

# Quality Comparison Among Major Air Compressor Manufacturers In China

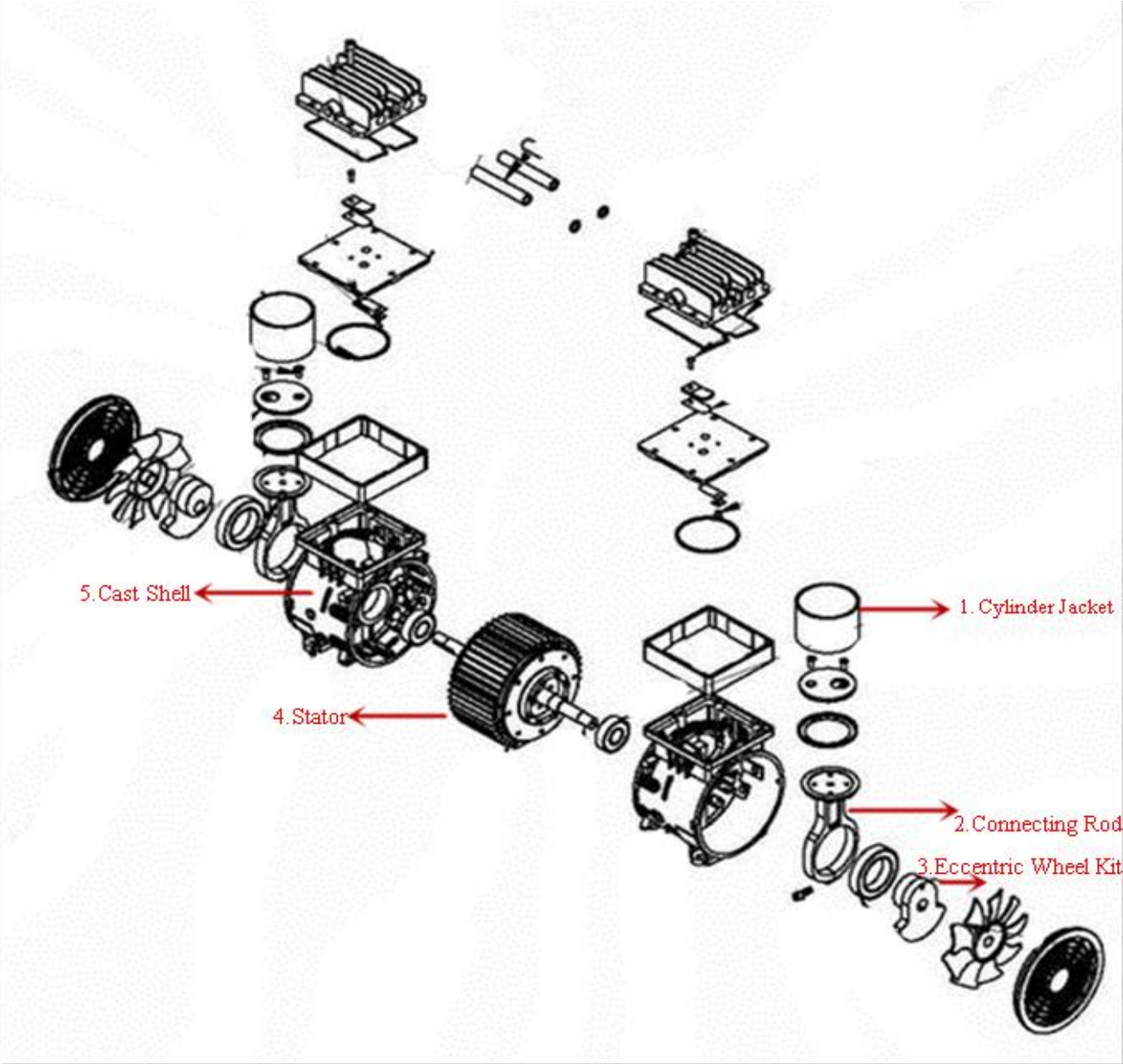
-----29<sup>th</sup>, March 2016

Comparison condition:

- 1 Samples bought from market randomly
- 2 Disassembly carried out after 100 hours operation after purchase of sample  
(Dynamic sample was operated 1800 hours before disassembly)
- 3 Sample purchased at same time during 2<sup>nd</sup> week of March 2016

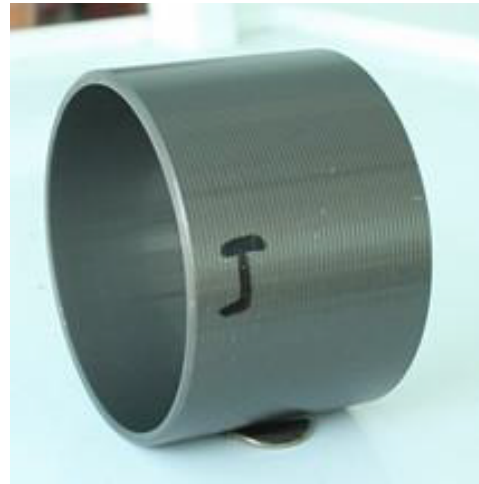
**ZIRA**  
*Perfection is Possible*

# The Key Components of a Motor

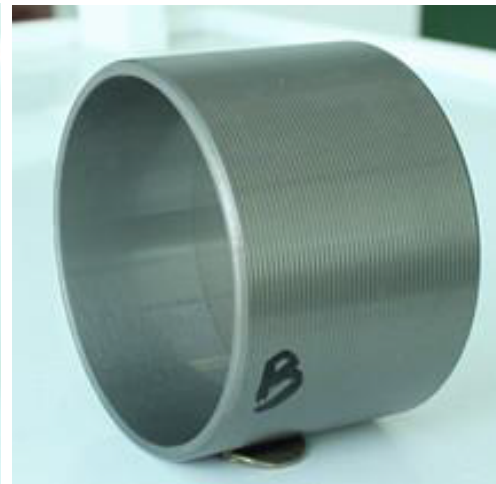




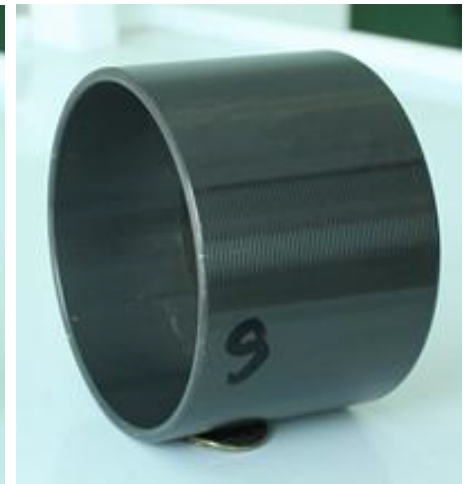
***Pureflow***



Brand J



Brand B



Brand S

***Pureflow***: Ceramic coated cylinder Jacket

Brand J : Traditional aluminum coating hard anodized

Brand B : Traditional aluminum coating hard anodized

Brand S : Traditional aluminum coating hard anodized

**ZIRA** is the 1<sup>st</sup> company to introduce **Ceramic coated** Cylinder Jacket use on air compressor motors, this technology currently mainly used on top class sport car engines for high performance. After our test against our own traditional cylinder jacket, there is **40%** longer life span compare to aluminum coating hard anodized technology.



**Pureflow**  
Shell edge and heat radiation holes are **Thickened, minimize the rate of cracking**



BRAND J:  
Shell edge and heat radiation holes are **thin, have potential of cracking**



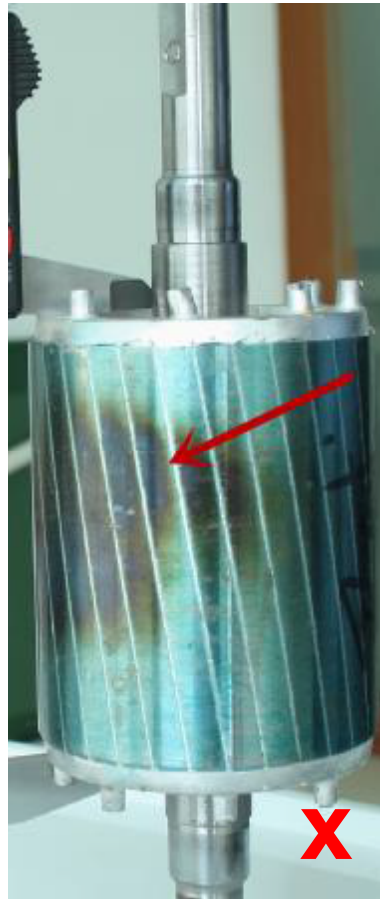
BRAND S:  
Shell edge and heat radiation holes are **Thickened, minimize the rate of cracking**



BRAND B:  
Shell edge and heat radiation holes are **thin, have potential of cracking**



**Pureflow :**  
In good condition



BRAND J  
Seems over heated,  
Reason can not be  
identified



BRAND S:  
In good condition



BRAND B:  
In good condition



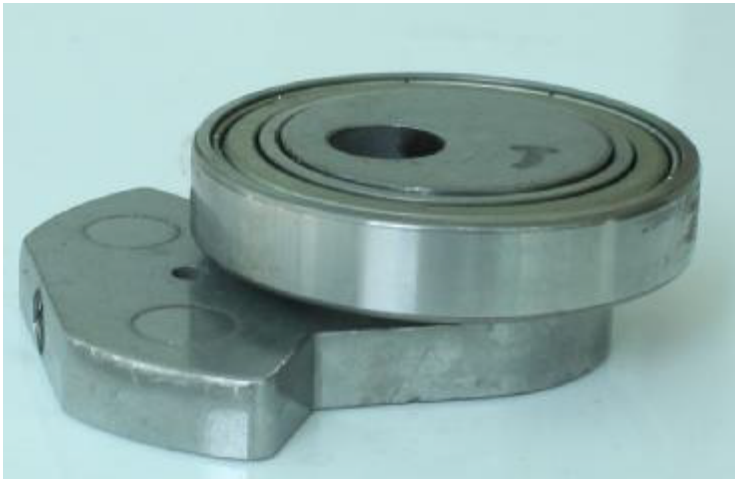
**Pureflow:**

High Quality, No rusty, No oil leakage



**BRAND B:**

Low Quality, Rusty, oil leaked



**BRAND J:**

High Quality, No rusty,  
No oil leakage



**BRAND S:**

Low Quality, Rusty, oil leaked



**Connecting Rod:**

A Good finished connecting rod will make sure the moving track is maximally straight up and down to minimize the abrasive wear to the piston ring and cylinder jacket.

The rod finished with a side flat cut can make sure the angle between the rod and piston ring reach to 90! so that the moving track won t generate extra force to the cylinder Jacket and piston ring.

*Pureflow*

Brand J

Brand S

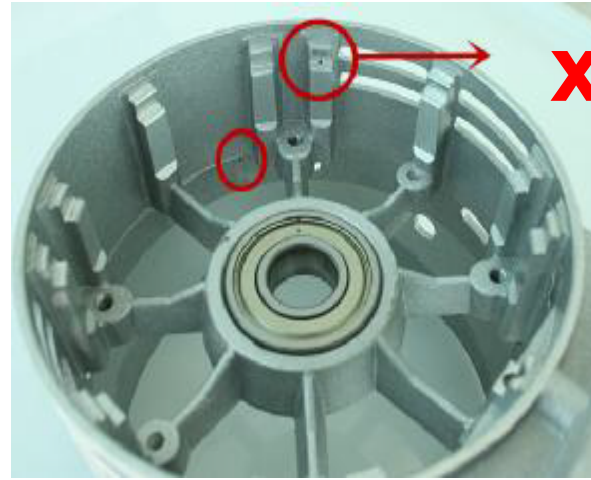
Brand B





***Pureflow:***

fine Die-Casting process and deburring ensures high quality motor shell



**Brand J:**

Poor Die-Casting process with air holes on shell, high potential of shell cracking rate.



**Brand S:**

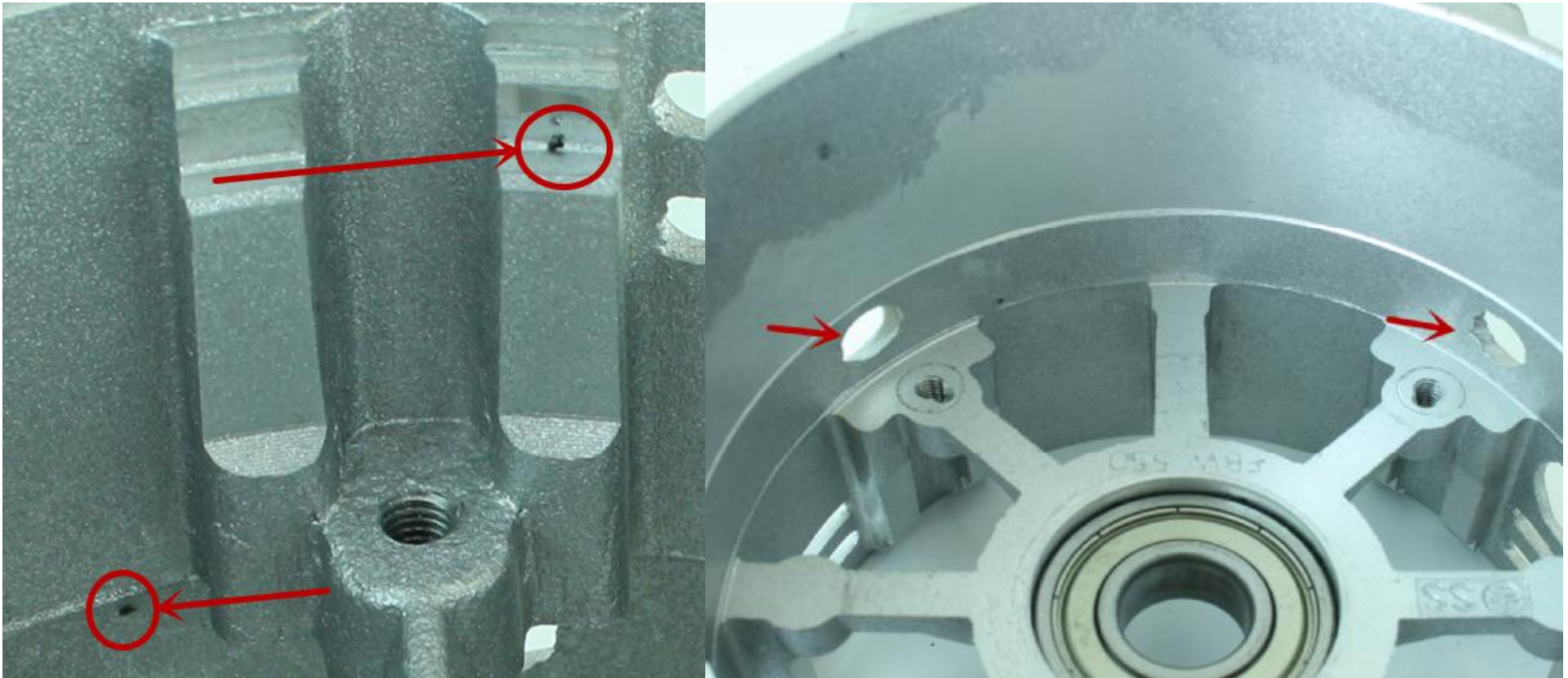
Poor Die-Casting process and deburring, burrs can be seen on shell surface.



**Brand B:**

Poor Die-Casting process and deburring, burrs can be seen on shell surface.



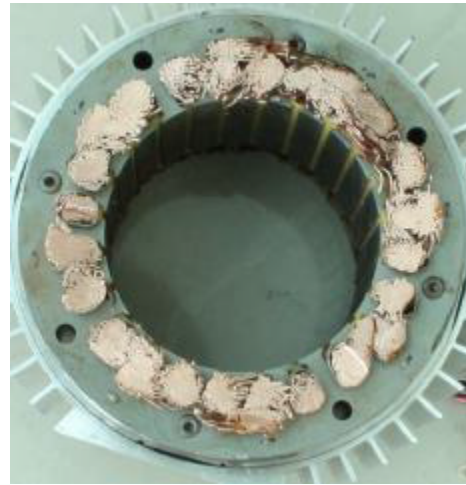


Brand J:

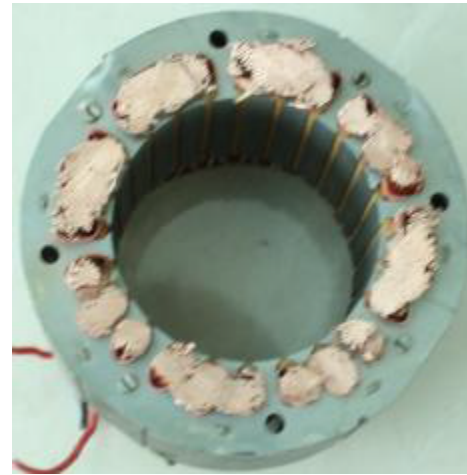
The shell Die-Casting process in low quality, air hole can be seen on the shell with high potential of cracking possibilities after certain time of use.



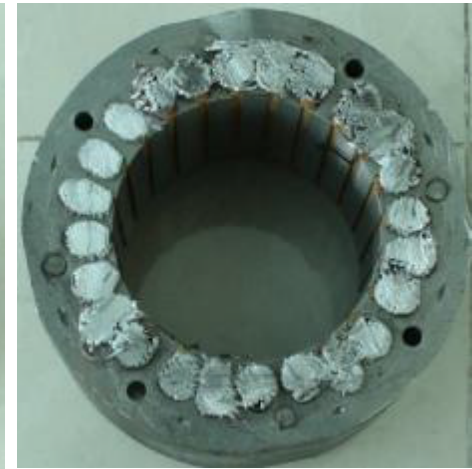
***PureFlow:***  
copper wire



Brand J:  
copper wire



Brand S:  
copper wire



Brand B  
**aluminum wire**

Copper wire will ensure better heat radiation for longer life span and stable performance. Aluminum or half aluminum half copper wire can reduce the cost but the motor quality can not be ensured.



Brand J:

Tank thickness 3.07mm.

Inner uncoated, after 100 hours operation the tank inside get rusty. Can not ensure clean air output.



Brand B:

Tank thickness 3.04mm.

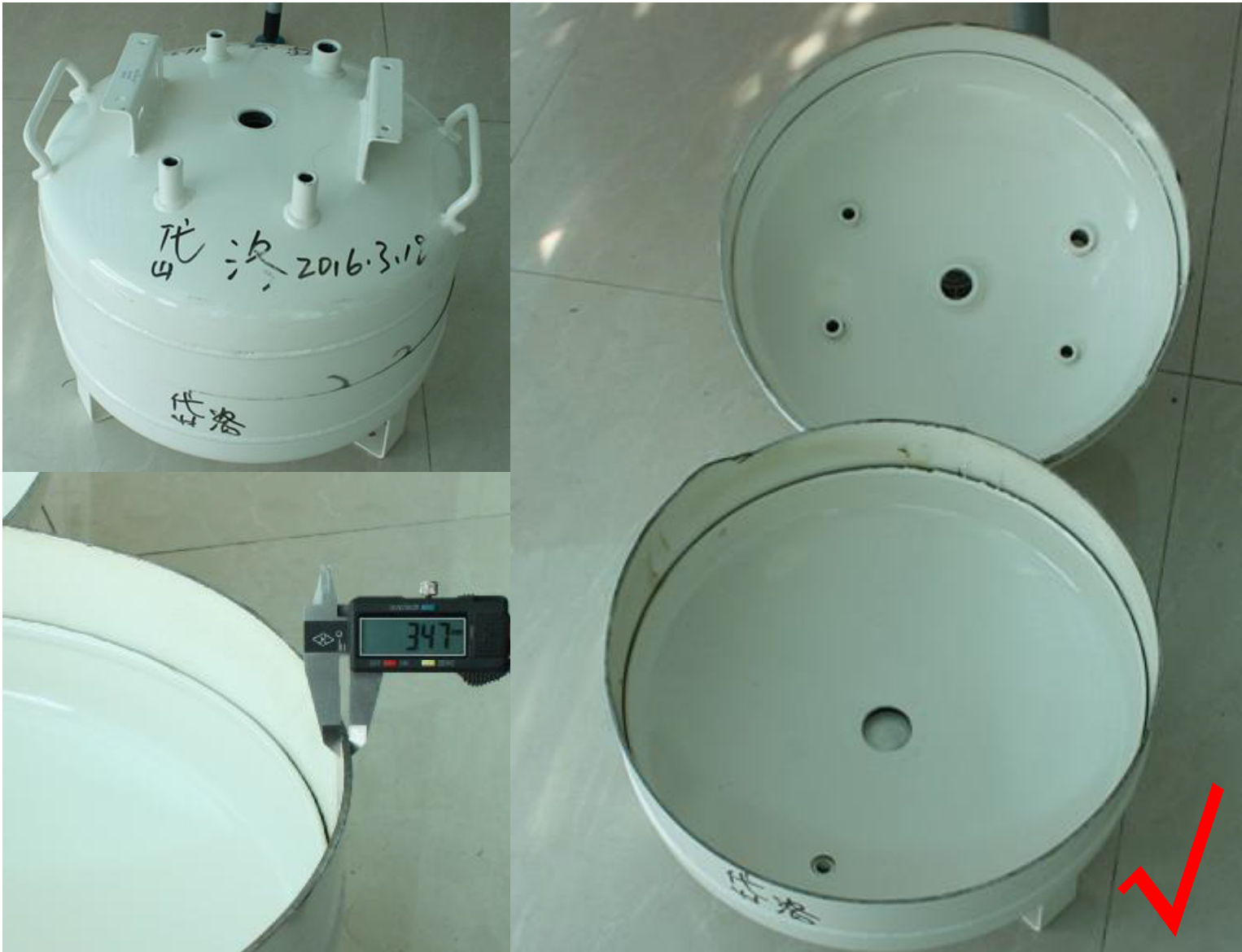
Inner uncoated, after 100 hours operation the tank inside get rusty. Can not ensure clean air output.



Brand S:

Tank thickness 2.75mm.

Inner Coated, but poor process, after 100 hours operation the tank inside get rusty. Can not ensure clean air output. Low quality steel used with poor finishing.



**Pureflow**

Tank thickness 3.47mm.

Inner coated, tank in picture already operated 1800 hours non-stop. High quality tank without getting rusty.

# Summary

	Power on Label	Actual Power	Tank capacity on Label	Actual Tank capacity	Tank Inner coating	Material of motor wire
<i>PureFlow</i>	780W	780W	30L	30L	YES	Copper
Brand J	850W	750W	45L	32L	NO	Copper
Brand B	800W	740W	35L	32L	NO	Aluminum
Brand S	850W	740W	35L	32L	YES	Copper

Items Brands	Cylinder Jacket	Shell edge & Heat radiation holes	Die-casting Technique	Inner-coating Technique	Eccentric Wheel	Connecting Rod	Tank Thickness	Rotor	Stator Wire
<i>PureFlow</i>	Ceramic coated	A	A	A	A	A	3.47mm	A	A
Brand J	Aluminum coated	D	C	D	A	B	3.07mm	C	A
Brand B	Aluminum coated	C	B	D	D	B	3.04mm	A	D
Brand S	Aluminum coated	A	C	C	D	C	2.75mm	A	A

REMARK: Level A/B/C/D" A: High quality B: Good quality C: Acceptable D: Bad quality

**Note: The extreme life-span test report among these brands will be available soon**