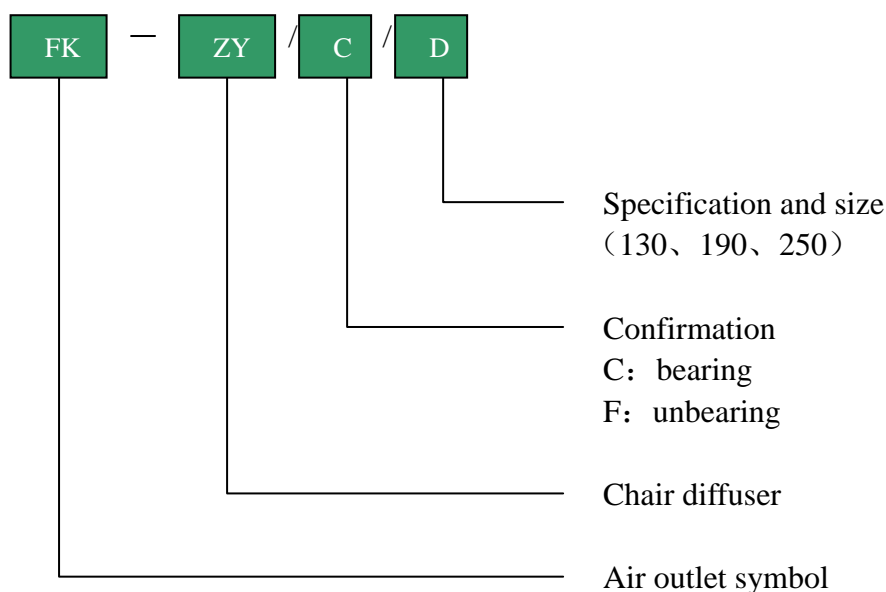


1,General

FK-ZY series chair twist diffuser is one of the latest serial products of our company. It can apply to flow in such rooms with fixed chairs, as music hall,meeting room,theatre,gym,etc.It can match indoor decoration and select different colors according to requirements of clients and architects.It also can be used as a support of chair which can be directly installed over the air blowing pole.

FK-ZY has characteristics: concealed installation and good air blow effect. As the air blow principle is air permutation technology, it has the advantages such as great air quality, comfortable,low noise, energy saving,etc. Flow circle formed inside the room can quickly eliminate partial burthen pertinently.

2,Symbol Explanation



3,Characteristic

- a) Can be used in odium, board room , cinema, palestra which has fixed mseats
- b) The diffuser connect with the leg of the chair which can decorate the chair perfectly
- c) The air flow is has a low fluid, the direction of the air flow is as level as the floor ,which is radial.
- d) Install on the interlayer floor
- e) Very low power
- f) Three type to choose(130, 190, 250)
- g) According the cold burthen and the height of the room ,the temperature can reach6K, and the temperature difference may reach as high as 12K

4,Conformation

FK-ZY-C(bearing type)chair twist diffuser's permutation ventilation canister are made of 3mm thickness galvanized steel.In order to reach a steady and average air flow and avoid the blowing feeling toward the ankles, permutation ventilation canister attaches a layer retia of anti-average flow. At the bottom of air flow pole, a average flow board with holes are fixed to add resistance, make the air flow steady and distribute air volume to every air diffuser. Bottom is connected with earth by flange.

FK-ZT-F(non-bearing type)chair twist diffuser's permutation ventilation canister are made of 1.2mm thickness galvanized steel.There is a regulating damper at the bottom which can be connected with earth by flange.



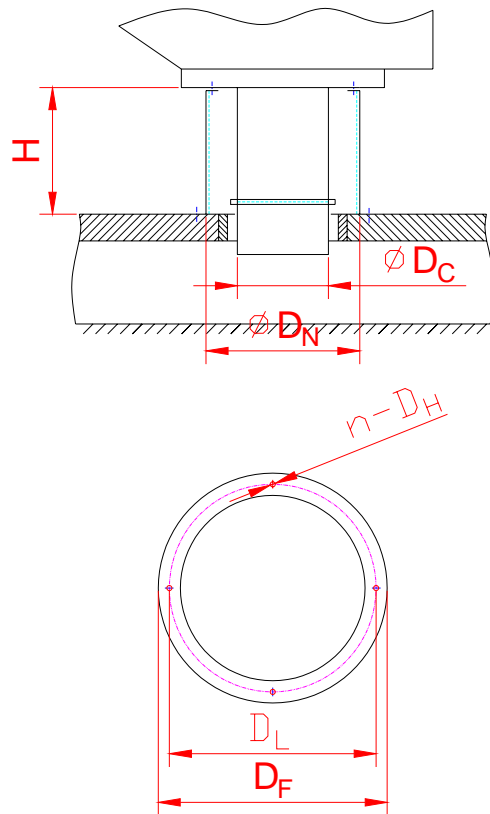
Fig. 1 FK-ZY-C bearing



Fig. 2 FK-ZY-F unbearing

5,Installation

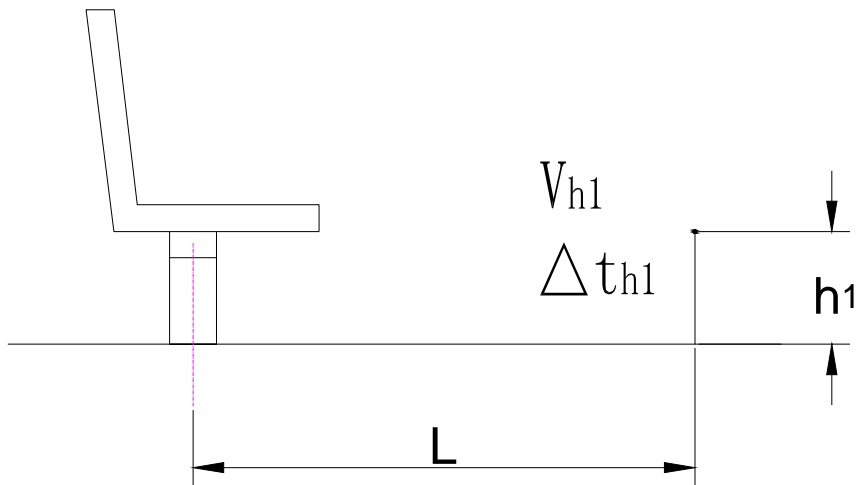
| Specification | H (mm) | DN (mm) | DC (mm) | DF (mm) | DL (mm) | N(pcs) | DH (mm) |
|---------------|--------|---------|---------|---------|---------|--------|---------|
| 130 | 200 | 130 | 98 | 190 | 160 | 4 | 7 |
| 190 | 200 | 190 | 123 | 250 | 220 | 4 | 7 |
| 250 | 200 | 250 | 148 | 310 | 280 | 4 | 7 |



Availability supplying air area

| specification | D130 | D190 | D250 |
|------------------------|--------|--------|--------|
| Aeff (m ²) | 0.0331 | 0.0484 | 0.0637 |

6, Define symbol



| | | |
|------------------|--------------------|--|
| V | m ³ /h: | Air volume of each air diffuser |
| L | m: | The level distance from the diffuser |
| h ₁ | m: | The height from measure point to floor |
| \bar{V}_{h_1} | m/s: | Average air velocity between two diffusers on the height of h ₁ |
| Δt_z | K: | Temperature difference between the air flow and the air indoor |
| Δt_{h_1} | K: | Temperature difference between air at h ₁ and air indoor |
| Δp_t | Pa: | Pressure loss |
| L _{WA} | dB(A): | Noise |
| L _{WNC} | | Sound power noise value NC curve |

7,technical capability table

(I) Pressure loss and noise table

| air volume m ³ /h | | 10 | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 120 | 140 |
|------------------------------|------------------|-------|----|----|----|----|----|----|-----|-----|-----|
| | | Spec. | | | | | | | | | |
| B-D130 | Pressure loss Pa | 4 | 13 | 20 | 31 | 50 | 70 | 95 | | | |
| | F-D130 | 2 | 8 | 16 | 20 | 34 | 46 | 70 | | | |
| B-D190 | Pressure loss Pa | | | 6 | 14 | 20 | 30 | 66 | 96 | | |
| | F-D190 | | | 4 | 10 | 16 | 21 | 48 | 72 | | |
| B-D250 | Pressure loss Pa | | | 12 | 14 | 18 | 25 | 37 | 52 | 78 | 115 |
| | F-D250 | | | 8 | 12 | 15 | 18 | 28 | 44 | 56 | 81 |
| B-D250 | Noise dB(A) | | | 7 | 12 | 18 | 22 | 30 | 36 | | |
| | F-D250 | | | 5 | 9 | 16 | 20 | 27 | 33 | | |
| B-D250 | Pressure loss Pa | | | 6 | 8 | 12 | 15 | 23 | 27 | 33 | 38 |
| | F-D250 | | | 4 | 7 | 11 | 14 | 20 | 25 | 30 | 36 |

(II) Availability distance

Type D130

| Air volume(m ³ /h) | | 20 | 30 | 40 | 50 | |
|-------------------------------|--------------------------------|---------------------------|------|------|------|------|
| | | availability distance (m) | | | | |
| Height h ₁ (m) | Velocity Vh ₁ (m/s) | | | | | |
| | 0.05 | 0.08 | 0.36 | 0.82 | 1.32 | 1.45 |
| 0.10 | | 0.19 | 0.52 | 1.02 | 1.25 | |
| 0.15 | | | 0.12 | 0.43 | 0.83 | |
| 0.20 | | | | 0.14 | 0.38 | |
| 0.10 | 0.08 | 0.10 | 0.38 | 0.84 | 1.20 | |
| | 0.10 | | 0.22 | 0.56 | 1.00 | |
| | 0.15 | | | 0.14 | 0.37 | |
| | 0.20 | | | | 0.13 | |
| 0.20 | 0.08 | | 0.14 | 0.45 | 0.83 | |
| | 0.10 | | | 0.27 | 0.52 | |
| | 0.15 | | | | 0.13 | |
| | 0.20 | | | | | |
| 0.40 | 0.08 | | | 0.22 | 0.47 | |
| | 0.10 | | | | 0.27 | |
| | 0.15 | | | | | |
| | 0.20 | | | | | |

Type D190

| Air volume(m ³ /h) | | 30 | 40 | 50 | 60 | 70 | 80 |
|-------------------------------|-----------------------------------|------------------------------|------|------|------|------|------|
| | | availability distance (m) | | | | | |
| Height h ₁ (m) | Velocity Vh ₁ (m/s) | | | | | | |
| | 0.05 | 0.08 | 0.39 | 0.80 | 1.10 | 1.32 | 1.48 |
| 0.10 | | 0.20 | 0.48 | 0.85 | 1.13 | 1.32 | 1.45 |
| 0.15 | | | | 0.32 | 0.52 | 0.83 | 1.00 |
| 0.20 | | | | | 0.22 | 0.39 | 0.51 |
| 0.25 | | | | | | 0.15 | 0.27 |
| 0.10 | 0.08 | 0.12 | 0.38 | 0.69 | 1.14 | 1.21 | 1.33 |
| | 0.10 | | 0.16 | 0.41 | 0.63 | 0.92 | 1.08 |
| | 0.15 | | | 0.32 | 0.52 | 0.81 | 1.00 |
| | 0.20 | | | | 0.22 | 0.39 | 0.51 |
| | 0.25 | | | | | | |
| 0.20 | 0.08 | | 0.11 | 0.36 | 0.57 | 0.84 | 1.02 |
| | 0.10 | | | 0.18 | 0.36 | 0.52 | 0.72 |
| | 0.15 | | | | | 0.13 | 0.26 |
| | 0.20 | | | | | | |
| | 0.25 | | | | | | |
| 0.40 | 0.08 | | | 0.14 | 0.31 | 0.47 | 0.67 |
| | 0.10 | | | | 0.13 | 0.28 | 0.41 |
| | 0.15 | | | | | | |
| | 0.20 | | | | | | |
| | 0.25 | | | | | | |

