstances. But please note the safety valve can't be applied as pressure reducing valve for long time. You may install pressure-reducing valve separately on pipe-line if needed

DIAGRAM OF PERFORMANCE CURVE

Performance data of all gear pump have been defined on basis of the viscosity of $4 \times 10^{-3} \text{ m}^2/\text{s}$ (40cSt). The data indicated in the performance diagram is suitable to medium viscosity of $1 \times 10^{-5} \sim 8 \times 10^{-5} \text{ m}^2/\text{s}$ (10~80cSt). Of which exceeds the above viscosity, the data will be re-defined according to client's demands.

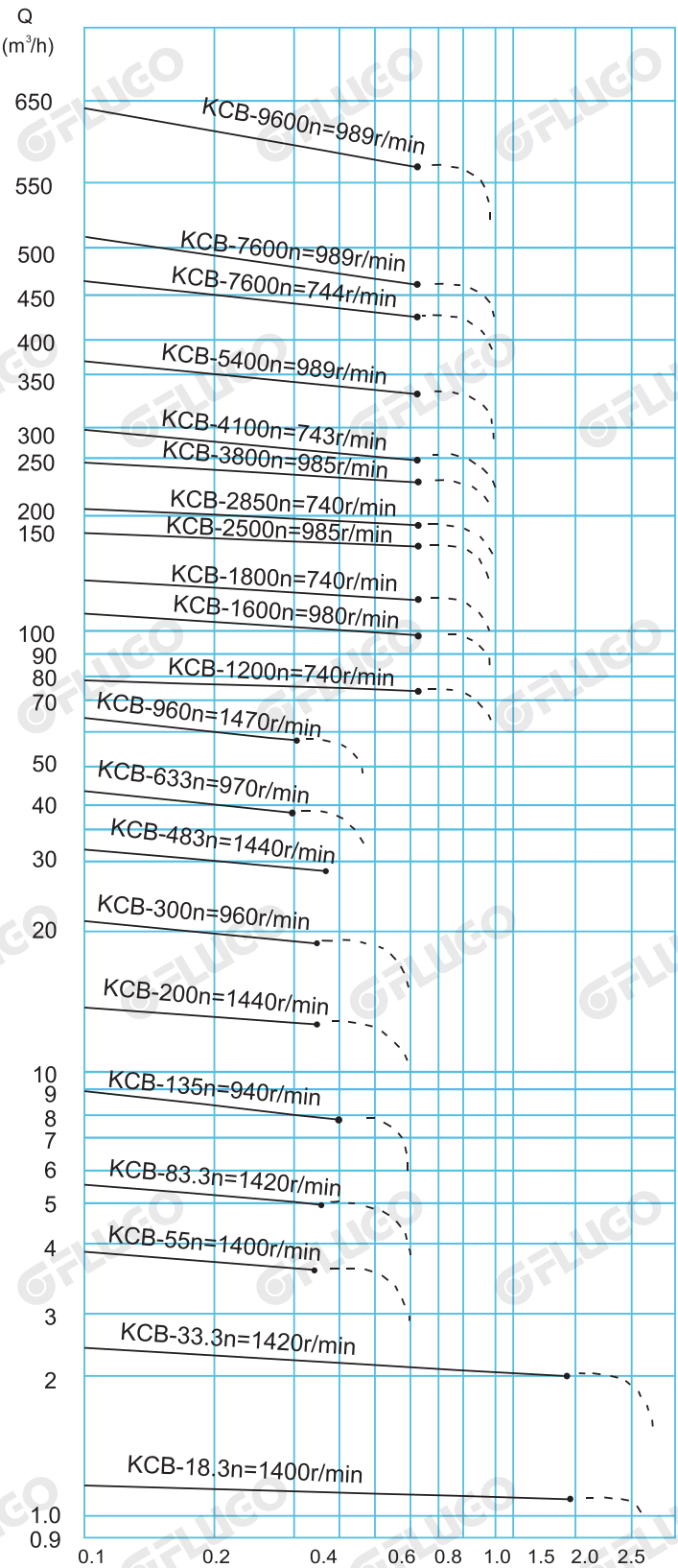
The given exhausting pressure of all gear pumps is the highest working pressure, and pumps can perform normally within range of the rated working pressure, which can be found in diagram No.1



KCB-55
Diagram of performance Curve of Model KCB-55 Gear pump

KCB-300
Diagram of performance Curve of Model KCB-300 Gear pump

WORKING SCOPE(DIAGRAM NO.1)



Working Scope Non-Working Scope The Full Return Flow of Safety Value P MPa Designed Value

KCB FUNCTIONAL DATA OF KCB SERIES GEAR PUMPS

Model	Capacity Q		Speed n r/min	Exhaust Pressure P MPa	(NPSH)r m	Efficiency η %	Motor	
	m ³ /h	L/min					kW Power	Model
KCB-18.3	1.1	18.3	1400	1.45	5	44	1.5	Y90L-4
KCB-33.3	2	33.3	1420	1.45	5	44	2.2	Y100L1-4
KCB-55	3.3	55	1400	0.33	7	41	1.5	Y90L-4
KCB-83.3	5	83.3	1420	0.33	7	43	2.2	Y100L1-4
KCB-135	8	135	940	0.33	5	46	2.2	Y112M-6
KCB-200	12	200	1440	0.33	5	46	4	Y112M-4
KCB-300	18	300	960	0.36	5	42	5.5	Y132M2-6
KCB-483.3	29	483.3	1440	0.36	5.5	42	11	Y160M-4
KCB-633	38	633	970	0.28	6	43	11	Y160L-6
KCB-960	58	960	1470	0.28	6.5	43	18.5	Y180M-4
KCB-1200	72	1200	740	0.6	7	43	37	Y280S-8
KCB-1600	95	1600	980				45	Y280S-6
KCB-1800	112	1800	740	0.6	7.5	43	55	Y315S-8
KCB-2500	150	2500	987				75	Y315S-6
KCB-2850	170	2850	740	0.6	8	44	90	Y315L1-8
KCB-3800	230	3800	989				110	Y315L1-6
KCB-4100	245	4100	743	0.6	8	44	132	Y355M1-8
KCB-5400	325	5400	989				160	Y355M1-6
KCB-5600	330	5600	744	0.6	8	44	160	Y355M2-8
KCB-7600	460	7600	989				200	Y355M3-6
KCB-7000	420	7000	744	0.6	8	44	185	Y355L1-8
KCB-9600	570	9600	989				250	Y355L2-6



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