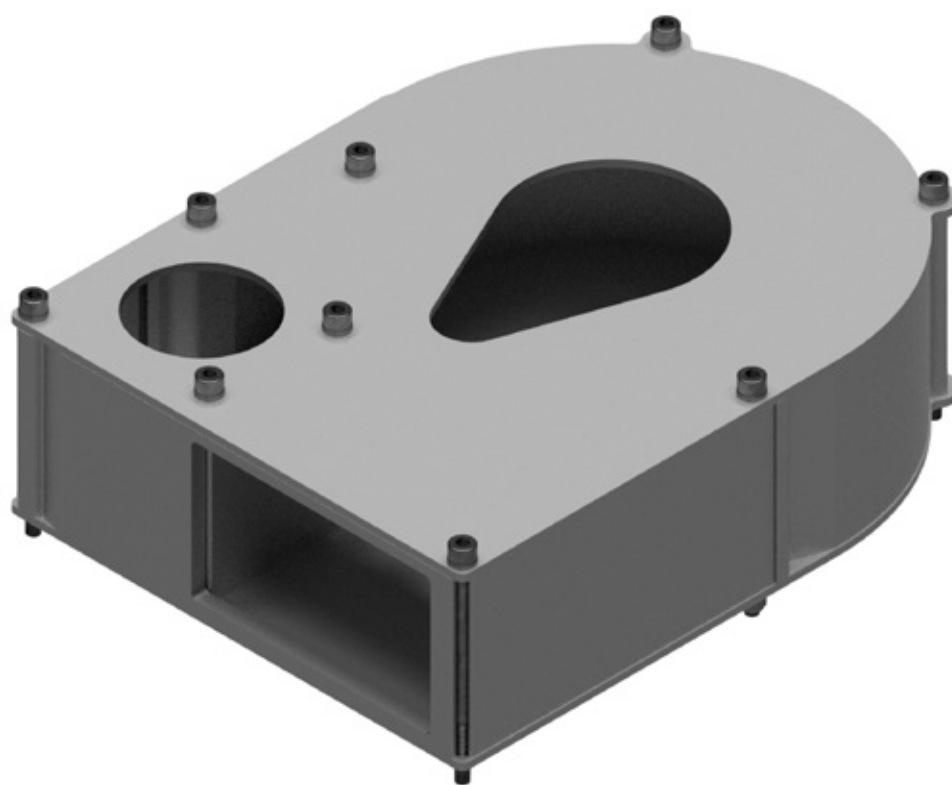


CycloneConcept

pmchydraulics



The C350 and C650 Cyclone meet your need
for compact hydraulic tanks.

The PMC Hydraulics C350 and C650 Cyclone meet your need for compact hydraulic tanks

A traditional hydraulic system has a large tank volume, allowing oil to pass through at a low speed and air to be vented. The PMC cyclone is based on a new technology which forces oil venting, making it possible to use a smaller tank.

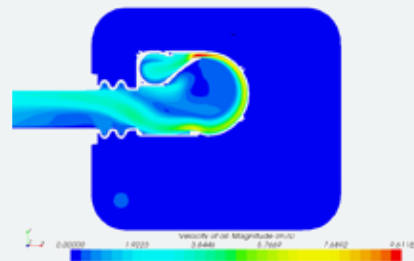
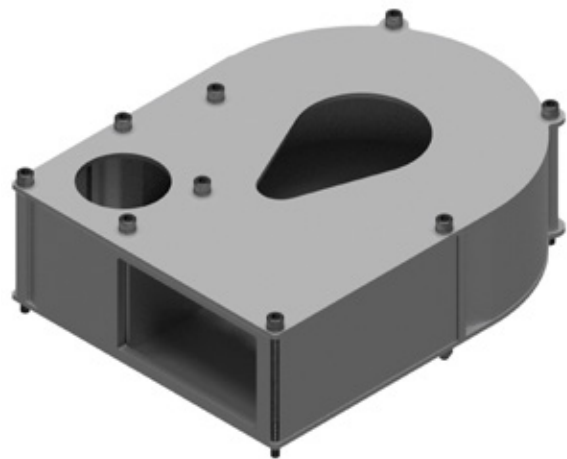
Usually **the tank volume and weight reduction lies between 67 % and 90 %**, depending on cylinder features and differential volumes. The top of the PMC cyclone only needs to be covered with oil at low oil level operations. The C350 and C650 Cyclones are patented products which can be configured with different inlet and outlet adapters. In most cases a return line filter is mounted on top of the inlet inside the tank.

Active air separation

The **active air separation** works regardless of the return flow. This is made possible by the 0,5 bar cyclone spring that opens due to pressure created by the return flow. This in turn leads to a high velocity inside the cyclone, creating strong internal radial forces which separate air from oil, moving air to the center of the cyclone.

The cyclones are able to create a positive overpressure in suction ports up to 0,15 bar. They can also accelerate oil from the tank if the return flow is smaller than the pump flow.

The C350 Cyclone is designed for a flow up to 350 liters per minute and the C650 Cyclone is designed for a flow up to 650 liters per minute.



This image shows a cyclone in the middle of a hydraulic tank, seen from above. The flow enters through the cyclone inlet in the upper left corner. The oil flows at a speed of >10 m/s as the return pressure forces the 0,5 bar cyclone spring to open. The flow then enters the cyclone (here colored red) with a high speed. In the tank outlet (pictured left) the speed is still high.

A fluid simulation analysis shows that after only one passage, 9 % free air is reduced to less than 1,5 %.

UP TO

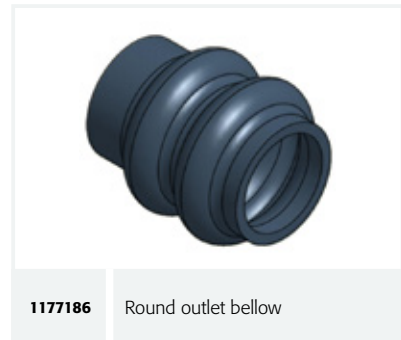
90%

WEIGHT REDUCTION

The patented CycloneConcept for hydraulic units saves space, energy and the environment.

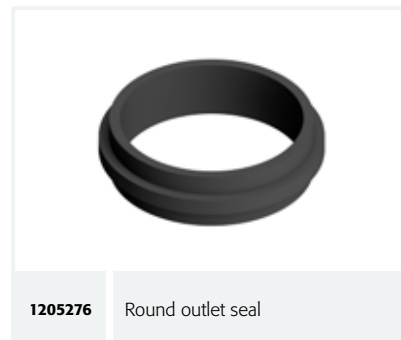
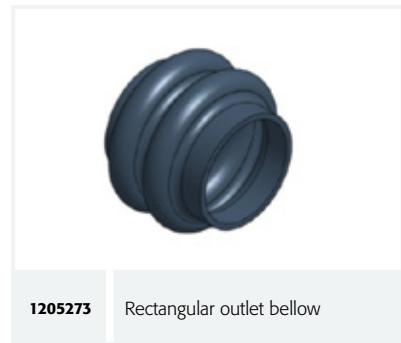
C350

MAX. FLOW	350 l/min open spring	SPRING PRESSURE	0,5 bar
MAX. DIFF FLOW	100 l/min with tear drop air hole	PRESSURE DROP	0,5 bar up to 350 l/min
MAX. DIFF FLOW	60 l/min with 50mm air hole	LENGTH	247 mm
OUTLET	Rectangular or circular	WIDTH	187 mm
INLET	48 mm port	HEIGHT	77 mm
MAX. PRESSURE	2 bar	MATERIAL	Aluminum



C650

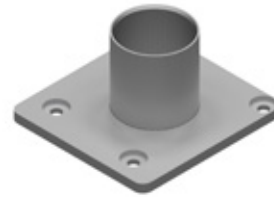
MAX. FLOW	650 l/min open spring	SPRING PRESSURE	0,5 bar
MAX. DIFF FLOW	100 l/min with tear drop air hole	PRESSURE DROP	0,5 bar up to 650 l/min
MAX. DIFF FLOW	60 l/min with 50mm air hole	LENGTH	247 mm
OUTLET	Rectangular or circular	WIDTH	187 mm
INLET	48 mm port	HEIGHT	127 mm
MAX. PRESSURE	2 bar	MATERIAL	Aluminum



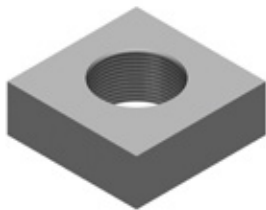
Accessories for C350 and C650



1205277 Round inlet bellow



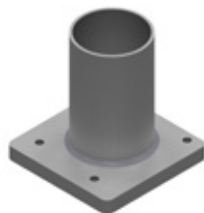
PMCH-1697 Inlet hose adapter 1 1/2"



1201853 Inlet manifold BSPP G1 1/2"



Inlet manifold for filter with extension pipe



1201852 Inlet hose adapter 2"

1205278 MP Filtri MPFX 182

1205279 MP Filtri MPFX 450

1205280 MP Filtri MPT

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