JEFLON 嘉孚朗

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JFS手持系列
JFS Handheld Series

智能手持螺丝刀
Smart Handheld Screwdriver

扫码查看公众号

扫码查看视频号

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智 高智能　速 高效率　准 高精度　易 易上手　稳 高稳定

01 产品介绍 Product Introduction

核心控制
Core Control

5段分段式拧紧工艺，每段转速、扭矩、角度独立可调，扭力覆盖0.015-10N.m,精度±3%-±5%。

5-stage segmented tightening process, with independently adjustable speed, torque and angle for each stage. Torque range covers 0.015–10 N·m, accuracy ±3% to ±5%.

智能防错
Smart Error Proofing

内置陀螺仪防斜锁，支持浮高、滑牙、漏锁检测，入牙检测及转速自动切换，可连接平衡力臂引导拧紧顺序。

Built-in gyroscope for cross-threading prevention; supports detection of floating (stand-off), stripped thread and missing screws, as well as thread engagement detection and automatic speed switchover; connectable to a balanced arm to guide the tightening sequence.

通讯互联
Communication & Connectivity

RS485、232、DI、DO及网络接口，兼容Modbus RTU、TCP，上位机软件实现数据存储、曲线监控及MES对接。

RS485, RS232, DI, DO and network interfaces; compatible with Modbus RTU and Modbus TCP. The host PC software supports data storage, curve monitoring and MES integration.

智能交互
Smart Interaction

搭载7寸高清智能触控显示屏，工艺简单可调，智能语音播报、权限分级管理、即插即用自动配置控制器。

Equipped with a 7-inch high-definition smart touchscreen, the system features an easy- to- adjust tightening process, smart voice prompts, hierarchical permission management, and plug- and- play automatic controller configuration.

02 产品选型 Product Selection

嘉孚朗型号 Model	扭力范围 Torque Range		转速 Speed	电压 Voltage	功率 Power	螺丝刀重量 Screwdriver Weight	适配批头 Compatible Bits	适配控制器 Compatible Controller	控制器重量 Controller Weight	适配电源 Compatible Power Supply
	kgf·cm	N·m	Rpm	V	W	g			g	
JFS-08-K-160D	0.15-0.8	0.015-0.08	30-1800	28	120	270	双耳φ4 Double Ear Φ4	JFS-160D28	800	PD-28
JFS-22-K-160D	0.4-2.2	0.04-0.22	30-1800	28	120	280	双耳φ4 Double Ear Φ4	JFS-160D28		PD-28
JFS-50-K-160D	0.8-5	0.08-0.5	30-1800	28	120	297	双耳φ4 Double Ear Φ4	JFS-160D28		PD-28
JFS-100-K-160D	1.5-10	0.15-1.0	30-1100	28	120	293	双耳φ4 Double Ear Φ4	JFS-160D28		PD-28
JFS-150-A-160D	2-15	0.2-1.5	30-2500	48	450	450	六角6.35 Hex 6.35	JFS-160D48		PD-48
JFS-250-A-160D	4-25	0.4-2.5	30-1600	48	450	590	六角6.35 Hex 6.35	JFS-160D48		PD-48
JFS-600-A-160D	10-60	1.0-6.0	30-700	48	450	650	六角6.35 Hex 6.35	JFS-160D48		PD-48
JFS-1000-A-160D	15-100	1.5-10.0	30-450	48	450	650	六角6.35 Hex 6.35	JFS-160D48		PD-48

03 软件系统 Software System

数字拧紧管理系统
Digital Tightening Management System

嘉孚朗基于对拧紧工艺控制的知识理解和经验积累，融合全新的数字互联技术，自主研发JEFLON数字拧紧管理系统并获得国家软著专利，对于客户所需求的装配拧紧系统功能全面创新。

Drawing on its deep understanding and accumulated experience in tightening process control, (JEFLON) has independently developed the JEFLON Digital Tightening Management System by integrating new digital connectivity technologies. The system has been granted national software copyright, and delivers comprehensive innovation in assembly tightening functions to meet customer requirements.

- 数据实时监测：转速、扭力、锁附耗时核心参数，支持 IO / 通讯 /触控多模式控制，一键切换拧紧、拧松等动作。自动记录锁付日志，区分合格与不良数据，直观显示设备运行状态，锁附工艺可视化管控与品质追溯。
- Real-time data monitoring covers core parameters such as speed, torque and tightening time. It supports multi- mode control via I/O, communication and touchscreen, with one- click switching between tightening, loosening and other actions. The system automatically records tightening logs, distinguishes between qualified and defective data, intuitively displays the equipment operating status, and delivers visual management of the tightening process together with full quality traceability.
- 拧紧监测：工位端子程序连接智能拧紧枪，实施监测浮高、滑牙、斜锁等拧紧不良。
- Tightening Monitoring: The station terminal program connects to the smart tightening screwdriver, monitoring tightening defects such as floating (stand- off), stripped threads, and cross- threading in real time.
- 数据分析：可靠的过程数据采集，可视化图表直观呈现，为拧紧工艺分析与程序优化提供支持。
- Data Analysis: Reliable process data acquisition is combined with intuitive visual charts, providing strong support for tightening process analysis and program optimization.
- 用户分级管理：可分员工，主管等，账户、密码和权限可自由分配。
- User Hierarchical Management: Supports classification into roles such as employees and supervisors. Accounts, passwords and permissions can be freely assigned
- 工位端子程序：扫码调取工艺参数，电子SOP作业引导，支持操作员权限管理、防呆放错报警、耗材寿命预警。
- Station Terminal Program: Barcode scanning to retrieve process parameters, electronic SOP work guidance, and support for operator permission management, error-proofing alarms, and consumable life warnings.

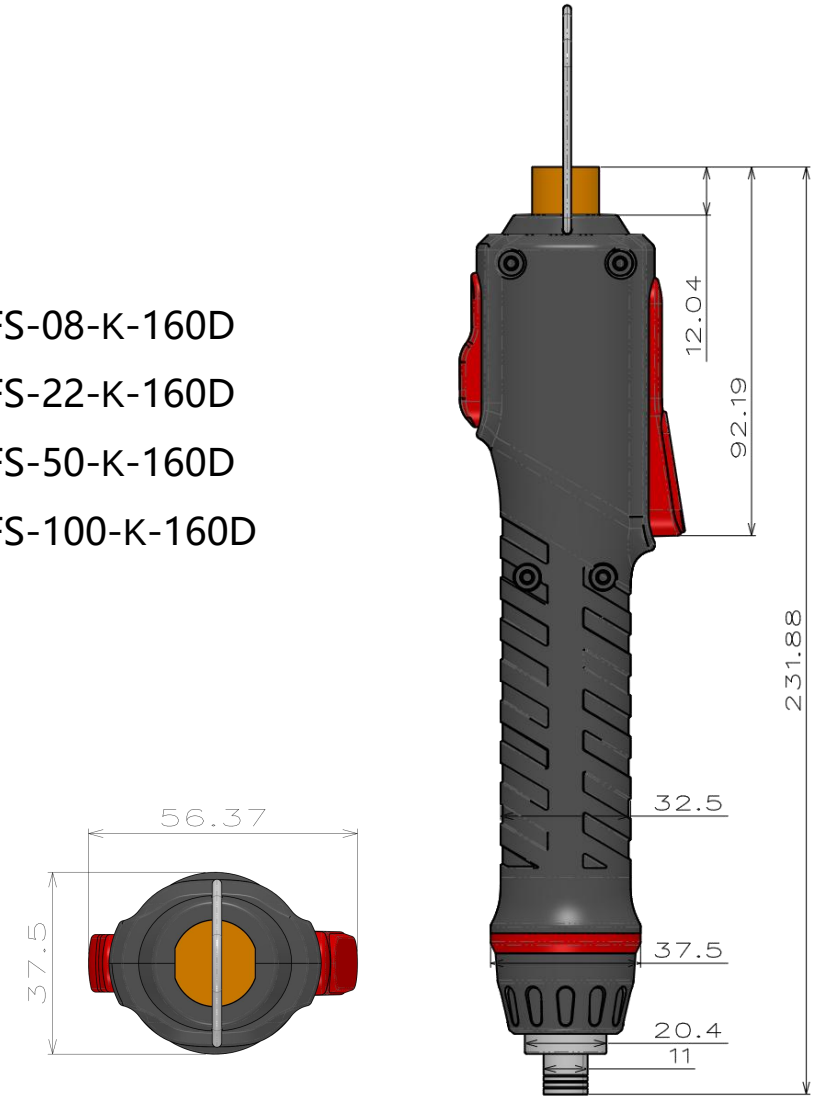
04 螺丝刀尺寸 Screwdriver Dimensions

JFS-08-K-160D

JFS-22-K-160D

JFS-50-K-160D

JFS-100-K-160D

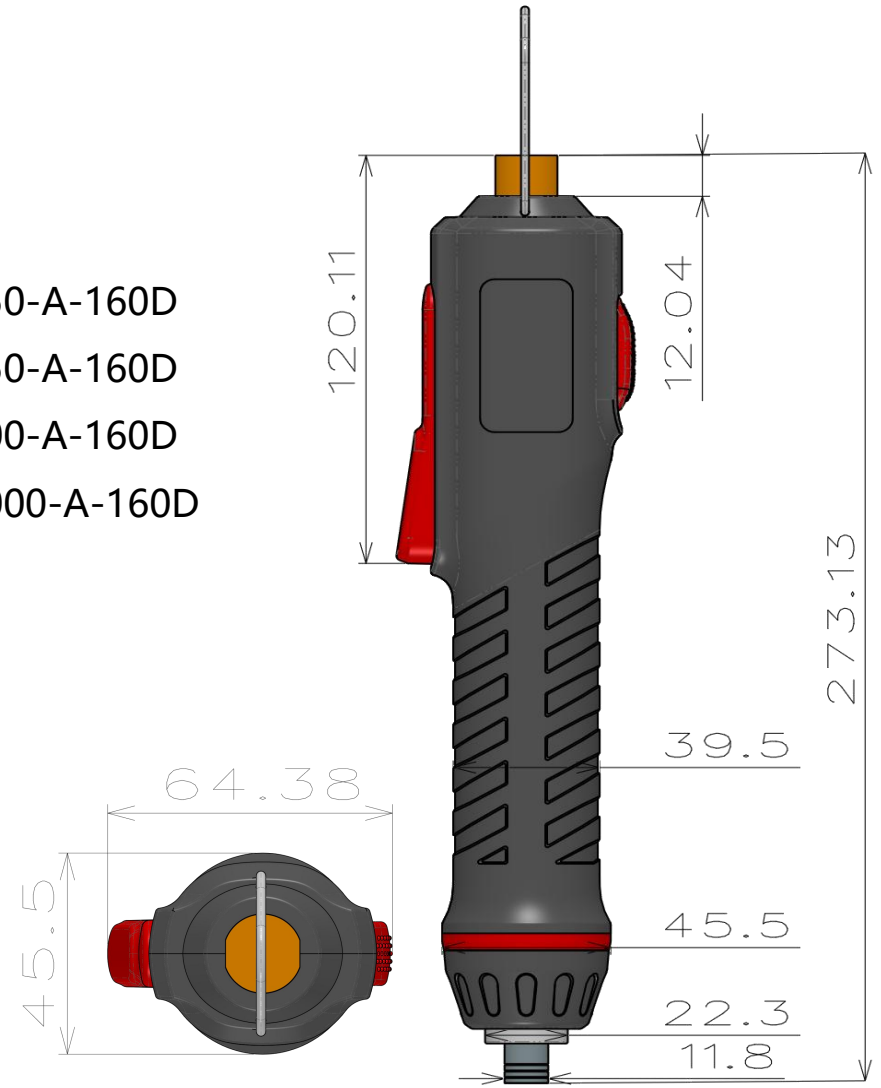


JFS-150-A-160D

JFS-250-A-160D

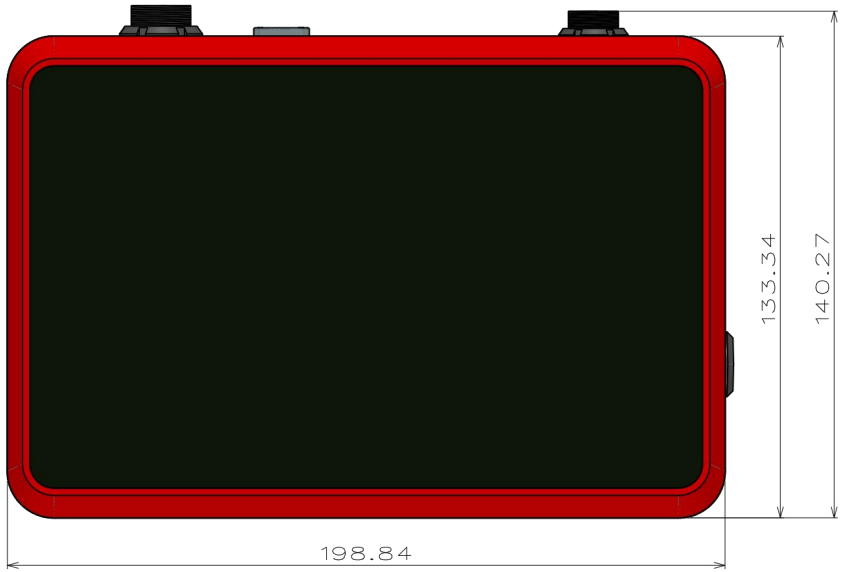
JFS-600-A-160D

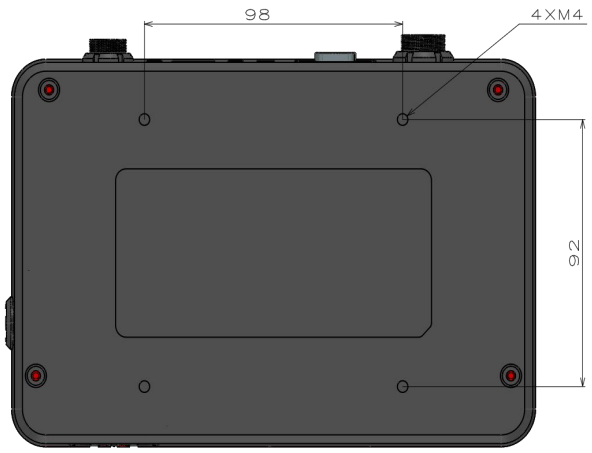
JFS-1000-A-160D

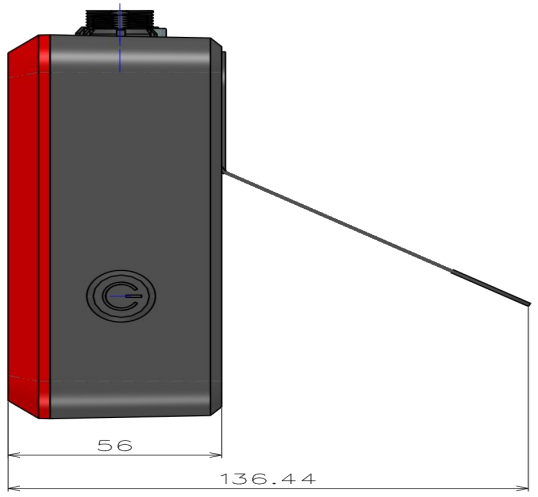


05 控制器尺寸 Controller Dimensions

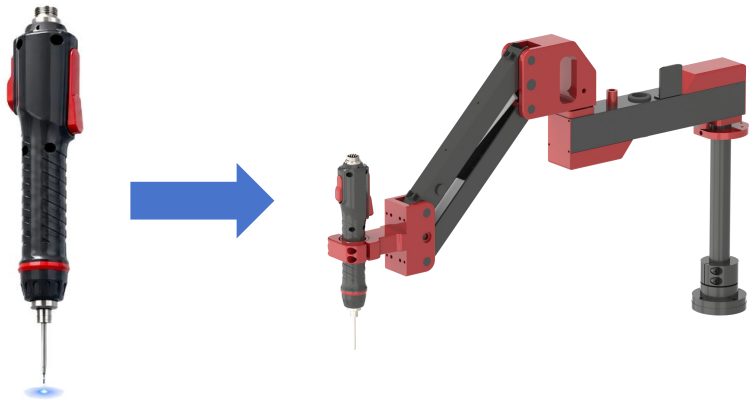
JFS-160D





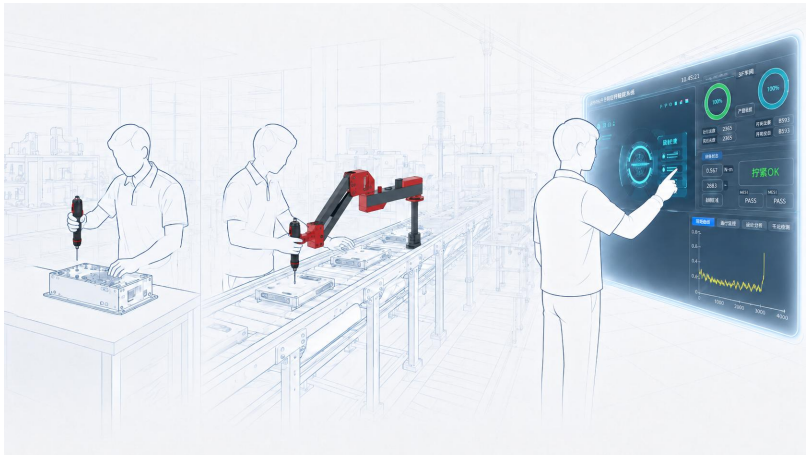


06 平衡力臂 Balanced Arm



智能手持螺丝刀+定位平衡力臂

Smart Handheld Screwdriver + Positioning Balanced Arm



平衡臂助力智能锁附方案

Balanced Arm Assisted Smart Tightening Solution

- 定位平衡力臂集成高精度传感器，实时监测工具三维空间位置，按预设坐标与顺序自动引导作业，位置或顺序错误即报警，有效杜绝错拧、漏拧。
- The positioning balanced arm integrates high- precision sensors to monitor the tool’s 3D spatial position in real time. It automatically guides the operation according to preset coordinates and sequence, and triggers an alarm if the position or sequence is incorrect, effectively preventing mis- tightening and missed tightening.
- 辅助零重力平衡减负：悬浮抵消电批自重，操作无负重，缓解手臂劳损，缓冲锁附反震扭力，提升作业效率。
- Assisted Zero-Gravity Balance for Load Reduction: The floating mechanism offsets the weight of the screwdriver, delivering weightless operation that relieves arm strain, absorbs reaction torque during tightening, and improves work efficiency.
- 多关节自由伸缩旋转，任意点位悬停；垂直限位防倾斜，杜绝滑丝、浮锁，锁附精度统一。
- Multi-joint arm with free telescopic extension and rotation, capable of hovering at any point; vertical limit prevents tilting, eliminates stripped threads and floating fastening, and ensures uniform tightening accuracy.
- 基本参数：枪头水平最大旋转半径R725mm，枪头下压最小旋转半径R650mm ，死角半径R200mm，平行状态时向上行程150mm向下行程180mm。
- Basic Parameters:Maximum horizontal rotation radius of the tool head: R725 mm.Minimum rotation radius with the tool head depressed: R650 mm.Dead zone radius: R200 mm.In the parallel state, upward stroke: 150 mm, downward stroke: 180 mm.
- 可搭配智能扭力电批、螺丝供料器、扫码枪、视觉检测设备、扭力检测仪、平衡助力臂等设备自由组合，搭建一体化智能数字化拧紧工站，实现工位设备互联与生产数据统一管理。
- It can be freely combined with smart torque screwdrivers, screw feeders, barcode scanners, vision inspection equipment, torque testers, and balanced assist arms to build an integrated smart digital tightening workstation, enabling workstation device interconnection and unified production data management.

型号 **Model**	锁付半径 Tightening Radius	备注 Remarks
HZ-650	650mm	不带定位 Without Positioning
HZ-650-D	650mm	带定位、含编码器 With positioning, encoder included
HZ-900-D	900mm	带定位、含编码器 With positioning, encoder included
HZ-1200-D	1200mm	带定位、含编码器 With positioning, encoder included
HZ-1500-D	1500mm	带定位、含编码器 With positioning, encoder included
HZ-1800-D	1800mm	带定位、含编码器 With positioning, encoder included

07 扭力校准 Torque Calibration

智能机用扭力测试仪
Smart Torque Tester for Electric Screwdrivers

- 智能机用扭力测试仪，实现电批全自动扭力点检，取代人工，精度提升至1%。
- Smart Torque Tester for Electric Screwdrivers – enables fully automatic torque spot- checking for electric screwdrivers, replacing manual operation and improving accuracy to ±1%.
- 精准可靠：测量精度达±0.5% FS，支持0.2-100kgf.cm扭矩检查同时满足工业级高精度需求。
- Precise and Reliable: Measurement accuracy reaches ±0.5% FS, supporting torque inspection from 0.2 to 100 kgf·cm while meeting industrial- grade high- precision requirements.
- 全能适配：支持IO口与PLC连接控制，兼容RS485、RS232主流通讯方式。
- Universal Compatibility: Supports I/O connection and control with PLC, and is compatible with mainstream communication protocols such as RS485 and RS232.
- 数据管理：2.0寸TFT高清显示屏，实时显示动态扭力值及峰值数据，原始测量数据具备防篡改保护。
- Data Management: A 2.0-inch TFT high-definition display shows real-time dynamic torque values and peak data. Original measurement data is protected against tampering.

型号 Model	量程 Range
JND-08	0.2-8kgf·cm
JND-50	0.5-50kgf·cm
JND-100	1-100kgf·cm

可联网智能扭力测试仪
Network-Enabled Smart Torque Tester

- 集扭矩、转速、电阻、电压测量于一体的创新型扭力测试仪，整厂锁付工具扭矩检验管理系统。
- An innovative torque tester integrating torque, speed, resistance, and voltage measurement — a factory- wide tightening tool torque inspection management system.
- 精准可靠：测量精度达±0.5% FS，支持0.1-500kgf.cm扭矩检查同时满足工业级高精度需求。
- Precise and Reliable: Measurement accuracy reaches ±0.5% FS, supporting torque inspection from 0.1 to 500 kgf·cm while meeting industrial- grade high- precision requirements.
- 扭力点检流程简化：系统自动记录测试人员/锁付设备/检测信息，智能化的检测流程实现防呆防错。
- Simplified Torque Spot-Checking Process: The system automatically records the test personnel, tightening equipment, and inspection information. The intelligent inspection process ensures error-proofing.
- 精准呈现点检过程:设备屏幕实时显示扭力测试曲线,最大/最小/平均值,设备自动计算。
- Accurate Presentation of the Spot-Checking Process: The device screen displays the torque test curve, maximum/minimum/average values in real time, all automatically calculated by the device.
- 点检报表自动生成：软件系统自动生成测试报表，支持多种格式(Excel/CSV...)。
- Spot-Check Report Auto-Generation: The software system automatically generates test reports, supporting multiple formats such as Excel and CSV.

型号 Model	量程 Range
HND-10E	0.1-10kgf·cm
HND-50E	0.5-50kgf·cm
HND-100E	1-100kgf·cm
HND-500E	5-500kgf·cm

感谢支持

Thanks for the support

嘉孚朗机器人设备（苏州）有限公司
JEFLON Robot Equipment (Suzhou) Co., LTD.
中国·苏州·高新区枫桥工业园前桥路165号 西厂房
No.165 Qianqiao Road, Fengqiao Industrial Park,
Suzhou Industrial Park, Suzhou, China
网址：www.jeflon.com　电话：13913157898
Website:www.jeflon.com Phone:13913157898