

PULSATION DAMPER

PRC NOISEKILLER

Pulsation dampers reduce the pump pulsations in the system, causing substantial reduction of noise levels, especially on all kinds of vessels (ships and rigs). In addition, they work well when installed in central hydraulic systems in factories.

Servi offers three models with different operating parameters, the most common is the Noisekiller, which is a standardized, maintenance-free solution suitable for pumps with frequencies > 100Hz. Must be installed very close to the pump.



TABLE OF CONTENTS

1. Function	2
2. Typical areas of use	2
3. Installation	2
4. Models	3
5. Codes	4



1. FUNCTION

Servi PRC NOISEKILLER reactive pulsation dampener eliminates the effects from damaging pulsations and vibrations in hydraulic systems. Pump pulsations cause noise, which is a serious environment problem in most vessels and many facilities.

In addition, pump pulsations cause damage in the form of wear on the hydraulic system components and sealing systems. Servi PRC pulsation damper greatly reduces noise and prolongs the service life of the components in the hydraulic system.

The Servi PRC is suitable for pump frequencies of 100Hz and above, and since it has no pre-charge or cushioning element, it does not require any maintenance.

2. TYPICAL AREAS OF USE

The Servi PRC has shown to have the best sound reduction effect on vessels (ships and rigs) with hydraulics working continuously or at least most of the time. The typical hydraulic whine spread through the metal construction in decks and bulkheads will be greatly reduced.

The Servi PRC range of Noisekillers have been developed to fit most hydraulic systems, old or new and can be installed in any orientation.

3. INSTALLATION

The Noisekiller must be installed on the pressure side of the pump. A hose is recommended between the pump and the Noisekiller. If this is impossible, due to the size of the hose, the Noisekiller can be connected directly to the pump. If this is the case, it is very important that the Servi PRC is installed on the same flexible mounting as the pump. The full flow of the pump must go through the Noisekiller in the flow direction of the arrow on the unit. The fluid can flow both ways, but the damping effect is best in the main direction.

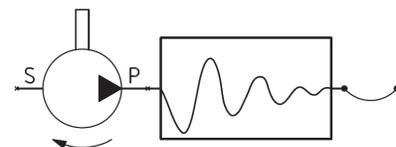
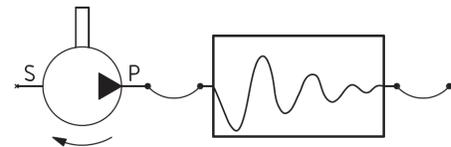
To calculate the correct, maximum distance from pump to PRC, use the following formula:

$160/\text{pump frequency} = \text{distance in meters}$

Example: 7 piston pumps, 1450 RPM, = $7 \cdot 1450/60 = 169 \text{ Hz}$

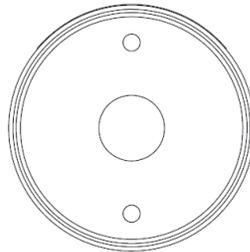
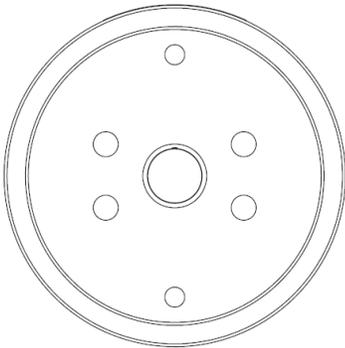
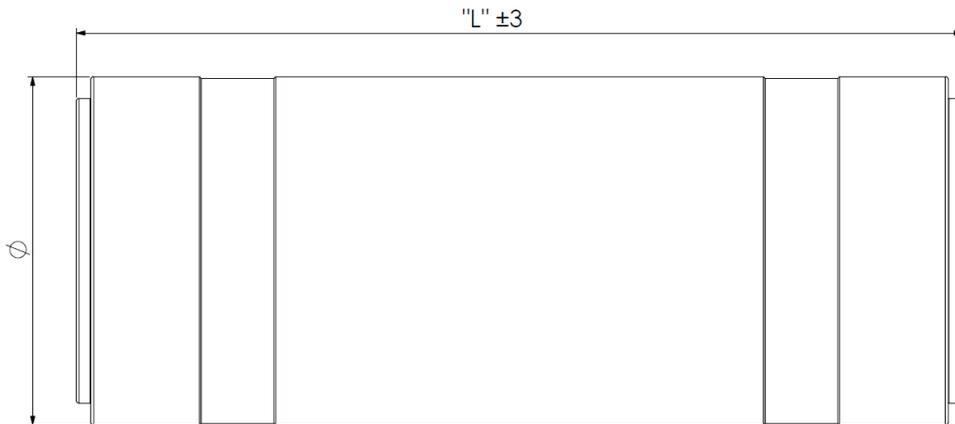
$160/169 = 0,94 \text{ meter}$

If the Noisekiller is further away, the result may be reduced or no damping, due to parallel oscillation.



4. MODELS

Part no.	Designation	Max pressure (bar)	Max flow (l/min)	Diameter Ø (mm)	Length L (mm)	Weight	Connections	Clamp AISI316	Clamp carbon steel
757869	PRC-250-100-002-AR-60	250	60	100/115	350	13	G 1"	741529	741521
757870	PRC-250-100-004-AR-150	250	150	100/115	598	18	G 1"	741529	741521
757871	PRC-350-100-002-AR-60	350	60	100/120	325	15	G 1"	741529	741521
757872	PRC-350-100-004-AR-150	350	150	100/120	580	22	G 1"	741529	741521
757873	PRC-300-140-004-AT-240	300	240	140/165	365	35	G 1 1/2"	741530	741522
757874	PRC-350-180-009-AU-350	350	350	180/220	526	78	G 2"	741180	10410
757875	PRC-350-180-009-DN-360	350	360	180/220	526	78	SAE 1 1/4" 6000	741180	10410
757876	PRC-350-200-010-DR/AT-600	350	600	200/239,5	610	100	G 1 1/2" SAE 2" 6000	741532	741524



2. CODES

Ordering Code **PRC - 300 - 140 - 004 - AR - 240**

Pulsation Reduction Carbon steel

Working pressure (bar)

Internal diameter (mm)

Approx. internal volume (L)

Connection

AR = G1"

AT = G 1 1/2"

AU = G 2"

DN = 1 1/4"

DR = 2" SAE 6000 psi flange

Connections are identical at both ends.

Flange combined with thread is possible. Example DR+AT

Maximum Flow (L/min)