



TwinControl

ELECTRONIC 2K MIXING SYSTEM 电子 2K 混合系统



- User-friendly 简单易用
- High reliability 可靠性高
- Economic benefit 经济实惠

TwinControl - New 2K solution from WAGNER

TwinControl: 瓦格纳尔的 2K 新方案

WAGNER: expertise in 2K

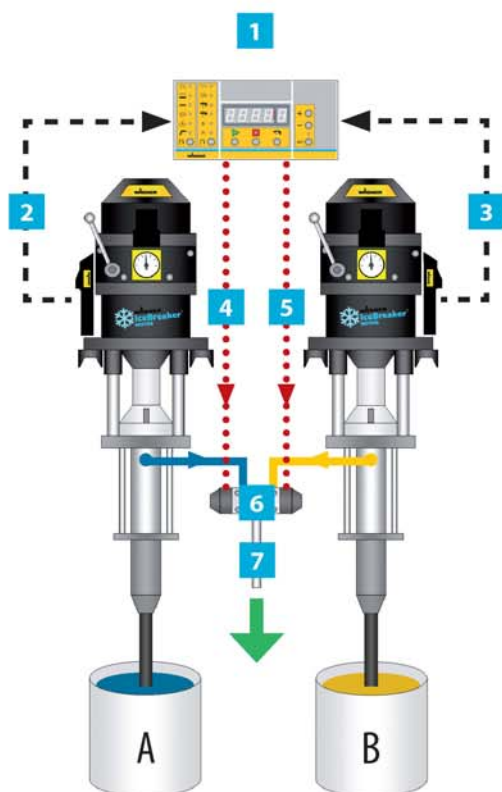
瓦格纳尔： 2K 专业技术

With the TwinControl, WAGNER offers a unique entry solution for 2K applications. The portable TwinControl is an economical, compact and easy-to-use system for a wide range of demands, including high viscosity materials and high delivery rates.

通过 TwinControl，瓦格纳尔为 2K 喷涂提供了独特的解决方案。方便携带的 TwinControl 是一个经济实惠、结构紧凑、简单易用的系统，可满足很多需要，包括用于喷涂高粘性材料和高出料速度的涂料。

The external Magnetic Stroke Meter is an effective alternative to gear flow meters and allows mixing ratios up to 20:1 with a high $\pm 2\%$ precision. As a result, TwinControl is the perfect solution to mixing and applying 2K materials in the wood and metal industries, especially for protective coating requirements.

外部磁冲程计可以有效地代替齿轮流量计，可以得到精度为 $\pm 2\%$ 、高达 20:1 的混合比。因此，TwinControl 是木制和金属行业中混合和喷涂 2K 材料的理想解决方案，尤其是用于保护性的喷涂要求。



Note: Flushing pump not shown in the scheme.
注意：图中没有画出冲洗泵。

The working scheme

工作图解

Two IceBreaker' piston pumps supply the base (A) and the hardener (B). The stroke meters measure the quantity of the A and B materials delivered and send a signal to the electronic box. The system automatically controls an injection valve, which doses the B component in the requested proportion according to the mixing ratio. 两个 IceBreaker 活塞泵分别提供基础涂料 (A) 和硬化剂 (B)。冲程计测量添加的 A 和 B 两种材料的数量并向电子控制箱发送信号。系统会自动控制喷射阀，根据混合比控制 B 组份的所需量。

- 1 Electronic control box
电子控制箱
- 2 Electric signal from stroke meter A
冲程计 A 发出的电信号
- 3 Electric signal from stroke meter B
冲程计 B 发出的电信号
- 4 Pneumatic signal to valve A
给阀门 A 的气动信号
- 5 Pneumatic signal to valve B (injection)
给阀门 B 的气动信号 (喷射)
- 6 Valves A and B
阀门 A 和阀门 B
- 7 Static mixer
静态混合

TwinControl: the easy way to mix 2K 混合 2K 的简便方法



USER FRIENDLY 简单易用

TwinControl will show you how easy it is to handle 2K materials. Connect the unit, set the main parameters, push the Start button - and start working!

TwinControl 将让你知道操作 2K 材料是多么地容易。连接设备，设置主要参数，按一下“开始”按钮即开始进行喷涂。

HIGHLY RELIABLE 可靠性高

TwinControl is perfect even for critical applications such as abrasive materials, reactive paints, high viscosity materials and high delivery rates.

TwinControl 即使是用于苛刻的喷涂，比如研磨材料、活性漆、高粘性材料和高进料速度时的表现也非常完美。

The special software prevents off-ratio spraying and controls all working parameters to ensure a consistent and precise mixing quality.

采用特殊软件防止喷涂的比例失调并控制所有的工作参数以保证混合质量均匀而精确。

ECONOMIC BENEFIT 经济实惠

- No reworks or rejects due to off-ratio spraying
不会因为喷涂比例失调而进行返工或产生次品
- No mixed material left unused Mix only what is required
不会产生使用不完的混合材料。按需混合
- Reduction in time for manual cleaning and mixing procedures
减少手动清理和混合操作的时间
- Increase in productivity
提高产率
- Substantial reduction in paint waste and solvent consumption
大大地减少涂料浪费和溶剂消耗量
- Reduced maintenance
减少维护保养
- Possibility to monitor material consumption
可以监控材料消耗
- Excellent return on investment
出色的投资回报

Easy to install, easy to use 安装简单，使用方便

TwinControl: innovative solutions TwinControl: 独创的解决方案

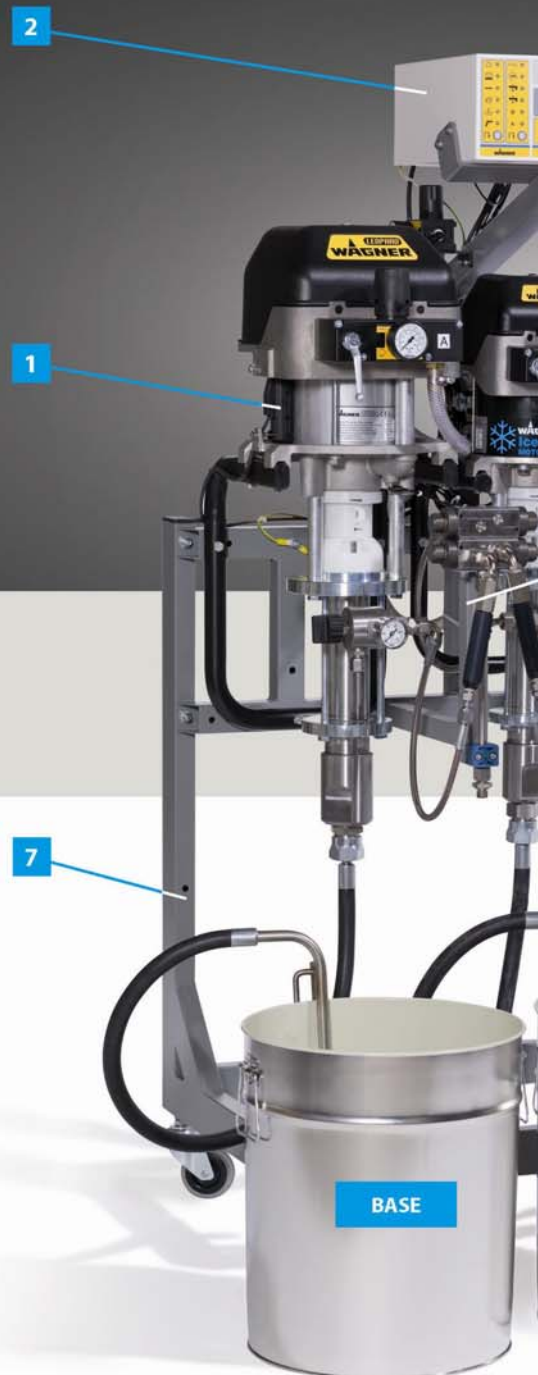
TwinControl is designed to improve your daily workflow. The unit combines innovative components like the Magnetic Stroke Meter with the superior WAGNER IceBreaker* pump technology.

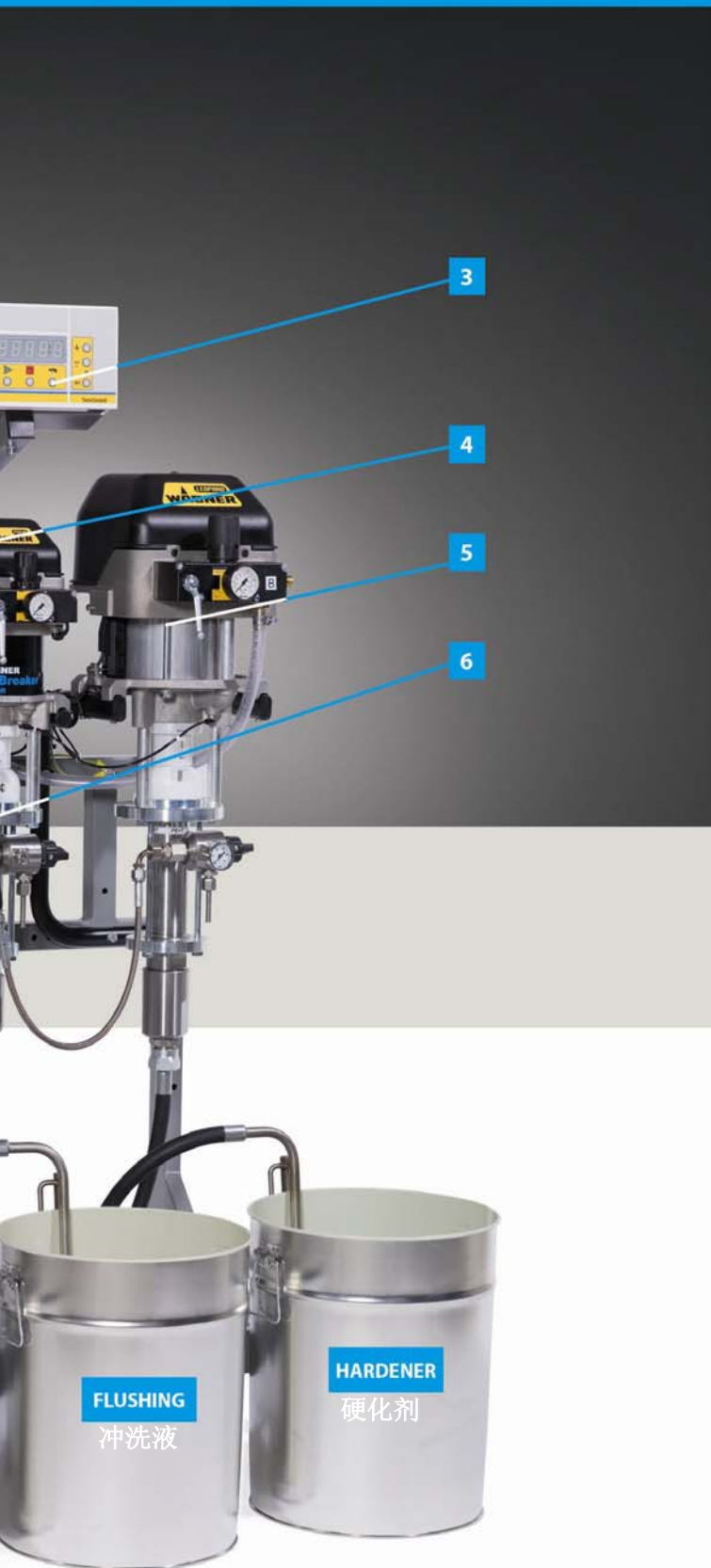
TwinControl 是专为提高你的日劳动生产率而设计的。该设备结合使用磁冲程计和卓越的瓦格纳 IceBreaker® 泵技术等具有创新性的组件。

- 1** The patented Magnetic Stroke Meter ensures high reliability even with high viscosity materials and high delivery rates.
获得专利的磁冲程计即使是处理高粘性和高进料速度材料时也能够保证很高的可靠性。
- 2** All the working parameters-mixing ratio, prime and flushing procedures, pot life time - are intuitively adjustable using simple icon buttons on the control box.
可以通过控制箱上的简单图标直观地调整所有的工作参数：混合比、底漆、冲洗步骤以及适用期等。
- 3** User-friendly and "language-neutral" control panel: only three buttons (Start-Stop-Flushing) are needed on a daily basis!
方便使用、“语言中性”的控制面板：每天只须控制三个按键（开始-停止-冲洗）

WAGNER 瓦格纳尔
Magnetic 磁
Stroke Meter 冲程计

- 4** Automatic flushing process: just press a button to clean the mixer, hose and gun: easy and fast operation.
自动冲洗过程：只需按一下按键就能清洗混合器、管子和喷枪，操作既简单又迅速。
- 5** The powerful IceBreaker' piston pumps ensure high performance and reliability. The patented air motors do not suffer from icing problems and ensure smooth operation without interruptions. Special anti-abrasion materials guarantee a long fluid section life.
功能强大的 IceBreaker 活塞泵是高性能和高可靠性的有力保证。获得专利的空气马达不会受到结冰的影响，同时也保证了不间断地稳定工作。采用了特殊的防磨损材料，可以确保长期使用。
- 6** Mixing block: specifically designed to minimize the volume and improve flush efficiency and mixture homogeneity.
混合块：专为减少体积、提高冲洗效率和混合均匀而设计。
- 7** TwinControl units are available on wall brackets, a stand or a heavy-duty trolley to meet all customer requirements.
TwinControl 设备能够在墙上托架、机架或大功率推车上使用，可以满足所有客户需求。



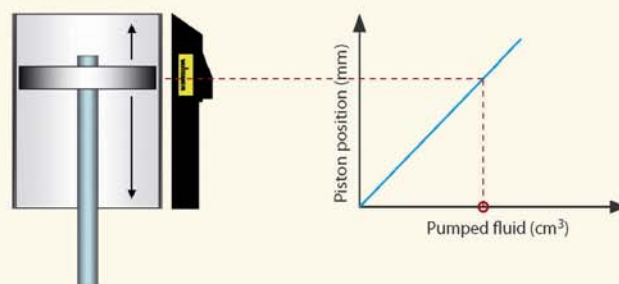


High precision flow measuring 高精度流量测量

Magnetic Stroke Meter 磁冲程计

In all piston pumps the delivered fluid is precisely metered by the piston motion. The patented Magnetic Stroke Meter detects the exact position of the piston and passes the information to the electronic box, which automatically calculates the instant flow rate value.

在所有的活塞泵中都通过活塞的运动情况准确地测量添加的流体。获得专利的磁冲程计探测到活塞的准确位置并给电子控制箱发送信号，控制箱会自动计算出瞬间流量值。



GREAT ADVANTAGES

巨大优势

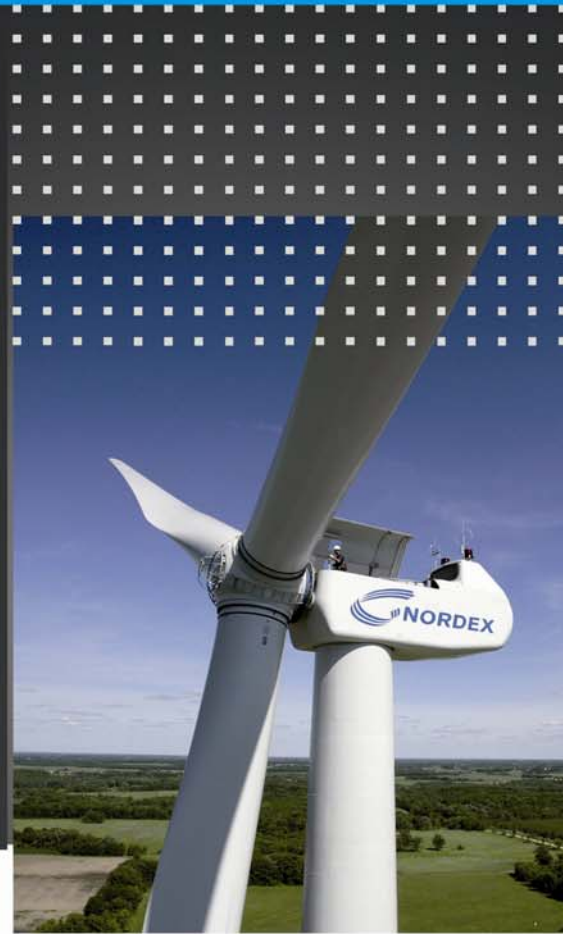
- Specifically developed by Wagner for high precision flow metering.
由瓦格纳尔公司专门为高精度的流量测量设计
- The stroke meter is mounted outside of the pump. No contact with the fluid, no wear during operation.
冲程计安装在泵的外面。不会接触到流体，操作中没有磨损。
- High reliability, easy maintenance.
可靠性高，维护保养简单。
- Possibility to detect pump malfunctions: leakages, cavitation, irregular strokes.
能够探测到泵发生的故障：泄漏、气穴、不规则运动。

A complete range to fit application needs 能够满足各种需要

Main functions 主要功能

- Real time mixing control with off-ratio alarm
通过比例失调报警实时控制混合
- Pot-life monitoring with alarm
带报警的适用期监控
- Automatic flushing process
自动冲活操作
- Real time delivery rate display
实时进料速度显示
- Mixing accuracy display
混合精度显示
- Material consumption monitoring
材料消耗监控
- Pump diagnosis system: pre-alarm and alarm in case of pump malfunction
泵诊断系统：提前发生警报并警报泵发生故障会
- Possibility to connect a Gun Flush Box
可以连接喷枪冲洗水箱

All the working parameters can be set directly on the control panel. A 3-level password prevents unauthorized personnel from monitoring sensitive data.
所有的工作参数都可以通过控制面板直接设置。3位数的密码可以防止未经授权人员查看敏感数据。



TwinControl 72-300/ 72-300 on stand
机架上的 TwinControl 72-300/ 72-300



TwinControl 48-110 /48-110 on heavy duty
trolley with paint heaters (optional)
带涂料加热器（可选）的大型推车上的
TwinControl 48-110 /48-110



TwinControl 35-70 / 35-70 on stand
机架上的 TwinControl 35-70 / 35-70

The right TwinControl for your purpose

TwinControl 正好达到您的目的

Select your TwinControl

选择您的 TwinControl

With delivery rates from 1.2 l/min to 18 l/min and operating pressures from 40 to 500 bar, TwinControl is suitable for AirCoat and Airless application of 2K water-and solvent-based materials in metal, wood and general protective coating processes. 由于进料速度为 1.2 升/分钟至 18 升/分钟、操作压力为 40 至 500 巴，TwinControl 适用在金属、木材以及普通保护涂层的喷涂中用 AriCoat 和无风装备喷涂 2K 水溶性或溶剂性材料。

Models with air supply only (turbine version) are available for hazardous areas. Versions with electrical and pneumatic supply are suitable for non-hazardous applications (i.e. water-based).

空气供料型（涡轮型）只有在有危险的地区使用。电和气动供料型适合在无危险的地区使用（比如水溶性）。



TwinControl selection chart TwinControl 挑选参考图表

TwinControl

Pump A 泵 A	Pump B 泵 B	Mixing ratio 混合比	Max working pressure 最大工作压力	Flow rate at 1:1 mix ratio 混合比为 1:1 的流速	Flow rate at 4:1 mix ratio 混合比为 4:1 的流速	Flow rate at 10:1 mix ratio 混合比为 10:1 的流速	Flow rate at 20:1 mix ratio 混合比为 20:1 的流速
18-40	18-40	0.1:1-20:1	144 bar	2.4 l/min	1.5 l/min	1.3 l/min	1.2 l/min
28-40	28-40	0.1:1-20:1	224 bar	2.4 l/min	1.5 l/min	1.3 l/min	1.2 l/min
35-70	35-70	0.1:1-20:1	250 bar	4.2 l/min	2.6 l/min	2.3 l/min	2.2 l/min
35-150	35-70	0.1:1-20:1	270 bar	6.6 l/min	5.0 l/min	4.7 l/min	4.6 l/min
48-110	48-110	0.1:1-20:1	370 bar	6.6 l/min	4.1 l/min	3.6 l/min	3.4 l/min
75-110	75-150	0.1:1-20:1	530 bar	9.0 l/min	5.6 l/min	4.9 l/min	
72-300	75-150	0.1:1-20:1	530 bar	13.5 l/min	10.1 l/min	9.5 l/min	
72-300	72-300	0.1:1-20:1	530bar	18.0 l/min	11.2 l/min	9.9 l/min	

Mixing precision: ± 2%

混合精度: ± 2%

Pump max. speed: 30 DS/min (recommended for continuous operation)

泵最大速度: 30 DS/分钟 (连续操作的推荐值)

APPLICATION AREAS 应用地区

- Trucks, buses and other commercial vehicles
拖拉机, 公共汽车及其它商业车辆
- Protective coatings
保护层
- Agriculture, construction and earth moving vehicles
农业、建筑及运土车
- General metal industry
普通金属工业
- Rail cars
有轨电车
- Wind turbines
风力涡轮机
- Wood industry
木材工业

PROCESSABLE MATERIALS

可处理的材料

- Low, medium and high viscosity materials
低、中及高粘性材料
- Water-and solvent-based materials
水溶性或溶剂性材料
- 2K epoxy lacquers and primers
2K 环氧漆及涂底料
- 2K PUR lacquers and primers
2K PUR 漆及涂底料
- 2K High Solids
2K 高固体

Expertise in application

专业应用技术

The WAGNER 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.

瓦格纳喷枪非常理想地将降低喷涂的费用和提高喷涂质量结合在一起。我们为无风、AirCoat 以及空气雾化操作、带或不带静电支持或高速旋转雾化器提供手动及自动喷枪。



Gun Flush Box 喷枪冲洗水箱

Gun Flush Box 喷枪冲洗水箱

The Gun Flush Box enables the automatic flushing of manual guns, such as after the pot life has expired or when work is completed. It contributes to reducing flushing solvent consumption and ensures safe cleaning. The Gun Flush Box is an ideal solution in combination with the WAGNER TwinControl and FlexControl mixing and dosing systems.

在适用期过期或工作完成后喷枪冲洗水箱能够自动冲洗手动喷枪。它能减少冲洗溶剂的消耗量并确保安全地清理干净。喷枪冲洗水箱是瓦格纳 TwinControl 与 FlexControl 混合及比例定量系统结合的理想解决方案。

Mixing for advanced users

为高级用户混合

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

除了入门级的 TwinControl 设备以外，瓦格纳还众多的先进混合与比例定量系统。FlexControl 系列增加新的功能，比如自动换色、配方保存、外围设备接口以及混合精度非常高的低/高压喷涂等。



Further information on TwinControl and on a wide variety of accessories like air caps, nozzles and hoses can be found in the Complete WAGNER Catalog.

要了解 TwinControl 及如喷气嘴、喷嘴及软管等附件的详细请参考瓦格纳目录。

www.wagner-group.com

