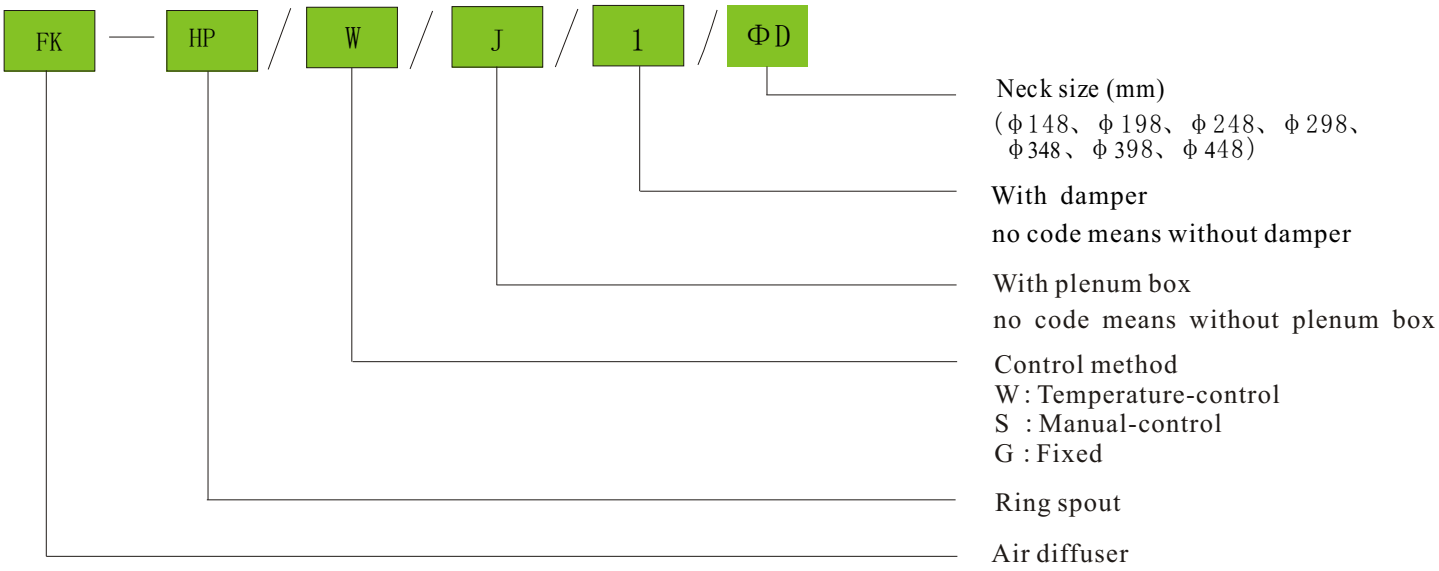
1, General description

FK-HP Ring Spout is one of the newest products our company launch recently, used in comprehensive space where the air condition system needs long-distance air supply, of which the condition of sidewall air supply. The ring spout functions as automatically accommodating to the angle of air supply according to induction of the variable temperature of air supply in different seasons, which change the direction of air flow to far and widespread effect.

2, Symbol code



E.g. FK-HP/W/J/Φ250 Ring spout with plenum box whose neck size is Φ248mm.

Note: In the condition of ceiling air supply, G (fixed) control method ,unadjustable air direction, has been preferentially recommended.

3, Characteristic

FK-HP/S
Manual-control



FK-HP/W
Temperature-control

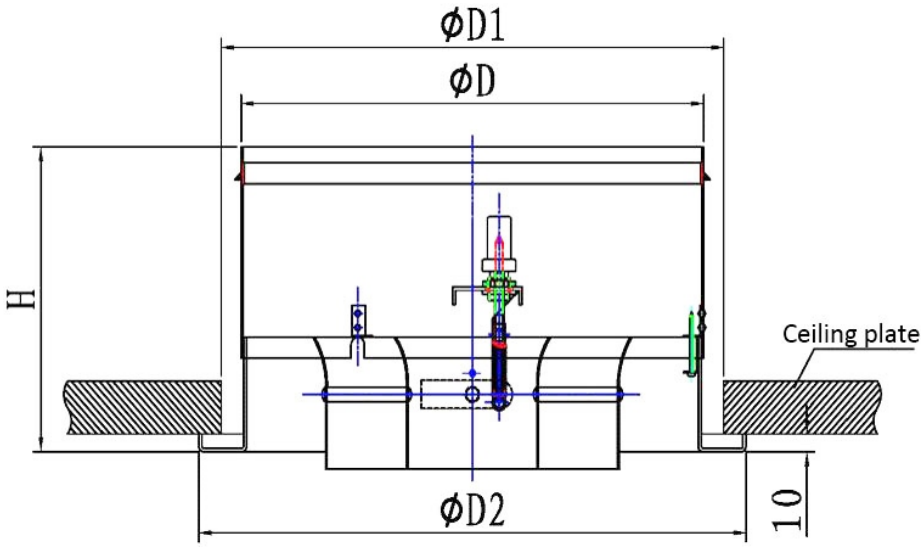


1. Less pressure-loss, lower regenerated noise, and further air supply distance;
2. Temperature-control ring spout, in the way of sidewall air supply, blows the declivitous air in winter to restrain the thermal air, and blows horizontal air in summer;
3. There're no necessary of power supply in the installation scene, either are wire or electrical control device during the installation;
4. Plenum box (ceiling joint or sidewall joint) and adjustable damper are optional according to the clients' requirement;
5. Reliable system that can automatically induct the season temperature which do not need routine maintenance ;
6. The diffuser is consist of out frame and inner core. Fixed the out frame, the inner core could be adjusted to change the direction of air flow.

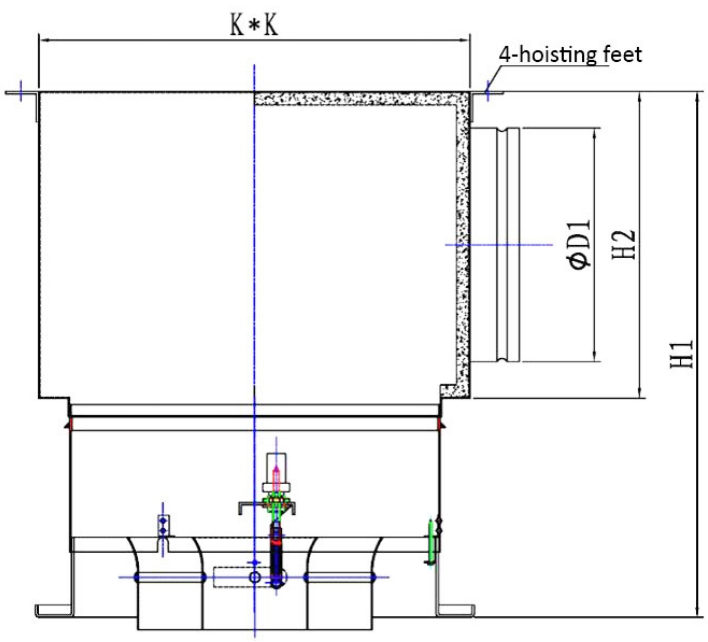
4, Specification

Unit: mm

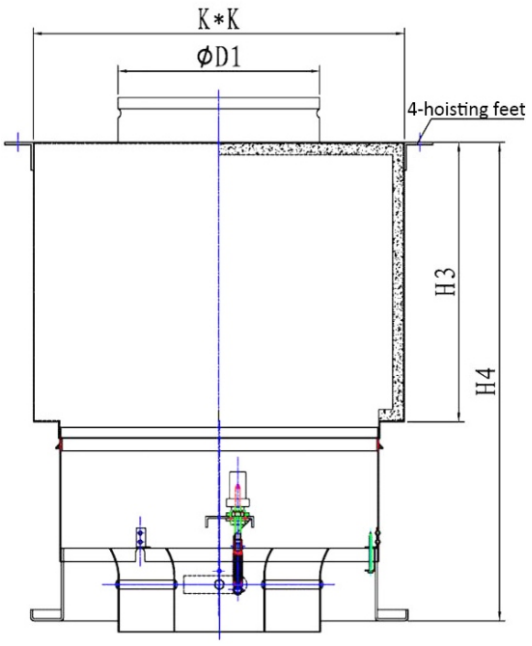
Size	ΦD2	ΦD1(Neck size)	D1(Hole size)	H（temperature-control）	H（manual-control and fixed）
150	202	148	168	165	60
200	248	198	218	173	65
250	295	248	268	178	70
300	356	298	318	183	75
350	427	348	368	188	80
400	460	398	418	206	98
450	540	448	468	220	110



5, Overall dimension for diffuser with plenum box



Horizontal-pipe type of plenum box



Vertical-pipe type of plenum box

Size	ΦD1	H1	H2	H3	H4	K
150	148	340/235	195	155	300/195	250
200	198	398/290	245	205	358/250	300
250	248	456/348	298	258	416/308	350
300	298	510/403	348	308	471/363	400
350	348	566/458	398	358	526/418	450
400	398	634/526	448	408	594/486	500
450	448	698/588	498	458	658/548	550

Note: H1 and H4 are fraction structure, numerator section means temperature-control diffuser's, denominator means manual-control and fixed diffuser's.

6, Technical parameter

Size	Velocity (m/s)		2	3	4	5	6	7	8
	Pressure-loss(Pa)	Cold air	3	6	12	18	26	35	46
		Hot air	4	8	15	23	33	44	58
150 0.0165 M2	Air flow(CMH)	Q	118	177	236	295	354	413	472
	Throw(m)	L	2.5	3.9	5.3	6.6	8	9.3	10.7
	Noise (dB(A))	Horizontal	/	/	21	24	28	33	37
		Declivitous	/	/	25	28	32	37	42
200 0.0304M2	Air flow(CMH)	Q	216	324	432	540	648	756	864
	Throw(m)	L	3.6	5.4	7.2	9	10.7	12.6	14.2
	Noise (dB(A))	Horizontal	/	/	22	25	29	33	37
		Declivitous	/	/	26	29	33	37	41
250 0.0478M2	Air flow(CMH)	Q	344	516	688	860	1	1204	1376
	Throw(m)	L	4.5	6.8	9.3	11.3	13.5	15.9	18.2
	Noise (dB(A))	Horizontal	/	/	23	26	30	34	38
		Declivitous	/	/	27	30	34	38	42
300 0.069M2	Air flow(CMH)	Q	496	744	993	1240	1488	1738	1986
	Throw(m)	L	5.5	8.1	10.9	13.7	16.5	19.2	21.8
	Noise (dB(A))	Horizontal	/	/	24	27	31	35	39
		Declivitous	/	/	28	31	35	39	43
350 0.094M2	Air flow(CMH)	Q	676	1014	1352	1690	2028	2366	2704
	Throw(m)	L	6.3	9.3	12.7	16	19.1	22.2	25.1
	Noise (dB(A))	Horizontal	/	/	25	28	32	36	40
		Declivitous	/	24	29	32	36	40	44
400 0.123M2	Air flow(CMH)	Q	886	1328	1772	2215	2656	3100	3544
	Throw(m)	L	7.2	10.9	14.6	17.8	21.9	25.4	28.8
	Noise (dB(A))	Horizontal	/	/	26	29	33	37	41
		Declivitous	/	24	30	33	37	41	45
450 0.159M2	Air flow(CMH)	Q	1144	1716	2288	2860	3432	4004	4576
	Throw(m)	L	8.1	13.9	18.6	23.2	27.8	32	35
	Noise (dB(A))	Horizontal	/	21	27	30	34	38	42
		Declivitous	/	25	31	34	38	42	46

Note:

1. The condition of ceiling air supply , the "Throw" in the above table means the height from the diffuser to people active area. (The calculated way is diffuser installation height deduct 1.7 m that is average people's height.)

The condition of side air supply, the “Throw" in the above table means the throw of air supply. Take hot air supply for example, which refer to the distance from the diffuser to the point of 0.5 m/s. That is to say the horizontal throw is related to the height of diffuser's installation.

2. "Specification" column: nominal neck size and available neck flow area.

3. When the temperature difference over 6℃ between air supply temperature and room temperature, the values in the table may have some little change.

4.Words in red are preferential recommended specifications.

5. The condition of side air supply, take hot air supply for example, common angle range to be recommended is up/down from 0℃ to 15℃.

7, Material and facial technic

High quality of aluminum alloy for out frame and inner core, the surface can be powder coated color according to clients ' requirements, and our standard color is RAL 9010.

8, Ordering

1.All the parameters in the catalogue we mentioned is according to given conditions or environment. When using the diffuser in different conditions, the values in the table may have some little change.

2.When ordering, you should choose the only symbol code as part II mentioned.

3.The products has been developing and innovating all the time, our company keep the rights to amend and interpret the catalogue.