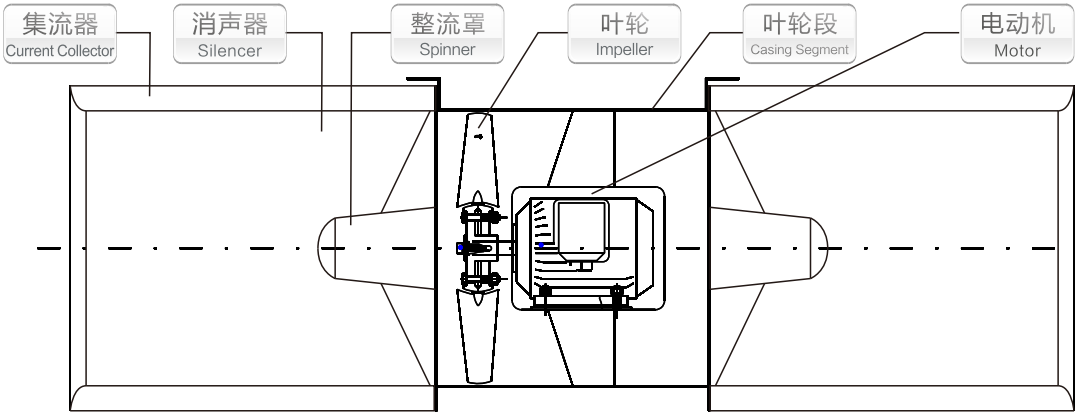
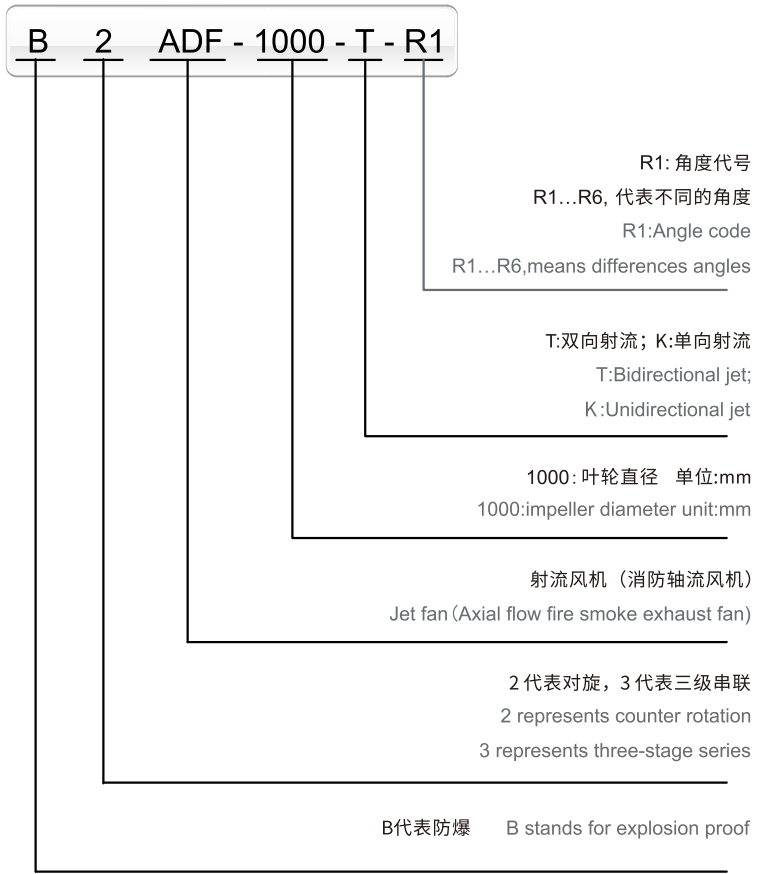


型号说明

MODEL DESCRIPTION



结构特点

STRUCTURAL FEATURES

ADF系列射流风机为整体结构， 包括：集流器、消声器、整流罩、叶轮段等。消声器长度有1D和2D两种， 分别装在风机两端， 按用户的要求可选用不同的材料制造。

集流器
Current Collector

流线型的集流器可使进入风机的气流均匀平稳， 提高风机的运行效率和降低风机的噪声。
A streamlined Current Collector improves flowing field,enabling a higher efficient fan an decreasing fan sound level.

消声器
Silencer

风机段两端配有进、出口消声器。消声器为两层圆筒结构，镀锌穿孔板内筒外包覆高效吸声材料，外筒采用优质镀锌钢板，各零部件之间通过不锈钢拉铆钉和螺钉联接， 避免了烧焊对镀锌层的破坏。整个消声器结构轻巧、美观大方。
Two silencers each side of the fan, sandard construction with pre-galvanized seel ouer skin, fitted with internal galvanized steel perforated liner (surrounded with sound absorption materials), all components fastened with stainless rivets or bolts to get ride of admage from welding.

整流罩
Spinner

流线型的整流罩可使风机内流场得到优化， 提高风机的运行效率和降低风机的噪声。
The streamline fairing can optimize the flow field in the fan,enabling a high efficient fan and dereasing fan's sound level.

叶轮
Impeller

机翼形叶片与轮毂由铝合金压铸而成。叶片安装角度停机可调(须在厂家指导下进行),方便用户根据隧道实际情况调整风机性能。
Airfoil blades and hub cast in aluminum alloy. Blade pitch angle can be adjusted (in the guide of manufactory), varying Jet, s performance according to the situation in the tunnel.

叶轮段
Casing Segment

机壳为优质钢板滚圆结构，两端的法兰为机壳整体翻边而成，保证了机壳具有较高的圆度和刚性。电机支撑焊接于壳体内壁， 然后进行整体喷涂处理。
Fitted with a casing made of rolled plate, and flanges at both ends. The casing and tw flanges are unitary, ensuring sufficient rigidity. The motor support is welded in the casing. The casing shall be hot dip galvanized after manufacture.

电动机
Motor

特制的专用电动机可保证风机能在250℃高温环境可靠运行一小时以上。电动机的额定电压为380V, 频率为50HZ, 防护等级为IP54(IP55)， 绝缘等级为F级(H级)。
The special motor assures that Jet fan can dependably work for at least an hour at a high temperature up to 250℃ The motor is rated 380v, 50HZ, IP54(IP55), class F (or class H) insulation.

技术特点
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 TECHNICAL FEATURES

安装 · 运行 · 维护

Installation,Operation and Maintenance

■ 射流风机预埋件对射流风机的准确安装和悬挂安全相当重要，所以应严格控制预埋件的质量。

Special attention should be give to the quality of the embedded parts. It is important to the safety of jet fan installation.

■ 射流风机安装时不得磕碰及损坏风机，不得通过勾挂消声器来吊风机，不得对风机施焊。

Care must be taken to avoid damage to the skin of the fan. The silencers must not be used as a lifting aid unless otherwise indicaed.

■ 安装风机时，应注意使风机上的风向标志与隧道的通风方向一致；并保证风机轴线与隧道的中心线平行。否则将增加风机的额外损失。同时，如隧道限界允许，应尽量使风机远离洞壁。

The fan assembly must be lifed into a position where it willl be installed from below. The fan assembly is heavy and can be unwieldy; proper precautions must be taken, o ensure the fan is well supported and stable before lifting into the position. The fan must be installed, such that it is correctly positioned in accordance with the required airflow direction.

■ 风机启动前，应检查风机内有无杂物，风机联接螺栓有无松动，拨动叶轮是否灵活；叶轮的旋转方向是否与风机上的旋向标志一致。射流风机启动时，为减少对电网的冲击，应逐台启动，即上一台风机达到额定转速后，再接通下一台风机的电源。

When the fan assembly is correctly installed, all component parts are secure, and no loose articles are present in the vicinity; the fan can be switched on. Check he fan for correct and smooth running and check that the current consumption is within the full. Load current specified on the name;lae. Jet fan should be switched on after another to reduce impact to electric network.

■ 隧道内的一氧化碳(CO)浓度从隧道进气的一端沿隧道通风方向逐渐升高，至隧道出口端达到最高值，此即为隧道通风的设计值。射流风机的运行控制一般是依据隧道出口的CO浓度来决定开停射流风机的数量和速度。

Airflow requirements are usually based on the need to dilute the pollutants produced by the traffic. The specific levels for any pollutant depend on the quantity of the fan switched on.

■ 射流风机正反向换向时，应等风机叶轮停稳后，再接通反向电源。

In case of switching from forward to reverse fan rotation, the fan should restart up after the impeller has reached to a full stop.

■ 风机维护保养工作，一般可定期擦拭风机外表面，检查风机联接螺栓的松动情况。对于风机壳上留有注油孔的风机，一般要定期加注电机轴承润滑油。

When examining and checking the secrity of fixings during routine maintenance, It is essential to ensure that all fixings on the assembly are secure. If the motor bearings are greased through extended lubricaors, the grease should be periodically applied. Grease points are generally located in the region of the duct terminal box.

技术参数
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 TECHNICAL PARAMETER

ADF-K
 单向射流风机性能参数表
 The ADF-K performance parameters table

风机型号 Fan type	风量 Volume m³/s	出口 风速 Outlet air velocity m/s	电机Motor			不带有消声器 Without silencer			带消声器 With silencer						
			机座号 Motor size	功率 Motor rating kW	风机功率 Fan power kW	推力 Thrust N	声压 Sound pressure level dB(A)	重量 Weight kg	1D				2D		
									推力 Thrust N	声压 Sound pressure level dB(A)	声功率 Sound power level dB(A)	重量 Weight (kg)	推力 Thrust N	声压 Sound pressure level dB(A)	重量 Weight (kg)
ADF-630-K-R1	8.1	26.0	132	7.5	6.8	247	78	135	244	68	96	245	239	64	322
ADF-630-K-R2	9.9	31.8	160	11	10.1	369	80	182	365	70	98	292	358	66	369
ADF-630-K-R3	11.7	37.5	160	15	14.1	513	82	190	508	72	100	300	498	68	377
ADF-630-K-R4	12.7	40.6	160	18.5	17.2	602	84	212	596	74	102	322	584	70	399
ADF-710-K-R1	12.7	32.0	160	15	13.3	475	81	208	470	71	99	338	461	67	433
ADF-710-K-R2	14.0	35.4	160	18.5	16.9	581	82	230	575	72	100	360	564	68	455
ADF-710-K-R3	15.0	37.9	180	22	20.1	666	84	263	659	72	100	393	646	69	488
ADF-710-K-R4	17.0	42.9	200	30	25.8	853	86	323	845	75	103	453	828	72	548
ADF-710-K-R5	18.0	45.5	200	37	30.0	960	87	338	950	77	105	468	931	73	563
ADF-800-K-R1	9.3	18.6	112	4	3.1	204	66	138	202	56	84	310	198	52	435
ADF-800-K-R2	10.6	21.0	132	5.5	4.2	260	68	163	257	58	86	335	252	54	460
ADF-800-K-R3	12.6	25.0	132	7.5	6.6	368	70	176	364	60	88	348	357	55	473
ADF-800-K-R4	14.1	28.0	160	11	9.4	461	72	218	457	63	91	390	448	58	515
ADF-900-K-R1	13.0	20.5	132	7.5	5.4	313	70	232	310	60	88	414	304	56	569
ADF-900-K-R2	16.7	26.2	160	11	9.9	511	73	274	506	64	92	456	496	60	611
ADF-900-K-R3	18.8	29.5	160	15	13.1	641	75	295	634	65	93	477	620	61	632
ADF-900-K-R4	20.1	31.6	180	18.5	16.9	744	76	333	736	67	95	515	722	63	670
ADF-1000-K-R1	17.7	22.5	160	11	9.8	466	72	306	461	63	91	518	452	60	703
ADF-1000-K-R2	21.2	27.0	160	15	13.9	670	75	327	664	66	94	539	650	63	724
ADF-1000-K-R3	23.2	29.5	180	18.5	17.1	800	77	365	792	67	95	577	776	64	762
ADF-1000-K-R4	24.8	31.6	180	22	21.2	884	78	373	875	69	97	585	857	65	770
ADF-1000-K-R5	26.9	34.2	200	30	27.5	1076	79	453	1065	70	98	665	1044	66	850
ADF-1120-K-R5	24.8	25.2	180	18.5	17.3	744	77	427	736	68	96	639	722	65	824
ADF-1120-K-R1	29.1	29.5	180	22	20.5	996	78	435	979	69	97	647	948	66	832
ADF-1120-K-R2	31.1	31.6	200	30	24.6	1150	80	515	1135	71	99	727	1100	68	912
ADF-1120-K-R3	32.9	32.4	225	37	33.3	1286	80	529	1270	71	99	741	1240	69	926
ADF-1120-K-R4	34.9	35.4	225	45	38.4	1468	81	565	1453	72	100	777	1424	69	962
ADF-1120-K-R6	37.4	38.0	250	55	46.2	1691	83	672	1674	73	101	884	1641	70	1069

注：ADF系列射流风机所有数据均经全性能风机试验室按GB1236-2000与ISO13350标准严格测试，数据真实可靠。
 所列噪声声压级为：在自由空间、与风机轴线成45度、距离风机出口10米处测量的A级计权声压级。

ADF–K

单向射流风机性能参数表
The ADF–K performance parameters table

风机型号 Fan type	风量 Volume m³/s	出口 风速 Outlet air velocity m/s	电机Motor			不带有消声器 Without silencer			带消声器 With silencer						
			机座号 Motor size	功率 Motor rating kW	风机功率 Fan power kW	推力 Thrust N	声压 Sound pressure level dB(A)	重量 Weight kg	1D				2D		
									推力 Thrust N	声压 Sound pressure level dB(A)	声功率 Sound power level dB(A)	重量 Weight (kg)	推力 Thrust N	声压 Sound pressure level dB(A)	重量 Weight (kg)
ADF-1250-K-R1	38.3	31.2	225	37	34.5	1420	82	574	1406	73	101	852	1378	70	1137
ADF-1250-K-R2	41.6	33.9	225	45	41.2	1677	83	610	1660	74	102	888	1627	71	1173
ADF-1250-K-R3	45.2	36.8	250	55	50.8	1976	84	717	1956	76	104	995	1917	73	1280
ADF-1250-K-R4	48.5	39.5	280	75	66.4	2276	85	852	2254	77	105	1130	2208	74	1415
ADF-1250-K-R5	51.5	42.0	280	90	81.9	2574	86	957	2548	78	106	1235	2497	74	1520
ADF-1250-K-R6	23.1	18.8	160	11	8.4	516	69	437	510	60	88	715	500	57	1000
ADF-1250-K-R7	27.6	22.5	180	15	12.3	739	71	485	731	63	91	763	717	60	1048
ADF-1250-K-R8	29.8	24.3	200	18.5	15.6	861	72	510	853	64	92	788	836	61	1073
ADF-1250-K-R9	32.2	26.2	200	22	18.9	1001	73	540	991	64	92	818	972	61	1103
ADF-1250-K-R10	34.5	28.1	225	30	23.7	1152	74	582	1140	66	94	860	1118	63	1145
ADF-1400-K-R1	33.6	21.8	200	18.5	16.5	870	73	656	861	64	92	947	844	61	1292
ADF-1400-K-R2	36.8	23.9	200	22	18.1	1045	74	686	1035	65	93	977	1014	62	1322
ADF-1400-K-R3	39.9	25.9	225	30	24.8	1228	75	728	1215	66	94	1019	1191	64	1364
ADF-1400-K-R4	43.1	28.0	250	37	30.2	1435	76	844	1420	68	96	1135	1392	65	1480
ADF-1400-K-R5	46.3	30.1	280	45	35.5	1658	77	972	1642	68	96	1263	1609	66	1608
ADF-1400-K-R6	49.6	32.2	280	55	45.7	1898	78	1031	1879	69	97	1322	1841	67	1667
ADF-1400-K-R7	25.4	16.5	160	7.5	6.1	498	64	581	493	55	83	872	483	52	1217
ADF-1400-K-R8	27.7	18.0	180	11	7.7	593	65	620	589	57	85	911	575	54	1256
ADF-1400-K-R9	32.5	21.1	225	15	13.5	815	68	686	807	59	87	977	790	57	1322
ADF-1400-K-R10	34.6	22.5	225	18.5	15.1	926	68	702	917	59	87	993	899	57	1338
ADF-1400-K-R11	37.1	24.1	250	22	19.5	1063	69	728	1052	61	89	1019	1031	58	1364
ADF-1600-K-R1	47.2	23.5	225	30	24.1	1320	77	892	1307	68	96	1240	1281	66	1680
ADF-1600-K-R2	52.1	25.9	250	37	32.5	1603	78	1008	1587	69	97	1356	1556	67	1796
ADF-1600-K-R3	57.1	28.4	280	55	45.6	1928	80	1195	1909	71	99	1543	1870	68	1983
ADF-1600-K-R4	67.0	33.3	315	75	65.7	2651	82	1590	2624	73	101	1938	2572	71	2378
ADF-1600-K-R5	71.8	35.7	315	90	83.5	3046	83	1680	3016	75	103	2028	2956	72	2468
ADF-1600-K-R6	39.2	19.5	225	15	13.2	909	69	850	900	61	89	1198	882	58	1638
ADF-1600-K-R7	42.8	21.3	225	22	18.1	1084	71	892	1074	63	91	1240	1052	61	1680
ADF-1600-K-R8	46.6	23.2	250	30	24.2	1287	72	1005	1274	64	92	1353	1248	62	1793
ADF-1600-K-R9	50.3	25.0	280	37	32.5	1498	73	1120	1479	65	93	1468	1449	63	1908
ADF-1600-K-R10	53.9	26.8	280	45	34.6	1717	74	1192	1700	66	94	1540	1666	64	1980

注：ADF系列射流风机所有数据均经全性能风机试验室按GB1236–2000与ISO13350标准严格测试，数据真实可靠。
所列噪声声压级为：在自由空间、与风机轴线成45度、距离风机出口10米处测量的A级计权声压级。

ADF–T

双向可逆射流风机性能参数表
The ADF–T performance parameters table

风机型号 Fan type	风量 Volume m³/s	出口 风速 Outlet air velocity m/s	电机Motor			不带有消声器 Without silencer			带消声器 With silencer						
			机座号 Motor size	功率 Motor rating kW	风机功率 Fan power kW	推力 Thrust N	声压 Sound pressure level dB(A)	重量 Weight kg	1D				2D		
									推力 Thrust N	声压 Sound pressure level dB(A)	声功率 Sound power level dB(A)	重量 Weight (kg)	推力 Thrust N	声压 Sound pressure level dB(A)	重量 Weight (kg)
ADF-630-T-R1	8.9	28.5	132	7.50	6.9	303	79	135	289	70	98	245	274	66	322
ADF-630-T-R2	10.2	32.8	160	11.00	10.4	391	80	182	371	71	99	292	363	67	369
ADF-630-T-R3	11.4	36.5	160	15.00	14.3	495	82	190	482	73	101	300	470	69	377
ADF-630-T-R4	12.3	39.4	160	18.50	17.7	566	83	212	560	74	102	322	549	70	399
ADF-710-T-R1	13.0	32.8	160	15.00	13.7	497	83	208	481	73	101	338	460	70	433
ADF-710-T-R2	14.2	35.8	160	18.50	17.4	578	84	230	567	74	102	360	549	71	455
ADF-710-T-R3	14.9	37.6	180	22.00	20.7	626	85	263	620	75	103	393	607	73	488
ADF-710-T-R4	16.5	41.6	200	30.00	26.6	802	86	323	794	77	105	453	778	74	548
ADF-710-T-R5	17.5	44.1	200	37.00	30.9	902	87	338	893	78	106	468	875	75	563
ADF-800-T-R1	9.1	18.0	112	4.00	3.2	191	66	138	189	56	84	310	186	52	435
ADF-800-T-R2	10.6	21.2	132	5.50	4.3	244	68	163	242	58	86	335	237	54	460
ADF-800-T-R3	12.2	24.3	132	7.50	6.8	346	70	176	342	60	88	348	335	57	473
ADF-800-T-R4	14.1	28.0	160	11.00	9.7	453	72	218	448	62	90	410	421	59	515
ADF-800-T-R5	14.7	29.3	160	15.00	13.4	486	73	241	461	63	91	433	448	60	538
ADF-900-T-R2	16.2	25.5	160	11.00	10.2	481	73	274	476	64	92	456	466	61	611
ADF-900-T-R3	18.8	29.5	160	15.00	13.5	636	74	295	629	65	93	477	616	61	632
ADF-900-T-R4	19.7	31.0	180	18.50	17.4	699	75	333	692	66	94	515	678	63	670
ADF-900-T-R5	21.5	33.8	180	22.00	20.7	786	76	357	770	67	95	539	754	63	700
ADF-1000-T-R1	7.1	21.8	160	11.00	101.0	438	74	306	433	64	92	518	425	61	703
ADF-1000-T-R2	20.8	26.5	160	15.00	14.3	630	76	327	624	67	95	839	611	64	724
ADF-1000-T-R3	22.5	28.6	180	18.50	17.6	752	77	365	745	68	96	577	730	65	762
ADF-1000-T-R4	24.3	31.0	180	22.00	21.5	831	78	373	822	70	98	585	806	66	770
ADF-1000-T-R5	26.5	33.8	200	30.00	28.3	1011	79	453	1001	70	98	665	981	66	850
ADF-1120-T-R5	24.1	24.4	180	18.50	17.8	699	78	427	682	69	97	639	668	65	824
ADF-1120-T-R1	30.0	30.5	180	22.00	21.1	1005	79	435	985	70	98	647	941	67	832
ADF-1120-T-R2	30.5	31.0	200	30.00	25.3	1130	80	515	1120	71	99	727	981	68	912
ADF-1120-T-R3	33.5	34.0	225	37.00	31.2	1198	81	529	1180	72	100	741	1161	69	926
ADF-1120-T-R4	34.5	35.0	225	45.00	39.6	1380	82	565	1350	74	102	777	1318	70	962
ADF-1120-T-R6	36.3	36.9	250	55.00	47.6	1590	83	672	1550	75	103	884	1519	71	1069

Note:The parmeters are measured in accordance with ISO5801 and ISO13350. The selection tables show the sound pressure level as measured on the ‘A’ weighted scale of a sound level meter at a distance of 10m and at 45 deg to the fan axis under free field conditions.

ADF–T

双向可逆射流风机性能参数表
The ADF–T performance parameters table

风机型号 Fan type	风量 Volume m³/s	出口风速 Outlet air velocity m/s	电机Motor			不带有消声器 Without silencer			带消声器 With silencer						
			机座号 Motor size	功率 Motor rating kW	风机功率 Fan power kW	推力 Thrust N	声压 Sound pressure level dB(A)	重量 Weight kg	1D				2D		
									推力 Thrust N	声压 Sound pressure level dB(A)	声功率 Sound power level dB(A)	重量 Weight (kg)	推力 Thrust N	声压 Sound pressure level dB(A)	重量 Weight (kg)
ADF-1250-T-R5	36.2	29.5	200	30.00	27.6	1114	82	543	1153	73	101	821	1136	70	1106
ADF-1250-T-R1	38.5	31.5	225	37.00	35.5	1335	82	574	1309	73	101	852	1276	70	1137
ADF-1250-T-R2	41.1	33.5	225	45.00	42.4	1576	83	610	1537	75	103	888	1506	72	1173
ADF-1250-T-R3	43.8	35.7	250	55.00	52.3	1857	84	717	1811	75	103	995	1775	72	1280
ADF-1250-T-R4	47.0	38.3	280	75.00	68.4	2140	85	852	2086	76	104	1130	2045	74	1415
ADF-1250-T-R6	50.0	40.7	280	90.00	84.4	2419	86	957	2359	78	106	1235	2312	75	1520
ADF-1250-T-R7	22.4	18.2	160	11.00	8.7	485	69	437	473	60	88	715	463	57	1000
ADF-1250-T-R8	26.8	21.8	180	15.00	12.7	694	71	485	677	62	90	763	663	59	1048
ADF-1250-T-R9	28.9	23.6	200	18.50	16.1	810	72	510	790	63	91	788	774	61	1073
ADF-1250-T-R10	31.2	25.4	200	22.00	19.5	941	73	540	918	64	92	818	899	63	1103
ADF-1250-T-R11	33.4	27.3	225	30.00	24.4	1083	74	582	1056	65	93	860	1035	63	1145
ADF-1400-T-R1	32.6	21.1	200	18.50	16.9	818	74	656	797	65	93	947	781	62	1292
ADF-1400-T-R2	35.7	23.2	200	22.00	18.6	983	74	686	958	65	93	977	939	62	1322
ADF-1400-T-R3	41.6	27.0	225	30.00	25.5	1238	75	728	1213	66	94	1019	1185	64	1364
ADF-1400-T-R4	44.7	29.0	250	37.00	31.1	1426	76	844	1400	67	95	1135	1385	65	1480
ADF-1400-T-R5	47.0	30.5	280	45.00	36.6	1586	77	972	1550	68	96	1263	1519	66	1608
ADF-1400-T-R6	48.1	31.5	280	55.00	47.1	1784	78	1031	1739	70	98	1322	1704	67	1667
ADF-1400-T-R7	24.6	16	160	7.50	6.3	468	64	581	457	55	83	872	448	52	1217
ADF-1400-T-R8	26.9	17.5	180	11.00	7.9	557	65	620	543	56	84	911	533	53	1256
ADF-1400-T-R9	31.5	20.5	225	15.00	13.9	766	68	686	747	59	87	977	732	57	1322
ADF-1400-T-R10	33.6	21.8	225	18.50	15.6	871	68	702	849	60	88	993	832	58	1338
ADF-1400-T-R11	36.0	23.4	250	22.00	20.0	999	69	728	974	61	89	1019	955	58	1364
ADF-1600-T-R1	49.0	24.5	225	30.00	24.8	1300	77	892	1296	68	96	1240	1261	65	1680
ADF-1600-T-R2	53.0	26.5	250	37.00	33.5	1543	78	1008	1516	69	97	1356	1485	66	1796
ADF-1600-T-R3	55.4	27.7	280	45.00	41.0	1628	80	1135	1657	71	99	1483	1624	68	1923
ADF-1600-T-R4	59.4	29.7	280	55.00	47.0	2012	80	1195	1905	71	99	1543	1862	68	1983
ADF-1600-T-R5	64.9	32.3	315	75.00	67.7	2492	81	1590	2429	72	100	1938	2381	70	2378
ADF-1600-T-R6	69.6	34.6	315	90.00	86.0	2864	83	1680	2792	74	102	2028	2736	71	2468
ADF-1600-T-R7	38.0	18.9	225	15.00	13.6	854	69	850	833	61	89	1198	816	58	1638
ADF-1600-T-R8	41.5	20.7	225	22.00	18.5	1019	71	892	994	63	91	1240	974	60	1680
ADF-1600-T-R9	45.2	22.5	250	30.00	24.9	1209	72	1005	1179	63	91	1353	1156	61	1793
ADF-1600-T-R10	48.8	24.3	280	37.00	33.5	1404	73	1120	1369	65	93	1468	1342	62	1908
ADF-1600-T-R11	52.3	26.0	280	45.00	35.6	1614	74	1192	1573	65	93	1540	1542	62	1980

注：ADF系列射流风机所有数据均经全性能风机试验室按GB1236–2000与ISO13350标准严格测试，数据真实可靠。
所列噪声声压级为：在自由空间、与风机轴线成45度、距离风机出口10米处测量的A级计权声压级。

声音频谱修正因数(风机配1D消声器)

Sound Spectrum Factors(Fan with 1D silencers)

风机机号 Model No	电机转速 Motor speed	单向(K型)Uni-direction							双向(T型)Truly reversble						
		125	250	500	1k	2k	4k	8k	125	250	500	1k	2k	4k	8k
40	2900	−03	−04	−09	−11	−13	−15	−17	−06	−03	−09	−14	−12	−15	−18
50	2900	−04	−05	−10	−13	−13	−15	−17	−07	−03	−10	−14	−12	−15	−19
56	2900	−05	−03	−12	−14	−12	−16	−20	−07	−03	−10	−13	−10	−14	−20
63	2900	−05	−05	−11	−11	−10	−13	−19	−08	−03	−11	−12	−09	−13	−21
71	2900	−07	−04	−12	−09	−09	−14	−20	−10	−04	−10	−10	−08	−13	−22
80	1450	−12	−03	−12	−08	−10	−14	−19	−13	−02	−13	−09	−12	−22	−25
90	1450	−10	−03	−11	−07	−10	−13	−17	−11	−02	−12	−08	−12	−21	−23
100	940	−03	−07	−12	−09	−12	−14	−21	−02	−07	−13	−10	−16	−22	−27
	1450	−11	−05	−11	−06	−10	−12	−19	−11	−03	−11	−06	−11	−19	−24
112	960	−05	−04	−11	−10	−13	−17	−22	−05	−05	−12	−09	−11	−15	−22
	1470	−12	−05	−08	−06	−11	−15	−20	−08	−06	−09	−06	−09	−15	−20
125	960	−05	−04	−11	−09	−13	−18	−21	−04	−05	−10	−09	−11	−18	−23
	1470	−08	−06	−07	−07	−11	−16	−19	−06	−07	−08	−07	−10	−17	−22
140	725	−03	−05	−12	−11	−15	−19	−22	−01	−10	−14	−11	−15	−21	−24
	975	−05	−04	−10	−09	−12	−17	−20	−03	−08	−13	−09	−14	−21	−24
160	725	−04	−05	−12	−11	−15	−19	−22	−02	−10	−14	−11	−15	−21	−24
	975	−06	−04	−10	−09	−12	−17	−20	−03	−07	−12	−08	−13	−20	−23

2D对1D的修正值

Additional correction to 1D selencer

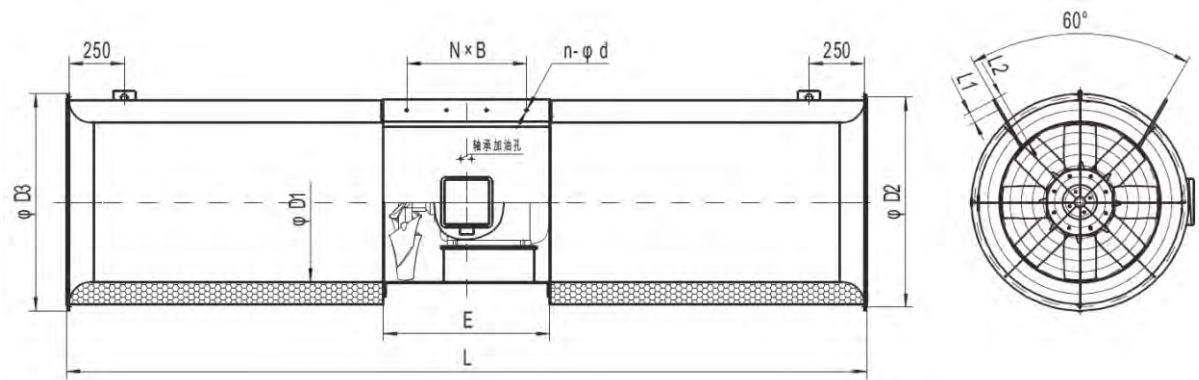
1消音器 1D silencer	2D消音器 2D silencer						
	125	250	500	1k	2k	4k	8k
50	−1	−2	−6	−4	−4	−1	−5
56	−1	−2	−5	−4	−5	−2	−4
63	−1	−2	−4	−6	−6	−4	−4
71	−1	−2	−4	−4	−4	−3	−3
80	−1	−2	−3	−3	−3	−2	−2
90	−1	−2	−2	−2	−1	−1	−2
100	−1	−2	−3	−3	−2	−3	−2
112	−1	−2	−2	−3	−3	−3	0
125	0	−2	−2	−4	−2	−3	−2
140	−1	−2	−2	−3	−2	−3	−2
160	−1	−3	−2	−2	−2	−2	−1

射流风机的声功率级频谱

(以ADF–100P–4P–40为例) Jet fan sound spectrum

噪声频谱 Sound spectrum	125	250	500	1k	2k	4k	8k
声功率级(dBW) Sound power level	103	103	103	103	103	103	103
1D消音器 1D silencer	−11	−3	−11	−6	−11	−19	−24
	99	100	92	97	92	84	79
2D消音器 2D silencer	−1	−2	−3	−3	−2	−3	−2
	91	98	89	94	90	81	77

产品尺寸
PRODUCT SIZE



型号	φ D1	φ D2	φ D3	E	N x B	L1	L2	L		n x φ d
								1D	2D	
ADF-630-K	640	780	788	600	3×180	50	100	1910	3170	4× φ 18
ADF-710-K	720	920	928	640	3×200	50	100	2120	3540	4× φ 18
ADF-800-K	810	1010	1018	640	3×190	50	100	2300	3900	4× φ 18
ADF-900-K	910	1110	1118	640	4×160	60	150	2500	4300	5× φ 18
ADF-1000-K	1010	1210	1218	640	4×160	60	150	2700	4700	5× φ 18
ADF-1120-K	1130	1330	1338	640	4×180	80	180	2950	5190	5× φ 18
ADF-1250-K	1260	1460	1468	900	4×200	80	180	3470	5970	5× φ 20
ADF-1400-K	1410	1630	1640	1000	4×225	100	200	3900	6700	5× φ 26
ADF-1600-K	1610	1850	1860	1000	4×225	100	200	4300	7500	5× φ 26

技术规范
TECHNICAL SPECIFICATION

风机类型 / Fan type

射流风机由风机本体、叶轮、内置式电机、接线盒、注排油装置、整流罩、两端管式消声器、必要的连接紧固件。其设计与制造应符合《JB/T 10489-2017隧道用射流风机技术条件》，还应满足在250℃下连续稳定运转至少60分钟，并提供相关报告。

Jet fan consists of fan casing, impeller, built-in motor, terminal box, oil injection and discharge device, fairing, tube muffler at both ends and necessary connecting fasteners. The design and manufacture shall comply with JB/T 10489-2017 Jet Fan Technical Conditions for Tunnel, and shall also meet the requirement of continuous and stable operation at 250℃ for at least 60 minutes, and relevant reports shall be provided.

动叶轮 /Dynamic impeller

射流风机的动叶、轮毂均采用高强度铝合金材料机械钢模压力铸造，表面须经硬质阳极化处理或经抛光、磷化处理。轮毂和叶片用铝合金材料性能如下：抗拉强度不低于230MPa，伸长率不低于2%，布氏硬度不低于70。动叶片为对称机翼形，停机叶角可调。轮毂和叶片需逐件严格、认真地进行外形尺寸、重量、透视探伤检验，检验应在热处理完成后进行。

The dynamic blade and hub of the jet fan are made of high-strength aluminum alloy by mechanical steel die pressure casting, and the surface must be hard anodized or polished and phosphating. Aluminum alloy material properties for wheel and blade are as follows: tensile strength not less than 230MPa, elongation not less than 2%, Brinell hardness not less than 70. The moving blade is a symmetrical airfoil with adjustable blade Angle. The hub and blade shall be strictly and seriously inspected for dimension, weight and perspective inspection, which shall be carried out after the heat treatment is completed.

机壳与机座 /Casing and base

机壳采用优质钢板制作；风筒壁厚不低于4mm，法兰厚度不低于4mm。机壳的制造精度应符合有关规范、标准要求，应有足够的强度与刚度，能承受运转产生的动负荷，在结构上还应考虑运行维修的可能性与方便性。

The casing is made of high quality steel plate; The thickness of air cylinder wall shall not be less than 4mm, and the thickness of flange shall not be less than 4mm. The manufacturing accuracy of the chassis should meet the requirements of relevant specifications and standards, and it should have enough strength and stiffness to withstand the dynamic load generated by operation. The possibility and convenience of operation and maintenance should also be considered in the structure.

电机 /Motor

风机所选电机的效率均不应低于《中小型三相异步电动机能效限定值及能效等级》GB18613中规定电动机能效限定值。风机采用电机直接驱动方式，电机暴露于气流中。配套电机应采用绝缘等级为H级的耐高温专用电机，防护等级为IP55。

电机应采用自动润滑型式，电机注油管、排油管应采用无缝铜管，注油嘴和排油阀应采用铜质材料。

电机采用知名厂家的优质产品(如KTZ、ABB、西门子等)。

The efficiency of the motor selected by the fan shall not be lower than the motor energy efficiency limit value specified in GB18613 "Energy Efficiency Limit Value and Energy Efficiency Grade of Small and Medium-sized three-phase Asynchronous Motors". The fan is driven directly by the motor, which is exposed to the airflow. The supporting motor shall adopt special high-temperature resistant motor with insulation grade H and protection grade Ip55.

The motor should be automatically lubricated, the motor injection pipe and discharge pipe should adopt seamless copper pipe, and the oil injection nozzle and discharge valve should adopt copper material.

The motors should be high class products from well-known manufacturers (such as KTZ, ABB, Siemens, etc.).

整流罩 /Cowling

应采用较高强度的铝合金材料或不锈钢材料。当采用铝合金材料时应钢模压力铸造，其成型后最薄处厚度不低于1mm，表面需经氧化处理；当采用不锈钢材料时，应冲压成型，其厚度不应低于0.8mm。整流罩安装牢固，并可灵活拆卸。

High strength aluminum alloy or stainless steel should be used. When aluminum alloy material should be steel die pressure casting, the thinnest thickness after molding is not less than 1mm, the surface should be oxidized; When using stainless steel material, should be stamping molding, its thickness should not be less than 0.8mm. The fairing is firmly installed and removable.

静叶 /Static impeller

静叶应为机翼型，表面需经热镀锌（镀锌层厚度≥50μm）或其他耐腐蚀涂装处理。静叶数量与动叶片数量应互成质数；并应分布均匀。

Static blades shall be airfoil type, surface shall be hot-dip galvanized (galvanized layer thickness ≥50μm) or other corrosion resistant coating treatment. The number of stator blades and the number of moving blades should be prime numbers of each other. And should be evenly distributed.

消声器 /Silencer

射流风机两端均配管式消声器，消声器长度均为风机直径的两倍。管式消声器的内层材料选用多孔不锈钢板；消声器与风机本体连接用所有螺栓、螺母和垫圈均采用不锈钢材料。内层不锈钢板厚度不低于0.6mm；外层采用优质钢板厚度不低于2mm，采用钢板模压拉伸或旋压翻边工艺制作；或采用满足强度要求的足够厚度的不锈钢板制造（厚度自定）。消声器内填充材料采用优质离心玻璃棉。非与风机连接的两端需设蜘蛛网状防护网。防护网径向主筋采用不小于Φ5mm的不锈钢圆钢或同等强度的不锈钢扁钢，环形网筋采用不小于Φ2mm的不锈钢圆钢，环形网筋间距不大于60mm。

Both ends of the jet fan are equipped with tubular silencers, whose length is twice the diameter of the fan. The inner material of tube muffler is porous stainless steel plate. All bolts, nuts and washers used to connect the muffler to the fan body are made of stainless steel. Inner stainless steel plate thickness is not less than 0.6mm; The outer layer is made of high quality steel plate with a thickness of no less than 2mm, which is made by steel plate molding and drawing or spinning and flanging process. Or stainless steel plate of sufficient thickness to meet the strength requirements (thickness customized). The muffler is filled with high quality centrifugal glass wool. Spider net should be set up at both ends not connected with the fan. The main radial ribs of the protective net are stainless steel round steel of no less than 5mm or the same strength of stainless steel flat steel, the ring ribs are stainless steel round steel of no less than 2mm, the ring ribs spacing is not more than 60mm.

接线盒 /Terminal box

风机接线盒应具有足够的电气安全空间，其电源接线端子应比正常配电容容量线径高二个等级。电机与机壳接线盒间的连接电缆应连接牢固，并采用有效保护，以满足耐高温、耐震动要求，并避免相互干扰。接线盒的防护等级不低于电机接线盒防护等级。

The fan terminal box should have sufficient electrical safety space, and its power terminal should be two grades higher than normal distribution capacity wire diameter. The connecting cable between the motor and the terminal box of the housing should be firmly connected and effectively protected to meet the requirements of high temperature resistance and vibration resistance and avoid mutual interference. The protection grade of the terminal box shall not be lower than that of the motor terminal box.

减振器 /Vibration absorber

风机通过减振器固定在支架上，减振器应能保证风机在长期运行条件下，其隔振效率达到90%以上（额定转速运转）。

The fan is fixed on the bracket by the shock absorber, which should ensure that the vibration isolation efficiency of the fan reaches more than 90% (rated speed operation) under long-term operation conditions.

控制方式 /Control mode

射流风机受远程控制、就地控制两级控制，就地控制具有优先权。远程控制是在正常工况下，控制室对射流风机的运行状态作控制及显示；就地控制是在设在环控电控柜处进行操作。

射流风机旁配手操箱，供风机安装、调试和检修时使用。射流风机为一级负荷设备，由动力专业引双电源供电。

The jet fan is controlled by remote control and local control, and local control has priority. Remote control is to control and display the running state of the jet fan in the control room under normal working conditions. Local control is operated in the electric control cabinet.

A manual operation box is provided beside the jet fan for installation, debugging and maintenance of the fan. Jet fan is a first-level load equipment, powered by two power sources.

安全保护 /Security and protection

射流风机电控柜对电机设有缺相保护、过载保护功能。

The electric control cabinet of jet fan is equipped with the functions of missing phase protection and overload protection for the motor.