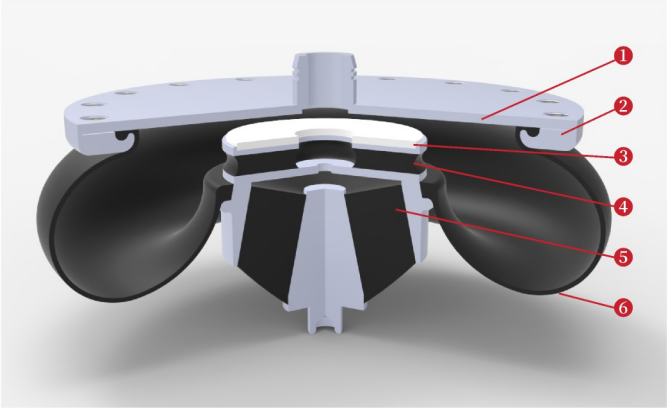
# SECONDARY AIRSPRING

Airspring systems are normally applied to secondary suspensions of rail vehicles. They normally consist of air bellow, top plate, sliding plate and auxiliary spring. The main functions of airspring systems include supporting the weight of the vehicle, and providing vertical, lateral, and bogie rotation flexibility, achieving acceptable dynamic vehicle behaviors. Airspring systems also provide the mechanism to level the height variation of car bodies due to passenger load changes .




## SYSTEM CONFIGURATIONS AND PART FUNCTIONS ►►►

| | | |
|---|---|---|
| ❶ | **Top plate** | seal the air bellow and transfer the load from carbody |
| ❷ | **Clamping ring** | Clamping ring-seal the air bellow and connect the air bellow with top plate |
| ❸ | **Sliding plate** | Sliding plate-provide friction characteristics under deflated condition |
| ❹ | **Emergency spring** | provide the required deflated stiffness together with auxiliary spring; does not work under inflated condition |
| ❺ | **Auxiliary spring** | Auxiliary spring- bear the load, provide the required stiffness under inflated and deflated condition |
| ❻ | **Air bellow** | Air bellow-bear the load, provide the required stiffness under inflated conditions, provide the flexibility on vertical, horizontal and rotation direction. |

## CAPABILITY & EXPERIENCE ►►►

- Produce all types of bellows and auxiliary springs;
- Produce products comply with EN45545-2;
- Rapid design and develop new systems according to customer' s requirements;
- Provide lifetime service
- Service in 6 continents around of the world;
- Cover all kinds of rolling stocks

株洲时代新材料科技股份有限公司
ZHUZHOU TIMES NEW MATERIAL TECHNOLOGY CO., LTD.

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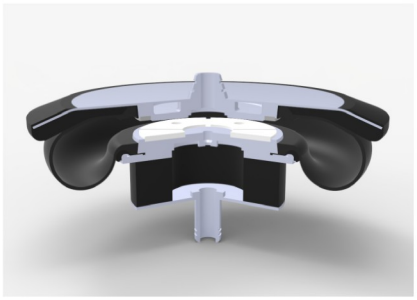
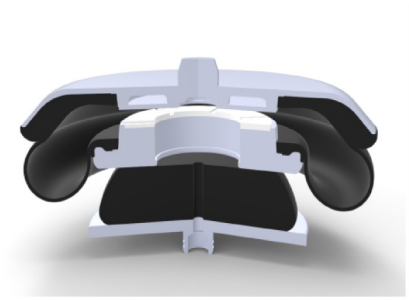
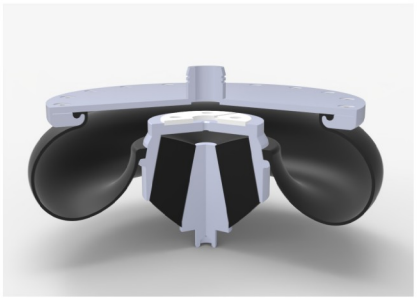
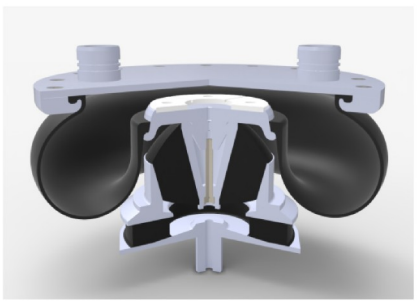
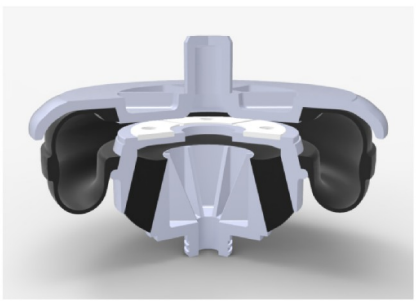
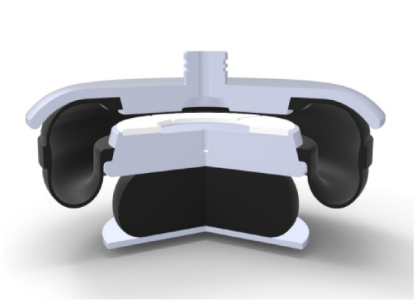
## TYPICAL AIRSPRING SYSTEM TYPES ►►►

## PLEASE FILL THE TABLE BELOW FOR ANY INQUIRY ►►►

| | | | | | |
|---|---|---|---|---|---|
| Train type | ☐Intercity; ☐Regional; ☐Suburban; ☐Inner city; ☐High speed train; ☐other | | | | |
| Max. speed | Km/h | | Operation area | Country/city | |
| Axle load | Ton | | Vehicle pneumatic pressure | bar | |
| Tare | kN | | Inflated height (H) | mm | |
| Crush | kN | | Max. inflated diameter(D) | mm | |
| Maximum horizontal displacement | mm | | Inflated vertical stiffness at tare | N/mm | |
| Maximum vertical drop | mm | | Inflated horizontal stiffness at tare | N/mm | |

Product details can be found in website:
http://www.zztmt.com/zztmt/