

Technical Requirements for Tower Mill Liners

卡拉拉塔磨衬板技术要求

1. Supplier Qualification Requirements

1. 供应商资质要求

The supplier shall demonstrate proven experience in the design and supply of liners for tower mills or vertical grinding mills.

Minimum requirements include:

- Proven liner supply experience for tower mills or vertical grinding mills with installed power 1500 HP
- Demonstrated successful operating experience or trial results under comparable grinding conditions
- Provision of reference projects where liners have been successfully installed and operated

供应商须具备塔磨或立磨衬板设计及供货经验，最低要求包括：

- 具备 装机功率 1500 HP 的塔磨或立磨设备衬板供货经验
- 具备类似磨矿工况下 成功运行或试验验证经验
- 提供已成功运行的 现场业绩案例

2. Minimum Service Life Requirement

2. 最低使用寿命要求

The supplied liner system shall achieve a minimum service life of 3,800 operating hours under comparable operating conditions.

Compared with the current liner baseline of approximately 2,800 operating hours, the proposed liner solution shall demonstrate improved wear resistance and extended service life.

During operation, the liners shall not cause damage to the tower mill main structure, including but not limited to:

- screw body
- shaft structure

- mill shell
- associated internal components

供应商提供的衬板系统在相近运行工况下，最低使用寿命须达到 3,800 小时。

相较现有约 2,800 小时的衬板使用寿命基准，新方案应具备更好的耐磨性能和更长的实际使用寿命。

衬板在运行过程中不得对塔磨主体结构造成损伤，包括但不限于：

- 螺旋本体
- 主轴结构
- 塔磨壳体
- 相关内部结构件

3. Scope of Supply

3. 供货范围

The supplier shall provide complete sets of tower mill liners including the following components:

- 1 × Cap Liner
- 1 × End Liner
- 2 × Tip Liners
- 12 × Flight Liners
- Screw fittings and fastening hardware

供应商需提供完整的每套塔磨衬板，供货范围包括：

- 1 × Cap Liner（端部保护衬板）
- 1 × End Liner（端板）
- 2 × Tip Liners（端部衬板）
- 12 × Flight Liners（螺旋衬板）
- 相关紧固件及安装配件

4. Weight Requirement

4. 重量要求

The total weight of the supplied liner set shall not exceed 5,200 kg.

供应的整套衬板 总重量不得超过 5,200 kg。

5. Installation Requirements

5. 安装要求

The liner installation procedure shall be compatible with the existing Karara tower mill installation procedure.

Suppliers shall ensure that the installation sequence and method are consistent with the DJP installation contractor procedures currently used at Karara, without introducing additional installation complexity.

衬板安装方式须与 Karara 现有塔磨安装流程兼容。

安装步骤应与 Karara 现行 DJP 安装承包商的安装方法一致，不得增加额外复杂安装步骤。

6. QA/QC and Documentation Requirements

6. 质量保证与技术文件要求

The supplier shall provide the following documentation as part of the supply:

- QA/QC documentation
- Material certificates
- Dimensional inspection reports
- Manufacturing drawings
- Installation drawings (if applicable)

供应商须提供以下质量及技术文件：

- QA/QC 质量文件
- 材料证明文件

- 尺寸检测报告
- 制造图纸
- 安装图纸（如适用）

7. Warranty Requirement

7. 质保要求

The minimum warranty requirement shall be 3,800 operating hours.

最低质保要求为 3,800 小时。

8. Technical Support Requirement

8. 技术支持要求

供应商需要提供：

- Technical support for liner installation
- Wear monitoring during operation
- Technical support for shutdown inspections
 - 衬板安装技术支持
 - 运行期间磨损监测
 - 停机检查技术支持