

Care in Application

1.Power Unit Circuit

In variable displacement vane Pump systems , the close circuit is recommended.

2.Shaft Rotation

Clockwise rotation viewed from the shaft end is standard.

3.Fluids Permissible

When working pressure lower than 70 bar , Hydraulic oil with a viscosity from 30 ~ 50(cst), (VG32) at 40°C is recommended.

4.Drain Pipe

External drain control type. Drain connection,must be piped directly to tank and backpressure must not exceed 0.3 bar.

5.Discharge port line must connect **check valve**

Discharge port line must connect **check valve** and cracking pressure must not exceed 0.5 bar

6.Oil Temperature Range

Oil temperature range should be from 15°C~60°C during running operation and should be more than 7°C at starting.

7.Alignment and Installation of Pumps

In case the pump is connected to an electric motor , limit the defection of the alignment between the shafts to 0.05 mm TIR , and angle ± 1 degree.Be sured the electric motor direction is accordingly with the pump's shaft before starting.

8.Suction Port min. Pressure

Suction port minimum working pressure is ± 0.03 bar.

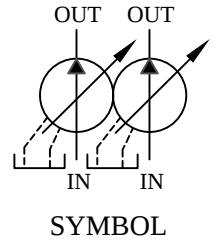
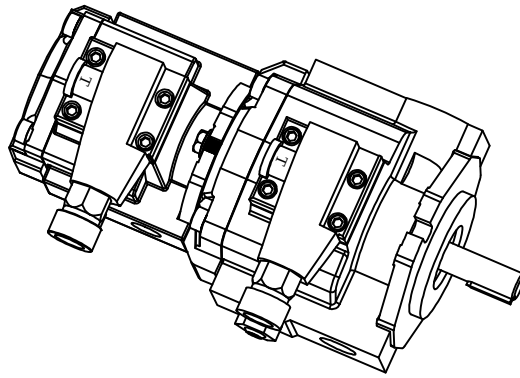
9.Cautions for Starting

When the pump is to be operated for the first time , place the pump delivery side in NO-Load condition and repeat starting and stopping of the motor for several times to eject the air from,inside of the pump and piping. If keep on 10 minutes operation will be much better.

Make sure the maximum peak pressure (setting pressure + surge pressure) during operation does not exceed 14Mpa.

1. 一般輪葉變量泵建議使用閉迴路的設計
2. 泵的迴轉是順時針。
3. 作動油的黏度建議使用(VG32)。
4. 泵的內漏回油管，須單獨直接進入油箱並且控制背壓在 0.3bar 以內
5. 泵的輸出口須裝止回閥，並且控制開啟壓力在 0.5bar 以內
6. 作動油的溫度最好在(15°~60°)之間。
7. 泵與馬達心軸連接時的偏心量在 0.05mm 或 $\pm 1^\circ$ 以內。
8. 進油口的壓力必須控制在 0.03bar 以內。
9. 當泵是第一次運作時，須無載啟動停止操作數次將泵及管內空氣排出並最好保持10分鐘的無載運轉

KPVV-25 *
KPVV-32 *
KPVV-36 *
KPVV-42 *



FEATURES 特點

- *.壓力板作耐磨,耐疲勞及抗污處理,大幅提高耐磨,耐疲勞性及高抗污性能.
- *.固定及活動雙軸環設計,內軸環作動滑順靈敏,穩定性高.
- *.作沖擊壓消除補償設計,脈動,沖擊小.
- *.噪音低,高效率,高性能.
- *.軸環材質採用特殊合金鋼,壽命長.
- *.採用SAE規格安裝,符合國際通用規格.

Model	Pump capacity		Operating Pressure		Weight (Kg)
	P1 (cm ³ /rev)	P2 (cm ³ /rev)	P1 Mpa (Kg/cm ²)	P2 Mpa (Kg / cm ²)	
KPVV-**	25, 32, 36, 42	8, 12, 16, 20, 23	1.5~ 21 (15.3~214.2)	1.5~ 25 (15.3~255)	44

ORDERING CODE 訂購指引

KPVV- 25 - 16 - F - 2 - 2 - A 12 - 01 - 01

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

① KPVV 型號: 高壓雙聯變量葉片泵

② P1流量 (cm³/rev) : 25 , 32, 36, 42

③ P2流量 (cm³/rev) : 8 , 12, 16 , 20 , 23

④ F : 單座壓力閥

⑤ P1壓力級數

1 : 1.5 ~ 14 Mpa (15.3 ~ 142.8 Kg/cm²)

2 : 2.0 ~ 21 Mpa (20.4 ~ 214.2 Kg/cm²)

⑥ P2壓力級數

1 : 1.5 ~ 14 Mpa (15.3 ~ 142.8 Kg/cm²)

2 : 2.0 ~ 21 Mpa (20.4 ~ 214.2 Kg/cm²)

3 : 2.5 ~ 25 Mpa (25.5 ~ 255.0 Kg/cm²)

⑦ A : SAE-B規格、ø101.6安裝

⑧ 轉速

12 : 1200 rpm

15 : 1500 rpm

18 : 1800 rpm

⑨ 轉軸

01 : ø22.23 (方形鍵)

02 : SAE-B-13-Tooth Spline 16/32dp

⑩ 管口牙規格

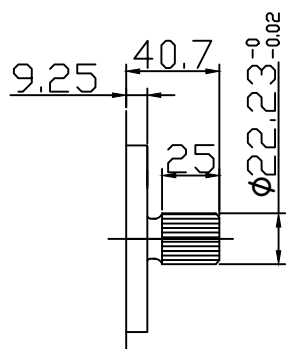
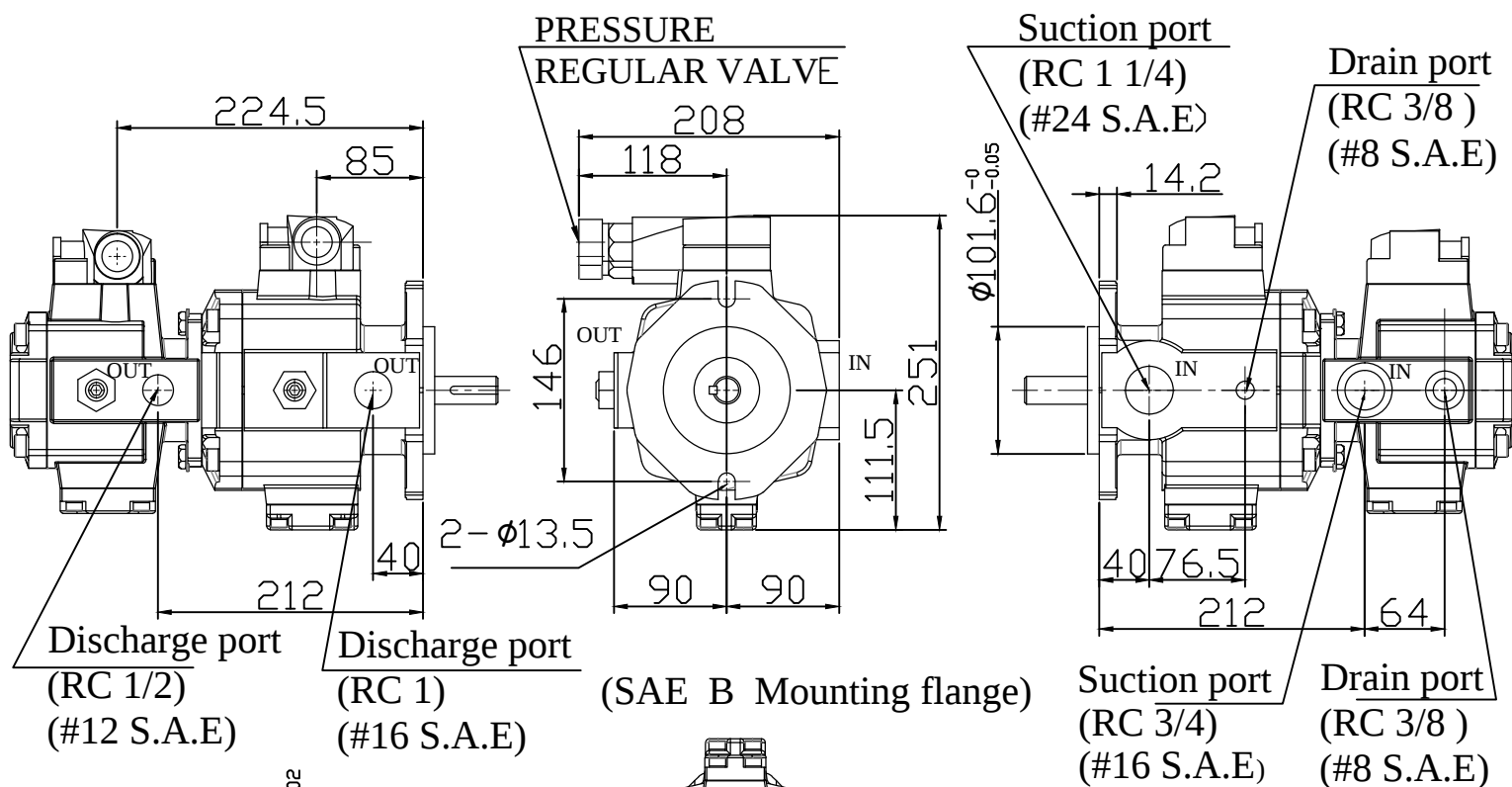
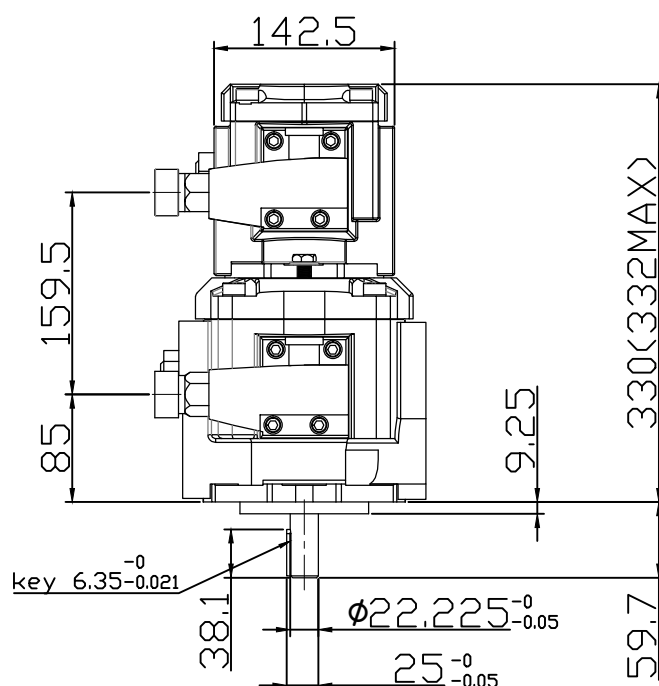
01: P1 (S=RC 1-1/4 , P= RC 1 , DR= RC 3/8)

P2 (S=RC 3/4 , P= RC 1/2 , DR= RC 3/8)

02: P1 (S=#24 S.A.E, P=#16 S.A.E, DR=#8 S.A.E)

P2 (S=#16 S.A.E, P=#12 S.A.E, DR=#8 S.A.E)

KPVV-25 *
 KPVV-32 *
 KPVV-36 *
 KPVV-42 *

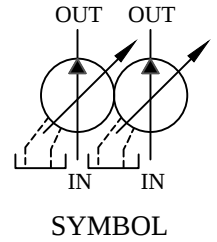
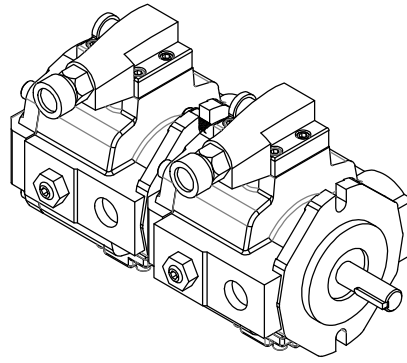


NO.02-Shaft

* Shock Clipper port
 Should be plumbed
 to tank to activate
 shock clipper

* (須接獨立油管回油箱)

KPVV-25 *
KPVV-32 *
KPVV-36 *
KPVV-42 *



FEATURES 特點

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KPVV-**	25, 32, 36, 42	25, 32, 36, 42	1.5~ 21 (15.3~214.2)	1.5~ 21 (15.3~214.2)	65

ORDERING CODE 訂購指引

KPVV- 25 - 25 - F - 2 - 2 - A 12 - 01 - 01

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① KPVV 型號: 高壓雙聯變量葉片泵

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1. 1.5 ~ 14 Mpa (15.3 ~ 142.8 Kg/cm²)
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⑦ A : SAE-B規格、 $\phi 101.6$ 安裝

⑧ 轉速

12 : 1200 rpm

15 : 1500 rpm

18 : 1800 rpm

⑨ 轉軸

01 : $\phi 22.23$ (方形鍵)

02 : SAE-B-13-Tooth Spline 16/32dp

⑩ 管口牙規格

01: P1 , P2

(S=RC 1 1/4 , P= RC 1 , DR= RC 3/8)

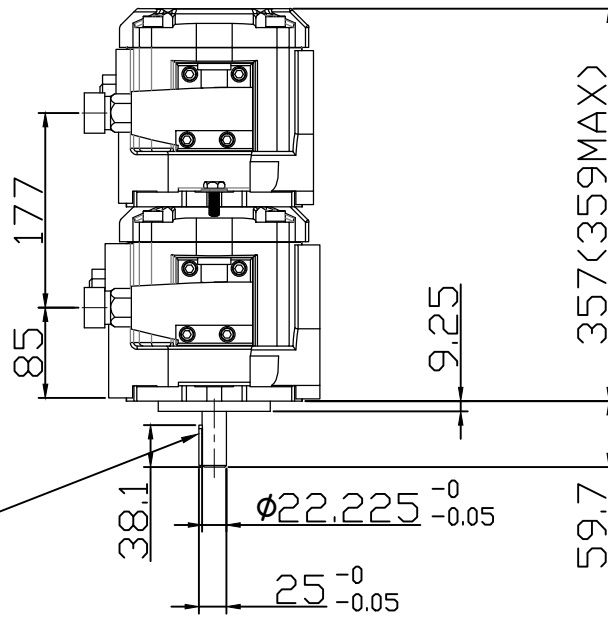
02: P1 , P2

(S= #24 S.A.E, P=#16 S.A.E, DR=#8 S.A.E)

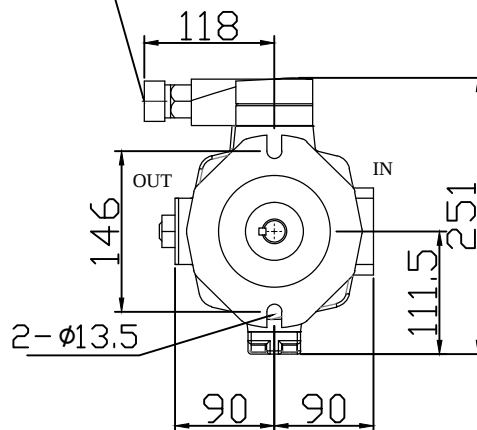
KPVV-25 *
 KPVV-32 *
 KPVV-36 *
 KPVV-42 *

NO.01-Shaft

key 6.35 $\begin{smallmatrix} -0 \\ -0.021 \end{smallmatrix}$

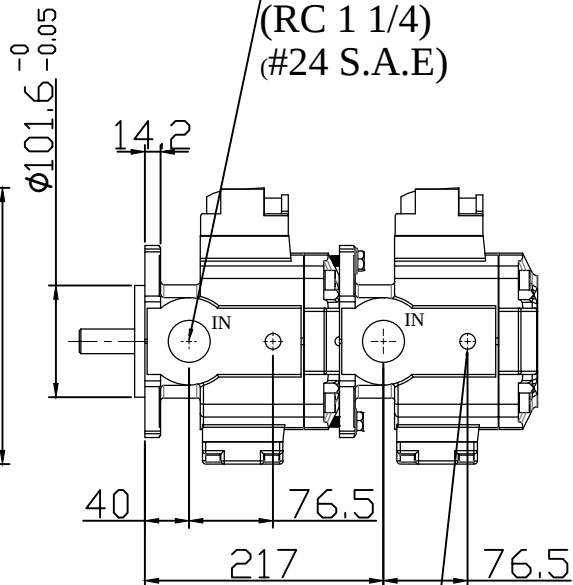


PRESSURE
REGULAR VALVE



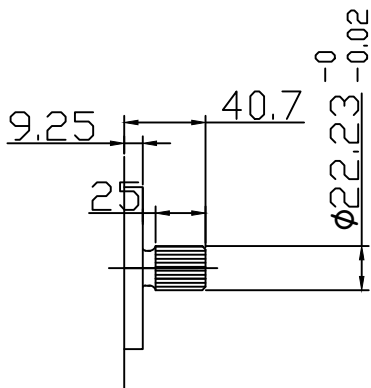
(SAE B Mounting flange)

2-Suction port
(RC 1 1/4)
(#24 S.A.E)



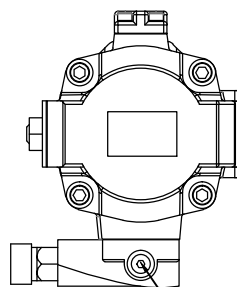
2-Drain port
(RC 3/8)
(#8 S.A.E)

2-Discharge port
(RC 1)
(#16 S.A.E)



SAE-B splined shaft
 Diametral Pitch : 16/32
 Pressure Angle : 30°
 No. of Teeth : 13

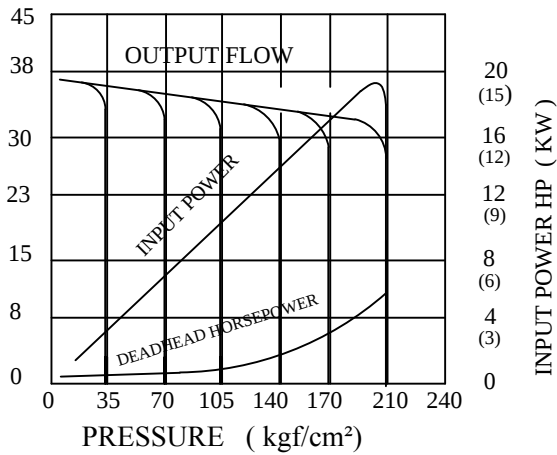
NO.02-Shaft



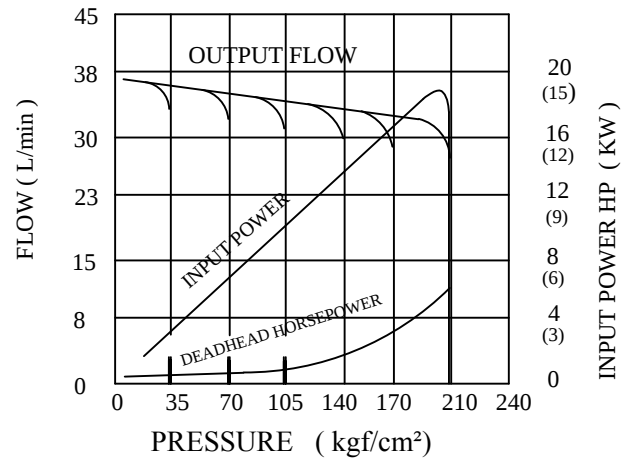
Shock Clipper port
(RC 1/4) , (#6 S.A.E)
 (須接獨立油管回油箱)

* Shock Clipper port
 Should be plumbed
 to tank to activate
 shock clipper

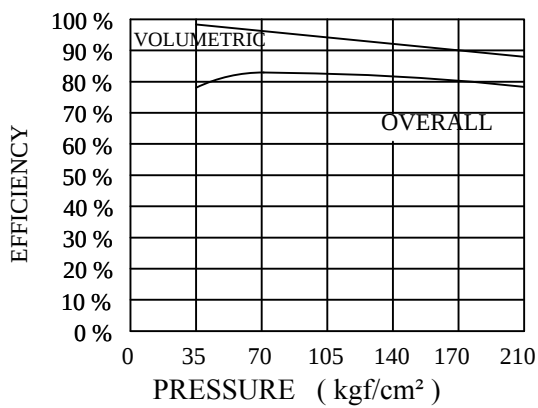
OUTPUT FLOW & POWER @ 1200rpm
25 cm³/rev



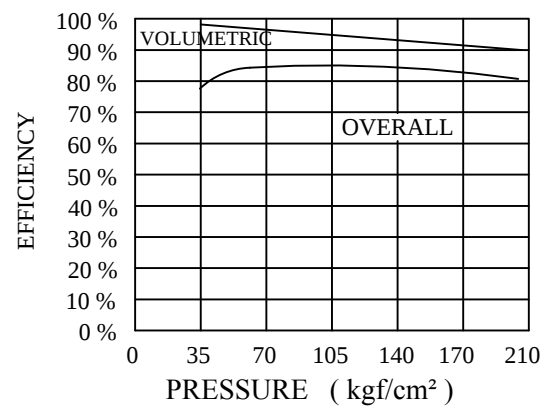
OUTPUT FLOW & POWER @ 1500rpm
25 cm³/rev



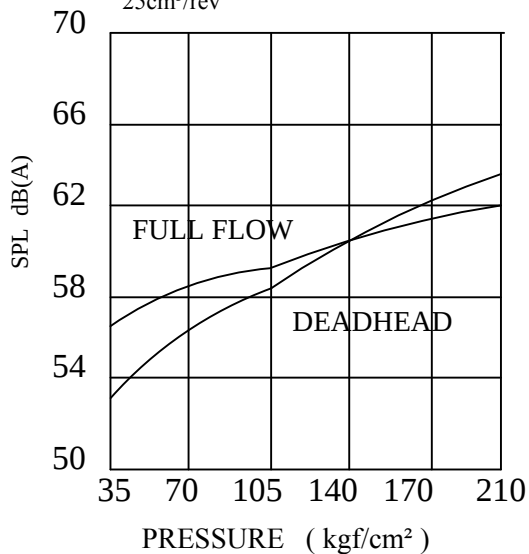
EFFICIENCY @ 1200 rpm
25 cm³/rev



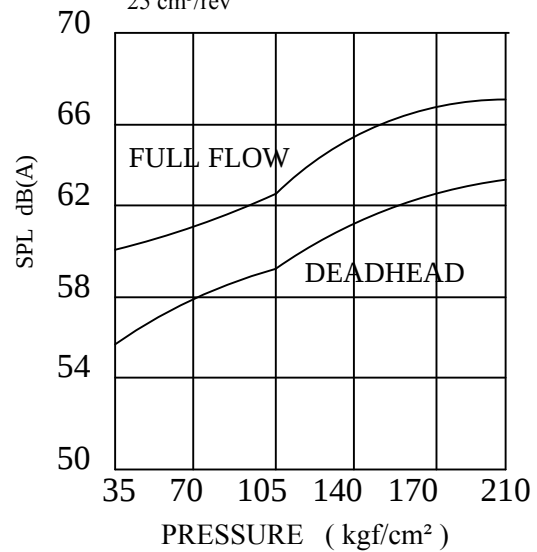
EFFICIENCY @ 1500 rpm
25 cm³/rev



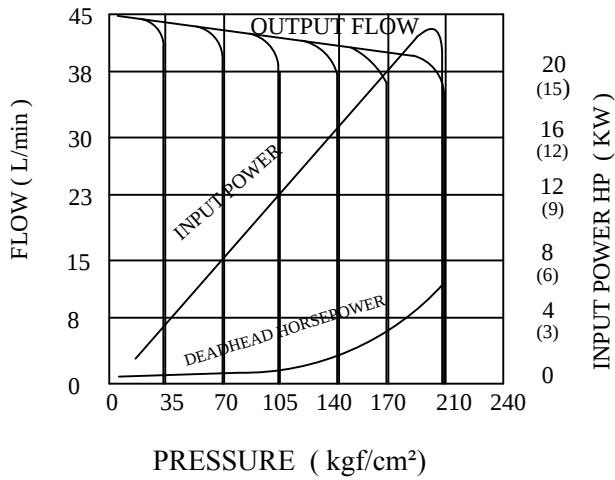
SOUND PRESSURE @ 1200rpm
25cm³/rev



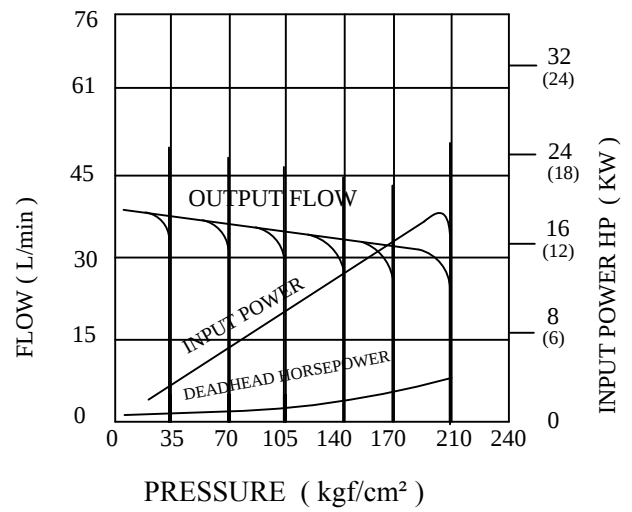
SOUND PRESSURE @ 1500rpm
25 cm³/rev



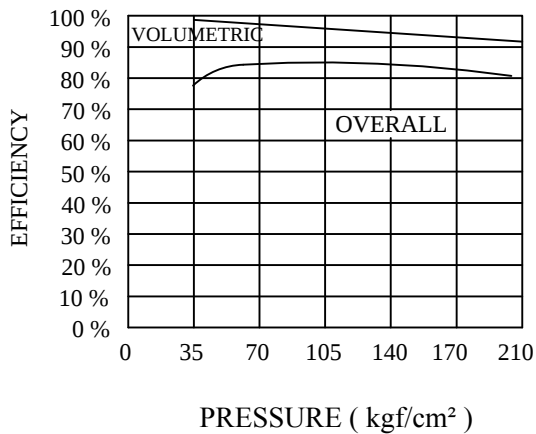
OUTPUT FLOW & POWER @ 1800rpm
25 cm³ /rev



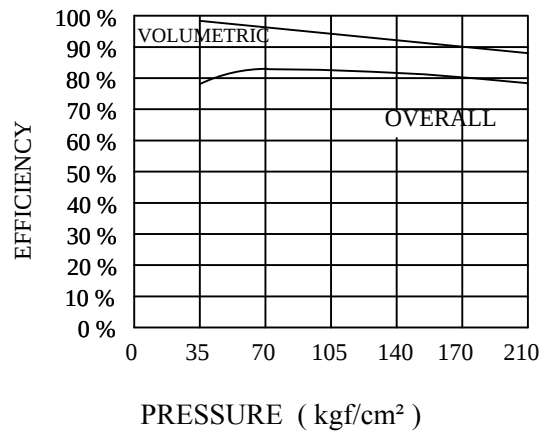
OUTPUT FLOW & POWER @ 1200rpm
32 cm³ /rev



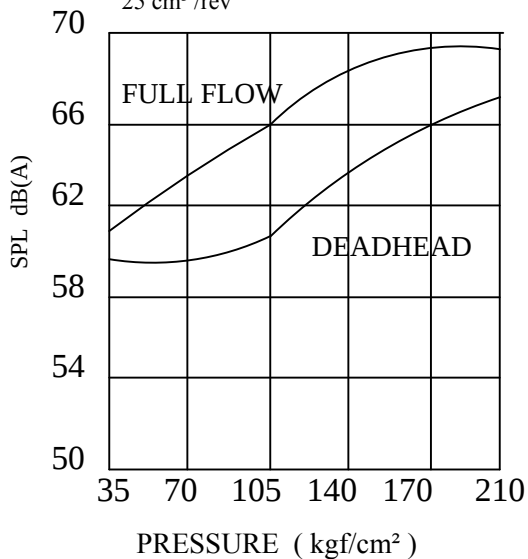
EFFICIENCY @ 1800 rpm
25 cm³ /rev



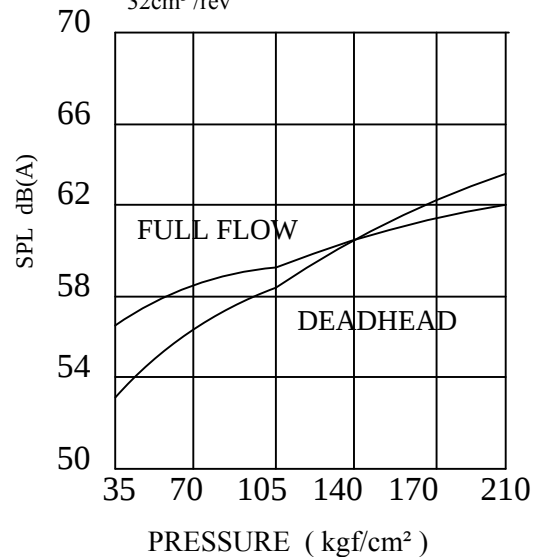
EFFICIENCY @ 1200 rpm
32 cm³ /rev



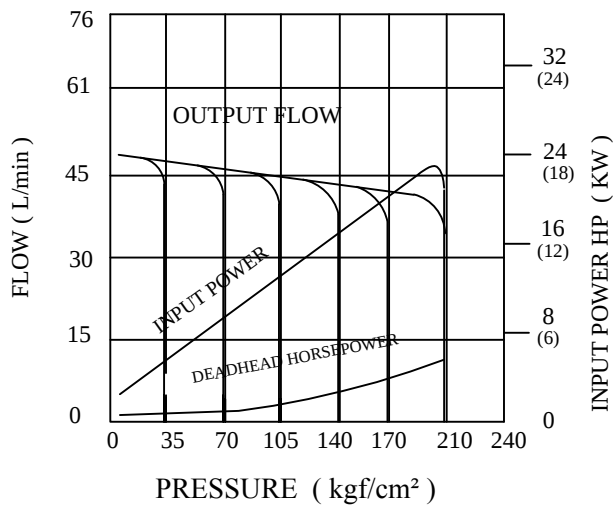
SOUND PRESSURE @ 1800rpm
25 cm³ /rev



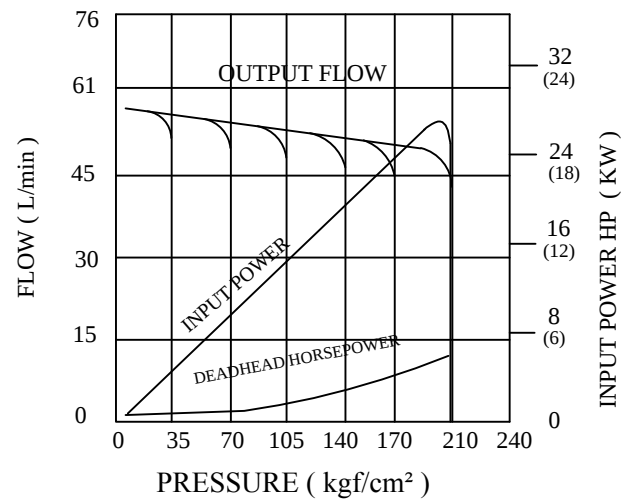
SOUND PRESSURE @ 1200rpm
32cm³ /rev



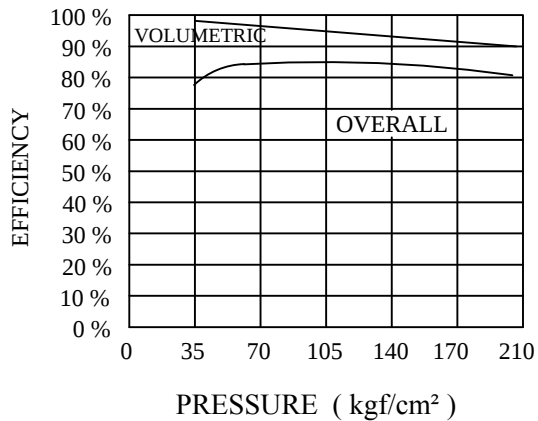
OUTPUT FLOW & POWER @ 1500rpm
32 cm³ /rev



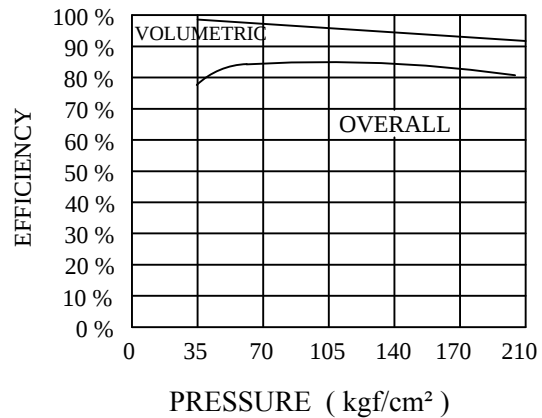
OUTPUT FLOW & POWER @ 1800rpm
32 cm³ /rev



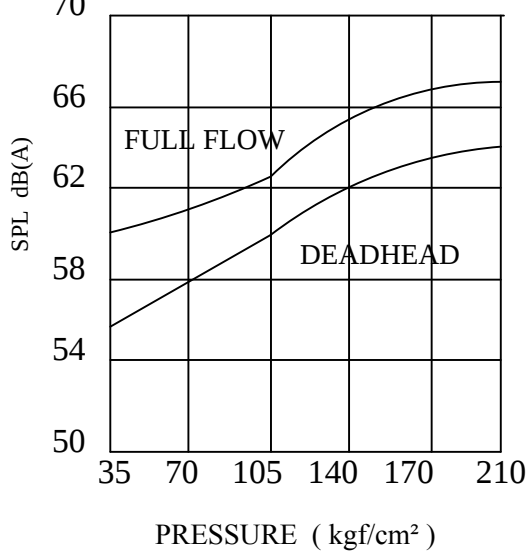
EFFICIENCY @ 1500 rpm
32 cm³ /rev



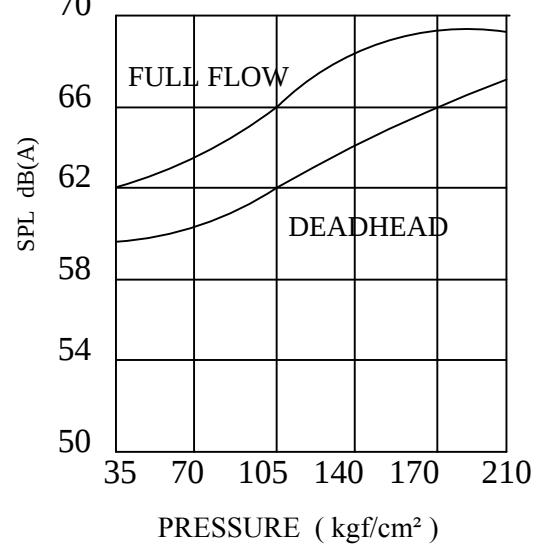
EFFICIENCY @ 1800 rpm
32 cm³ /rev

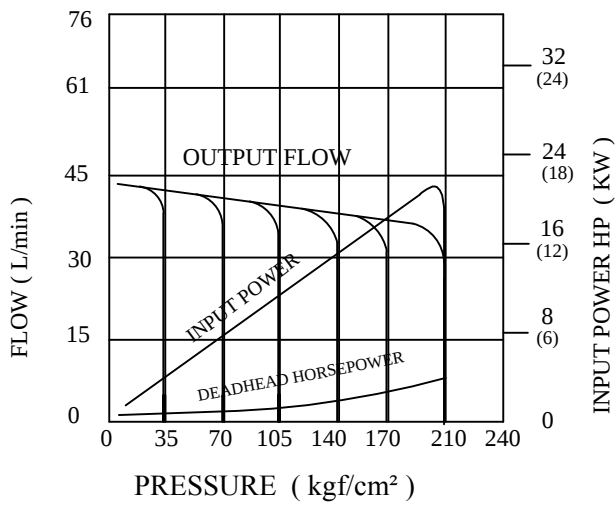
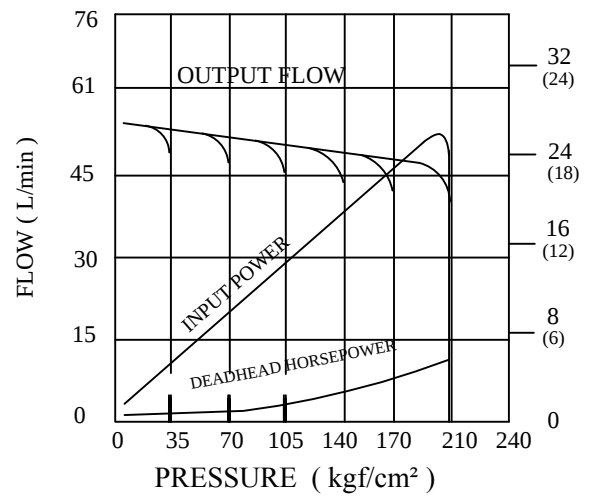
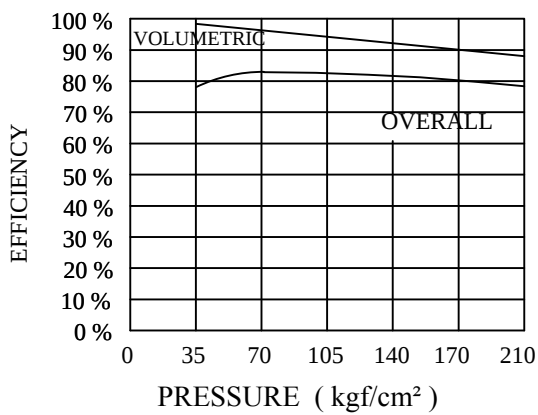
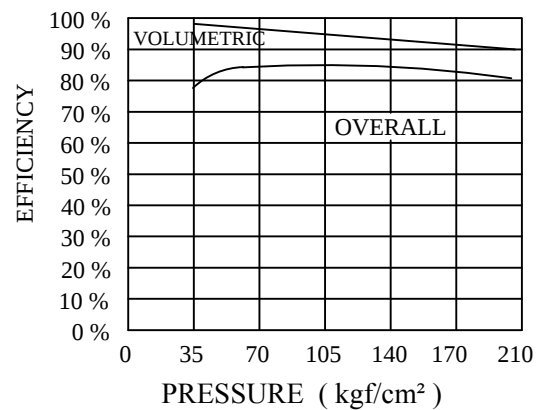
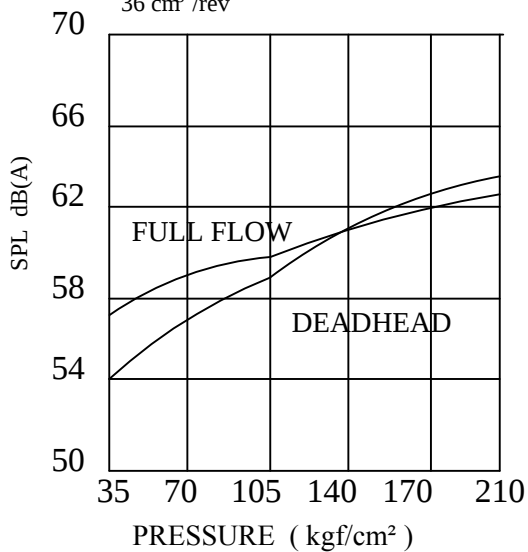
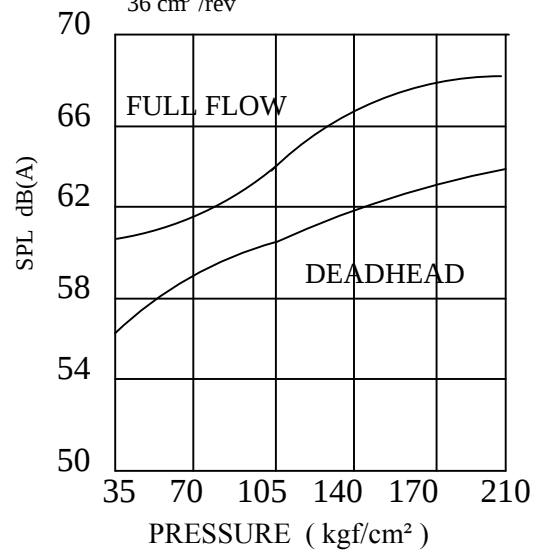


SOUND PRESSURE @ 1500rpm
32 cm³ /rev

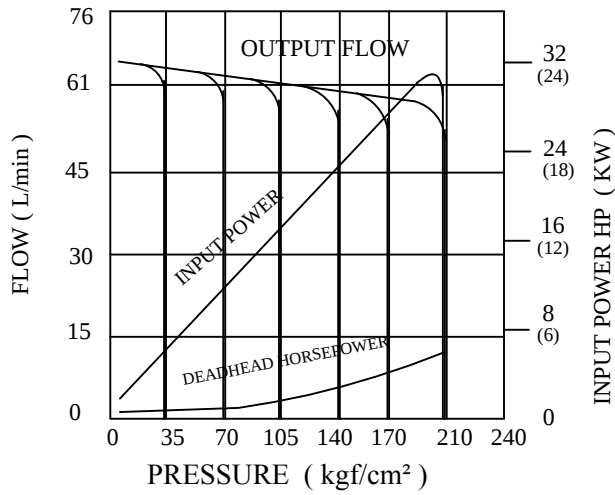


SOUND PRESSURE @ 1800rpm
32 cm³ /rev

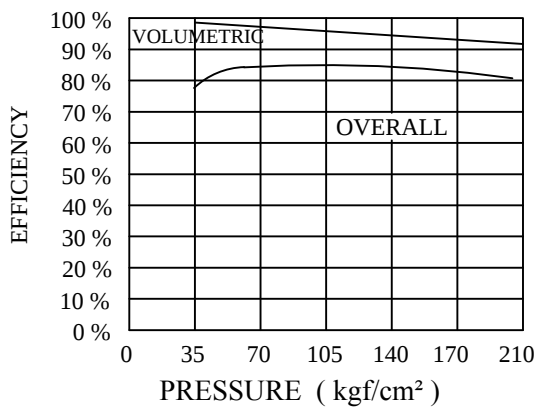


OUTPUT FLOW & POWER @ 1200rpm
36 cm³ /revOUTPUT FLOW & POWER @ 1500rpm
36 cm³ /revEFFICIENCY @ 1200 rpm
36 cm³ /revEFFICIENCY @ 1500 rpm
36 cm³ /revSOUND PRESSURE @ 1200rpm
36 cm³ /revSOUND PRESSURE @ 1500rpm
36 cm³ /rev

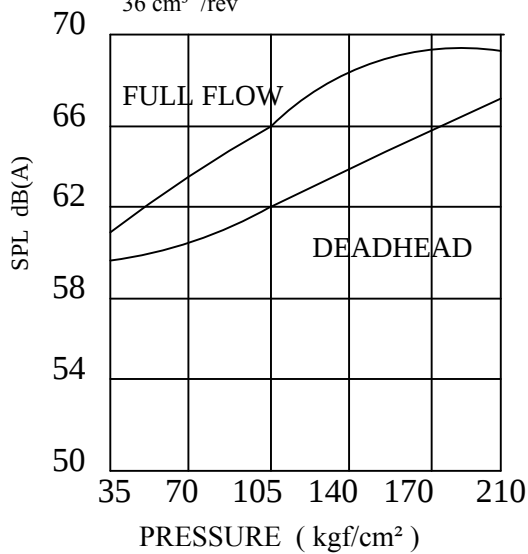
OUTPUT FLOW & POWER @ 1800rpm
36 cm³ /rev



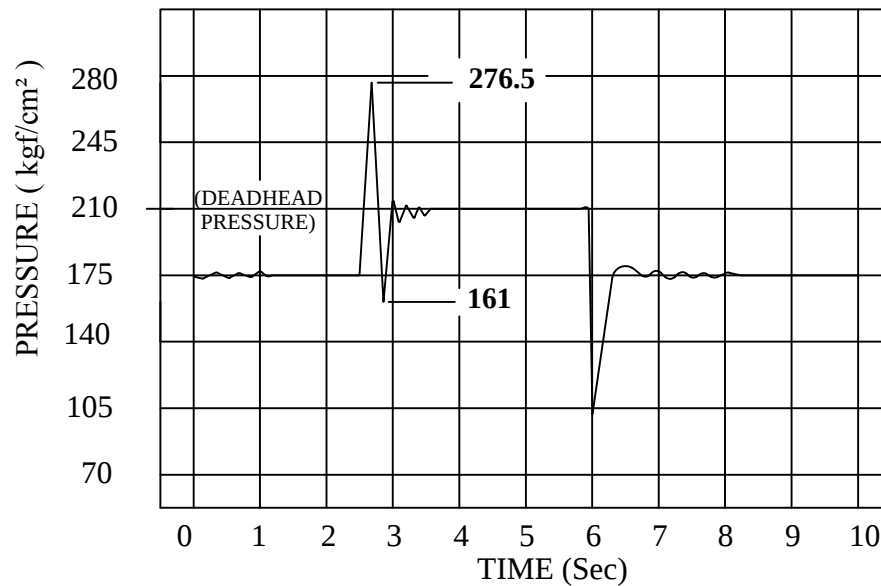
EFFICIENCY @ 1800 rpm
36 cm³ /rev



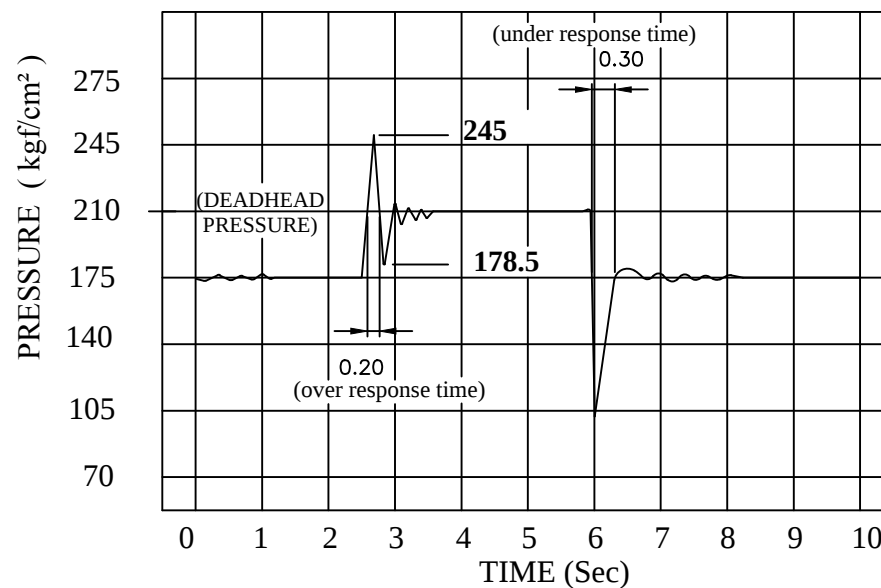
SOUND PRESSURE @ 1800rpm
36 cm³ /rev



* KPV-25 REACTION CHARACTERISTICS SHOCK CLIPPER FUNCTION



KPV-25 Single stage compensator, plot with shock clipper **inactive**.
Response overshoot: 66.5 (kgf/cm²) ; response undershoot: 49 (kgf/cm²)



KPV-25 Single stage compensator, plot with shock clipper **active**.

1. Response overshoot : 35 (kgf/cm²); response undershoot : 31.5 (kgf/cm²)
2. response time (circuit dependent) : 20 ~30 ms

* CASE DRAIN FLOW

SPEC.	Mpa (Kgf / cm ²)	KPV- 25 / 32 / 36 (l/min)
case drain flow while compensating @1800 rpm CASE DRAIN FLOW	7 (71.4)	2.0~3.5
	14 (142.8)	4.0~5.0
	21 (214.2)	5.0~6.0