



Cobra®

高压双隔膜泵 HIGH PRESSURE DIAPHRAGM PUMPS

- 快速回报 Fast return on investment
- 可靠性高 High reliability
- 应用广泛 No application limits



巨大优势 Great benefits

WAGNER Cobra®

Cobra 是一款杰出的高压双隔膜泵，适用于无气和空气辅助喷涂，压力可达到250巴。它是第一台高压双隔膜泵不用传统密封圈。油漆和外界空气没有接触（泵是完全密封的）流体部分没有摩擦，剪切最小，使其完美处理各种液体，包括一些最难处理的油漆例如反应型油漆（UV漆，异氰酸盐，丙烯酸）或者高研磨度液体。泵工作时带有极低脉冲，产生均匀的油漆流量，获得了完美的喷涂形状和出色的表面质量。泵内部容量达到最小化，在清洗和换色操作中可以减少溶剂消耗和油漆的浪费。

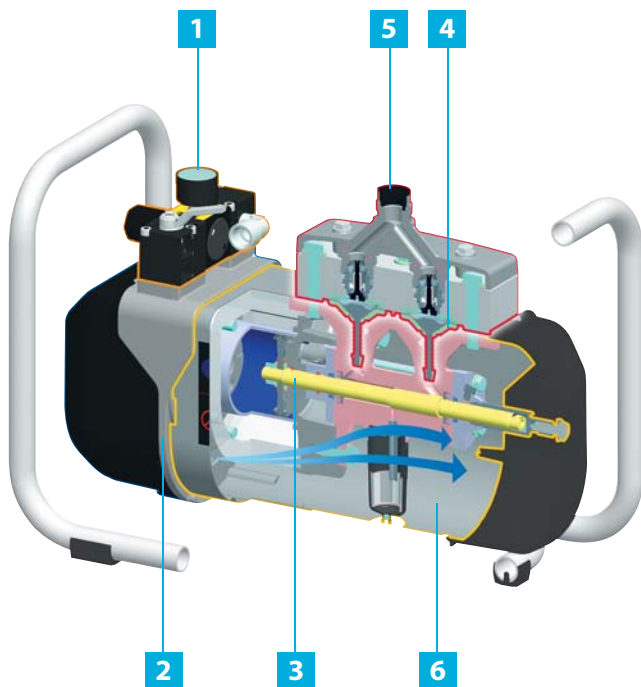
Cobra® is an exclusive high pressure double diaphragm pump suitable for Airless and AirCoat applications up to 250 bar. Cobra® is the first high pressure pneumatic pump without packing. The lack of contact between the material and the external atmosphere (the pump is completely sealed), the absence of friction in the fluid section and the minimum shear make it perfect for any kind of material including the most critical ones such as reactive paints (UV paints, isocyanates, acrylics) or highly abrasive materials. The pump works with extremely low pulsation and creates a uniform paint flow, achieving a perfect spray pattern and superb surface quality. With its minimized internal volumes, the pump is designed to greatly reduce solvent consumption and material waste during flushing and color-change operations.



改革性的工作原理 Revolutionary working principle

破冰气动马达给液压部分按照40比1的比率增压。内部的液压油通过两个隔膜传送压力至液体。一个隔膜产生抽吸，另外一个隔膜输送液体。特殊的入口阀和结实的隔膜结构支持高频率的操作。标准柱塞泵或者风琴泵在处理油漆时出现的问题，COBRA利用高频率可以解决。高输送频率能使泵内液体的容量减少。

An IceBreaker® pneumatic motor pressurizes the hydraulic section with a ratio of 40:1. The oil contained in it, transmits the pressure to the pumped fluid through the two diaphragms. While one diaphragm creates a suction, the other delivers the material. Special inlet valves and the sturdy diaphragm construction allow high frequency operation. While this would be problematic for the fluid section of a standard piston or bellows pump, it is readily mastered by the Cobra® high speed. A high delivery rate is therefore achievable with a very small pump volume.



- 1 调压阀 Pressure regulator
- 2 气动破冰马达 Pneumatic IceBreaker® motor
- 3 液压油活塞 Oil piston
- 4 气动隔膜 Diaphragm
- 5 液体入口 Material inlet
- 6 强制空气冷却（专利技术） Forced-air cooling (patented)

Cobra® 40-10

Cobra 40-10 是小批量生产和频繁换色的理想解决方式。建议在木器和家具行业，小型家具厂和精细木工厂，以及所有金属行业，可以使用一把到三把枪进行操作。Cobra 40-10 也适合输送主剂或者固化剂用于双组份混合系统（电子双组份混合器各种型号）。

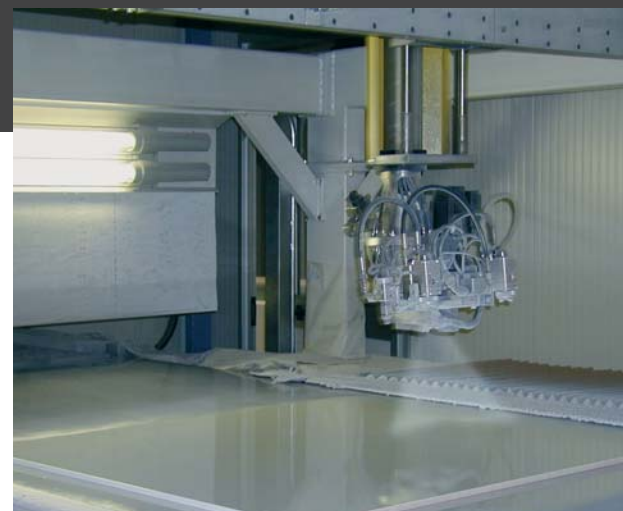
Cobra® 40-10 is the ideal solution for working with small quantities and frequent color changes – recommended for single-gun up to three-gun applications in the wood and furniture industry, small carpentry shops and joineries, and the general metal industry. Cobra® 40-10 is also ideal for feeding base or hardener for 2K mixing units (FlexControl and FlexControl Plus).



Cobra® 40-25

COBRA 40-25 适合用于高流量应用（达到5升/分钟），例如多枪作业或者支持口径非常大的喷嘴。COBRA 40-25 在木器涂装线或者大型喷涂，金属喷涂及皮革喷涂，可以为自动喷涂系统提供出色的解决方案。它适合需要高流量的双组份混合应用，用于输送主剂或者固化剂。

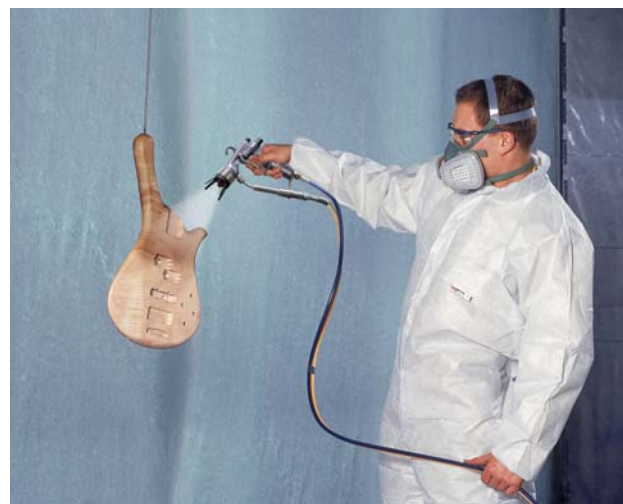
Cobra® 40-25 is suitable for high flow rates applications (up to 5 l/min) such as multi-gun operations or for very large nozzles. It is also an excellent solution for feeding automatic spraying systems in wood coating lines or for heavy-duty applications in carpentry, the metal industry, and leather coating. Cobra® 40-25 is ideal for feeding base or hardener for 2K mixing units when high delivery is needed.



Cobra® 2K

COBRA 2K 应用于高敏感性双组份油漆，例如聚酯类（底漆或者面漆，存储时间无论长或短），可理想运用于喷涂老式家具，棺木，乐器，以及游艇及轮船内部。

Cobra® 2K is the perfect solution for highly reactive 2K materials such as polyester (primer or finishing, short and long pot-life) and is ideal for applications on old-style furniture, coffins, musical instruments, and boat and yacht interiors.



WAGNER Cobra®: Innovative technology

瓦格纳Cobra是市场上唯一的高压气动隔膜泵。此泵特别设计用于确保最高可靠性和最佳的效果。

AGNER Cobra® is the only high pressure pneumatic diaphragm pump on the market. The pump was specifically designed to ensure the highest reliability and the best performance.

- 1** 由于Cobra小流量的清洗方式和易于清洗的设计使溶剂的消耗大大的减少。

A drastic reduction in solvent consumption during flushing operations thanks to its smaller displacement volume and the easy-to-clean design.

- 2** 可靠性高和维护费用低：特别耐用的隔膜和碳化钨入口阀。

High reliability and low maintenance costs: special long-life diaphragms and tungsten carbide inlet valves.

- 3** 优质的喷涂效果：流体输出稳定且脉动小。
Better finishing results: very low pulsation for consistent fluid output.

- 4** 没有结冰现象：瓦格纳破冰空气马达技术，杰出的可靠性和在高速操作时最少的无结冰现象。

No ice problems: proven WAGNER IceBreaker® air motor technology. Excellent reliability and minimal ice formation, even at the highest operating speeds.

- 5** 操作简便：安装循环阀。

Easy operation: integrated recycle valve.

- 6** 所有Cobra可以在水平放置工作也可以在垂直放置工作。

Versatile: all Cobra® pumps can work in either a horizontal or vertical position.

- 7** 抽吸系统灵活：漏斗，软吸料管，硬吸料管。

A variety of suction systems can be mounted: hopper, flexible suction hose, rigid suction pipe.



Minimized solvent consumption.
Environmentally friendly!

溶剂消耗极少，适应环保要求。

CE Ex II 2G II X

享受Cobra®的应用! Enjoy working with Cobra®!

投资回报快 FAST RETURN ON INVESTMENT

油漆处理体积部分减少以及运行费用的降低可极大获得收益。The reduced paint section displacement and low operative costs ensure enormous benefit in terms of savings:

- 在清洗过程中相对于柱塞泵溶剂消耗的减少可接近60%
- Reduced solvent consumption: up to 60 % savings during flushing procedures compared to piston pumps

■ 较低的油漆浪费 Less paint waste

■ 快速换色 Easy and fast color change

■ 极低的磨损使维护成本降低

■ Lower maintenance due to extremely low wear

可靠性高 HIGH RELIABILITY

和流体接触部分耐用的隔膜与无密封圈设计保证了高可靠性，甚至在最繁重的工作环境下，用于液压部分的空气冷却系统保证液压油在一个稳定的温度和粘度下工作。

The long-life diaphragms and the absence of packings in the fluid section guarantee high reliability, even under the most taxing working conditions. The air-cooling system for the hydraulic stage keeps the hydraulic oil at a constant temperature and viscosity.

无应用限制 NO APPLICATION LIMITS

柱塞泵和风琴泵有以下应用限制:

Piston pumps and bellows pumps have the following limitations:

- 1 他们产生大量的摩擦热量。这样限制使用敏感性和研磨性油漆。COBRA不产生摩擦，可以处理敏感的油漆。
They generate a certain amount of friction heat. This limits their usage for reactive and abrasive materials. Cobra® is friction-free and can handle all critical materials.
- 2 他们产生高的剪切，因此不被使用于剪切敏感性油漆。COBRA剪切性几乎没有。
They produce a high shearing effect and are therefore not recommended for shear-sensitive materials. The shearing effect is minimized in the Cobra®.
- 3 他们在换向阶段时产生较大的脉冲，这影响了油漆流量的稳定性和喷涂质量。COBRA可以降低脉冲确保稳定的流量和较好的喷涂效果。
They produce deep pulsations during the switch-over phase. This affects the stability of the paint flow and finishing quality. The reduced pulsation of the Cobra® ensures a constant paint flow and better finishing.
- 4 他们为了获得高流量，需要增加油漆缸体体积。相反，COBRA使用高速运行和较小的液体缸体就可获得大流量输出，同时可以大量降低溶剂的消耗。
They achieve high delivery rates. This requires a large paint section. In contrast, Cobra® pumps use high-speed operation and very small fluid chambers to bring about a dramatic reduction in solvent consumption.

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双隔膜科技 Diaphragm Technology

独特的Cobra®技术 Unique Cobra® technology

泵的速度 PUMP SPEED

柱塞泵建议的工作速度是30双冲程/分钟。COBRA可以运行200双冲程/分钟。这样可以降低液体部分容量以及可以通过运动速率得到最好喷涂质量。

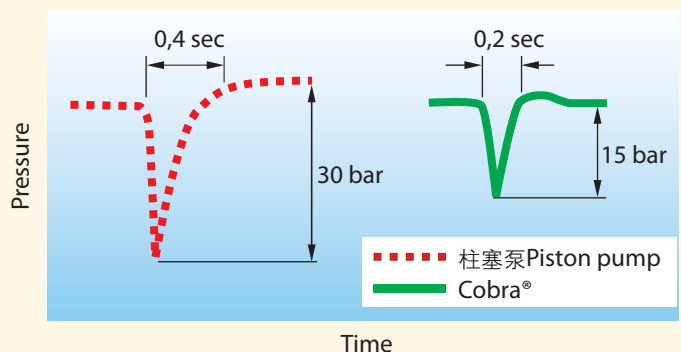
The recommended working speed for piston pumps is 30 DS/min. In contrast, Cobra® pumps can run at 200 DS/min. This makes it possible to dramatically reduce the fluid section volume and achieve good performance in terms of the delivery rate:

	Cobra® 40-10	Piston pump
最大速度 Max. speed	200 DS/min	30 DS/min
泵内液体容量 Pump volume	10 cc/DS	65 cc/DS
最大流量 Max. flow rate	2.0 l/min	2.0 l/min

脉冲 PULSATIONS

相比于传统柱塞泵和风琴泵，双隔膜技术利用了极小液体腔体确保超低脉冲和稳定液体流量。

Compared to standard piston and bellows pumps, the double diaphragm technology combined with small fluid chambers ensures far lower pulsation and a constant material flow.



150巴压力，喷涂介质为水

The example refers to a 150 bar application with water.

选择您的Cobra® Select your Cobra®

Cobra® 40-10

Cobra 40-10 是小批量生产和频繁换色的理想解决方式。建议在木器和家具行业，小型木工和精细木工，以及所有金属行业可以使用一把到三把枪进行操作。Cobra 40-10 也适合输送主剂或者固化剂用于双组份混合系统（各种电子双组份混合器）。

Cobra® 40-10 is the ideal solution for working with small quantities and frequent color changes – recommended for single-gun up to three-gun applications in the wood and furniture industry, small carpentry shops and joineries, and the general metal industry. Cobra® 40-10 is also ideal for feeding base or hardener for 2K mixing units (FlexControl and FlexControl Plus).



应用领域 APPLICATION AREAS

- 木器和家具行业 Wood and furniture industry
喷涂代工厂 Carpentry shops and joineries
- 农业，建筑和挖掘机行业 Agriculture, construction and earth moving
- 一般金属行业 General metal industry
- 皮革喷涂 Leather coating

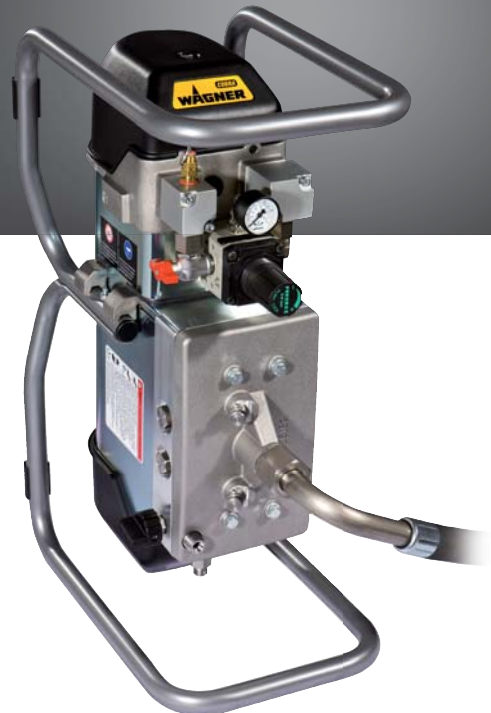
应用油漆 PROCESSABLE MATERIALS

- 水性和溶剂性油漆 Water and solvent-based paints
木器漆 Wood coatings
- 湿度敏感油漆 Moisture-sensitive materials, isocyanates
- 剪切敏感油漆 Shear-sensitive coatings
- UV光固化油漆 UV-cure materials
- 温度敏感油漆 Temperature reactive materials (acrylics, for example)
- 富锌底漆 Zinc primers

Cobra® 40-25

Cobra 40-25 适用于高流量应用设备（达到5升/分钟），例如多枪作业或者支持口径大的喷嘴。Cobra 40-25 在木器涂装线或者大型木工喷涂，金属喷涂及皮革喷涂上可以向自动喷涂系统提供出色的解决方案。需要高流量时，它适合输送主剂或者固化剂用于双组份混合装置。

Cobra® 40-25 is suitable for high flow rates applications (up to 5 l/min) such as multi-gun operations or for very large nozzles. It is also an excellent solution for feeding automatic spraying systems in wood coating lines or for heavy-duty applications in carpentry, the metal industry, and leather coating. Cobra® 40-25 is ideal for feeding base or hardener for 2K mixing units when high delivery is needed.



技术参数 Technical Data

Cobra®

	Cobra® 40-10	Cobra® 40-25
压力比率 Pressure ratio	40 : 1	40 : 1
最大液体压力 Max. fluid pressure	250 bar	250 bar
每双冲程流量 Volume per DS	10 cc	25 cc
最大泵速 Max. pump speed	200 DS/min	200 DS/min
最大流量 Max. flow rate	2.0 l/min	5.0 l/min
重量 Weight	19 kg	32 kg
液体出口尺寸 Fluid outlet	3/8" NPS	3/8" NPS

Cobra® 2K: 完美混合和喷涂聚酯型油漆

Cobra® 2K: Perfect for mixing and applying polyester

Cobra 2K 对于高敏感性双组份油漆是完美的应用，例如聚酯类（底漆或者修补漆，存罐时间无论长或短的油漆），可理想运用于喷涂老式家具，棺木，乐器，以及游艇及轮船内部。事实上，不带密封圈和没有摩擦的结构使Cobra 2K 可以解决传统双组份风琴泵的典型问题，极大地降低维护费用以及溶剂的消耗。Cobra 2K 安装灵活，支架式，挂墙式，推车式。设备标准配备双抽吸管，循环阀和静态混合器。

Cobra® 2K is the perfect solution for highly reactive 2K materials such as polyester (primer or finishing, short and long pot-life) and is ideal for applications on old-style furniture, coffins, musical instruments, and boat and yacht interiors. In fact, due to the packing-free and no-friction construction, Cobra® 2K solves the typical problems of the traditional 2K bellows pumps, reducing drastically the maintenance costs and solvent consumption. Cobra® 2K is available on a base frame, wall bracket or trolley, and is fully equipped with double suction hoses, recycle valves and a static mixer.



技术参数 Technical Data

Cobra® 2K

混合比率 Mixing ratio	1 : 1
压力比 Pressure ratio	40 : 1
最大液体压力 Max. fluid pressure	250 bar
最大流量 Max. flow rate	2.0 l/min

Cobra 2K 优势

- 仅仅混合需要喷涂的油漆，喷涂的油漆始终是新鲜的
- 适合与间歇性与连续生产
- 无密封圈设计，不会产生摩擦，降低维修频率
- 容易清洗
- 高压喷涂应用：表面光整，有限降低橘皮现象，减少打磨时间
- 适用于无气喷涂与空气辅助喷涂：过喷少
- 油漆传递效率高

COBRA® 2K ADVANTAGES

- Mix only what you spray: the mixture is always fresh
- Suitable for everything from small jobs to full time use
- The packing free construction does not create friction and thus reduces maintenance
- Easy to clean
- High pressure application: smoother surfaces to reduce the orange peel effect and sanding time
- Suitable for AirCoat and Airless: less overspray,
- high transfer efficiency

树脂+固化剂
Resin +
hardener

树脂+催化剂
Resin +
accelerator

混合模块
Mixing block

如何准备聚酯漆（PE漆） HOW TO PREPARE POLYESTER FOR COBRA® 2K

人工混合：

Manual mixing:



- 2% 催化剂（400CC的催化剂放入20L树脂中）
 - 2% 固化剂（400CC的固化剂放入20L树脂中）
 - 20L 树脂
- 2 % accelerator of 20 l resin (400 cl)
2 % hardener of 20 l resin (400 cl)
20 l resin

Cobra 2K 混合： 将20L树脂平均分为两份，放入两个容器中

With Cobra® 2K:

Split the 20 l into two containers of 10 l each and add hardener and accelerator in proportion.



4% 固化剂（400CC的
固化剂放入10L树脂中）
4 % hardener
of 10 l resin (400 cl)
10 l resin



4% 催化剂（400CC的催化
剂放入10L树脂中）
4 % accelerator
of 10 l resin (400 cl)
10 l resin

20L 树脂
+400CC 固化剂（20L的2%）
+400CC 催化剂（20L的2%）

20 l resin
+ 400 cl hardener (2 % of 20 l)
+ 400 cl accelerator (2% of 20 l)

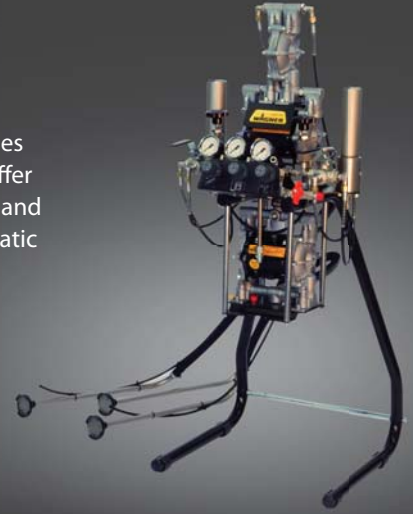
应用专家

瓦格纳提供所有性能的喷枪，都可为客户提供高质量的表面效果。我们提供手动和自动无气喷枪，空气辅助喷枪，空气喷枪，静电与非静电喷枪，高速旋杯。



Expertise in application

The WAGNER spray-gun program optimally combines economical coating with high surface quality. We offer manual and automatic guns for the Airless, AirCoat and air atomization processes, with or without electrostatic support or high speed rotary atomizers.



低压隔膜泵
Low pressure diaphragm pumps

低压双组份油漆 混合泵 ZIP 2K

ZIP 2K双组份混合系统适用于聚酯型油漆（蓝白水PE）喷涂木材表面，混合比例为1:1。

Mixing unit is ideal for the application of Polyester and Polyesterin in the Wood sector or for all low pressure application of 1:1 mix ratio 2K materials.

瓦格纳尔-双组份专家

瓦格纳提供多种先进的混合和配比系统。除了创新的TWINCONTROL双组份设备之外，双组份家族具备其他的功能例如，自动换色，储存配方，配备外围设备接口，适用于混合精度非常高的低/高压喷涂应用。

WAGNER – the 2K specialist

WAGNER offers a wide range of advanced mixing and dosing systems. Besides the innovative TwinControl 2K units, the FlexControl family offers additional features such as automatic color change, recipe storage, peripheral equipment interfaces, and low and high pressure applications with a very high mixing accuracy.



授权专业代理商

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