



Technical Catalogue



2CY Series

Gear Pump



2CY 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). It applies to hydraulic system, too.

2. Application Scope

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

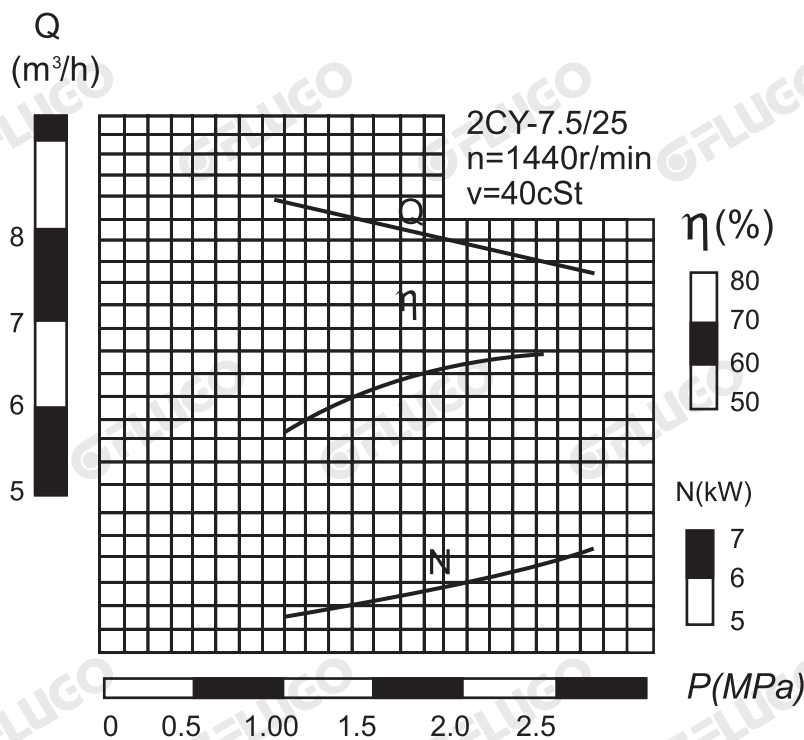
3. Structure Features

- 2CY series gear pumps are mainly composed of gears, axles, pump body, pump cap, bearing sleeves and axle-end seals, etc. The nitriding-treated gears have the advantage of higher hardness and wear property, and they rotate with the axles inside the replaceable bearing sleeves. All of pump's parts can be lubricated by delivered medium when working.
- Four bearing sleeves are installed suspended in pump body and can be automatically adjusted with facing gaps clearance complying with pressure change, therefore, it results in stable pump pressure, little discharge, flow pulsation and higher volume efficiency.

DIAGRAM OF PERFORMANCE CURVE

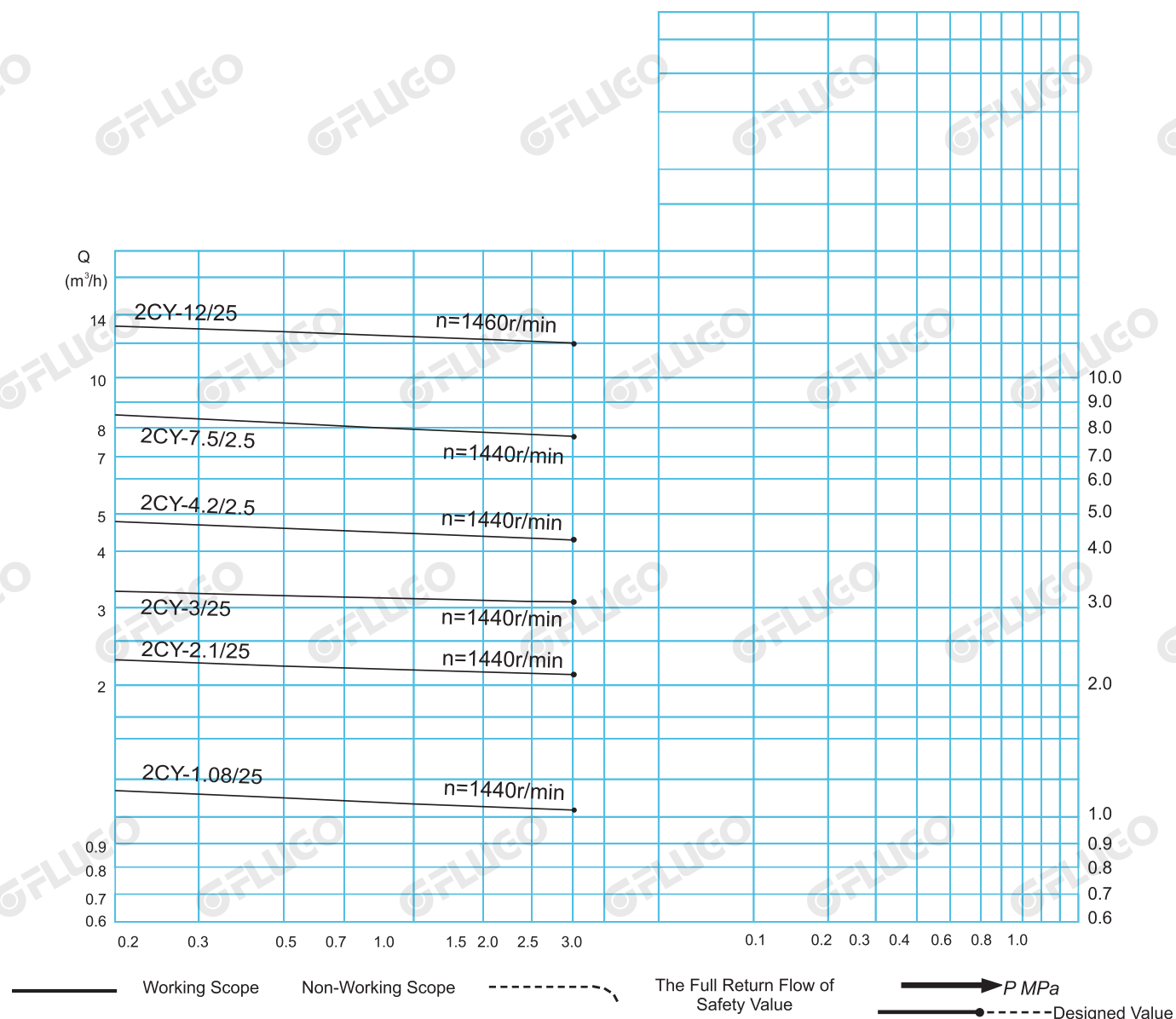
Performance data of all gear pump have been defined on basis of the viscosity of $4 \times 10^{-3} \text{ m}^2/\text{s}$ (40cSt). The data indicated in the performance diagram is suitable to medium viscosity of $1 \times 10^{-5} \sim 8 \times 10^{-5} \text{ m}^2/\text{s}$ (10~80cSt). Of which exceeds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



2CY-7.5/25
Diagram of performance Curve of
Model 2CY-7.5/25 Gear pump

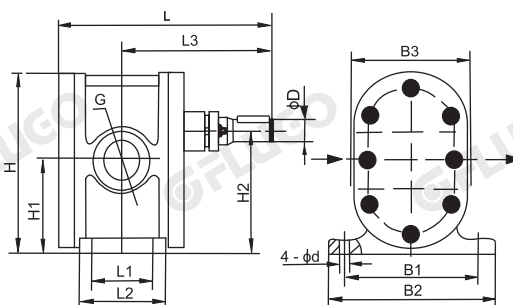
WORKING SCOPE(DIAGRAM NO.1)



2CY FUNCTIONAL DATA OF 2CY SERIES GEAR PUMPS

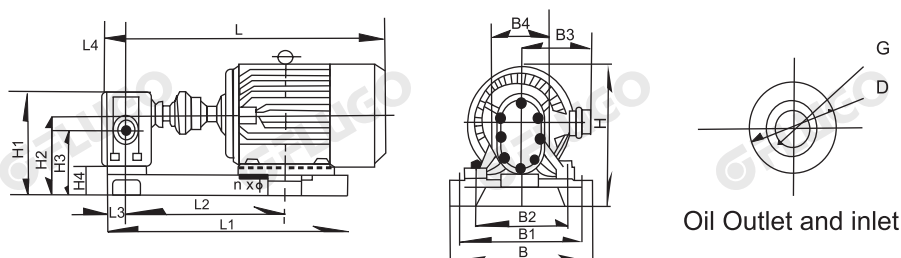
Model	Capacity Q		Speed n r/min	Exhaust Pressure P MPa	(NPSH) r m	Efficiency η %	Motor	
	m³/h	L/min					kW Power	Model
2CY-1.1/1.45	1.1	18.3	1400	1.45	5	44	1.5	Y90L-4
2CY-2/1.45	2	33.3	1420	1.45	5	44	2.2	Y100L1-4
2CY-3.3/0.33	3.3	55	1400	0.33	7	41	1.5	Y90L-4
2CY-5/0.33	5	83.3	1420	0.33	7	43	2.2	Y100L1-4
2CY-8/0.33	8	135	940	0.33	5	46	2.2	Y112M-6
2CY-12/0.33	12	200	1440	0.33	5	46	4	Y112M-4
2CY-18/0.36	18	300	960	0.36	5	42	5.5	Y132M2-6
2CY-29/0.36	29	483.3	1440	0.36	5.5	42	11	Y160M-4
2CY-38/0.28	38	633	970	0.28	6	43	11	Y160L-6
2CY-58/0.28	58	960	1470	0.28	6.5	43	18.5	Y180M-4

Model	Capacity Q		Speed n r/min	Exhaust Pressure P MPa	(NPSH) r m	Efficiency η %	Motor	
	m³/h	L/min					kW Power	Model
2CY-1.08/2.5	1.08	18	1420	2.5	9.5	58	2.2	Y100L1-4
2CY-2.1/2.5	2.1	35	1420	2.5	9.5	58	3	Y100L2-4
2CY-3/2.5	3	50	1440	2.5	9.5	59	4	Y112M-4
2CY-4.2/2.5	4.2	70	1440	2.5	9.5	59	5.5	Y132S-4
2CY-7.5/2.5	7.5	125	1440	2.5	9.5	63	7.5	Y132M-4
2CY-12/2.5	12	200	1460	2.5	9.5	63	15	Y160L-4

2CY TYPE GEAR PUMP APPERANCE & INSTALLATION DIMENSION


Model	L	L1	L2	L3	B1	B2	B3	H	H1	H2	G	ØD	4-ØD
2CY-1.08/2.5	193.5	45	75	138.5	114	138	95	132	67.5	87	G 3/4"	18	10
2CY-2.1/2.5	198.5	48	78	142.5	124	154	110	164.5	86	112	G 1"	18	10
2CY-3/2.5	198.5	48	78	142.5	124	154	110	164.5	86	112	G 1"	18	10
2CY-4.2/2.5	220	58	88	155	160	190	140	205	107.5	140	G 1 1/4"	28	12
2CY-7.5/2.5	239	65	98	164.5	160	190	140	205	107.5	140	G 1 1/2"	28	12
2CY-12/2.5	360	106	136	257	190	220	210	256	136	178	G 2"	32	14

2CY-1.08/2.5 ~ 2CY-12/2.5

2CY-1.08/2.5 ~ 2CY-12/2.5 GEAR PUMP APPERANCE & INSTALLATION DIMENSION AND WEIGHT


Oil Outlet and inlet

Model	L	L1	L2	L3	L4	H	H1	H2	H3	H4	B	B1	B2	B3	B4	G	D	nxØ	Weight(kg)
2CY-1.08/2.5	582	486	339	47.5	55	290	190	145	125.5	58	293	257	190	180	95	G3/4"	Ø36	4xØ18	56
2CY-2.1/2.5	586	493	344	49	56	302	210	157	131	45	293	257	206	180	110	G1"	Ø50	4xØ18	63.5
2CY-3/2.5	605	499	349	49	56	310	210	157	131	45	333	297	206	190	110	G1"	Ø50	4xØ18	77.5
2CY-4.2/2.5	720	585	420	54	65	373	255	190	157.5	50	368	332	242	210	140	G1 1/4"	Ø70	4xØ18	121
2CY-7.5/2.5	780	637	448	60	75	378	260	195	162.5	55	368	332	242	210	140	G1 1/2"	Ø70	4xØ18	136
2CY-12/2.5	1020	862	616	78	103	468	321	243	201	65	416	380	272	255	210	G2"	Ø95	4xØ18	173



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Authorized Distributor