# BW-Fixators ® / BWF 固定器

Installation Service / 安装服务



Pre-installation of BW-Fixators® with laser tracker.

借助激光追踪仪预 装**BWF**固定器



## The pre-installation of BW-Fixators®

预装BWF固定器

## Calibration of BW-Fixators® with a laser tracker 使用激光追踪仪校准BWF固定器



X	5.350
Y	-0.430
Z	0.070
	Fixator® Nr.:22

Easy and precise calibration of the BW-Fixators® with a laser tracker. 借助激光追踪仪轻松精确校准BWF固定器。

Accuracy: / 精确度:

 $= \pm 0.5 \text{ mm}$ х-у

 $= \pm 0.2 \text{ mm}$ 

(According to the manufacturer higher accuracies are possible)

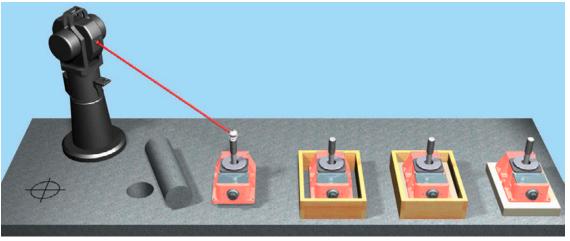
#### Explanation of the pre-installation

预装流程

• Production of a reference coordinate system in accordance with reference points, levels or offsets from specific benchmarks provided by the customer.

根据客户给出的在施工现场的点、平面或到特定几何结构的距离创建一个参考坐标系。

- Import of the individual coordinates of the BW-Fixators® specified by the customer. 代入由客户给出的单个BWF固定器的坐标。
- Marking and drilling of the anchor holes and/or positioning of the BW-Fixators®. 标出锚孔并钻孔并/或校准BWF固定器。
- Grouting of the BW-Fixators® and verification of their coordinates. 灌封BWF固定器 并检查其坐标。





## Setting the BW-Fixators® before arrival of the machine

在架设机器前安装BWF固定器



After marking the anchor holes, they will be drilled with a core drilling machine.

在标出锚定孔之后使用钻孔取芯机钻孔。



Each BW-Fixator® will be set individually into the reference coordinate system. Thus, there are no subsequent errors. 每个BWF固定器将逐一在确定的参考坐标系中被校准。不会出现累积错误。



Positioned and grouted BW-Fixators®. Ready for machine arrival! 经过校准和灌封的固定器场地。机器可以登场了!

#### Advantages of the pre-installation

预装的优势

- Precise measurement with laser tracker.
  - 使用激光追踪仪精确校准。
- The machine can be set and aligned immediately after arriving.
  - 在机器到达前可以立即架设与调整。
- No waiting time due to concrete or grout curing.
  - 不会因等待水泥或灌封材料的凝固而耽误时间。
- The position of the machine is predetermined by BW-Fixators®.
  - 通过BWF固定器提前确定机器在地基上的位置。
- Due to precise setting of the BW-Fixators® only minimal alignment is needed.
  - 通过BWF固定器精确的提前设置过后只需进行微调。
- Large cost and time saving.
  - 可节省大量的安装时间与消耗。

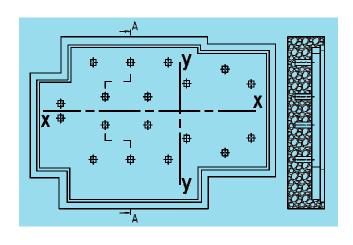


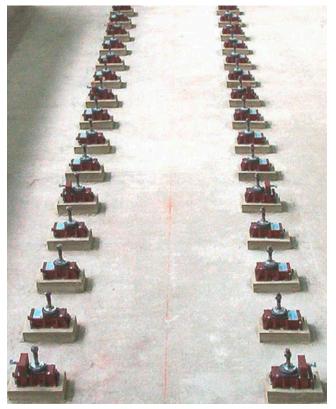
#### **Conditions for a pre-installation**

#### 预装条件

#### We require / 我们需要:

- Certified installation plan which shows 机器规划图用于提取 根据客户给出的在施工现场的点、平面或到特定 几何结构的距离创建一个参考坐标系。
  - the position of the main axes on the foundation or to other peripheral features of the surrounding building,
    - 主轴在地基上或者到周围建筑的其他外部设备点的位置、
  - the position of each individual BW-Fixator® and
    - 单个BWF固定器®的位置以及
  - the respective thickness of each mounting foot.
    - 每个机器底座高度信息。
- Cleaned foundation (swept and free of concrete slurry).
  - 干净的地面(打扫干净的以及无水泥浆)。
- For new foundations, at least 21 days concrete curing time before installation.
  - 新铺设地基在安装前至少要留出21天的硬化时间。
- Anchor holes pre-soaked with water at the beginning of the installation.
  - 安装开始时充分提前水化锚孔。
- Closed, adequately tempered building. (>10°C, >50°F).
- 封闭的、温度足够高的室温(>10°C)。
- Electrical and water supply. 电源与水源供应。





Grouting the BW-Fixators® and the anchor bolts will be done by our own engineers with non-shrink grout (Pagel V1). BWF固定器 和锚固螺栓的灌封由我们自己的安装工人使用无收缩灌浆料(Pagel V1)进行。

#### For a quote please provide following information:

我们供货需要以下信息:

- Number, size and position of the BW-Fixators®. BWF固定器 的数量、尺寸以及位置
- Basic design of the foundation (one or multiple levels).
  地基质地(一个或多个高度)
- Place of installation (distance to our location). 安装地址(距离我公司的路程)
- Were the anchor holes made on site or should we drill them? 锚孔是否已经打好或者需要我们来钻孔。

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