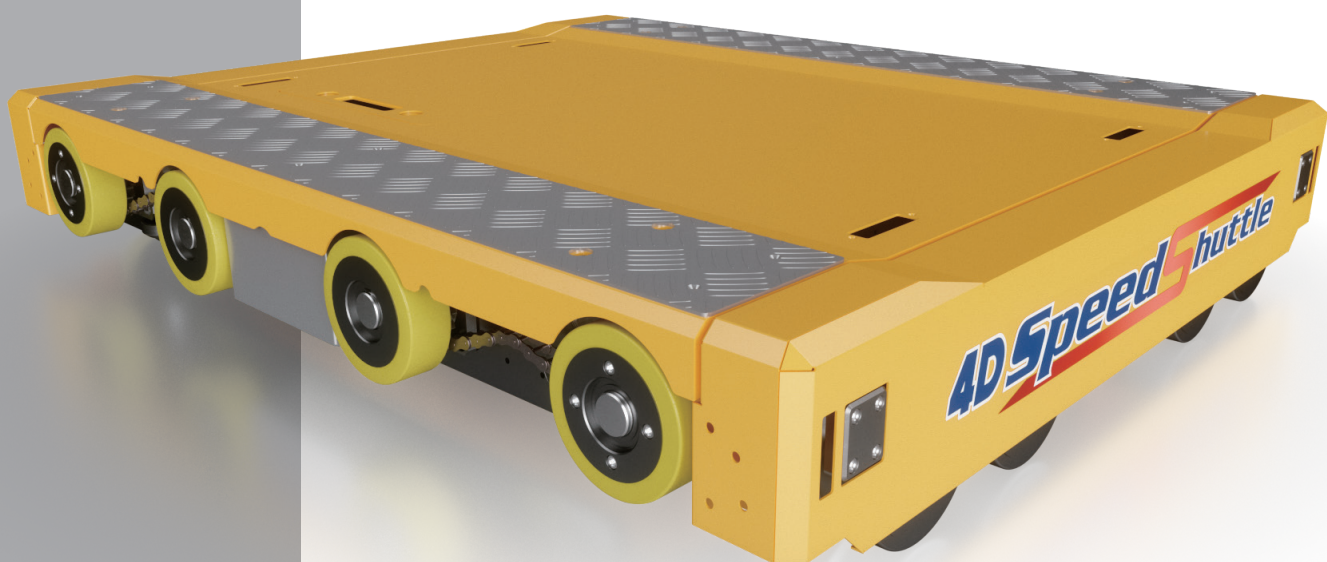


**Speed Shuttle**

*Speed up your logistics*



密集存储系统解决方案

**四向托盘穿梭式系统解决方案**

Four Way Shuttle Rack System

**SPEEDLOG 史必诺®**

研发制造商

上海史必诺物流设备有限公司

[www.speedlog.com.cn](http://www.speedlog.com.cn)



## 走进史必诺® Speedlog® Overview

上海史必诺物流设备有限公司 (Speedlog) 深耕物流装备行业二十余载，专注提供物流解决方案、物流系统集成类软硬件设施及各种货架系统；以品质卓越、技术创新和服务一流享誉全球，已广泛服务于制造、物流、冷链、零售、电商等多个行业，致力于成为客户的空间智能管理专家。总部位于上海的史必诺 Speedlog，依托于专业的研发团队和规范化管理的制造中心，打造了多项自主产权研发专利及产品，立足上海，辐射全球，在国内 5 个主要城市设立了办事处（北京、西安、武汉、重庆、广州），并每年向全球 60 多个国家及地区出口超过 1000 个集装箱的产品。所有史必诺 Speedlog 产品的设计及制造等均严格遵照欧洲 FEM 标准、CE 认证及澳大利亚全新标准 AS4084:2012 和美国 RMI 标准。

Shanghai Speed Logistics Equipment Co., Ltd(Speedlog) have been in logistics equipment industry for more than 20 years, dedicating to provide logistics solutions and logistics systems integration of hardware and software facilities, world-renowned with quality excellence, technological innovation and first-class service. Its product has been widely used in manufacturing, logistics, cold chain, retail, electricity and other industries and committed to become space intelligent management experts. Headquarter is located in Shanghai and we have been creating a number of independent property patents and products by relying on the professional research development team and standardized management of the manufacturing center. Based in Shanghai, facing to global world. We have been setting up branch offices in five major cities in China (Beijing, Xi'an, Wuhan, Chongqing, Guangzhou) and export more than 1,000 containers to 60 countries and regions each year. All Speedlog products are designed and manufactured strictly in accordance with the European FEM, CE standards and the new Australian standard AS4084: 2012 and the United States RMI standards.

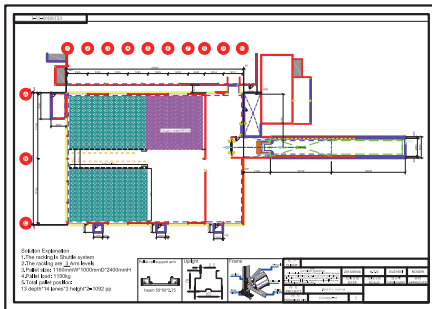


上海制造基地 Shanghai Manufacturing Base



研发中心 R&D Center

## 我们能给您的：专业的一站式仓储解决方案 We offering professional one-stop storage solution

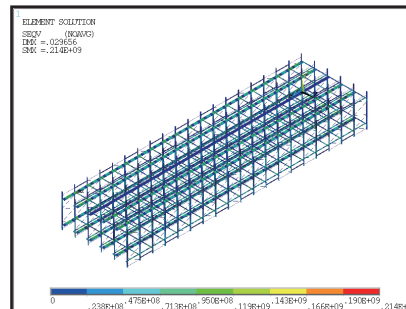


### 方案设计

根据客户需求，为客户提供详细的布局及物流解决方案。

### Solution design

Make detailed solution design base on client's requirement.



### 力学分析

根据 AS4084 和 FEM 的规范，结合专业力学软件，进行合适的选型和力学计算。

### Mechanical analysis

Provide mechanical calculation&model selection according to AS4084 & FEM standard.

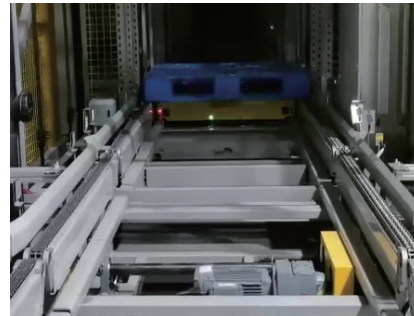


### 3D 模拟

利用 3D 模拟软件，为客户 1:1 模拟真实的效果图。必要时，制作 3D 动画，带来更直观的效果。

### 3D simulation

Providing customers with 1:1 simulation renderings by using 3D modling software,can provide 3D animation for certain jobs to bring more intuitive visual effect.



### 现场交付

科学的现场管理，包括安装、调试、培训等。最后交付给客户使用。

### Onsite handover

Scientific site management including installation,commissioning,training etc. Then handover to customer for use.



## 四向托盘穿梭车

### 4-Way Radio Shuttle System

史必诺自主研发的四向穿梭车是一种智能型自动搬运小车，拥有完全的自主知识产权。

四向小车在货架的 X,Y 轴轨道上运动，配合提升机，输送线等其他设备，和 WCS/WMS 一起，组成 智能密集型全自动存储系统。

4-way radio shuttle system is an automated material handing vehicle, which is independently developed by Speedlog team with complete intellectual property rights.

Radio shuttle is running on the X&Y axis rail of rack, combined with the elevator, conveyor and other equipment to form a intelligent high density automated storage system.



#### 优势

Advantage

- ① 高密度存储--比平面库容量提高3-4倍
- ① 扩展性好--可以通过增减穿梭车的数量来适应不同的效率要求
- ① 性价比高，节省成本--降低土地和人工成本
- ① 全自动化，减少人为损坏--全自动密集库
- ① High density storage - 3-4 times more storage capacity than normal warehouse
- ① Cost effective, cost saving--reduce land and labor costs
- ① Good expansibility--the number of shuttles can be adjusted to fit different efficiency request
- ① Full automatic, reduce human damage--full automatic high dense warehouse

#### 适用行业

Application of industry

四向重型小车系统适用于少 SKU,大批量,对效率要求不高的场景。

广泛应用于食品饮料,化工,第三方物流等行业。

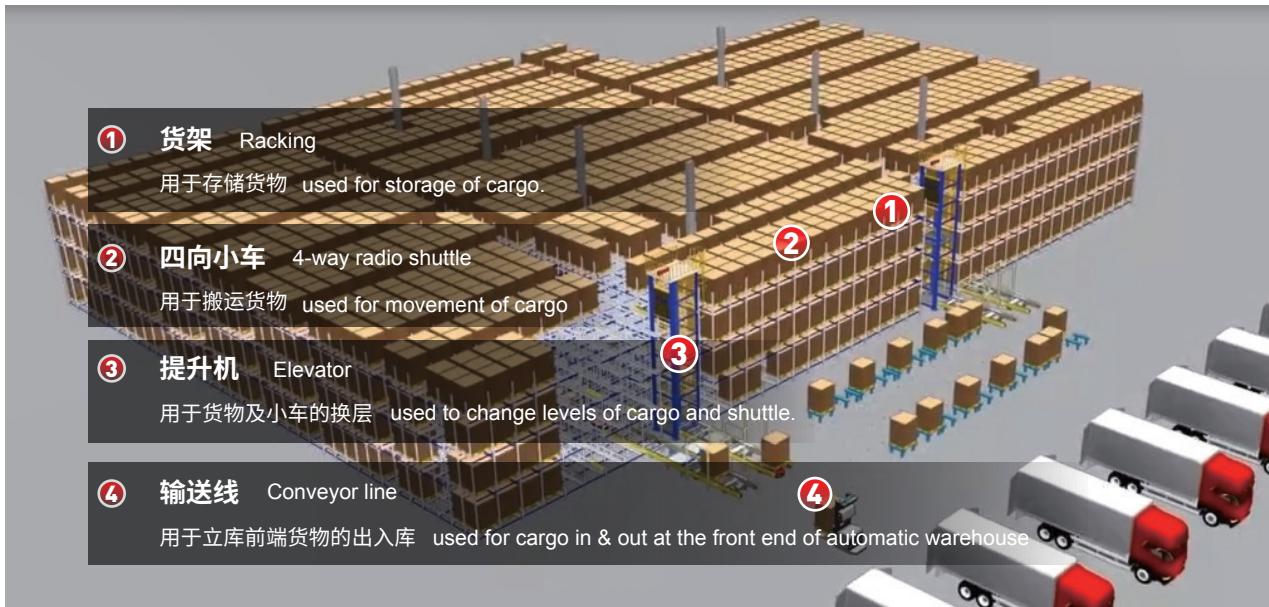
The Four-way shuttle system is suitable for the projects with few SKU, large quantity and low efficiency requirements.

Widely used in Food and Beverage, Chemical industry, Third-party logistics and other industries



## 一个典型的四向穿梭车一般包括：

A typical 4-way shuttle system usually consists of:



① 货架 Racking

用于存储货物 used for storage of cargo.

② 四向小车 4-way radio shuttle

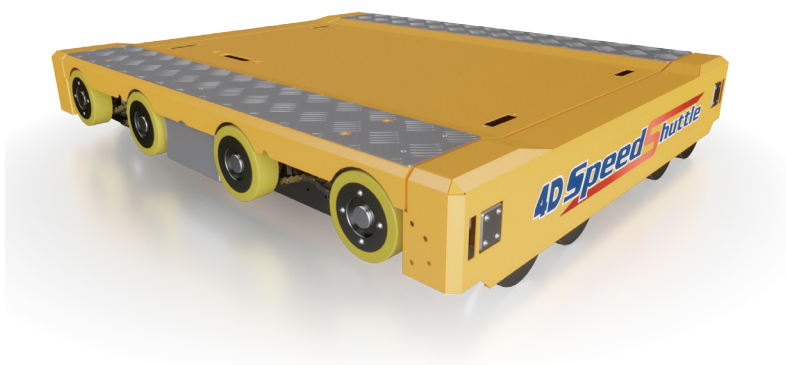
用于搬运货物 used for movement of cargo

③ 提升机 Elevator

用于货物及小车的换层 used to change levels of cargo and shuttle.

④ 输送线 Conveyor line

用于立库前端货物的出入库 used for cargo in & out at the front end of automatic warehouse



### 整板提升

Whole board lifting

### 快速运行

Fast Running

### 路径优化

Route optimization

### 模块化设计

Modular design

#### 载重

MAX.1500kg

#### 速度

Speed

空载(no-load):1.2m/s  
满载(full-load):1m/s

#### 定位方式

Positioning Mode

二维码  
QR-code

#### 定位精度

Positioning accuracy

±2mm

#### 顶升方式

Lift Method

整板顶升  
whole board lifting

#### 顶升行程

Lift height

40mm

#### 充电方式

Charge Mode

在线充电  
online charge

#### 运行温度

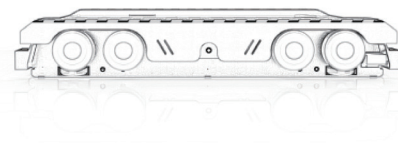
Operation Temperature

0-45度

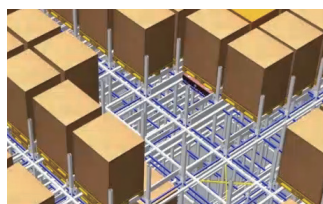
#### 自重

Shuttle Weight

380kg



## 系统功能 System Function



子巷道作业  
Sub Aisle operation



同巷道多车协同作业  
Multi shuttle cooperative operation  
in the same roadway



母巷道作业  
Main Aisle Operation



提升机换层  
Elevator level change

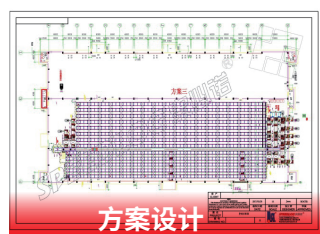
## 方案设计 Solution



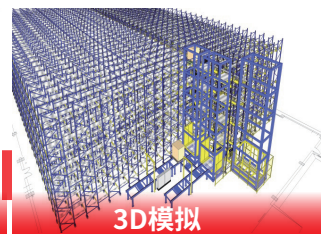
需求调研  
Demand Survey



数据分析  
Data analysis



方案设计  
Plan design



3D模拟  
3D simulation



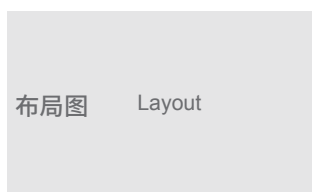
四向穿梭车系统所用托盘，必须经SPEEDLOG测试通过

The pallet what used for the four-way shuttle system, must be passed by speedlog test

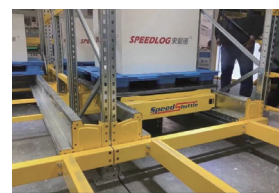
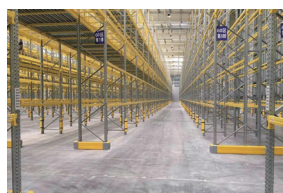
普通横梁式货架  
Selective Pallet Rack

堆垛机立库  
ASRS with Stack Crane

四向穿梭车立库  
4-way Radio Shuttle ASRS



布局图  
Layout



存储量  
Storage Capacity

低  
Low

中  
Moderate

高  
Moderate

自动化  
Automation

非自动化  
Non automatic

全自动  
Full Automatic

全自动  
Full Automatic

效率  
Efficiency

低  
Low

高  
High

中  
High

单台设备  
依赖程度  
Dependence of  
Single equipment

无(人工)  
No (man power)

高  
High

低  
High

人力成本  
Labor Cost

高  
High

低  
Low

低  
Low

投资成本  
Investment cost

低  
Low

高  
High

中  
High



**上海史必诺物流设备有限公司**  
Shanghai Speed Logistics Equipment Co., Ltd

*Speed up your logistics*

咨询热线：800-820-8363 021-51876364

上海市浦东新区浦东南路2240号永业商务楼12楼 邮编：200127

TEL: 0086-21-51876301 FAX:0086-21-51876819 E: info@speedlog.com

12F, YongYe Building, No.2240 South Pudong Road, Pu Dong New District, Shanghai, P.R.China Zip: 200127 Version:2023.V1.3



微信公众号：SpeedlogGroup