

分解图号	Description	中文名称	分解图号	Description	中文名称
4	Top cover	上盖	196	Nut	螺母
5	Front cover	前盖	199	Motor	马达
6	Bottom cover	下盖	201	Inlet filter housing	进气过滤器壳
7	Hex socket screw	内六角螺丝	203	Hex socket screw	内六角螺丝
8	Spring washer	弹性垫片	207	Hex socket screw	内六角螺丝
10	Foot pad liner	脚垫衬垫	217	Seal gasket	密封垫片
11	Foot pad	脚垫	218	Seal gasket	密封垫片
13	Hex socket screw	内六角螺丝	219	Inlet & outlet clamp cover	进排气卡盖
14	Lifting ring	吊环	221	Hex socket screw	内六角螺丝
15	Flange frame protective wire mesh	法兰框防护铁丝网	238	Hex socket screw	内六角螺丝
16	Hex socket screw	内六角螺丝	244	Filter element compression spring	滤芯压紧弹簧
20	Hex socket screw	内六角螺丝	301	Exhaust filter housing	排气过滤器壳
27	Coupling bush	联轴器衬套	313	Inlet & outlet filter cover	进排气滤芯盖
32	Stud bolt	双头螺杆	317	Seal gasket	密封垫片
33	Rubber buffer pad	橡胶缓冲垫	357	Nut	螺母
35	Oil passing screw	过油螺杆	442	Inlet/Exhaust silencer	进/排气消音筒
36	Grease nozzle	黄油枪喷嘴	444	Hex socket screw	内六角螺丝
54	Flange frame foot bracket	法兰框脚支架	451	Silencer cotton support mesh	消音棉支撑网
57	Hex socket nut	内六角螺母	452	Silencer cotton	消音棉
61	Flange frame	法兰框	453	Seal gasket	密封垫片
67	Hex socket screw	内六角螺丝	454	Silencer cover	消音器盖
69	Fan	风扇	455	Hex socket screw	内六角螺丝
78	Washer	华司	502	Hex socket screw	内六角螺丝
101	Cylinder body	缸体	506	Exhaust check valve	排气逆止阀
105	Rotor	转子	507	Exhaust cooler adapter base	排气冷却器转接座
108	Carbon vane	碳精片	508	Hex bolt	六角螺丝
110	Key	键	509	Seal gasket	密封垫片
111	Front end cover	前端盖	510	Hex bolt	六角螺丝
112	Rear end cover	后端盖	511	Vacuum safety valve	真空安全阀
113	Rear bearing retainer	后轴承压盖	512	Seal gasket	密封垫片
114	Front bearing retainer	前轴承压盖	513	Exhaust cooler base	排气冷却器座
115	Hex bolt	外六角螺丝	520	Exhaust filter element	排气滤芯
116	Hex bolt	外六角螺丝	522	Aluminum spacer	铝垫块
117	Dowel pin	定位销	607	Motor coupling	马达联轴器
118	Filter element	滤芯			
121	Bush	衬套			
124	Ball bearing	滚珠轴承			
125	Bearing	培林			
127	Shim	间隙片			
132	Shaft seal	轴封			
133	O-ring	O型圈			
134	Wave washer	波形垫片			
138	Seal gasket	密封垫片			
187	Flange	法兰			
188	Flange wind baffle	法兰挡风板			
193	Stud bolt	双头螺杆			
194	Washer	华司			
195	Washer	华司			

AMILA

Vacuum pumps & System

AE-SR 250
操作使用说明书
(Operating Instructions)

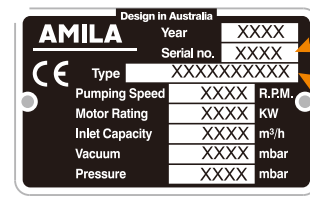
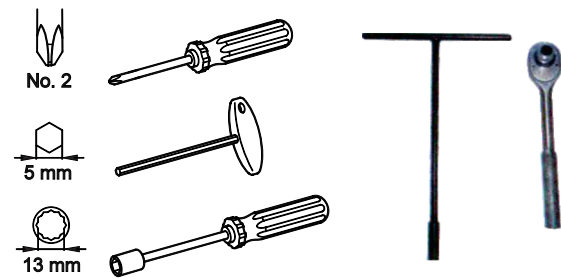


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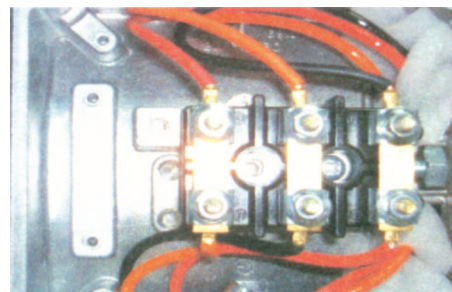
1. 使用工具(Tools)



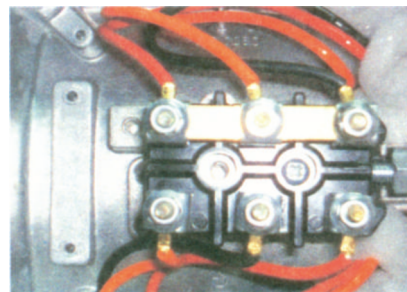
制造编号
(Index)
型号
(Option)



2. 安装&马达（电机）连接(Installation&Motor Connection)



电压接法 (Low Voltage): 三相 3Φ 220V



电压接法 (High Voltage): 三相 3Φ 380V



周围环境温度不超过摄氏45°C
Ambient temperatures must not exceed 45°C

3. 安全规则(Safety code):

⚠ 请依照意外防止条规 VBG16, 压缩机, 特别条款 IIIc “安装” 与 IV “操作” 以及 VBG4 “电气设备和工具”。制造厂商核准后, 真空泵才可变更或修改。

Please refer to accident prevention rule VBG16, compressor, special condition IIIc “installation” and IV “operation”, and VBG4 “electric equipment and tool”. Only modify or change the pump with manufacturer's permission.



空压将产生高温(Air pressure will produce high temperature heat):

- 安装泵 / 压缩机于适当位置, 勿与热机体表面接触。
- Install pump/compressor in appropriate location, do not make contact with the pump's hot surface.
- 保护泵周边区域。
- Set up safety fence around the pump.
- Use safety sign.

4. 应用 (Application):

- 泵可适用于产生真空。
- The pump can be used to generate vacuum
- 泵为干式运转, 无油雾吸入; 本规格适用海拔 800 米以下区域, 进气必须为洁净干燥空气, 不得输送有毒或易燃介质。
- Inlet air must be standard dry atmospheric air. The pumps are dry-running. Avoid intake of oil mist. The specification is valid up to a height of 800m above sea level.
- 粉尘与空气混合时, 会造成设备温升过高, 致使设备无法运行。
- If the inlet air is mixed with dust, overheating can occur and cause pump malfunction.

5. 运输及储藏保管(Transportation and storage):

泵请存放于干燥区域, 防止水蒸气形成压缩冷凝; 使用吊车装卸及运输时, 仅可使用吊装螺丝。

Store pump in dry area, prevent condensed moist, use top hook when lifting and transporting.

6. 安装(Installation):

安装放射式压缩机时, 需考虑便于保养维修, 压缩机与周边隔墙之间的间距至少不小于 10 厘米, 确保冷却所需空气流通顺畅; 如需在消音罩内部开展安装作业, 请事先联系 AMILA 公司咨询, 环境温度不得超过 45°C。

It is recommended to install the pumps with easy access for maintenance. Clearance between compressors and adjacent walls should be no less than 10cm of free space in order to ensure sufficient air flow for cooling. Contact **AMILA** prior to installation under noise, insulation canopies. Ambient temperatures must not exceed 45 c°.

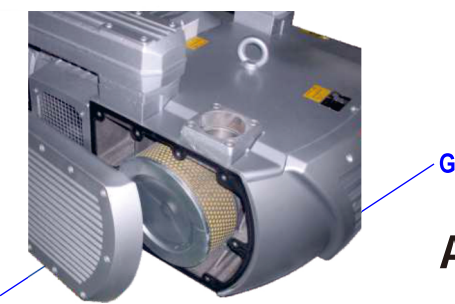
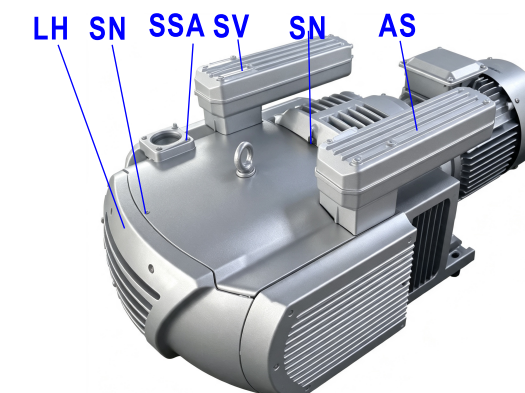
7. 连接与装配:

- 注意确保配合尺寸之正确 (见表格) 和管路清理, 勿使接口沾染油液、油脂、水和其他污染物以保持连接之气密; 对于长度超过 2 公尺之管路, 我们建议安装逆止阀。
- Ensure correct dimensions(see table) and clean pipelines. Keep connections free from oil / grease / water and any other contamination. With pipelines exceeding 2m in length we recommend the installation of non-return valves.
- 空气排出管路可通过 AS 通向外部。
- Air can be discharged from AS to the external.
- 耐压管路或吸气管路的连接线长度设计标准为 3M, 对于管路之标准长度为 10m, 我们建议接近较大之管路直径; 如果管路长度超过10m, 请联系厂家获取更合适的管路直径相关资料; DA 与 SA 底盖请勿外接管路。
- The standard length for pressuried / air inlet pipeline is 3 meter, For pipeline length up to 10 meters, larger radius pipeline size is recommended. For pipeline length more than 10 meters, please remove end caps at DA and SA. Do not connect to pipeline yet, and consult our technician.

8. 马达（电机）连接(Motor connection):

- 放射型压缩机的电源连接方式应符合规格, 注意遵守 En60204
- Connect the Vacuum pump to the electricity supply observing all applicable safety regulation. Comply with En60204 T1.
- 马达连接可按照接线盒内的电路图或备好插头进行, 此工作只能由专职电工完成。
- Connect motor based on connecting diagram (in terminal box) or ready-made plugs. This work should be carried out by an experienced electrician only.
- 注意检查连接电压及频率;
- Check for connecting voltage and frequency.
- 配置电机安全开关, 按电机额定电流进行设置 (数值见电机)
- The switch for the motor protection and the main switch have to be installed. Adjust the motor protection switch to the nominal output of the motor (the data can be found on the motor type plate).
- 每小时内开关次数不应超过 4~6 次。
- Avoid more than 6 switches per hour.
- 装设完毕稍作回转, 检查其转向是否正确 (参照电机壳上箭头 ↺!), 若转向不对, 更换状态。
- Briefly start motor and check rotation (arrow on casing ↺!). Exchange phases if rotation is incorrect.

9. 零件代号及名称:



AE-SR 250

LH: 壳体盖 (Air Guide Cover)
SN: 黄油注入口 (Grease Oil Sprue)
SA: 真空接入口 (Vacuum Connection)
AS: 消音器 (Vacuum Relief Valve with Silencer)
SV: 真空安全阀 (Exhaust Air Silencer)
GD: 侧盖 (Filter Cover)

10. 运转测试 — 压缩机机型 & 复合型 【Test operation – Vacuum pump 】:

耐压管接 DA 端，确定消音器 AS 的进气通畅，以及移除耐压安全阀 SV 空气排出的阻碍；若无安全装置，压缩机不允许运行（最大压力表值参见型号铭牌）；倘若出现压缩机终端压力超过允许值 1.0bar，另需连接压力测量仪表并标注终端压力。Connect pressure line at DA, ensure clear air intake for silencer AS, and open pressure valve SV for air discharge; do not operate the compressor without safety equipment against excessive pressure(for maximum values see rating plate); In case of permitted compression end pressures of more than 1 bar additionally connect a pressure meter and mark end pressure.

11. 运转测试 — 真空泵浦 【Test operation – Vacuum pump 】:

吸气管接 SA 端，确认消音器 AS 排气通畅，并且清除真空安全阀 SV 空气排放通道的阻碍物。Connect inlet pipeline to SA, ensure silencer AS is clear and exhaust air, open vacuum valve SV for air intake.

12. 维护保养 (Maintenance) :

经常性维护保养能够使真空泵/压缩机维持最佳工作状态，维护保养周期取决于使用工况与工作条件宽松程度；设备初期建议选用较短的维修间隔，后续可依据实际运行经验调整保养周期。Maintain pump regularly to achieve the best operating results. Maintenance intervals will depend on the pump's use and ambient conditions.

-  进行保养作业前，必须切断机电电源，并确保设备不会意外重新启动。
Before commencing maintenance, remove main plug from socket to avoid unintention restarting.
-  使用压缩空气吹除冷风道 KL 槽内的污物。
Air pressure will generate high temperature at the compressors, allow the pump parts to cool before disassembly.

a) 过滤器 (Filter) :

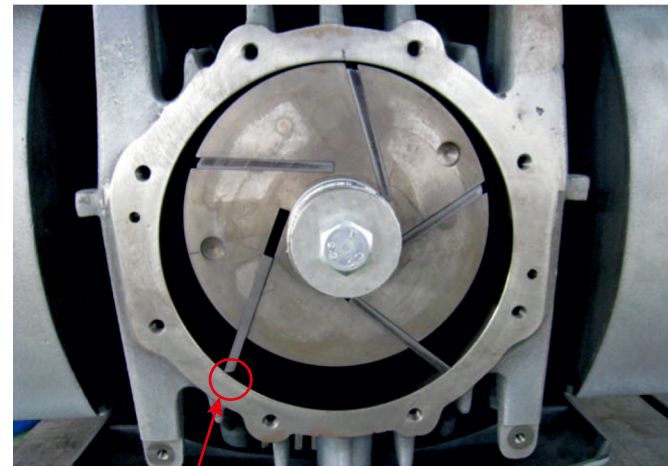
-  滤芯装在壳盖 GD 的后面，需根据灰尘堆积进行清洗。清洗时用压缩空气朝过滤器由内往外吹；根据周边空气以及额外作业工况（例如：多规格轮换运行），若粉尘浓度较高，建议每周检查过滤器（初期一周一次）；清洗时用压缩空气朝过滤器由内往外吹。
install filter behind the cover GD, cleaning interval depends on to the amount of dust accumulated. When cleaning blow the dust on filter from inside outside with use pressured air. Depending on surorunding environment and additional operation (eg. Multi-alternate operation); with high dust accumulation we recommend weekly inspection (initially check twice per week).
-  必须更换堵塞、浸油或沾有油脂的滤芯；妥善处置旧滤芯，粉尘较多的环境加装外置过滤器有助于设备运行。
Blocked, oil soaked or greased filter must be replaced. Additional filter will help in highly dusted environment.

b) 叶片 (Carbon Vanes):

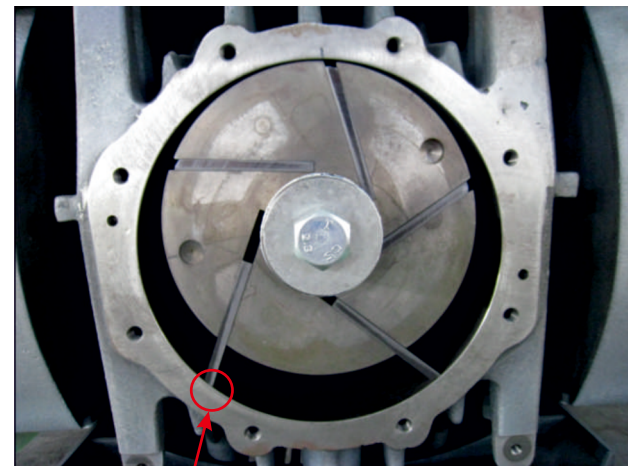
叶片因与泵腔壳体内壁摩擦会产生磨损。★碳片属于耗材，须定期检查、更换。
The friction on the wall in pump chamber will cause carbon to wear. ★Carbon vanes are consumed, they must be inspected and replaced regularly.

-  设备运行 3000 小时后或至少每年，应当检查叶片宽度（最小宽度参见表格）。
Every 3000 hours of operation or every year, the carbon vanes width should be checked (see minimum width in chart).

型号 (TYPE)	宽度正常尺寸 (Normal width)	宽度少于建议更换尺寸 Recommend to replace at minimum width
AE-SR 250	65 mm	41 mm



碳精片安装错误方向
The carbon vanes are installed by incorrect direction



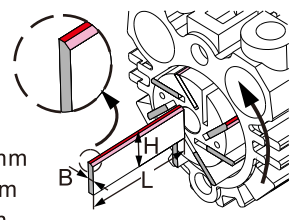
碳精片安装正确方向
The carbon vanes are installed by correct direction


vacuum pumps & System
AE-SR 250

H= 65 mm(正常)
少于 41mm(建议更换)

L =355 mm
H =65 mm
B = 5 mm

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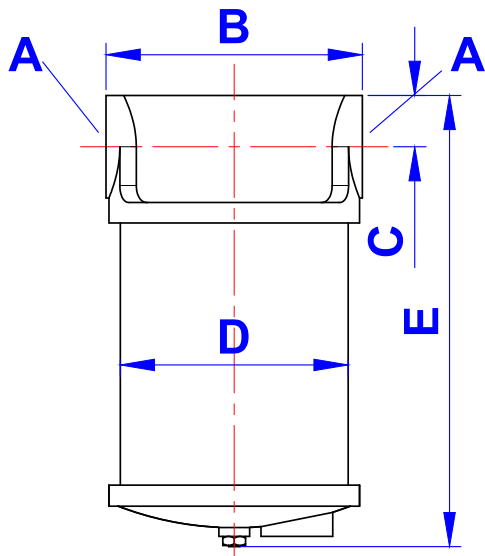




- a) 保养维修时须打开壳体盖LH和侧盖SD（八颗螺栓）；
a)When maintaining the pump, open pump cover LH and lid SD (8 hex head screws);
- b) 使用两颗螺栓在G位置平稳拆卸，小心从转子卸下叶片；
b)Use 2 hex head screws on G, steadily disassemble and remove vanes from the rotor;
- c) 请勿在转子上使用外力触碰叶片；设备设有侧边黄油喷嘴，在VS接口处加注黄油；
c)Do not apply force on vanes when they are attached to the rotor, apply grease on VS;
- d) 所有装配及运行工况均需达到最高清洁标准；
d)Ensure clear site for pump assembly and operation;
- e) 保障压缩机机房粉尘通风顺畅；
e)Ensure clear ventilation in operation site;
- f) 组装时留意叶片边缘位置（叶片装入后不得高出转子端面）；
f)Ensure carbon vanes are inserted properly without edging out (vanes should not be higher than the rotor plane);
- g) 检查油封垫片与滚动轴承；
g)Check for sealing ring and ball bearing;
- h) 清理转子轴芯油脂，小心取下转子侧盖；
h)Clean the grease on rotor shaft, carefully remove rotor lid;
- i) 轻微抬升壳体，确认壳体盖由定位销定心，均匀锁紧8颗螺栓，保证定位销不倾斜；
i)Slightly lift the pump body to ensure the cover is firmly attached on the center of straight pin, steadily screw the 8 hex head screws to ensure straight pin is upright;
- j) 检查转子转动是否顺畅。
j) Check if the rotor rotates properly.

c) 培林 (Bearing):

滚珠轴承运行 3000 小时后，压缩机运转状态下，使用 **AMILA** 黄油枪- 10g之 Amblygon GY193 或TA15/2 之黄油涂在**SN**两处之黄油嘴。
Every 3000 hours operation, when the pump is running, apply grease 10g of Amblygon GY193 or grease TA 15/2 on grease nipples SN.
■ 过滤器(Filter)



RA 71



RA 72

过滤器尺寸 (Dimensions)

MODEL	A	B	C	D	E
RA 71	RC 1-1/2"	225	45	200	400
RA 72	RC 2-1/2"	330	45	300	400

零件明細
Spare Parts Lists

AE-SR 250

