

AZH Series Vane Compressor



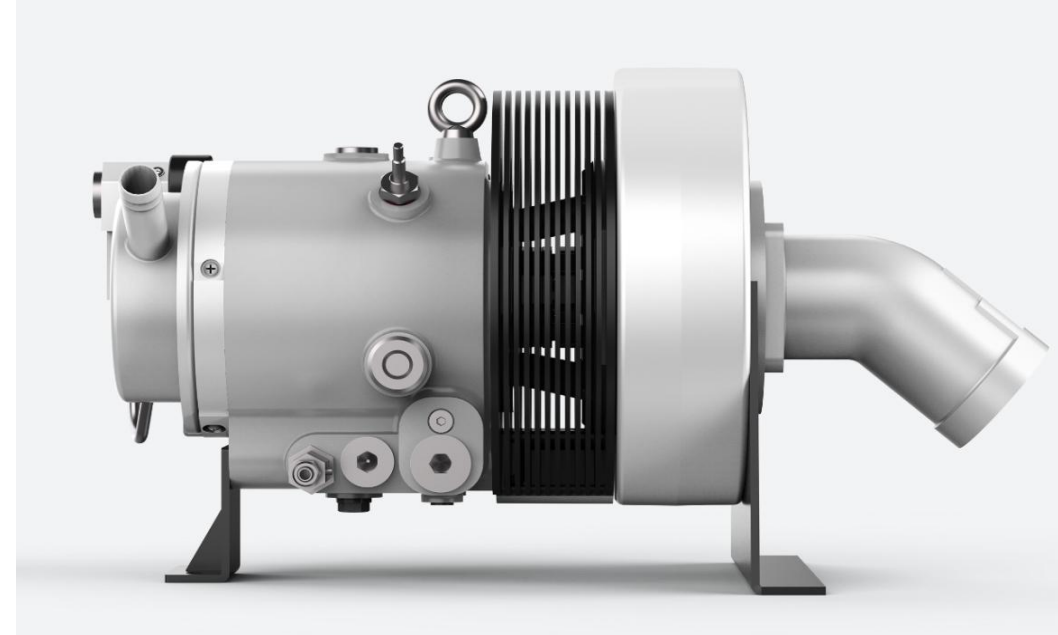
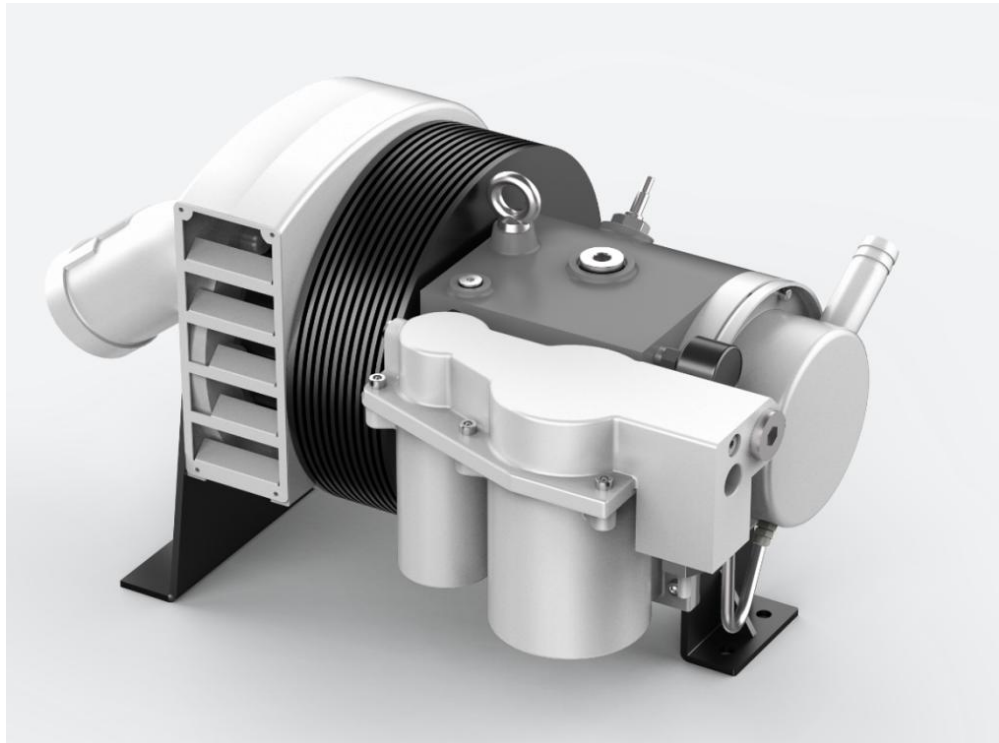
AZH

耐力股份有限公司
Naili Co.,Ltd



AZH

1. Product introduction
2. Product features



1. Product introduction



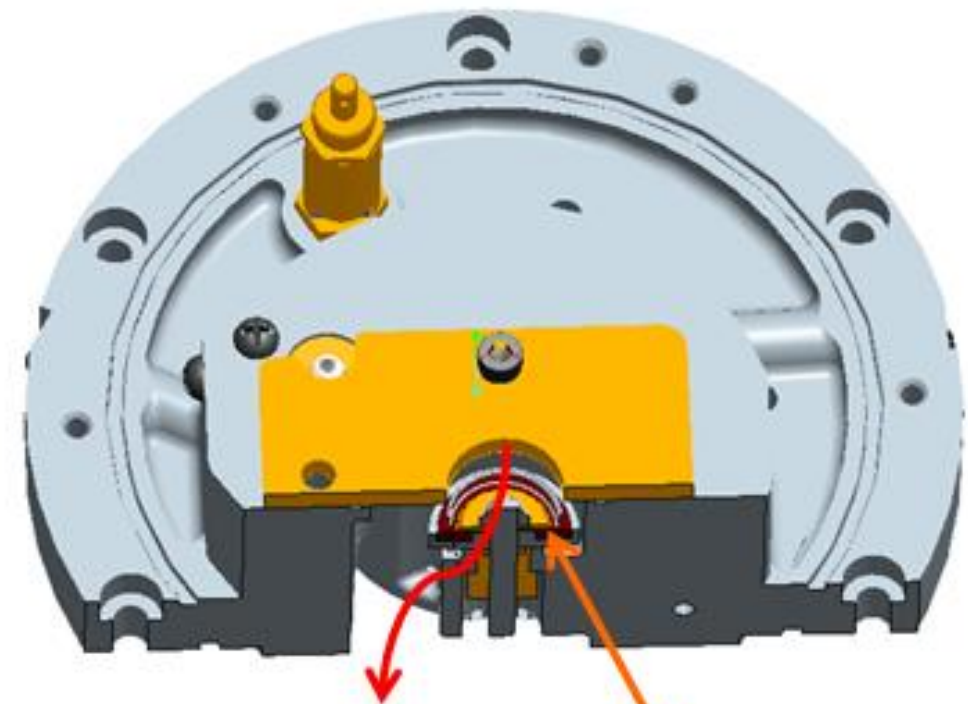
1.1 Product introduction

Subject	AZH SERIES		
	2.2kw	3kw	4kw
Working pressure(bar) and Air flow(L/min) @1500rpm	8		
	210	270	370
	10		
Working pressure(bar) and Air flow(L/min) @2000rpm	200	265	350
	8		
	270	350	470
Working pressure(bar) and Air flow(L/min) @2500rpm	10		
	255	335	455
	8		
Working pressure(bar) and Air flow(L/min) @2500rpm	330	420	580
	10		
	315	410	550
Max pressure(bar)	1.2		
Vibration(mm/s)	7.1(Under Rated RPM)		
Noise level(dbA)	72(Under Rated RPM)		
Ambient Temp(°C)	65		
Air inlet	φ25		
Air outlet	M22*1.5		
Max temperature(°C)	110		
Rated speed(rpm)	1500	1500	1500
Rated torque(N.m)	14.1	19.1	25.5
Peak torque(N.m)	28.2	38.2	50.9
Poles	6	6	6
Cooling type	Air cooled	Air cooled	Air cooled
Protection level	IP67	IP67	IP67

1.2 Explosion layout

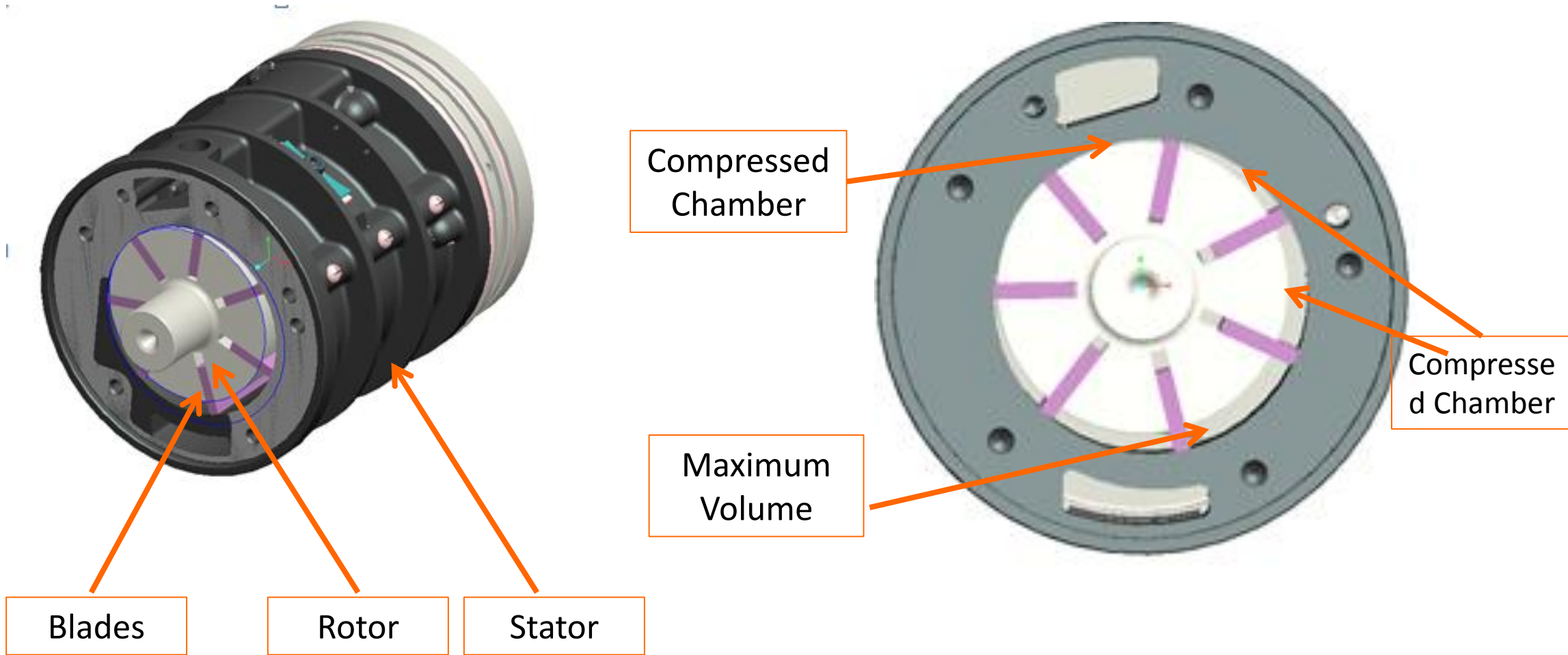


1.3 Air intake system

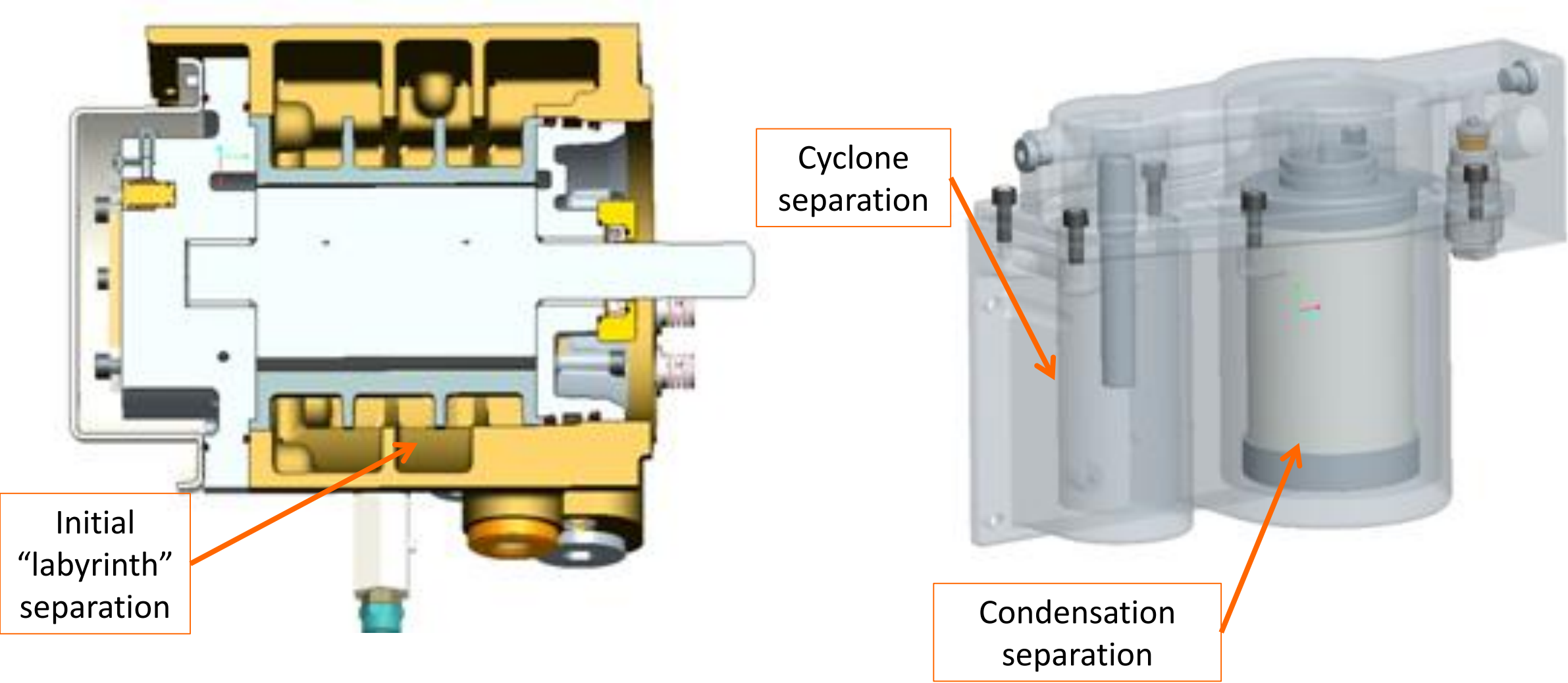


Intake
Valve

1.4 Compressed Air System



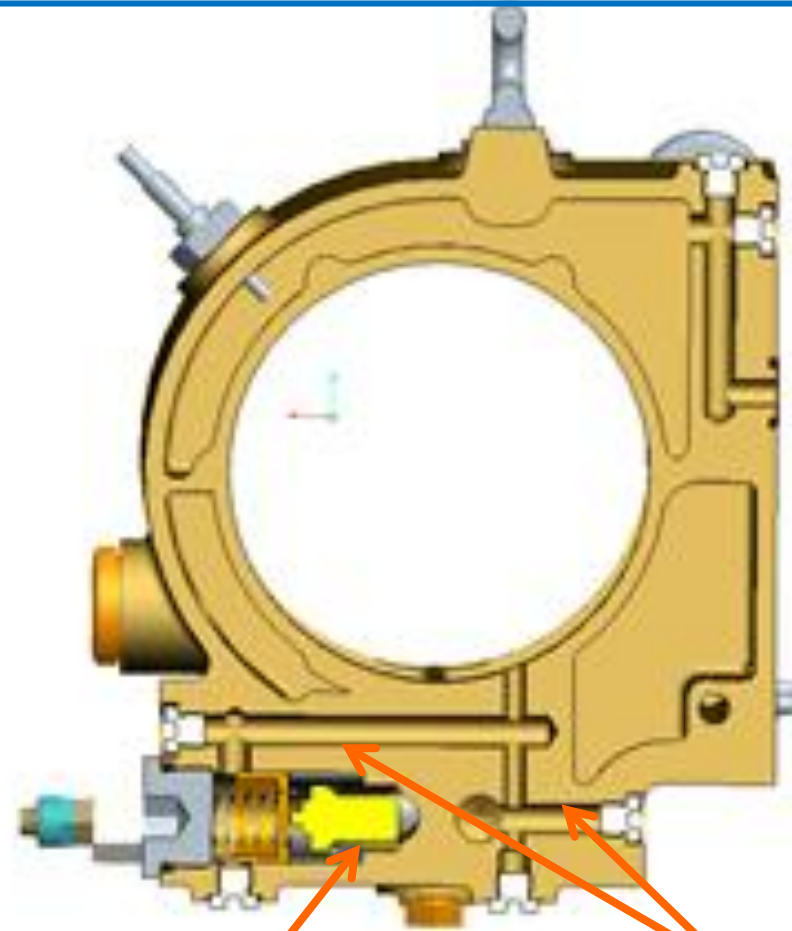
Combined by three stages: Initial “labyrinth” separation, cyclone separation, oil separation



1.6 Cooling system



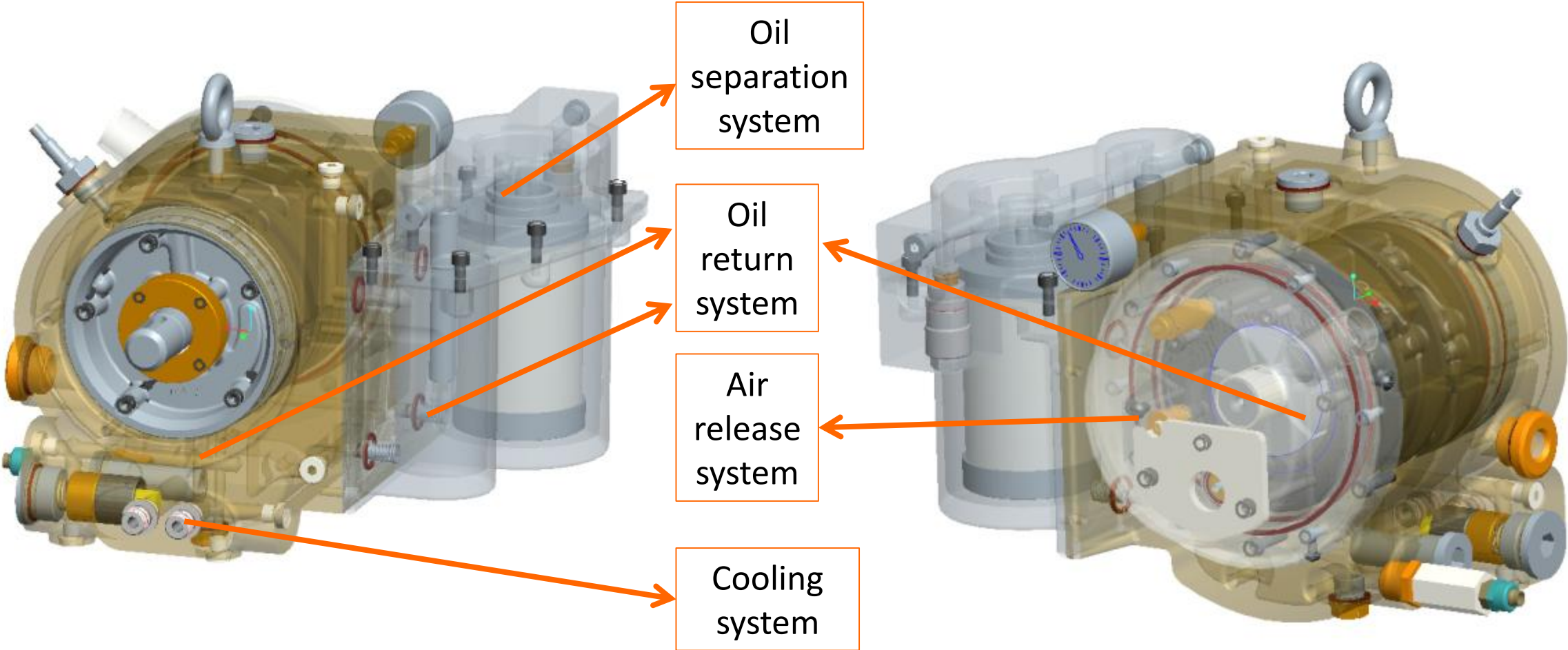
Oil into the cooler port



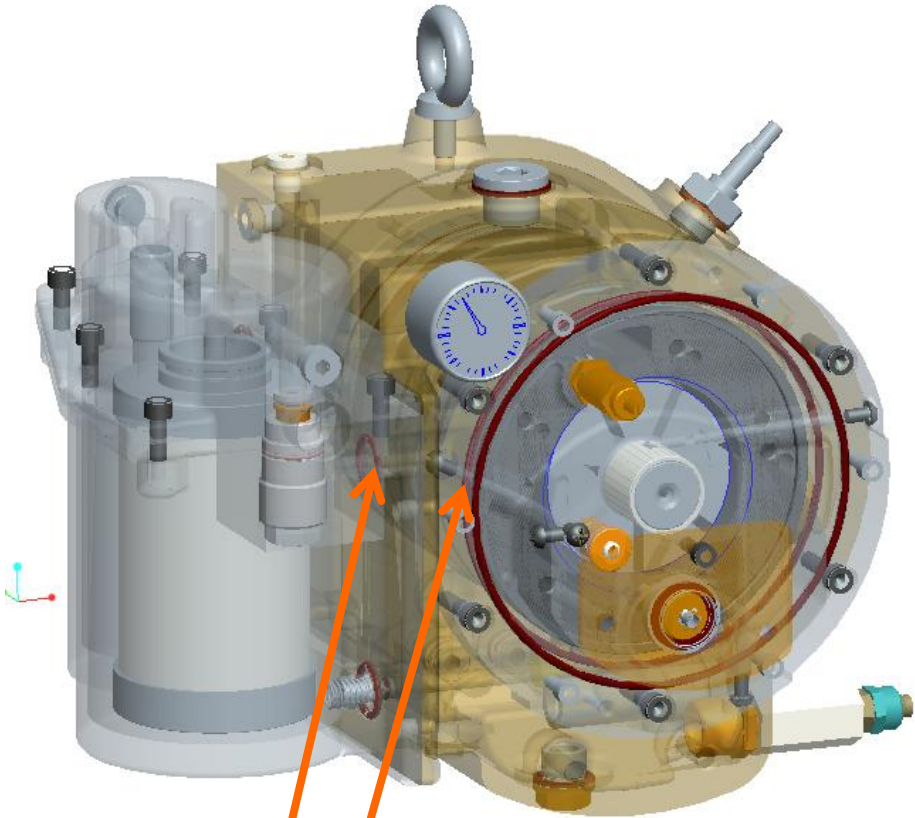
Thermostatic bulb

Oil return tunnel

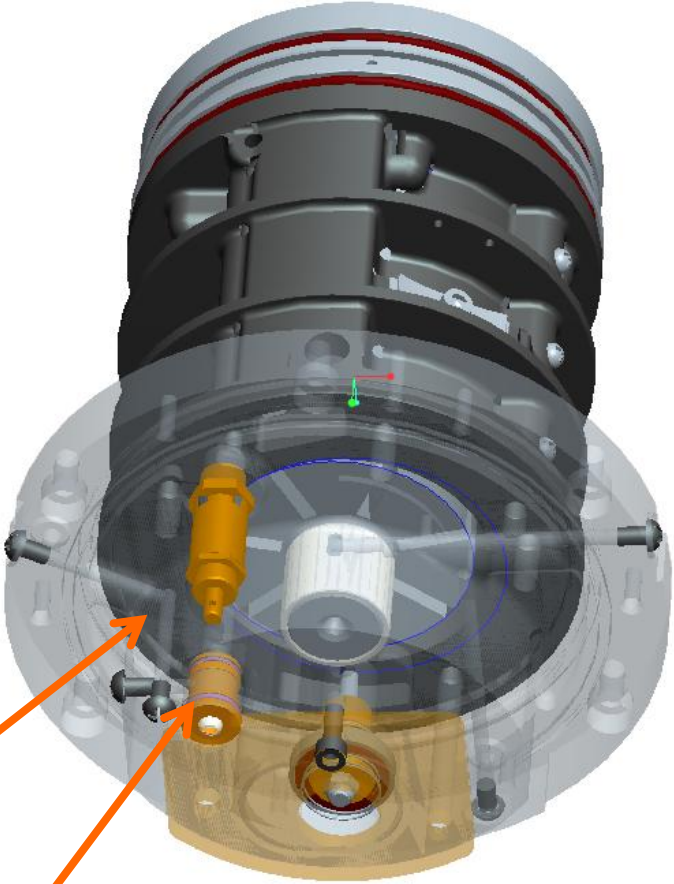
1.7 Oil return system



1.8 Exhausted system



Exhausted tubes



Exhausted tubes

Exhausted valve

2. Product features



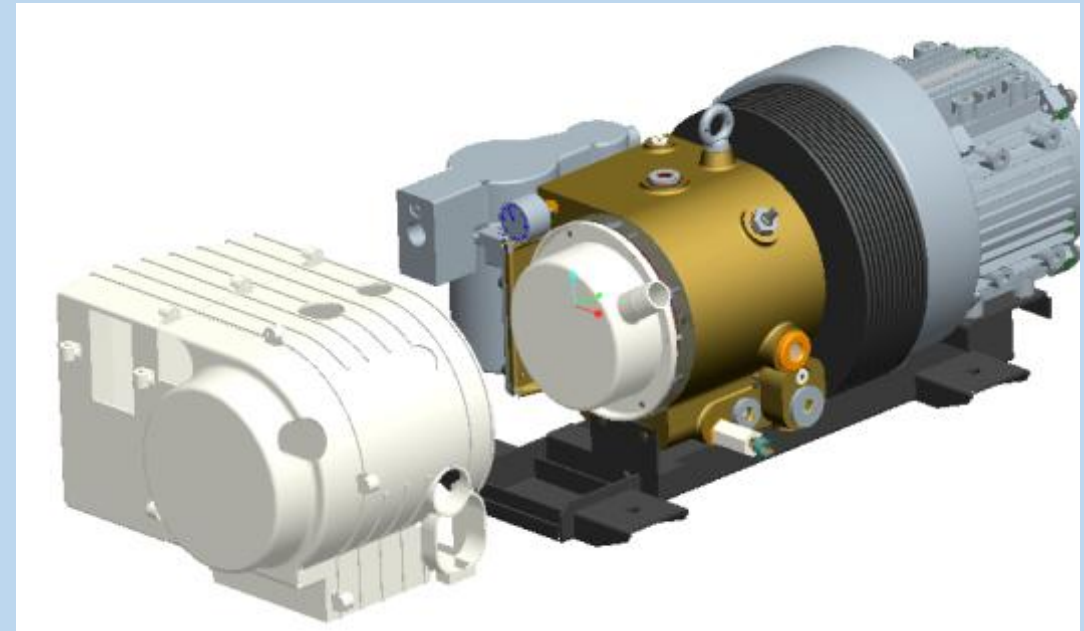
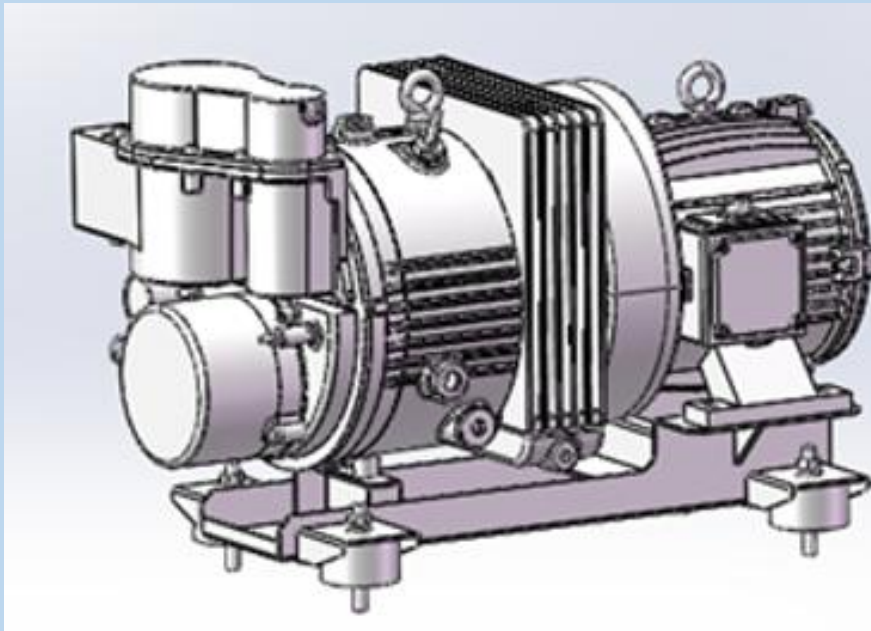
2.1 Anti-emulsified design and Optimized structure

Thermal insulation design

Product :

Former product

Optimized design

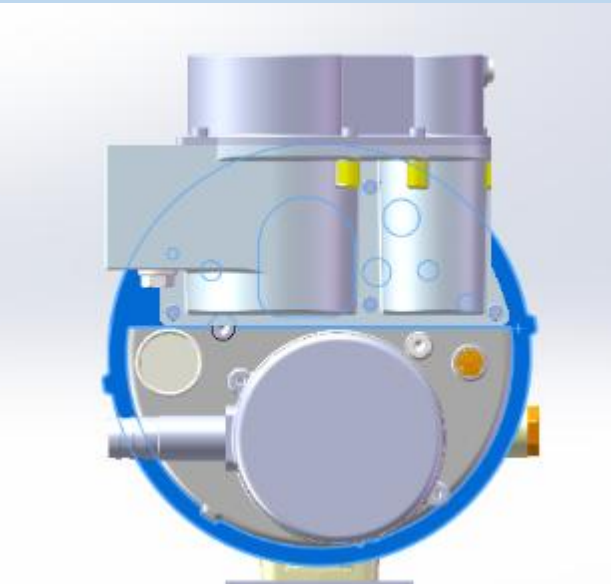
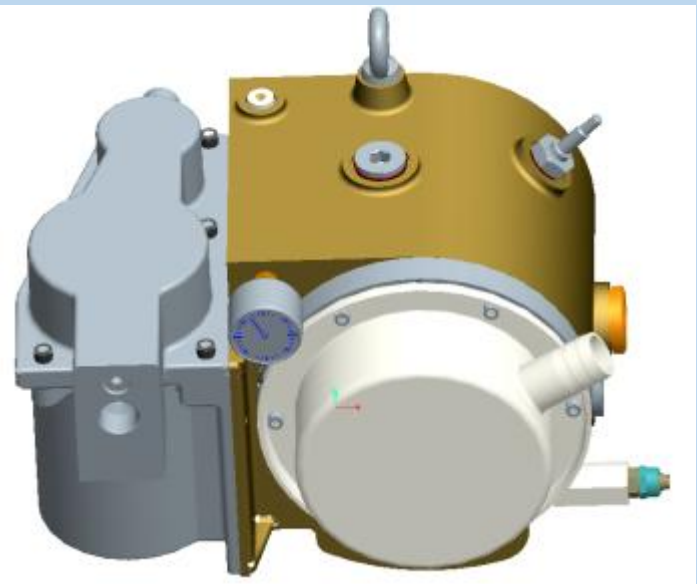


Optimized points:

Additional the Thermal insulation shell that purpose to reduce heat loss and noise, and balancing the temperature of oil separation with airtend shell.

The integrated design of the whole COMPRESSOR makes the appearance in clean and tidy. The idea of the modular and simple design to make it easier for requests of pre-installation, maintenance and repair!

Integrated Oil separation design

Product :	Former product	Optimized design
		
<p>Optimized points:</p>	<p>A. The lubrication system, oil return system, vent system and oil distribution system of the whole machine have been improved to make the whole machine more compact, reduce the risk of leakage and increase the use of built-in pipelines. Minimize the risk of pipeline leakage.</p> <p>B. Fluorine rubber O-ring seals are adopted for sealing between of the built-in lubricating oil and compressed air, which enhances the high temperature resistance of the seals.</p> <p>C. It changes the external oil return pipe into the built-in oil return pipe in Oil return system, which reduces the cost of the spare parts and maintenance.</p>	

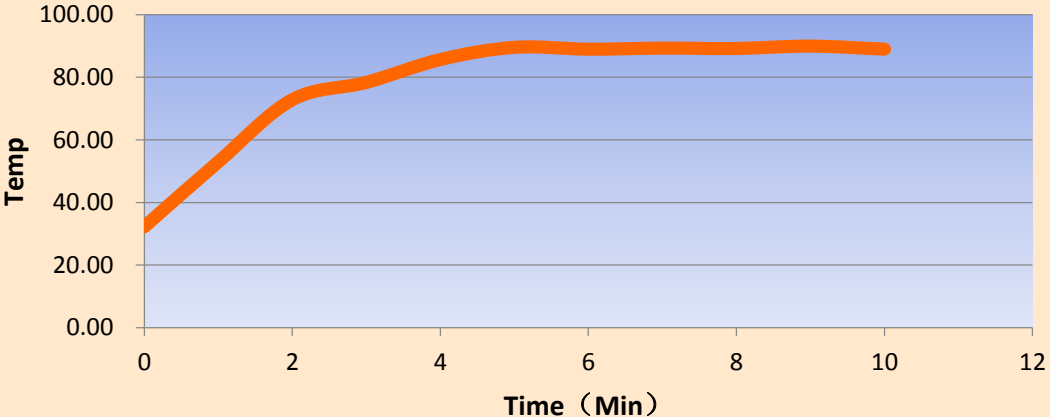
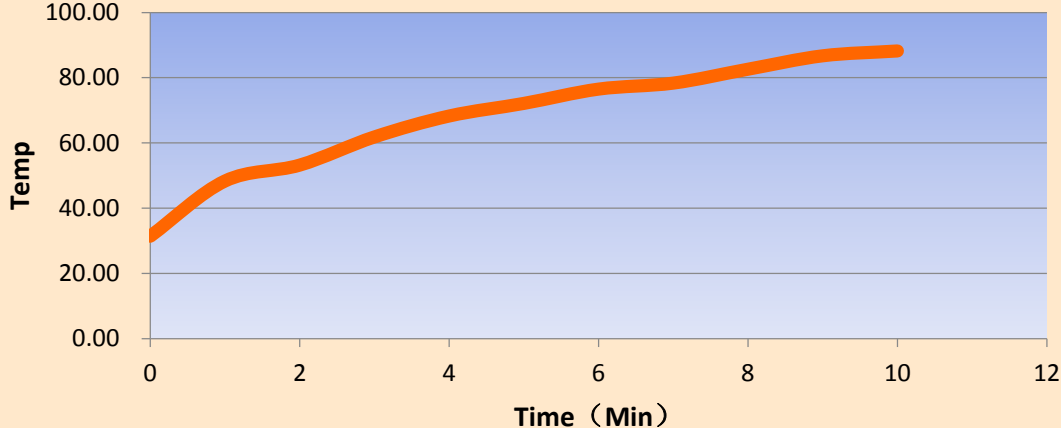
2.1.3 Anti-emulsified design and Optimized structure

Former

Now

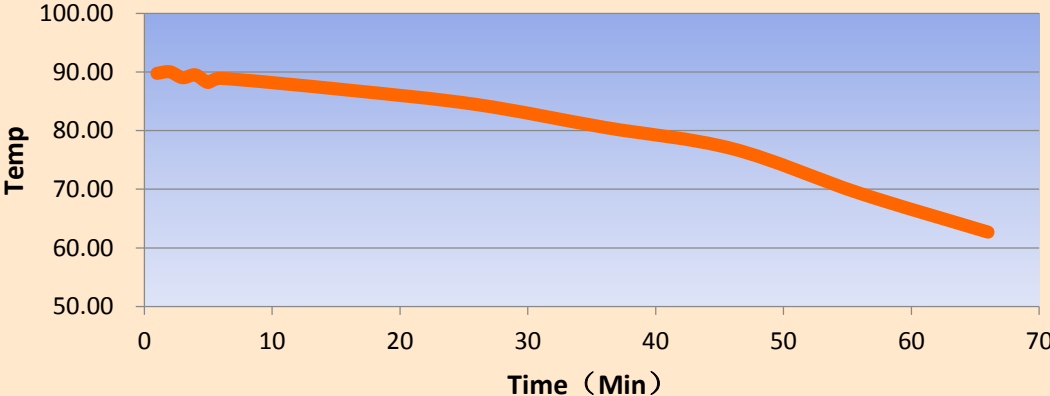
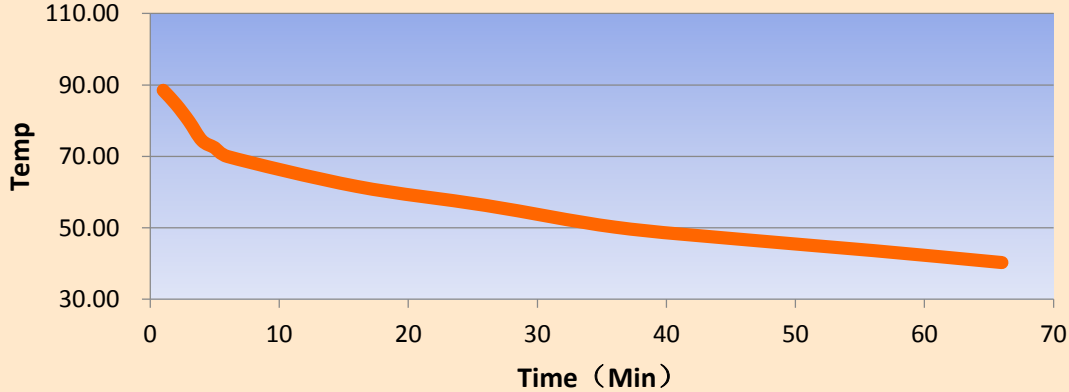
The temp rises of the boot

The temp rises of the boot



Temp drops of Shutdown

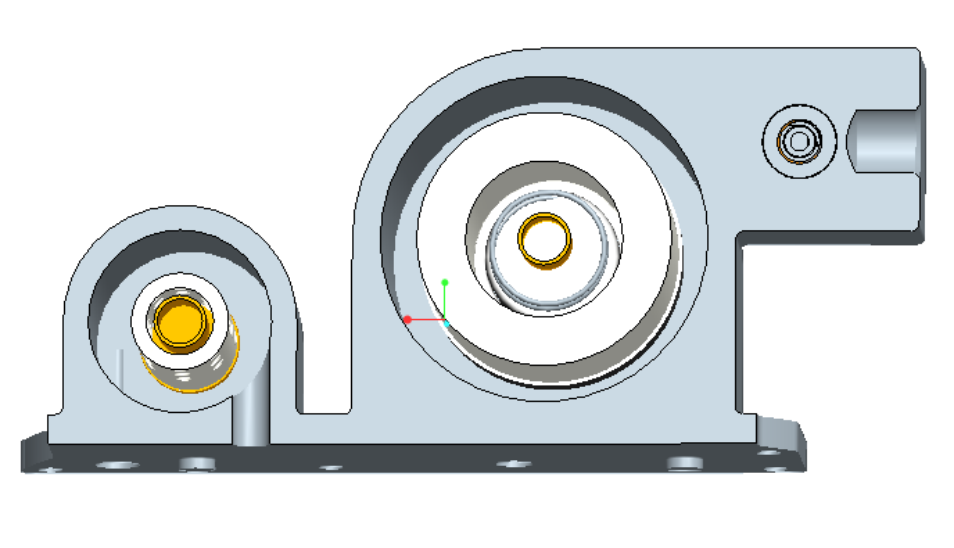
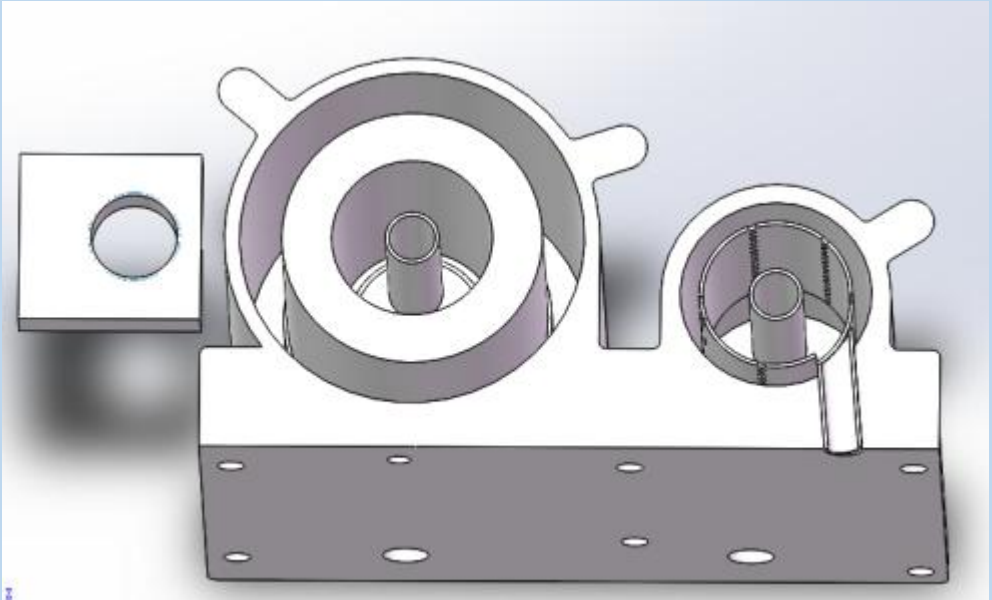
Temp drops of Shutdown



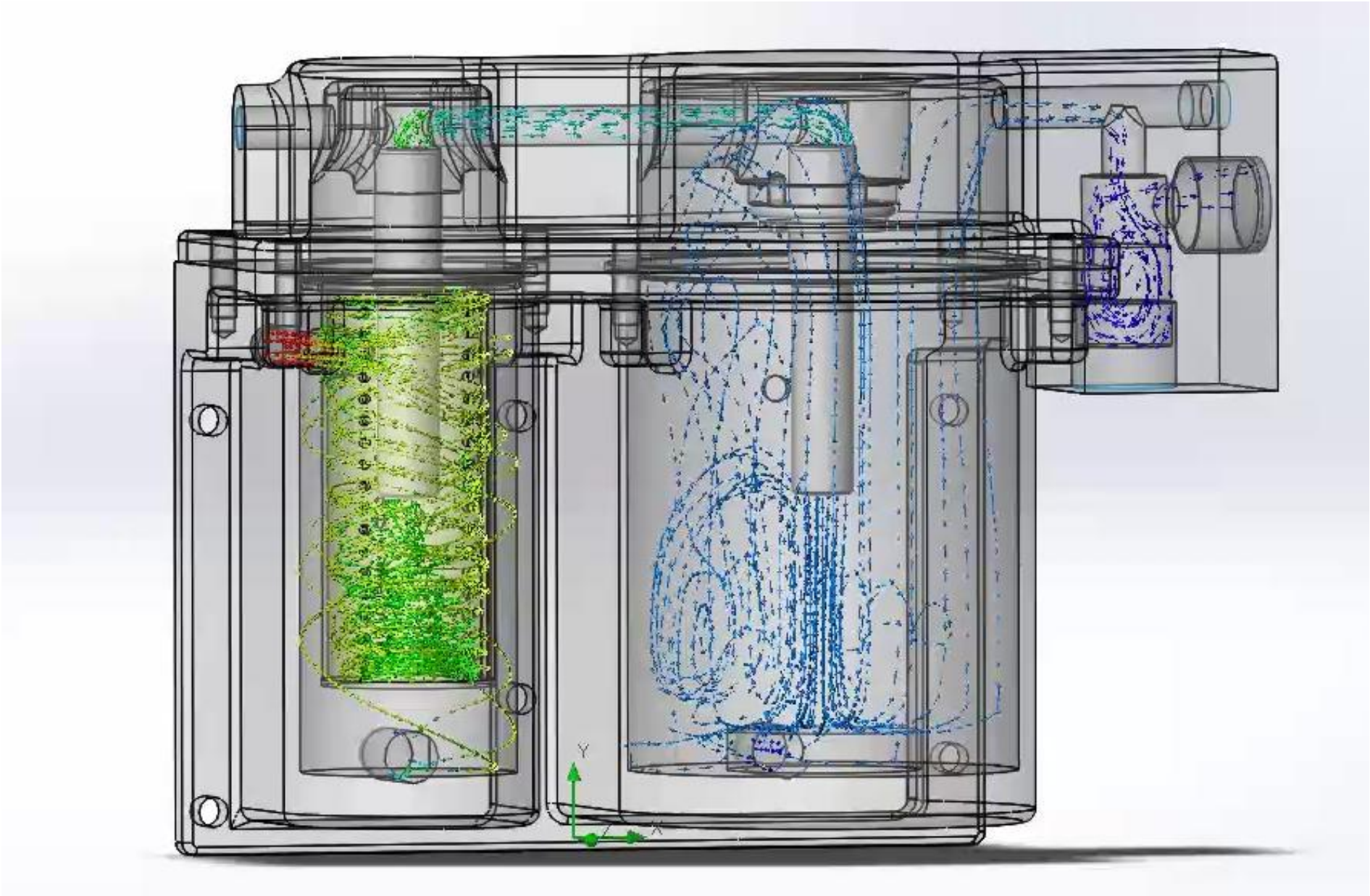
2.2 Optimized structure of Oil separation

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Optimized cyclone oil separation system

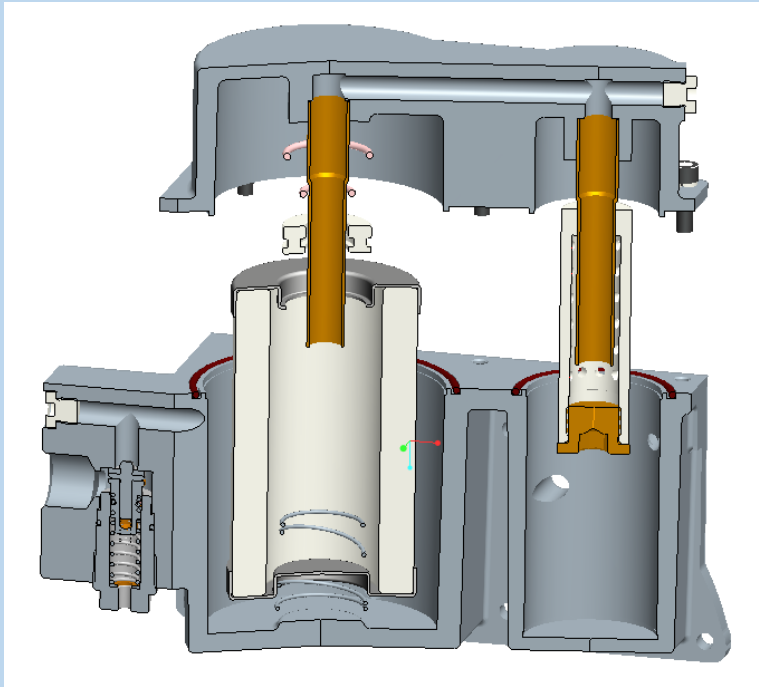
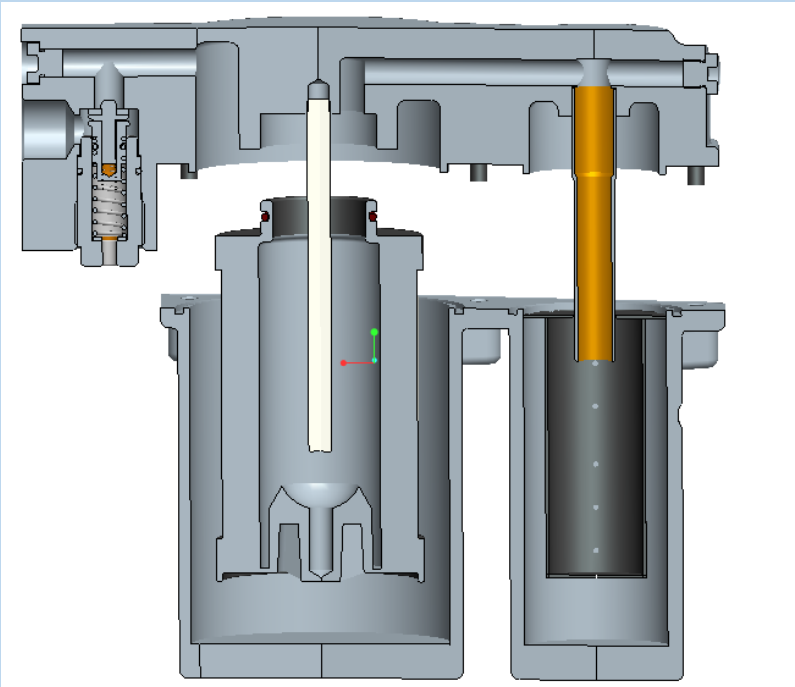
Product :	Former product	Optimized design
		
Optimized points:	New design inside of structure of cyclone oil separation	

2.2 Optimized structure of Oil separation



2.2 Optimized structure of Oil separation

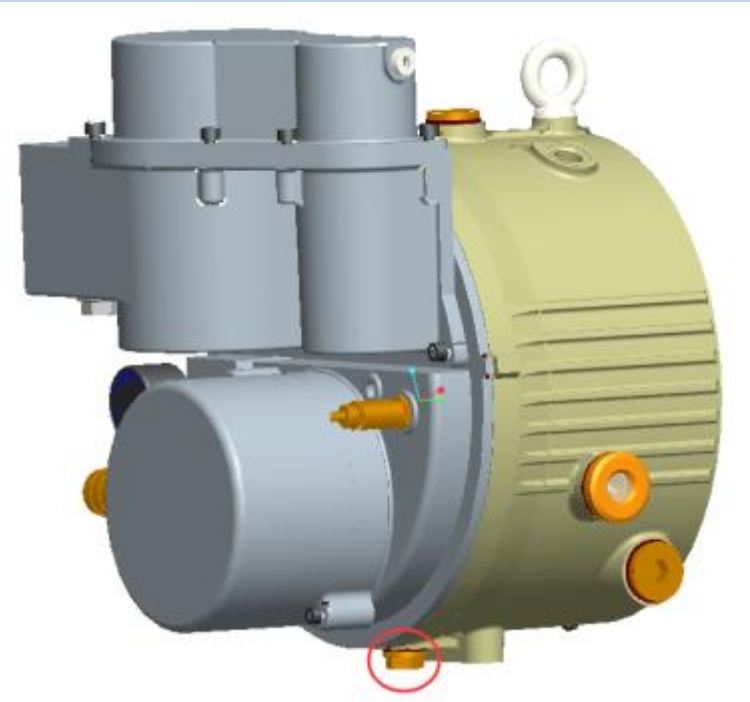
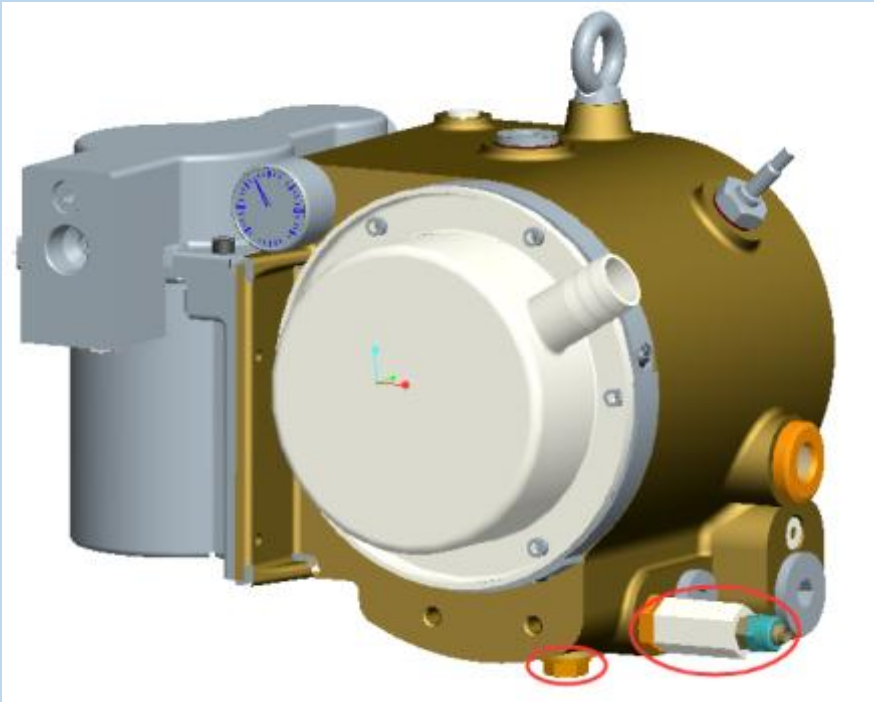
Optimized Oil separator for installation and sealing

Product :	Former product	Optimized design
		
Optimized :	<p>Change the way of oil separator from spring pressing to thread fastening, prevent the risk of oil separator falls off, then to reduce the risk of leakage, spare part with costs</p>	

2.3 Other Optimizes



Optimized Spare parts

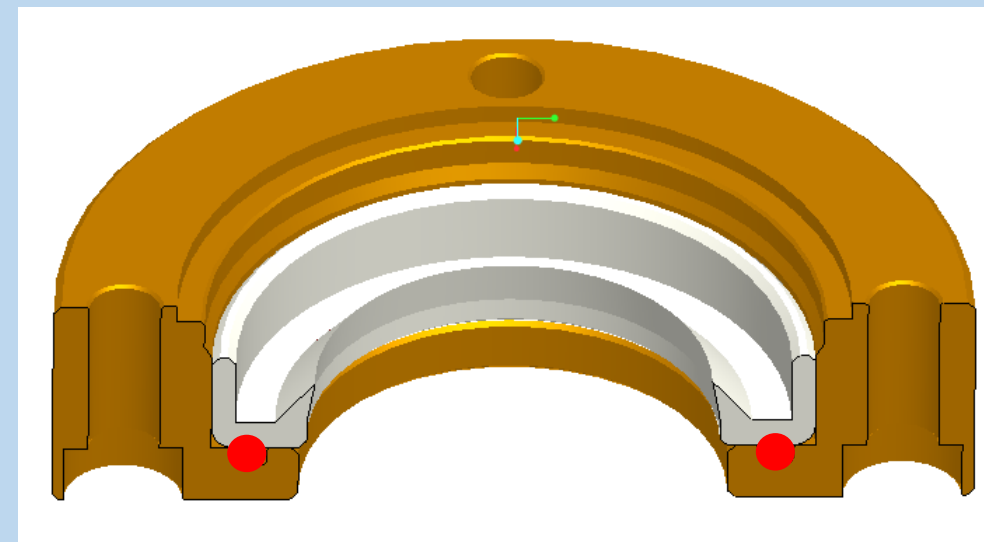
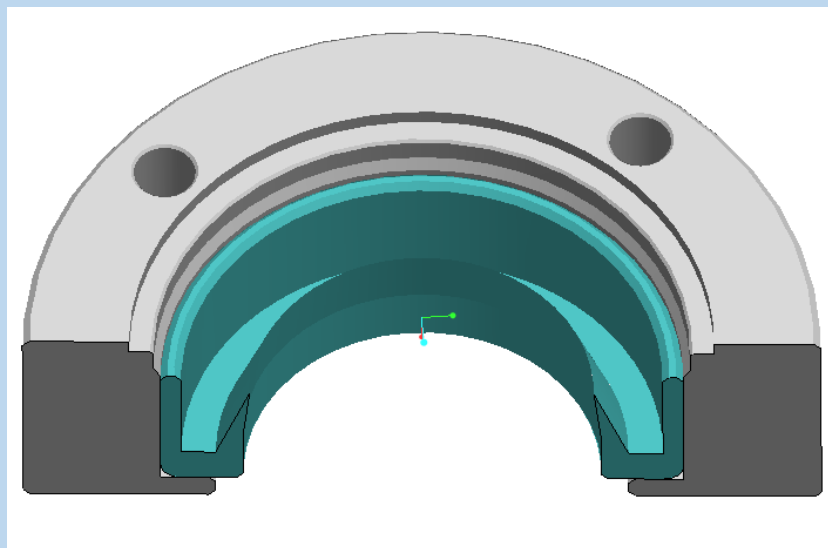
Product :	Former product	Optimized design
:		
Optimized:	H. Added oil drain valve to oil shell to facilitate oil discharge during after-sales maintenance, and reserve oil filter position to increase additional oil filter	

Optimized Spare parts

Product :

Former product

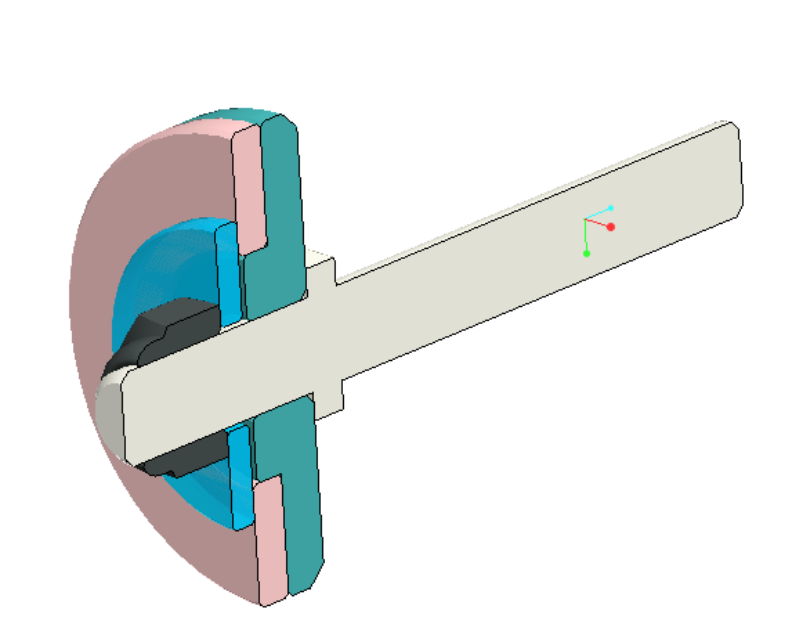
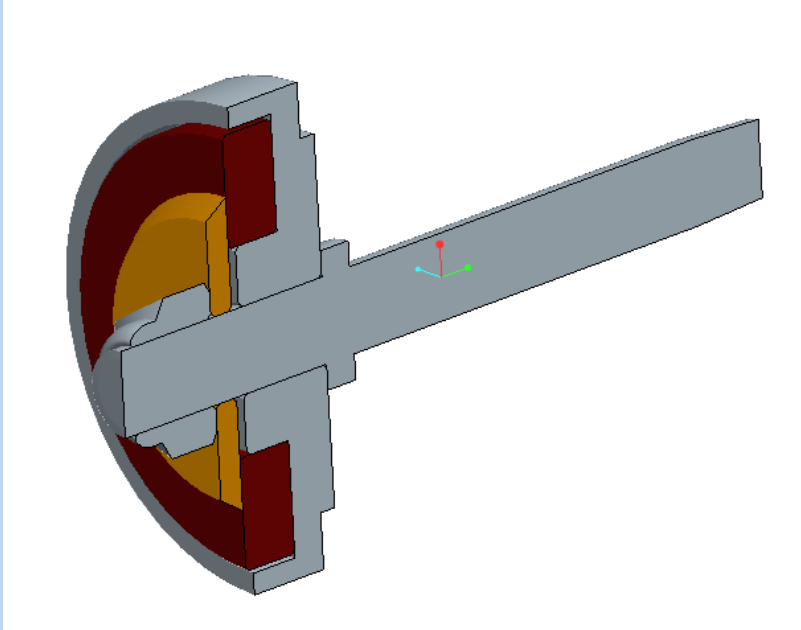
Optimized design



Optimized:

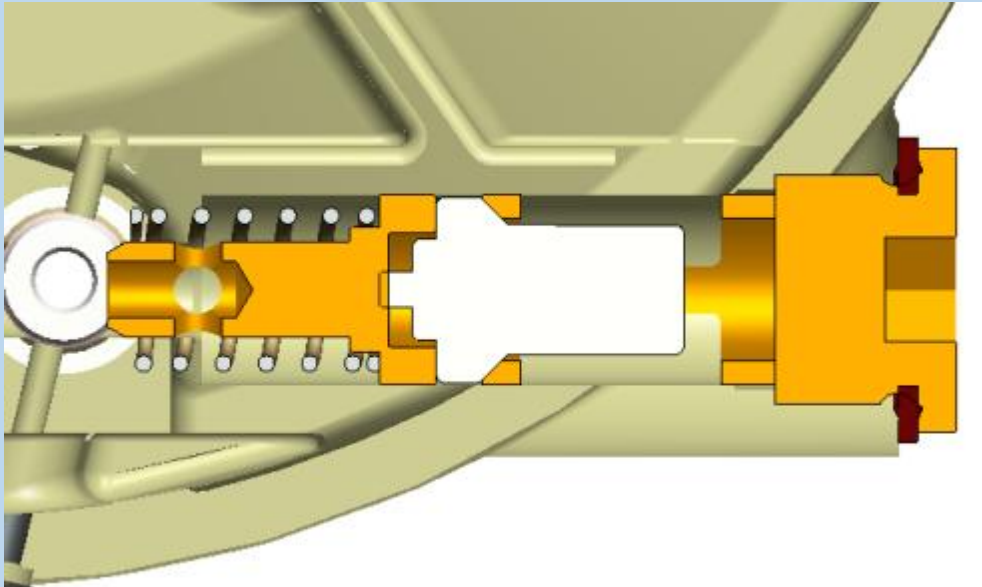
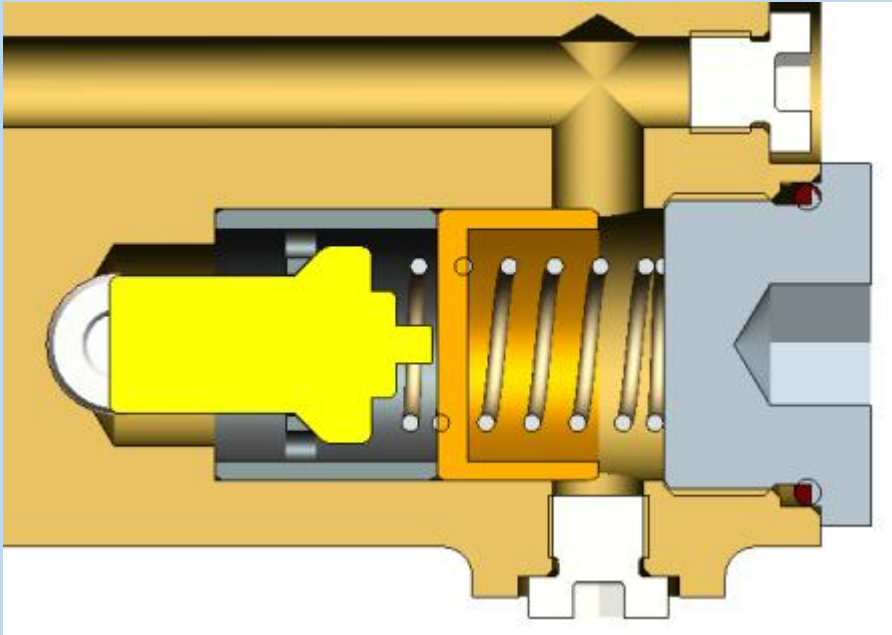
E. The O-ring seal is added at the oil seal flange of the oil core to reduce the risk of oil seal leakage

Optimized Spare parts

Product :	Former product	Optimized design
		
Optimized:	F. PTFE gasket replaced by Fluorine rubber gasket for sealing at intake valve. the seal feedback positive after 1440 hours and 21600 times of start and stop tests	

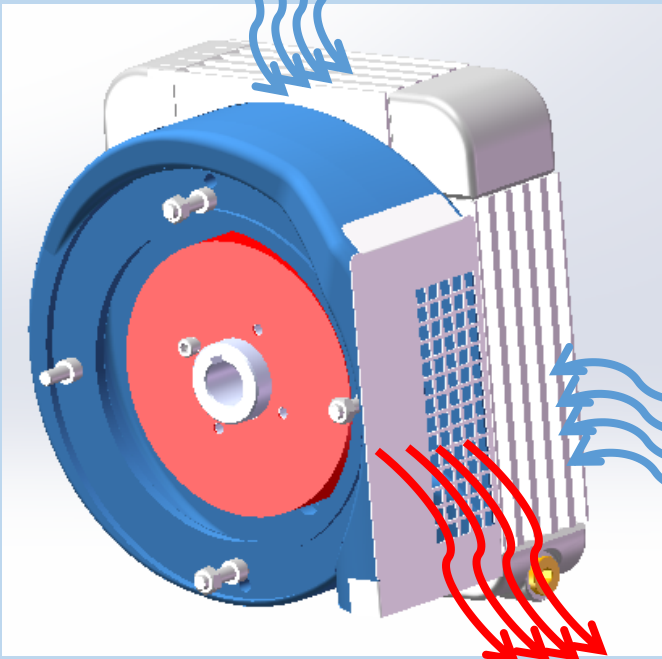
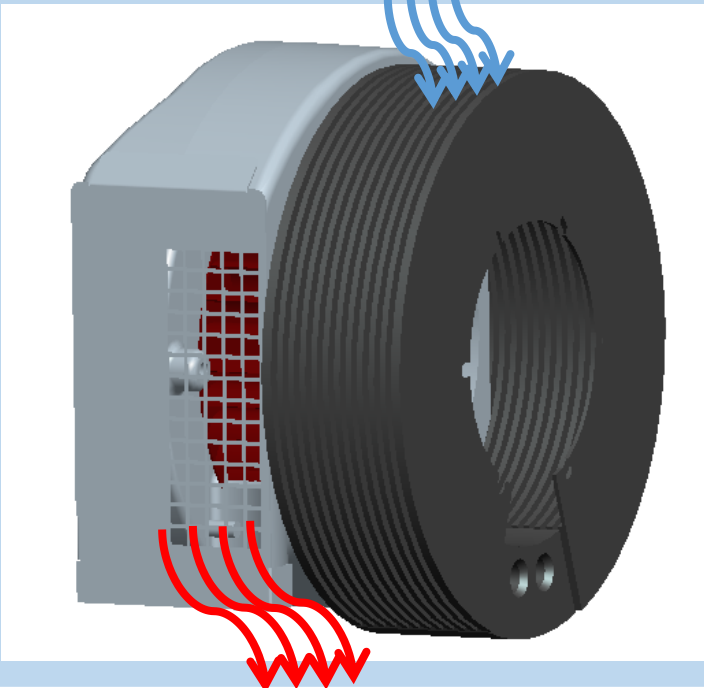
2.1 Anti-emulsified design and Optimized structure

Optimized Spare parts

Product :	Former product	Optimized design
		
Optimized:	<p>G. The temperature control valve has become a standard screw plug as the vessel with O-ring seals</p>	

2.3 Optimized design in Cooling system:

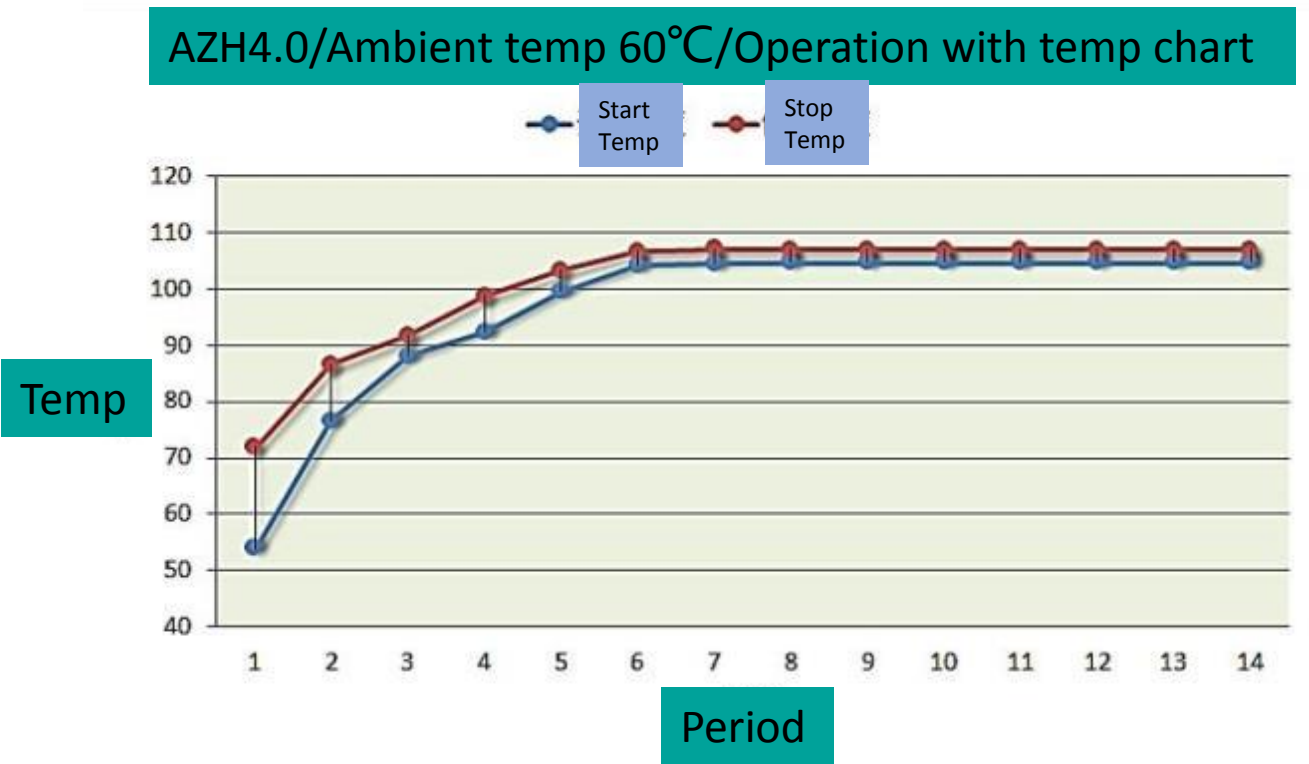
Optimized design in Cooling system:

Product :	Former product	Optimized design
		
Optimize:	<p>Changed the overall structure of the cooler, changed the square shape to the round, increased the air inlet area, reduce the air inlet resistance, more conducive to the circulation of air, so as to increase the cooling result; No need to discharge lubricant oil from cooler;</p>	

2.3 Optimized design in Cooling system:

Heat ventilation effect(low temperature).

The cooling system adopts directional exhaust system of vortex shell + centrifugal impeller. heat ventilation flow of compressor can be added to install the compressor for working normally under ambient temperature 60°C, meanwhile the air exhausted temperature is less than 100°C





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