Tysem



Tysem

Wuhan Headquarters

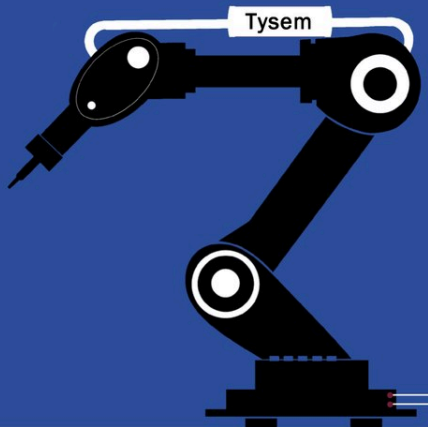
Hubei Yanhong Robotics Technology Co., Ltd.
Address: Room 1312/15, Building B, Jianyin Mansion, Chuangye Road, Wuhan Economic and Technological Development Zone.

17702789163@tysem.cn
www.tysem.cn

Hubei Yanhong Robotic Technology Co., Ltd.

Tysem Robotic
Dresspack System Selection Manual

Cables in check
speed leads the tech
budget intact



Tysem Robotic Dresspack System

Hubei Yanhong Robotic Technology Co., Ltd.

Choose us

Direct manufacturer with ten years of experience,
rich case studies, and free design.
Affordable prices, reliable quality, fast delivery,
and five-star service.



Suppliers OEMs Partner
Automotive Multiple

Raw materials

(copper wire, polymer powder, etc.) all from leading domestic suppliers (e.g. Zhengxiong, Sinopec, etc.),no"chokepoint" risk



100%
Local Supply Chain



1 Day

Fastest same-day Shipping



Deep Scenario Expertise

for high-temperature, high-dust, salt-spray, iron-powder and other scenarios dedicated solutions

CATALOGUE

01.About us

About us
Company Qualifications
Compatible Brands
Partners

02.Industries and Processes

Compatible Industries and Processes
Universal Solutions
Solutions Showcase

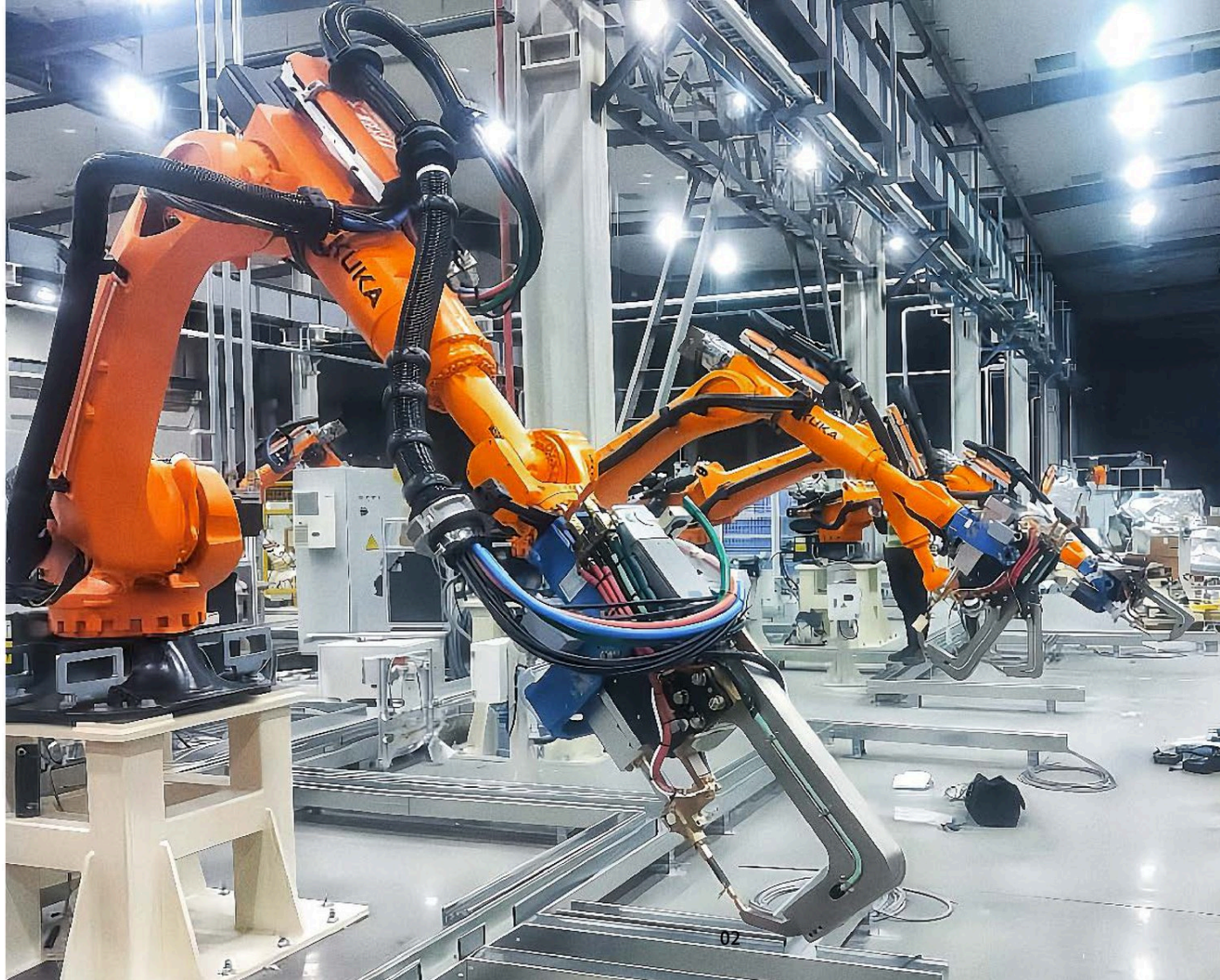
03.Quality Management

Configuration List
Quality Management
National Standard
Group Standard
Performance Testing
Equipment

About us

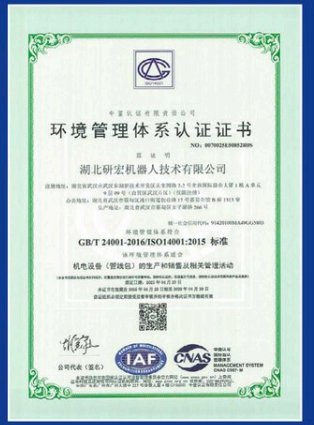
Yanhong Tysem® based in Wuhan, Hubei Province, has been providing domestic alternatives to international top-brand robotic cables and dress packs for the automotive industry since 2014. After a decade of development, Tysem has become a leading figure in the industry and a contributor to the national standard for robotic dress packs.

Dedicated to offering more cost-effective dress pack solutions for intelligent manufacturing, YanHong Tysem® serves over a thousand clients across more than 15 industries each year, helping customers improve efficiency and reduce costs.





















As of September 2024, Tysem holds a total of 37 patents, including 18 utility model patents and 19 design patents.



(The above listings are in no particular order.)

Compatible Industries and Processes

- 3c
- Automobile
- New energy
- Semiconductor
- Machinery
- Hardware & appliances
- Kitchen & sanitary
- Daily chemicals
- New retail
- Food & beverage
- Healthcare
- Agriculture
- Logistics
- Research & education
- Others

WELDING

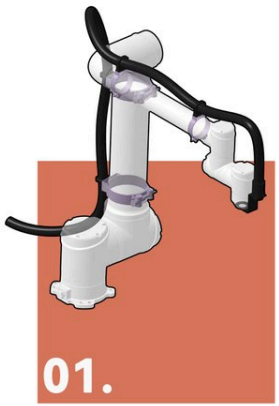
- Spot welding
- Friction stir welding
- Laser & stud welding

HANDLING

- Loading/ unloading
- Material processing
- Palletizing
- Logistics handling
- Material processing
- Injection molding

ASSEMBLY

- Spraying & gluing
- New energy
- Assembly
- Injection molding



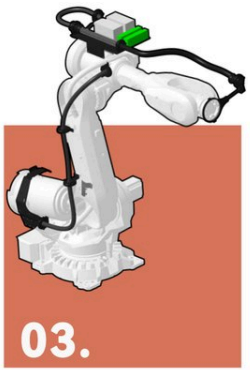
Series 1

Fixed Installation



Series 2

Rotary Bracket



Series 3

External Spring



Series 4

U-shaped Cavity / Straight Tube



Series 5

Telescopic Bracket



Series 6

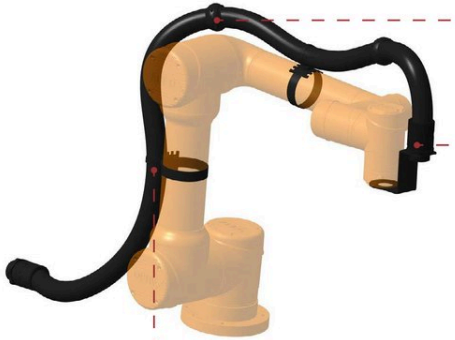
C-type Flange

Assembly and Handling Application Solutions

Spot Welding Application Solutions

Advantage

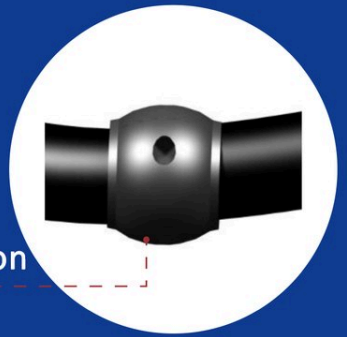
Easy to install, cost-effective, and lightweight
Minimal interference area, does not restrict robot movement range
Protection cover + mounting base + connectors (three types each) can be freely combined



Application areas

Especially suitable for collaborative robots and lightweight industrial robots
Ideal for both simple and complex robot motion paths
Well-suited for various application scenarios such as welding, handling, assembly, and more

Protection



Flanged Tube Connector

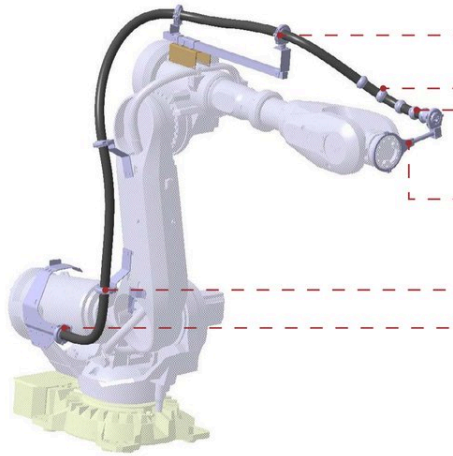


Hose Clamp



Advantage

The 4-axis rotary bracket assists cable carrier movement, effectively extending its lifespan
The 3-axis top can accommodate electrical boxes and solenoid valves
Easy to install, lightweight, with minimal interference area



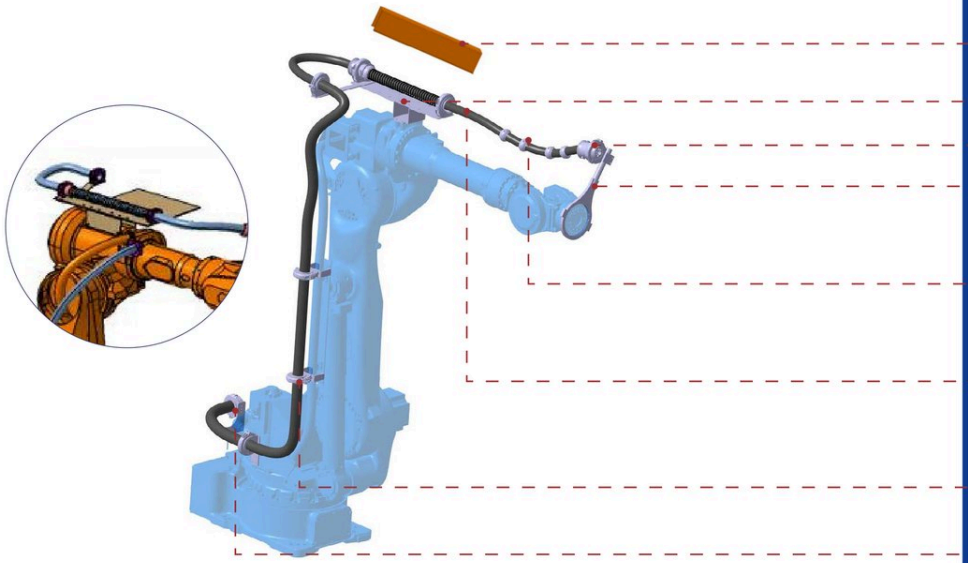
Application areas

Especially suitable for collaborative robots and lightweight industrial robots
Ideal for simple robot motion paths
Perfect for applications such as
handling, assembly, grinding, casting, spraying, and explosion-proof environments



Advantage

With corrugated tube rebound function, compact design, and minimal interference area
Simpler structure, maintenance-free, and quick to replace
Lightweight design to reduce the payload usage on each robot axis



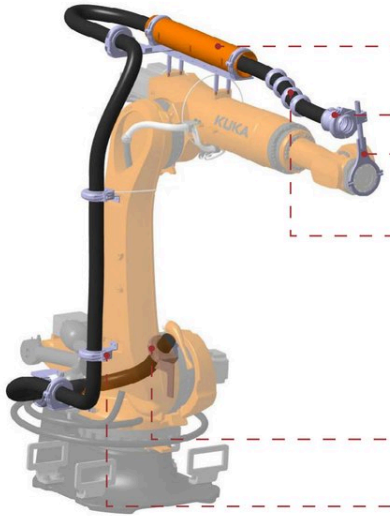
Application areas

Especially suitable for various models of medium- and large-sized industrial robots
Especially suitable for complex robotic motion paths
Especially suitable for various applications such as material handling and assembly



Advantage

Upgraded design of the U-shaped back shell and yellow umbilical tube
Compact design, lighter weight, and lower cost
Simple structure, more durable, maintenance-free, and quick to replace



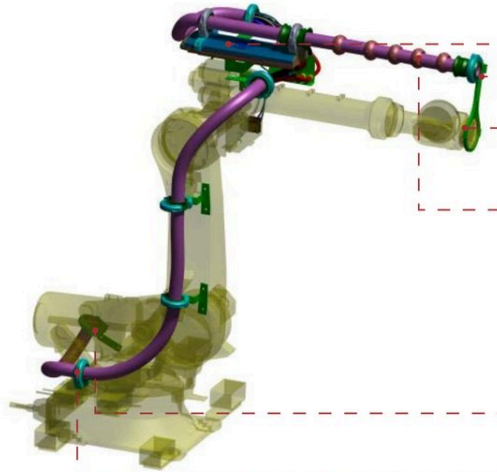
Application areas

Especially suitable for various models of medium- and large-sized industrial robots
Especially suitable for complex robotic motion paths
Especially suitable for a wide range of applications such as spot welding, stud welding, sealing, and laser welding



Advantage

Reinforcement solution for the Series 4 barrel-type, made of aluminum alloy for strength and durability
Compact design, simple structure, maintenance-free, and quick to replace
Lighter overall dress pack weight, reducing the robot's effective payload consumption



Application areas

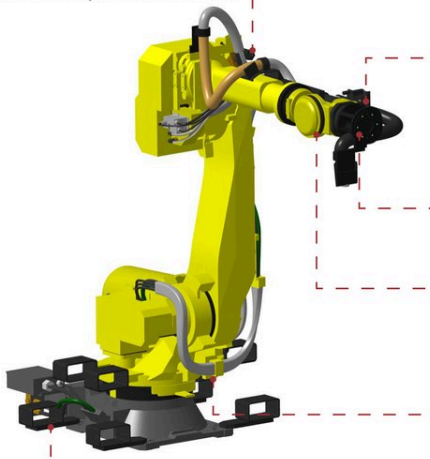
Especially suitable for various models of medium- and large-sized industrial robots
Especially suitable for complex robotic motion paths
Especially suitable for a wide range of applications
such as spot welding, stud welding, sealing, and laser welding



Series 6 C-Type Flange Solutions

Advantage

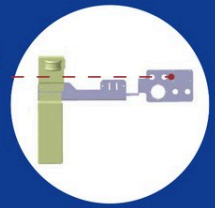
Effectively constrains cables of each axis,
reducing interference zones
Simple structure, more durable,
and maintenance-free
After decomposing the motion trajectories of
axes 4, 5, and 6, the dress pack lifespan is extended



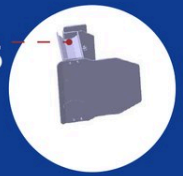
Application areas

Especially suitable for industrial robots primarily used in spot welding applications
Especially suitable for robots with complex motion trajectories
Especially suitable for application markets such as spot welding and material handling

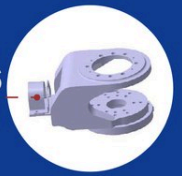
Fixed Bracket for Axis 3



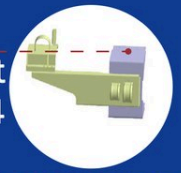
Rotary Bracket for Axis 5



C-Shaped Flange for Axis 6



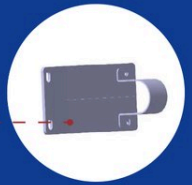
Fixed Bracket
for Axis 4



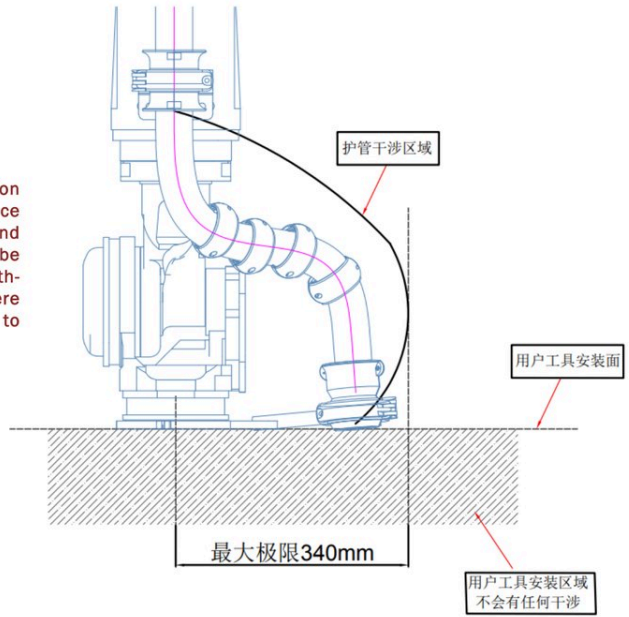
Fixed Bracket for Axis 2



Fixed Bracket for Axis 1



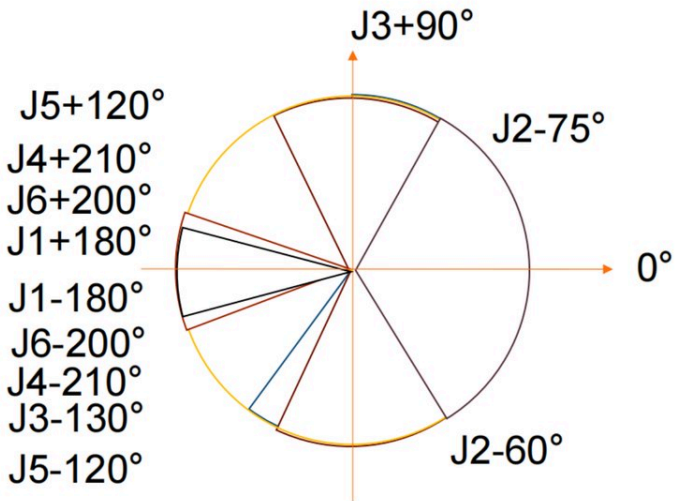
※ Pay special attention to the spring interference area - user tools and welding torches must be designed to avoid it, otherwise the most severe interference can lead to cable damage.



Robot Trajectory Range

After installing the dress pack, each axis motion range is restricted. Observe these limits when programming, otherwise the dress pack warranty is voided. The axis angle limits are shown below.

As an auxiliary device, the dress pack can be damaged by unsuitable trajectories, such as pulling beyond the limit position or interference with surrounding equipment.



Angle Limits of Each Robot Axis



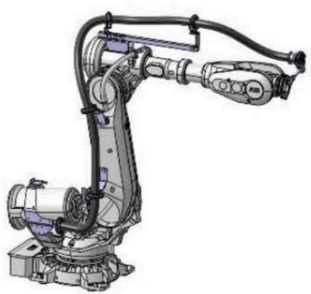


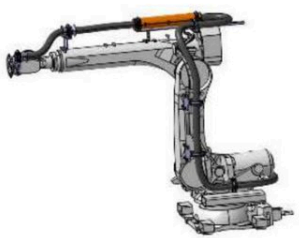
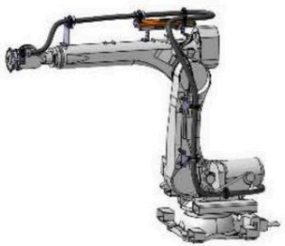
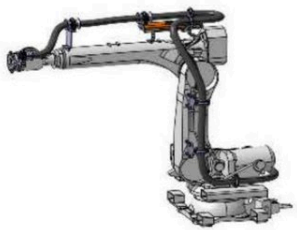
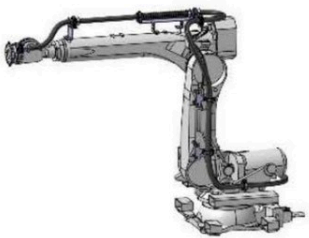
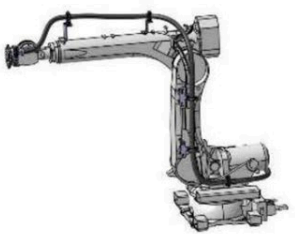
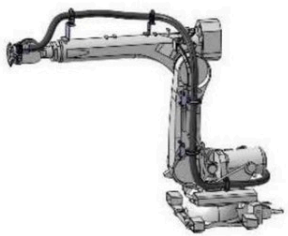
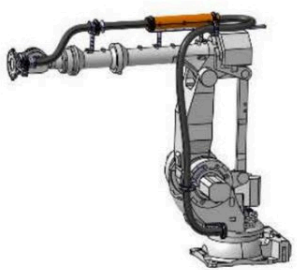
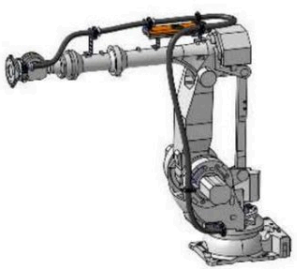
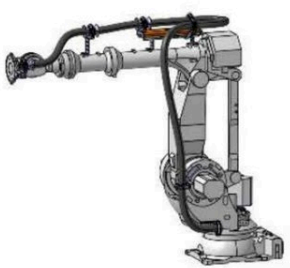


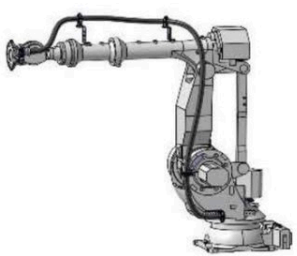
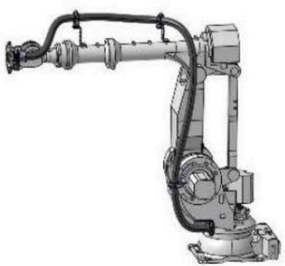










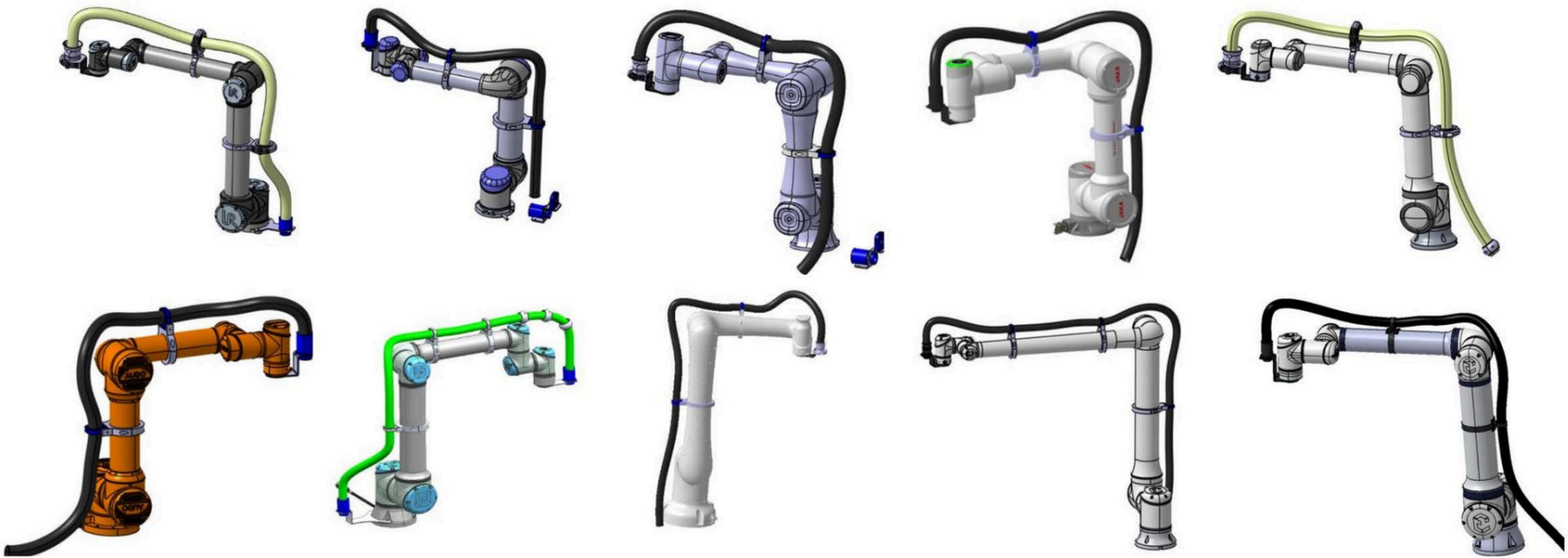






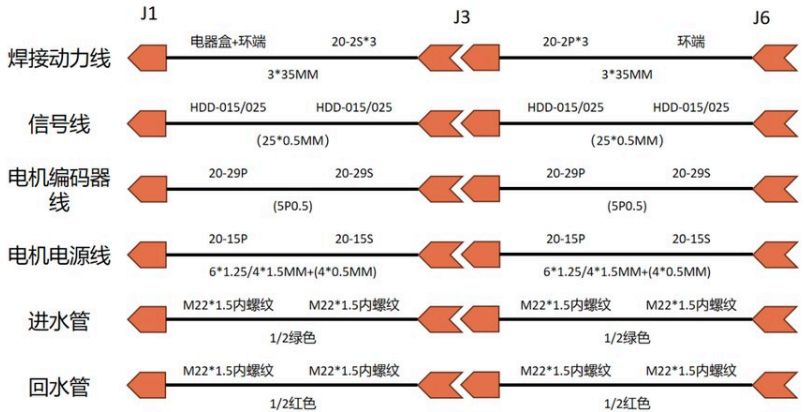



Cobot Robotic Dresspack System Application Display

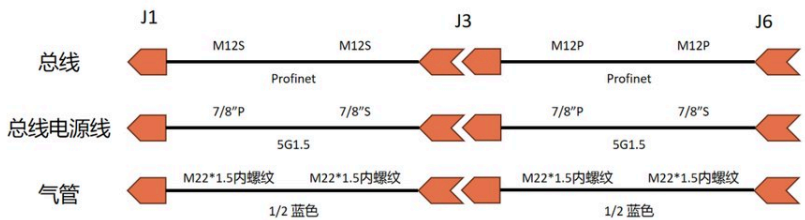


Optional 48/36/29mm corrugated tube, spiral wrap or silver fireproof cloth protects and secures water, air and cables.

Tysem Robotic Dresspack System Configuration List



TYSEM Spot Welding Standard



TYSEM Handling Standard

Quality Management System



TYSEM 湖北研宏机器人技术有限公司

PEMEA 过程失效模式与后果分析

Prototype　Pilot　Launch　Post Launch

车型/年份:　客户:　编制日期:

被审核:　文件编号:　修订日期:

过程节点 / 描述

	P10	材料验收和储存		P110	MIS/MMIS压接		P160-4	E.Q 线装配
	P20	发料		P120	IDC压接		P170	电气测试
	P30	切割		P130	预压		P170-1	电阻性测试
	P30-1	切线		P140	注塑		P170-2	零部件存在性测试
	P30-2	切管		P140-1	穿端护套注塑		P170-3	连接器防水测试
	P30-3	切带		P140-2	护套注塑		P180	注塑件防水测试
	P30-4	切线缆		P140-3	穿端连接器注塑		P180-1	穿端护套注塑件防水测试
	P40	检线		P140-4	连接器注塑		P180-2	连接器注塑件防水测试
	P50	浸锡焊		P140-5	端子注塑		P190	包装
	P60	热缩管套管密封		P150	穿墙主干密封		P200	入库
	P70	支撑手工调定		P160	线束装配		P210	发货
	P80	线缆冲锡		P160-1	静止板装配			
	P90	子工压接		P160-2	旋转线装配			
	P100	检验		P160-3	UDMM装配			

CROSS FUNCTIONAL TEAM

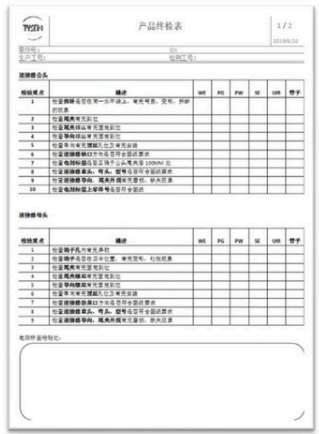
工业工程师　QC 工程师:　生产计划主管

维修主管　QA 工程师:　仓库主管

生产主管　QS 工程师:　品务代表

Approval :

ENG Manager　QC Manager　PDD Manager　PCD Manager



产品终检表

Yanhong Tysem® introduces TS16949-system tools - APQP, PPAP, MSA, SPC, FMEA - to achieve traceability and quality management across 21 processes and nearly 300 checkpoints in design and manufacturing.

National Standard for Wire Harnesses


IPC BUILD ELECTRONICS BETTER

标准 认证 教育 倡导 展览 IPC未来工厂

IPC/WHMA-A-620 线缆及线束组件的要求与验收

IPC主页 〉 IPC/WHMA-A-620 线缆及线束组件的要求与验收

IPC/WHMA-A-620是业界一致认可的线缆、线束组装要求和验收的标准，描述了用于压接、机械紧固与焊接互连材料、方法、测试和可接受性标准以及其它线缆线束组件组装活动的相关标准。
该标准作为线缆线束行业进行工艺、材料、方法和检验管理的指导标准，已被全球范围内的OEM和EMS广泛采用。
该标准的目的是依靠过程控制方法，以确保线缆线束组件制造过程中产品质量的一致性。

ICS 43.040.10
T 36

QC

中华人民共和国汽车行业标准

QC/T 29106—2014
代替 QC/T 29106—2004

汽车电线束技术条件

Technical specification of automobile wire harness

2014-05-06 发布 2014-10-01 实施

中华人民共和国工业和信息化部 发布

The robot wire harnesses manufactured by Yanhong Tysem® fully comply with the automotive national standard QC/T29106 and IPC-WHMA-A-620.

Group Standard for Robot Cable Management Systems


ICS 25.040.30
CCS L66

团 体 标 准

T/QGCML 3327—2024

工业机器人管线包安装规范

Industrial robot pipeline package installation specification

2024-03-14 发布 2024-03-29 实施

全国城市工业品贸易中心联合会 发布

ICS 25.040.30
CCS L66

团 体 标 准

T/QGCML 3326—2024

工业机器人管线包接口规范

Industrial robot pipeline package interface specification

2024-03-14 发布 2024-03-29 实施

全国城市工业品贸易中心联合会 发布

ICS 25.040.01
CCS L97

团 体 标 准

T/UNP 354—2024

协作机器人管线包技术规范

Technical specification for cobot pipeline package

2024-12-05 发布 2024-12-05 实施

中国联合国采购促进会 发布

In 2024, Yanhong Tysem® drafted the robotic dress pack group standards T/QGCML3326-2024, T/QGCML 3327-2024 and T/UNP354-2024.

Third-Party Performance Testing



艾德泰克

检 测 报 告

报告编号：ADTK20231201002F
报告日期：2023/12/11
页　码：2 / 2

序号	名称	检测项目	检测结果		检测方法
			某层	研宏	
1*	防撞球	密度，g/cm³	1.132	1.336	GB/T 3398.2-2008
2*	防撞球	耐磨	平均摩擦系数：0.343 磨损量：0.0050g	平均摩擦系数：0.586 磨损量：0.0029g	GB/T 3960-2016
3*	防撞球	硬度（HRM）	68	76	GB/T 3398.2-2008
4	固定座	拉断力，kN	4.2*	6.1	GB/T 1040.2-2022

备注：标*数据来源于 ADTK20231018002F。

******报告结束******



检 测 报 告

2.2.3 弯曲疲劳条件

频率：1.7HZ，弯曲角度 = =180°。

2.2.4 实验过程简介

1）选取样品长度 600mm，保证芯轴的圆周弯曲的一段外还应在每一端有足够夹持的长度；

2）软管应绕圆形支撑芯轴弯曲；

3）试验达到规定的周期或者软管出现破损或永久变形时停止试验，记录周期和以及中间异常现象（如存在）。

3.检测结果

样品	检测项目	检测结果	检测方法
leoni 波纹管（蓝色）	扭转疲劳	疲劳试验 500 万次后，中间部位发现发白，其余部位未发现异常	GB/T 37220-2018
leoni 波纹管（蓝色）	弯曲疲劳	疲劳试验 500 万次后，未发现异常	GB/T 5565.1-2017
tysem 波纹管（黑色）	扭转疲劳	疲劳试验 500 万次后，中间部位发现发白，其余部位未发现异常	GB/T 37220-2018
tysem 波纹管（黑色）	弯曲疲劳	疲劳试验 500 万次后，未发现异常	GB/T 5565.1-2017

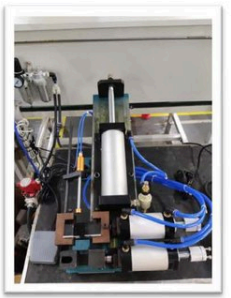


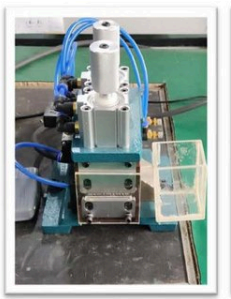




Production and Testing Equipment

















The Yanhong Tysem® dress pack testing and solution laboratory continuously tests products and iterates solutions.



Thank You



Tysem

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