



Behind every Finishing

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Reading the name of piston pump of WAGNER

The number code on piston pump has 2 position. For example, Puma 28-40; 28 is the pump ratio by compare with 1 so the ratio is 28:1 and second position is mean the flow rate per CCM by 1 double stroke. The details will be separated to present into 2 topics.

First Position (The max. pressure rate by pump ratio)

As we explained that the pump ratio is the comparative size between air motor and pump housing, bigger size of air motor will provide more pressure volume. Suppose the area of fluid housing is 1 portion, air motor is bigger than house at 28 portion so the pump ratio is 28:1.

When we have the pump ratio, we pick up the number 28 to calculate the maximum pressure. Normally, 1 portion of air motor can generate the pressure at 8 Bar approximately. **In other hand, the 1 portion of pump ratio is not the same in each other and the area of fluid housing of each pump is different.** For simply understanding, we can use approximately number by using 8 Bar to multiply with first code number by following calculation on below;

- **Find the max. pressure of Puma 28-40: 8 Bar x 28 = 224 Bar**

Therefore, 28-40 can generate the max. pressure at 224 Bar that most of WAGNER pump provide the pump ratio **with approximately 8 bar.**

But Finally, there is no WAGNER pump which provide max. pressure more than 530 bar even multiply with approximately 8 bar. The final result must not more than 530 bar by following example on below;

- **Find the max. pressure of Protec 95-150: 8 Bar x 95 = 760 Bar But the actual specification provide only 530 Bar (Please see more details in technical data of piston pump)**

Because the length size of fluid section shorter than other WAGNER Protec Series so the pressure per 1 portion of pump ratio is not equal to 8 Bar. In addition, the piston pump which has the same pump ratio at 35:1 such as leopard 35-70 and 35-150 have the different max. pressure which are 250 Bar (1:7.14 Bar) and 270 Bar (1:7.71 Bar) respectively because the size of air motor and fluid housing is not the same size.

Therefore the max pressure must be referred to actual specification because the 8 bar is approximately number only in order to estimate the max. pressure. **It can not be used to identify the max. pressure for each pump. Please use the max. pressure which is identified in each pump specification as the main resource.**

Second position (Max. Flow Rate)

The second position present the max. flow rate by CCM per 1 double stroke. Normally, WAGNER piston pump generate double stroke (up and down movement will be count as 1 stroke) for 60 strokes per 1 minutes so this pump can generate max. flow rate following as below;

- **Find the max. pressure of 28-40: 40 CCM. x 60 DH (Double Strokes) = 2,400 CCM or ML**

However, it is required to check the pump specification to check that how many maximum double strokes per 1 minutes. It does not provide the actual max. flow rate in technical data but they give only max. double stroke and flow rate per double strokes.