

SUS

Ready Solution Catalog **2020** vol.2





S

US

からくり革命

現場改善のソリューションを探し、進化と改革を加速させる。

SUSでは、からくりをシンプルに、もっと簡単に、さらに多機能にをコンセプトに、
からくり電動化「からくり革命」を提案し好評をいただきました。
このコンセプトがもっとお客様の課題のお役に立てるよう提案し、
改善につながるようより一層のシステム充実に力を注いでいきます。



Automation *Revolution*

Continuous improvement at a revolutionary speed.

The simplicity of low-cost automation is now easier than ever as customers hail the versatile SiO Controller as an “Automation Revolution.” Made specifically to address daily challenges, SiO is designed to couple seamlessly with low-cost automation *karakuri* designs and power every step in your own revolution.



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SUS Ready Solution Catalog

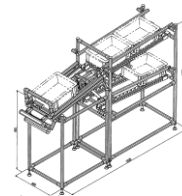
Absolute ease is our goal with this catalog. Everything listed can be ordered in the specifications noted. Here are a few things to keep in mind as you use the **SUS Ready Solution Catalog**:

- Units are shipped as a kit, ready for assembly. If you'd like a pre-assembled structure, please note this in your order as additional fees will apply.
- When placing your order, be sure to include your preferred shipping terms and carrier if you have one.
- Average lead times are noted with each item or at the beginning of each section. For large quantities, please contact SUS America, Inc. to confirm our inventory status before placing your order.
- All photos used in this catalog are representations only. Actual structures may vary as designs are continuously improved.
- To place an order, contact SUS America, Inc. (see p.103).
- If you have questions about this catalog or its contents, please contact us. We are happy to assist you.



Standard Units

Basic structures for any work space.



Custom Structures

Details on how to order built-to-suit structures.



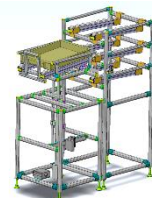
Traditional Karakuri

Low-cost automation solutions without electricity.



Miniature Karakuri

Mechanisms and structures for *karakuri* training.



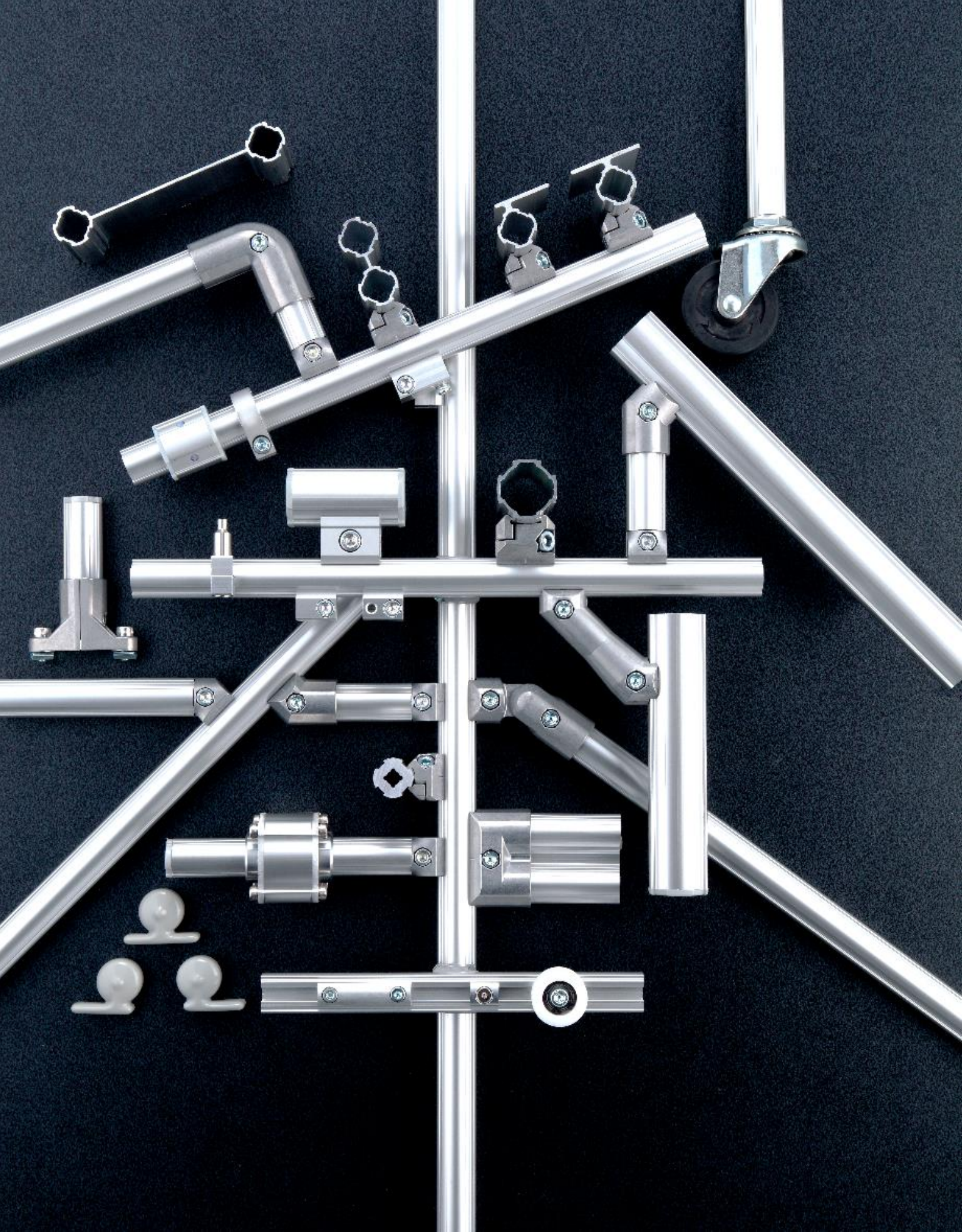
Automated Karakuri

Full- and semi-automated *karakuri* structures.



SiO Controller

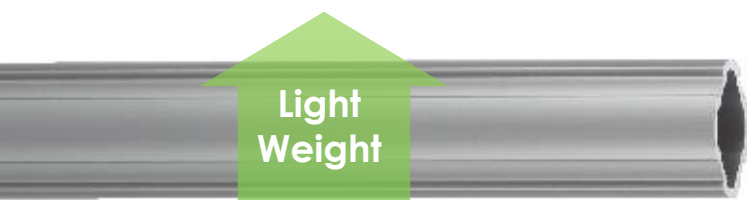
Simple electric automation for small-scale improvements.



GF *Green Frame*

Green Frame

Green Frame is the basic material used to build all of the structures found in the Ready Solution Catalog. It optimizes the balance between rigidity and weight, making it 60% lighter than welded steel and 20% stronger than resin coated steel piping. Thanks to an alumite treatment, Green Frame is also highly resistant to rust, scratches, and dust.



Light
Weight

GF S

19_{mm} / **0.74"**

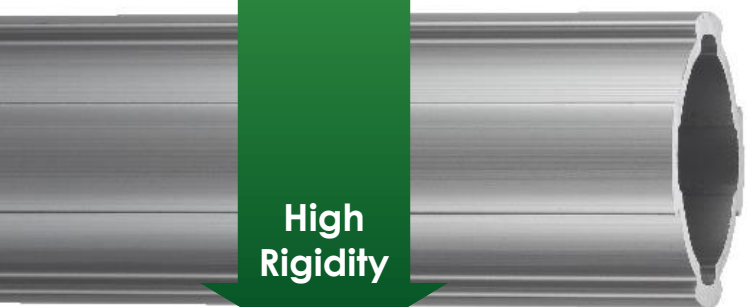
10.8 kgf / 24 lbf



GF N

28_{mm} / **1.1"**

48.7 kgf / 108 lbf



GF G

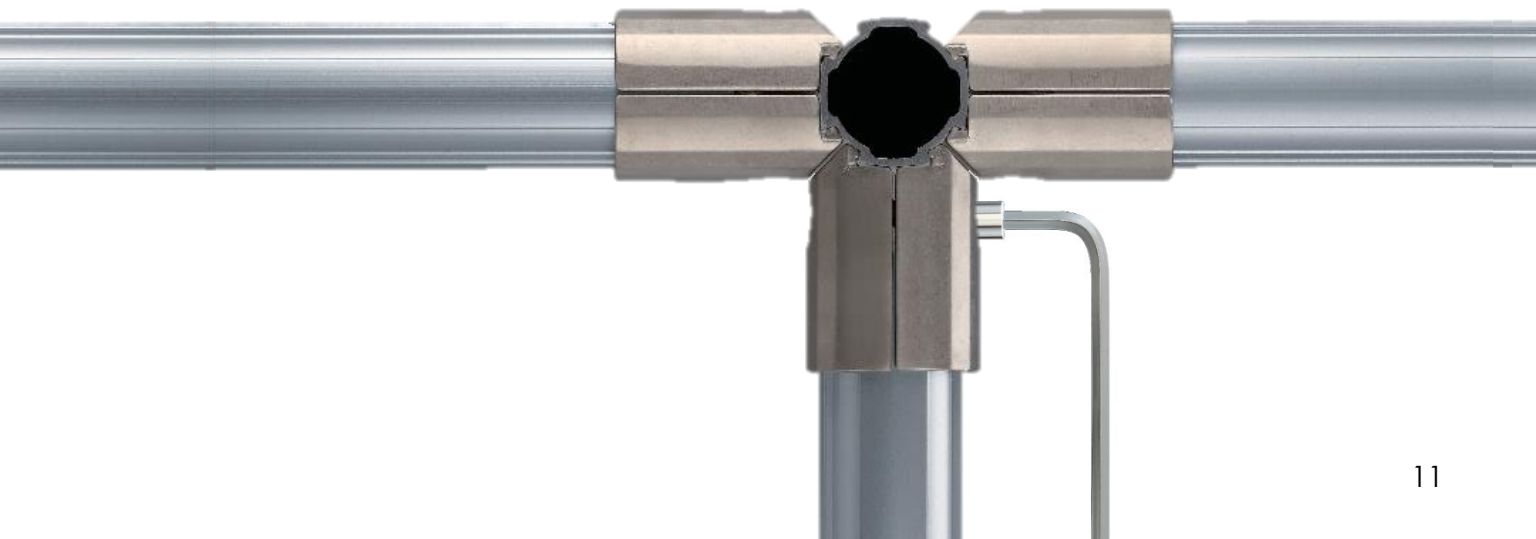
43_{mm} / **1.69"**

108.7 kgf / 240 lbf

Advanced Connections

Each connector is affixed with a single, dedicated bolt designed to produce a right angle and parallel lines along the notched profile. In trials, new users assembled a Green Frame structure up to 67% faster than the same structure using another modular system. Green Frame connectors make minor or major adjustments quick and easy, saving time and manpower.

90° angles
Parallel lines
Full modularity
Dedicated bolt
Total confidence



Truly Green

Green Frame is the ideal choice for work sites seeking to reduce their impact on our environment. SUS's Fukushima location recycles retired frames and connectors back into new extrusions, saving energy and resources. In addition, the material's inherent light weight compared to steel means less impact during transport, and its resistance to rust and scratches combined with its high modularity means more repurposing and less waste.

Lightweight

Aluminum is approximately 33% the mass of steel. Because many of the connectors are also aluminum, GF structures are easy to build and maneuver, reducing strain on operators and improving ergonomics.



Lasting Finish

The alumite-coated GF Series was tested by exposing it to water and keeping the components in high-humidity. In the test, GF far outlasted steel exposed to the same conditions.



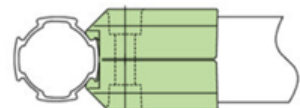
Reduced Carbon Footprint

The amount of electricity used to refine a recycled aluminum ingot is only 3% of that needed for a new one. GF frames and connectors are 99% recyclable, minimizing energy consumption and environmental impact.



Reusable

GF frames and connectors easily answer the demands of evolving work environments. Change a structure's orientation, adjust it to suit different operators, or completely repurpose it for a new use.



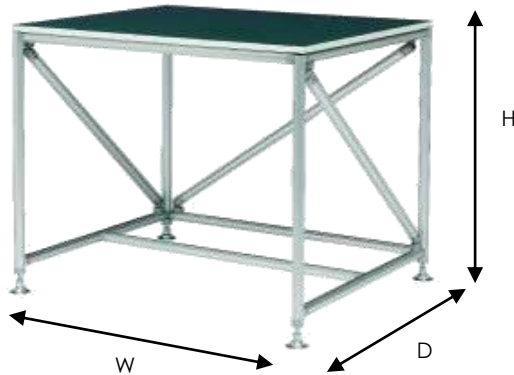
Standard Units

Work Tables

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Work Table A (seated work)

Ready to ship in 5-10 business days



Payload: 100kg/220lbs
Includes 16.5mm/0.6" thick MDF panel with non-static green top and finished sides

| Item # | GFM-001 | GFM-002 | GFM-003 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------|
| W | 750mm 29.5" | 900mm 35.4" | 1200mm 47.25" |
| D | 750mm 29.5" | | |
| H | 740mm 29.1" | | |
| Price | 239.35 | 242.55 | 273.66 |
| DWG | GFU 2804536-4 | GFU 2804537-4 | GFU 2804538-4 |
| Options | Drawer Kit (GFM-X01) p.43 Slide Table Kit (GFM-X02) p.43 Board Level Kit (GFK-900) p. 44 Board Lifter Kit (GFK-901~903) p. 44 Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 | | |

Work Table A, Heavy-Duty Type (seated work)

Ready to ship in 5-10 business days



Payload: 130kg/286lbs
Includes 16.5mm/0.6" thick MDF panel with non-static green top and finished sides

| Item # | GFM-201 | GFM-202 | GFM-203 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------|
| W | 750mm 29.5" | 900mm 35.4" | 1200mm 47.25" |
| D | 750mm 29.5" | | |
| H | 740mm 29.1" | | |
| Price | 283.70 | 290.30 | 331.02 |
| DWG | GFU 4300148-2 | GFU 4300149-3 | GFU 4300150-1 |
| Options | Drawer Kit (GFM-X01) p.43 Slide Table Kit (GFM-X02) p.43 Board Level Kit (GFK-900) p. 44 Board Lifter Kit (GFK-901~903) p. 44 Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 | | |

Work Tables

Work Table A (standing work)

Ready to ship in 5-10 business days



Payload: 100kg/220lbs
Includes 16.5mm/0.6" thick MDF panel with non-static green top and finished sides

| Item # | GFM-004 | GFM-005 | GFM-006 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------|
| W | 750mm 29.5" | 900mm 35.4" | 1200mm 47.25" |
| D | 750mm 29.5" | | |
| H | 900mm 35.4" | | |
| Price | 243.71 | 230.24 | 277.90 |
| DWG | GFU 2804539-5 | GFU 2804540-5 | GFU 2804541-5 |
| Options | Drawer Kit (GFM-X01) p.43 Slide Table Kit (GFM-X02) p.43 Board Level Kit (GFK-900) p. 44 Board Lifter Kit (GFK-901~903) p. 44 Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 | | |

Work Table A, Heavy-Duty Type (standing work)

Ready to ship in 5-10 business days



Payload: 130kg/286lbs
Includes 16.5mm/0.6" thick MDF panel with non-static green top and finished sides

| Item # | GFM-204 | GFM-205 | GFM-206 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------|
| W | 750mm 29.5" | 900mm 35.4" | 1200mm 47.25" |
| D | 750mm 29.5" | | |
| H | 900mm 35.4" | | |
| Price | 291.16 | 297.20 | 333.95 |
| DWG | GFU 4300151-1 | GFU 4300152-1 | GFU 4300153-1 |
| Options | Drawer Kit (GFM-X01) p.43 Slide Table Kit (GFM-X02) p.43 Board Level Kit (GFK-900) p. 44 Board Lifter Kit (GFK-901~903) p. 44 Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 | | |

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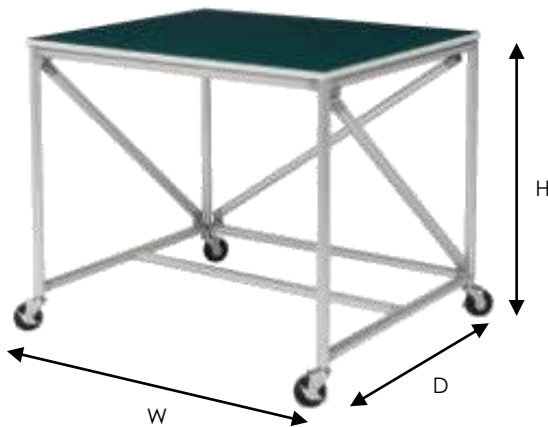
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Work Table A (mobile work)

Ready to ship in 5-10 business days



Payload: 100kg/220lbs
Includes 16.5mm/0.6" thick MDF panel with non-static green top and finished sides

| Item # | GFM-007 | GFM-008 | GFM-009 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------|
| W | 750mm 29.5" | 900mm 35.4" | 1200mm 47.25" |
| D | 750mm 29.5" | | |
| H | 840mm 33" | | |
| Price | 251.36 | 254.54 | 285.61 |
| DWG | GFU 2804542-7 | GFU 2804543-3 | GFU 2804544-3 |
| Options | Drawer Kit (GFM-X01) p.43 Slide Table Kit (GFM-X02) p.43 Board Level Kit (GFK-900) p. 44 Board Lifter Kit (GFK-901~903) p. 44 Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 | | |

Work Table A, Heavy-Duty Type (mobile work)

Ready to ship in 5-10 business days



Payload: 130kg/286lbs
Includes 16.5mm/0.6" thick MDF panel with non-static green top and finished sides

| Item # | GFM-207 | GFM-208 | GFM-209 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------|
| W | 750mm 29.5" | 900mm 35.4" | 1200mm 47.25" |
| D | 750mm 29.5" | | |
| H | 840mm 33" | | |
| Price | 314.69 | 320.76 | 357.60 |
| DWG | GFU 4300154-4 | GFU 4300155-3 | GFU 4300156-3 |
| Options | Drawer Kit (GFM-X01) p.43 Slide Table Kit (GFM-X02) p.43 Board Level Kit (GFK-900) p. 44 Board Lifter Kit (GFK-901~903) p. 44 Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 | | |

Work Tables

Work Table A with Rack (seated work)

Ready to ship in 5-10 business days



Payload: 100kg/220lbs
Includes 16.5mm/0.6" thick MDF panels with non-static green top and finished sides

| Item # | GFM-010 | GFM-011 | GFM-012 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------|
| W | 750mm 29.5" | 900mm 35.4" | 1200mm 47.25" |
| D | 750mm 29.5" | | |
| H | 740mm 29" | | |
| Price | 306.00 | 309.20 | 351.29 |
| DWG | GFU 2804545-5 | GFU 2804475-5 | GFU 2804546-4 |
| Options | Drawer Kit (GFM-X01) p.43 Slide Table Kit (GFM-X02) p.43 Board Level Kit (GFK-900) p. 44 Board Lifter Kit (GFK-901~903) p. 44 Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 | | |

Work Table A with Rack, Heavy-Duty Type (seated work)

Ready to ship in 5-10 business days



Payload: 130kg/286lbs
Includes 16.5mm/0.6" thick MDF panels with non-static green top and finished sides

| Item # | GFM-210 | GFM-211 | GFM-212 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------|
| W | 750mm 29.5" | 900mm 35.4" | 1200mm 47.25" |
| D | 750mm 29.5" | | |
| H | 740mm 29" | | |
| Price | 357.48 | 363.59 | 411.34 |
| DWG | GFU 4300157-2 | GFU 4300158-2 | GFU 4300159-2 |
| Options | Drawer Kit (GFM-X01) p.43 Slide Table Kit (GFM-X02) p.43 Board Level Kit (GFK-900) p. 44 Board Lifter Kit (GFK-901~903) p. 44 Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 | | |

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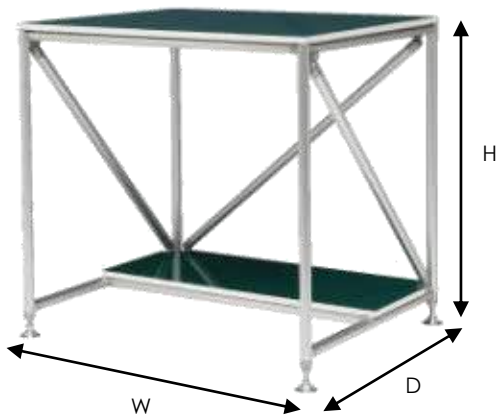
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Karakuri

S/O
Controller

Work Tables

Work Table A with Rack (standing work)

Ready to ship in 5-10 business days



Payload: 100kg/220lbs
Includes 16.5mm/0.6" thick MDF panels with non-static green top and finished sides

| Item # | GFM-013 | GFM-014 | GFM-015 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------|
| W | 750mm 29.5" | 900mm 35.4" | 1200mm 47.25" |
| D | 750mm 29.5" | | |
| H | 900mm 35.4" | | |
| Price | 310.36 | 313.53 | 355.46 |
| DWG | GFU 2804547-5 | GFU 2804548-5 | GFU 2804315-6 |
| Options | Drawer Kit (GFM-X01) p.43 Slide Table Kit (GFM-X02) p.43 Board Level Kit (GFK-900) p. 44 Board Lifter Kit (GFK-901~903) p. 44 Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 | | |

Work Table A with Rack, Heavy-Duty Type (standing work)

Ready to ship in 5-10 business days



Payload: 130kg/286lbs
Includes 16.5mm/0.6" thick MDF panels with non-static green top and finished sides

| Item # | GFM-213 | GFM-214 | GFM-215 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------|
| W | 750mm 29.5" | 900mm 35.4" | 1200mm 47.25" |
| D | 750mm 29.5" | | |
| H | 900mm 35.4" | | |
| Price | 364.94 | 370.98 | 418.64 |
| DWG | GFU 4300160-2 | GFU 4300161-2 | GFU 4300162-2 |
| Options | Drawer Kit (GFM-X01) p.43 Slide Table Kit (GFM-X02) p.43 Board Level Kit (GFK-900) p. 44 Board Lifter Kit (GFK-901~903) p. 44 Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 | | |

Work Tables

Work Table A with Rack (mobile work)

Ready to ship in 5-10 business days



Payload: 100kg/ 220lbs
Includes 16.5mm/0.6" thick MDF panels with non-static green top and finished sides

| Item # | GFM-016 | GFM-017 | GFM-018 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------|
| W | 750mm 29.5" | 900mm 35.4" | 1200mm 47.25" |
| D | 750mm 29.5" | | |
| H | 840mm 33" | | |
| Price | 318.01 | 321.19 | 361.26 |
| DWG | GFU 2804549-4 | GFU 2804550-3 | GFU 2804551-3 |
| Options | Drawer Kit (GFM-X01) p.43 Slide Table Kit (GFM-X02) p.43 Board Level Kit (GFK-900) p. 44 Board Lifter Kit (GFK-901~903) p. 44 Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 | | |

Work Table A with Rack, Heavy-Duty Type (mobile work)

Ready to ship in 5-10 business days



Payload: 130kg/286lbs
Includes 16.5mm/0.6" thick MDF panels with non-static green top and finished sides

| Item # | GFM-216 | GFM-217 | GFM-218 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------|
| W | 750mm 29.5" | 900mm 35.4" | 1200mm 47.25" |
| D | 750mm 29.5" | | |
| H | 840mm 33" | | |
| Price | 388.46 | 394.54 | 442.29 |
| DWG | GFU 4300163-3 | GFU 4300164-3 | GFU 4300165-3 |
| Options | Drawer Kit (GFM-X01) p.43 Slide Table Kit (GFM-X02) p.43 Board Level Kit (GFK-900) p. 44 Board Lifter Kit (GFK-901~903) p. 44 Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 | | |

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Work Stations

Work Station B (standing work)

Ready to ship in 5-10 business days



Payload: 100kg/220lbs
Includes 16.5mm/0.6" thick MDF panel with non-static green top and finished sides

| Item # | GFM-019 | GFM-020 | GFM-021 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------------------|
| W | 750mm 29.5" | 900mm 35.4" | 1200mm 47.25" |
| D | 750mm / 29.5" | | |
| H | Table 900mm / 35.4" | | Overhead 1800mm / 77.9" |
| Price | 356.81 | 338.86 | 408.63 |
| DWG | GFU 2804565-5 | GFU 2804566-4 | GFU 2804567-4 |
| Options | Drawer Kit (GFM-X01) p.43 Slide Table Kit (GFM-X02) p.43 Board Level Kit (GFK-900) p. 44 Board Lifter Kit (GFK-901~903) p. 44 Impact Holder Kits (GFK-803/802) p.45 Frame Cushion (GFA-819) p.45 Connector Piece Compact (GFJ-B09/B18) p.46 Parts Holder (GFA-000) p.46 Ring Runner (GFA-A06) p.47 Name Plate Kit (GFK-J00) p.47 Aluminum Name Plate (GFA-A12) p.47 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 Parts Containers (GFA-A81/A07) p.51 | | |

Work Station B, Heavy-Duty Type (standing work)

Ready to ship in 5-10 business days



Payload: 130kg/286lbs
Includes 16.5mm/0.6" thick MDF panel with non-static green top and finished sides

| Item # | GFM-219 | GFM-220 | GFM-221 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------------------|
| W | 750mm 29.5" | 900mm 35.4" | 1200mm 47.25" |
| D | 750mm / 29.5" | | |
| H | Table 900mm / 35.4" | | Overhead 1800mm / 77.9" |
| Price | 413.60 | 423.16 | 466.91 |
| DWG | GFU 4300166-1 | GFU 4300167-2 | GFU 4300168-1 |
| Options | Drawer Kit (GFM-X01) p.43 Slide Table Kit (GFM-X02) p.43 Board Level Kit (GFK-900) p. 44 Board Lifter Kit (GFK-901~903) p. 44 Impact Holder Kits (GFK-803/802) p.45 Frame Cushion (GFA-819) p.45 Connector Piece Compact (GFJ-B09/B18) p.46 Parts Holder (GFA-000) p.46 Ring Runner (GFA-A06) p.47 Name Plate Kit (GFK-J00) p.47 Aluminum Name Plate (GFA-A12) p.47 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 Parts Containers (GFA-A81/A07) p.51 | | |

Work Stations

Work Station B (mobile work)

Ready to ship in 5-10 business days



Payload: 100kg/220lbs
Includes 16.5mm/0.6" thick MDF panel with non-static green top and finished sides

| Item # | GFM-022 | GFM-023 | GFM-024 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|------------------|
| W | 750mm 29.5" | 900mm 35.4" | 1200mm 47.25" |
| D | 750mm / 29.5" | | |
| H | Table 900mm / 35.4" | Overhead 1800mm / 77.9" | |
| Price | 368.85 | 375.49 | 415.40 |
| DWG | GFU 2804568-3 | GFU 2804569-4 | GFU 2804570-4 |
| Options | Drawer Kit (GFM-X01) p.43 Slide Table Kit (GFM-X02) p.43 Board Level Kit (GFK-900) p. 44 Board Lifter Kit (GFK-901~903) p. 44 Impact Holder Kits (GFK-803/802) p.45 Frame Cushion (GFA-819) p.45 Connector Piece Compact (GFJ-B09/B18) p.46 Parts Holder (GFA-000) p.46 Ring Runner (GFA-A06) p.47 Name Plate Kit (GFK-J00) p.47 Aluminum Name Plate (GFA-A12) p.47 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 Parts Containers (GFA-A81/A07) p.51 | | |

Work Station B, Heavy-Duty Type (mobile work)

Ready to ship in 5-10 business days



Payload: 130kg/286lbs
Includes 16.5mm/0.6" thick MDF panel with non-static green top and finished sides

| Item # | GFM-222 | GFM-223 | GFM-224 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|------------------|
| W | 750mm 29.5" | 900mm 35.4" | 1200mm 47.25" |
| D | 750mm / 29.5" | | |
| H | Table 900mm / 35.4" | Overhead 1800mm / 77.9" | |
| Price | 439.40 | 449.01 | 492.78 |
| DWG | GFU 4300169-2 | GFU 4300170-3 | GFU 4300171-3 |
| Options | Drawer Kit (GFM-X01) p.43 Slide Table Kit (GFM-X02) p.43 Board Level Kit (GFK-900) p. 44 Board Lifter Kit (GFK-901~903) p. 44 Impact Holder Kits (GFK-803/802) p.45 Frame Cushion (GFA-819) p.45 Connector Piece Compact (GFJ-B09/B18) p.46 Parts Holder (GFA-000) p.46 Ring Runner (GFA-A06) p.47 Name Plate Kit (GFK-J00) p.47 Aluminum Name Plate (GFA-A12) p.47 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 Parts Containers (GFA-A81/A07) p.51 | | |

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Work Station B with Racks (standing work)

Ready to ship in 5-10 business days



Payload: 100kg/220lbs
Includes 16.5mm/0.6" thick MDF panels with non-static green top and finished sides

| Item # | GFM-025 | GFM-026 | GFM-027 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------------------|
| W | 750mm 29.5" | 900mm 35.4" | 1200mm 47.25" |
| D | 750mm / 29.5" | | |
| H | Table 900mm / 35.4" | | Overhead 1800mm / 77.9" |
| Price | 505.78 | 527.51 | 594.93 |
| DWG | GFU 2804571-4 | GFU 2804572-5 | GFU 2804573-5 |
| Options | Drawer Kit (GFM-X01) p.43 Slide Table Kit (GFM-X02) p.43 Board Level Kit (GFK-900) p. 44 Board Lifter Kit (GFK-901~903) p. 44 Impact Holder Kits (GFK-803/802) p.45 Frame Cushion (GFA-819) p.45 Connector Piece Compact (GFJ-B09/B18) p.46 Parts Holder (GFA-000) p.46 Ring Runner (GFA-A06) p.47 Name Plate Kit (GFK-J00) p.47 Aluminum Name Plate (GFA-A12) p.47 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 Parts Containers (GFA-A81/A07) p.51 | | |

Work Station B with Racks, Heavy-Duty Type (standing work)

Ready to ship in 5-10 business days



Payload: 130kg/286lbs
Includes 16.5mm/0.6" thick MDF panels with non-static green top and finished sides

| Item # | GFM-225 | GFM-226 | GFM-227 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------------------|
| W | 750mm 29.5" | 900mm 35.4" | 1200mm 47.25" |
| D | 750mm / 29.5" | | |
| H | Table 900mm / 35.4" | | Overhead 1800mm / 77.9" |
| Price | 574.35 | 598.15 | 648.69 |
| DWG | GFU 4300172-2 | GFU 4300173-3 | GFU 4300174-2 |
| Options | Drawer Kit (GFM-X01) p.43 Slide Table Kit (GFM-X02) p.43 Board Level Kit (GFK-900) p. 44 Board Lifter Kit (GFK-901~903) p. 44 Impact Holder Kits (GFK-803/802) p.45 Frame Cushion (GFA-819) p.45 Connector Piece Compact (GFJ-B09/B18) p.46 Parts Holder (GFA-000) p.46 Ring Runner (GFA-A06) p.47 Name Plate Kit (GFK-J00) p.47 Aluminum Name Plate (GFA-A12) p.47 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 Parts Containers (GFA-A81/A07) p.51 | | |

Work Stations

Work Station B with Racks (mobile work)

Ready to ship in 5-10 business days



Payload: 100kg/220lbs
Includes 16.5mm/0.6" thick MDF panels with non-static green top and finished sides

| Item # | GFM-028 | GFM-029 | GFM-030 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|------------------|
| W | 750mm 29.5" | 900mm 35.4" | 1200mm 47.25" |
| D | 750mm / 29.5" | | |
| H | Table 900mm / 35.4" | Overhead 1800mm / 77.9" | |
| Price | 512.53 | 536.54 | 611.19 |
| DWG | GFU 2804574-4 | GFU 2804444-4 | GFU 2804575-4 |
| Options | Drawer Kit (GFM-X01) p.43 Slide Table Kit (GFM-X02) p.43 Board Level Kit (GFK-900) p. 44 Board Lifter Kit (GFK-901~903) p. 44 Impact Holder Kits (GFK-803/802) p.45 Frame Cushion (GFA-819) p.45 Connector Piece Compact (GFJ-B09/B18) p.46 Parts Holder (GFA-000) p.46 Ring Runner (GFA-A06) p.47 Name Plate Kit (GFK-J00) p.47 Aluminum Name Plate (GFA-A12) p.47 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 Parts Containers (GFA-A81/A07) p.51 | | |

Work Station B with Racks, Heavy-Duty Type (mobile work)

Ready to ship in 5-10 business days



Payload: 130kg/286lbs
Includes 16.5mm/0.6" thick MDF panels with non-static green top and finished sides

| Item # | GFM-228 | GFM-229 | GFM-230 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|------------------|
| W | 750mm 29.5" | 900mm 35.4" | 1200mm 47.25" |
| D | 750mm / 29.5" | | |
| H | Table 900mm / 35.4" | Overhead 1800mm / 77.9" | |
| Price | 590.28 | 622.89 | 689.30 |
| DWG | GFU 4300175-3 | GFU 4300176-4 | GFU 4300177-2 |
| Options | Drawer Kit (GFM-X01) p.43 Slide Table Kit (GFM-X02) p.43 Board Level Kit (GFK-900) p. 44 Board Lifter Kit (GFK-901~903) p. 44 Impact Holder Kits (GFK-803/802) p.45 Frame Cushion (GFA-819) p.45 Connector Piece Compact (GFJ-B09/B18) p.46 Parts Holder (GFA-000) p.46 Ring Runner (GFA-A06) p.47 Name Plate Kit (GFK-J00) p.47 Aluminum Name Plate (GFA-A12) p.47 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 Parts Containers (GFA-A81/A07) p.51 | | |

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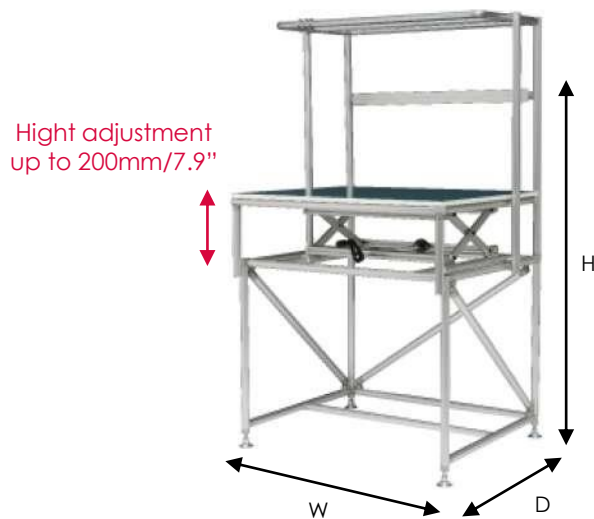
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Work Station C (standing work)

Ready to ship in 15 business days



Payload: 100kg/220lbs
Includes 16.5mm/0.6" thick MDF panel with non-static green top and finished sides

| Item # | GFM-031 | GFM-032 |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| W | 750mm / 29.5" | 900mm / 35.4" |
| D | 750mm / 29.5" | |
| H | Table 740~940mm 29.1~37" | Overhead 1800mm 77.9" |
| Price | 622.48 | 678.59 |
| DWG | GFU2804925-4 | GFU2804932-1 |
| Options | Drawer Kit (GFM-X01) p.43 Slide Table Kit (GFM-X02) p.43 Impact Holder Kits (GFK-803/802) p.45 Frame Cushion (GFA-819) p.45 Connector Piece Compact(GFJ-B09/B18) p.46 Parts Holder (GFA-000) p.46 Ring Runner (GFA-A06) p.47 Name Plate Kit (GFK-J00) p.47 Aluminum Name Plate (GFA-A12) p.47 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 Parts Containers (GFA-A81/A07) p.51 | |

Work Station C (mobile work)

Ready to ship in 15 business days



Payload: 100kg/220lbs
Includes 16.5mm/0.6" thick MDF panel with non-static green top and finished sides

| Item # | GFM-033 | GFM-034 |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| W | 750mm / 29.5" | 900mm / 35.4" |
| D | 750mm / 29.5" | |
| H | Table 740~940mm 29.1~37" | Overhead 1800mm 77.9" |
| Price | 631.68 | 687.88 |
| DWG | GFU2804936-1 | GFU2804937-1 |
| Options | Drawer Kit (GFM-X01) p.43 Slide Table Kit (GFM-X02) p.43 Impact Holder Kits (GFK-803/802) p.45 Frame Cushion (GFA-819) p.45 Connector Piece Compact(GFJ-B09/B18) p.46 Parts Holder (GFA-000) p.46 Ring Runner (GFA-A06) p.47 Name Plate Kit (GFK-J00) p.47 Aluminum Name Plate (GFA-A12) p.47 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 Parts Containers (GFA-A81/A07) p.51 | |

Trolley A with Work Boards

Ready to ship in 5-10 business days



Unit Payload: 60kg/132lbs
Single Level Payload: 50kg/110lbs
Includes 16.5mm/0.6" thick MDF panels with non-static green top and finished sides

| Item # | GFM-401 | GFM-402 | GFM-403 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|
| W | 600mm 23.6" | | 900mm 35.4" |
| D | 400mm 15.7" | | 600 23.6" |
| H | 600mm 23.6" | 810mm 32" | 880mm 34.6" |
| Price | 416.40 | 420.16 | 472.75 |
| DWG | GFU 2804632-1 | GFU 2804633 | GFU 2804634 |
| Options | Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 | | |

Trolley A with Work Boards and Hammer Lock

Ready to ship in 5-10 business days



Unit Payload: 60kg/132lbs
Single Level Payload: 50kg/110lbs
Includes 16.5mm/0.6" thick MDF panels with non-static green top and finished sides

| Item # | GFM-407 | GFM-408 | GFM-409 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------|
| W | 600mm 23.6" | | 900mm 35.4" |
| D | 400mm 15.7" | | 600 23.6" |
| H | 600mm 23.6" | 810mm 32" | 880mm 34.6" |
| Price | 455.10 | 456.63 | 507.41 |
| DWG | GFU 2804635 | GFU 2804636-1 | GFU 2804317-2 |
| Options | Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 | | |

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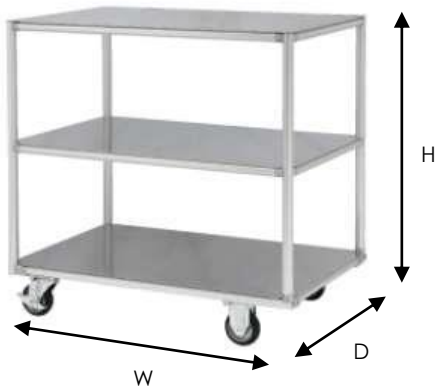
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Trolley A with Stainless Steel Panels

Ready to ship in 15 business days



Unit Payload: 60kg/132lbs
Single Level Payload: 50kg/110lbs
Includes 1.5mm/0.05" thick stainless steel panels

| Item # | GFM-404 | GFM-405 | GFM-406 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|
| W | 600mm 23.6" | | 900mm 35.4" |
| D | 400mm 15.7" | | 600 23.6" |
| H | 600mm 23.6" | 810mm 32" | 880mm 34.6" |
| Price | 501.99 | 505.75 | 689.98 |
| DWG | GFU 2804637-1 | GFU 2804638 | GFU 2804639 |
| Options | Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 | | |

Trolley A with Stainless Steel Panels and Hammer Lock

Ready to ship in 15 business days



Unit Payload: 60kg/132lbs
Single Level Payload: 50kg/10lbs
Includes 1.5mm/0.05" thick stainless steel panels

| Item # | GFM-410 | GFM-411 | GFM-412 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|
| W | 600mm 23.6" | | 900mm 35.4" |
| D | 400mm 15.7" | | 600 23.6" |
| H | 600mm 23.6" | 810mm 32" | 880mm 34.6" |
| Price | 538.45 | 542.21 | 737.13 |
| DWG | GFU 2804640 | GFU 2804641 | GFU 2804642 |
| Options | Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 | | |

Trolley B with Work Boards

Ready to ship in 5-10 business days



Unit Payload: 60kg/132lbs
Single Level Payload: 110lbs/50kg
Includes 16.5mm/0.6" thick MDF panels with non-static green top and finished sides

| Item # | GFM-413 | GFM-414 | GFM-415 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------|
| W | 600mm 23.6" | | 900mm 35.4" |
| D | 400mm 15.7" | | 600 23.6" |
| H | 600mm 23.6" | 810mm 32" | 880mm 34.6" |
| Price | 439.36 | 413.29 | 532.34 |
| DWG | GFU 2804658-1 | GFU 2804659-1 | GFU 2804660 |
| Options | Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 | | |

Trolley B with Work Boards and Hammer Lock

Ready to ship in 5-10 business days



Unit Payload: 60kg/132lbs
Single Level Payload: 50kg/110lbs
Includes 16.5mm/0.6" thick MDF panels with non-static green top and finished sides

| Item # | GFM-419 | GFM-420 | GFM-421 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------|
| W | 600mm 23.6" | | 900mm 35.4" |
| D | 400mm 15.7" | | 600 23.6" |
| H | 600mm 23.6" | 810mm 32" | 880mm 34.6" |
| Price | 475.83 | 479.61 | 564.74 |
| DWG | GFU 2804661-1 | GFU 2804662-1 | GFU 2804663-1 |
| Options | Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 | | |

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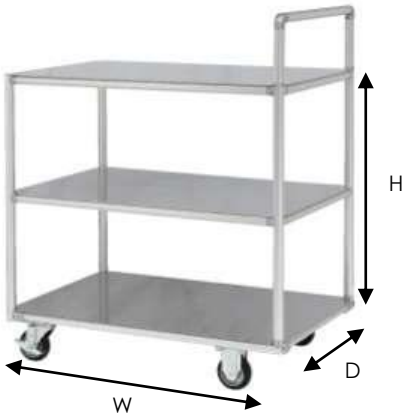
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Trolley B with Stainless Steel Panels

Ready to ship in 15 business days



Unit Payload: 60kg/132lbs
Single Level Payload: 50kg/110lbs
Includes 1.5mm/0.05" thick stainless steel panels

| Item # | GFM-416 | GFM-417 | GFM-418 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|
| W | 600mm 23.6" | | 900mm 35.4" |
| D | 400mm 15.7" | | 600 23.6" |
| H | 600mm 23.6" | 810mm 32" | 880mm 34.6" |
| Price | 515.65 | 523.50 | 687.99 |
| DWG | GFU 2804664 | GFU 2804665 | GFU 2804666 |
| Options | Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 | | |

Trolley B with Stainless Steel Panels and Hammer Lock

Ready to ship in 15 business days



Unit Payload: 60kg/132lbs
Single Level Payload: 50kg/110lbs
Includes 1.5mm/0.05" thick stainless steel panels

| Item # | GFM-422 | GFM-423 | GFM-424 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|
| W | 600mm 23.6" | | 900mm 35.4" |
| D | 400mm 15.7" | | 600 23.6" |
| H | 600mm 23.6" | 810mm 32" | 880mm 34.6" |
| Price | 522.11 | 559.96 | 753.28 |
| DWG | GFU 2804643 | GFU 2804644 | GFU 2804645 |
| Options | Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 | | |

Trolley C with Work Boards

Ready to ship in 5-10 business days



Unit Payload: 60kg/132lbs
Single Level Payload: 50kg/110lbs
Includes 16.5mm/0.6" thick MDF panels with non-static green top and finished sides

| Item # | GFM-425 | GFM-426 | GFM-427 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------|
| W | 600mm 23.6" | | 900mm 35.4" |
| D | 400mm 15.7" | | 600 23.6" |
| H | 600mm 23.6" | 810mm 32" | 880mm 34.6" |
| Price | 466.41 | 472.94 | 556.23 |
| DWG | GFU 2804646 | GFU 2804647-1 | GFU 2804648 |
| Options | Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 | | |

Trolley C with Work Boards and Hammer Lock

Ready to ship in 5-10 business days



Unit Payload: 60kg/132lbs
Single Level Payload: 50kg/110lbs
Includes 16.5mm/0.6" thick MDF panels with non-static green top and finished sides

| Item # | GFM-431 | GFM-432 | GFM-433 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------|
| W | 600mm 23.6" | | 900mm 35.4" |
| D | 400mm 15.7" | | 600 23.6" |
| H | 600mm 23.6" | 810mm 32" | 880mm 34.6" |
| Price | 502.89 | 506.68 | 539.35 |
| DWG | GFU 2804649-2 | GFU 2804650-1 | GFU 2804651-1 |
| Options | Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 | | |

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Trolley C with Stainless Steel Panels

Ready to ship in 15 business days



Unit Payload: 60kg/132lbs
Single Level Payload: 50kg/110lbs
Includes 1.5mm/0.05" thick stainless steel panels

| Item # | GFM-428 | GFM-429 | GFM-430 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|
| W | 600mm 23.6" | | 900mm 35.4" |
| D | 400mm 15.7" | | 600 23.6" |
| H | 600mm 23.6" | 810mm 32" | 880mm 34.6" |
| Price | 533.40 | 537.19 | 723.21 |
| DWG | GFU 2804652 | GFU 2804653 | GFU 2804654 |
| Options | Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 | | |

Trolley C with Stainless Steel Panels and Hammer Lock

Ready to ship in 15 business days



Unit Payload: 60kg/132lbs
Single Level Payload: 50kg/110lbs
Includes 1.5mm/0.05" thick stainless steel panels

| Item # | GFM-434 | GFM-435 | GFM-436 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|
| W | 600mm 23.6" | | 900mm 35.4" |
| D | 400mm 15.7" | | 600 23.6" |
| H | 600mm 23.6" | 810mm 32" | 880mm 34.6" |
| Price | 565.80 | 569.59 | 755.61 |
| DWG | GFU 2804655 | GFU 2804656 | GFU 2804657 |
| Options | Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 | | |

Box Roller A

Ready to ship in 5-10 business days



Unit Payload: 300kg/730lbs

| Item # | GFM-437 |
|---------|---------------------------|
| W | 438mm 17.25" |
| D | 305mm 12" |
| H | 129mm 5" |
| Price | 50.01 |
| DWG | GFTR2880032 |
| Options | Leak Plate (GFK-E00) p.49 |

Box Roller B

Ready to ship in 5-10 business days



| Item # | GFM-438 |
|---------|---------------------------|
| W | 1354mm 53.3" |
| D | 349mm 13.75" |
| H | 129mm 5" |
| Price | 71.70 |
| DWG | GFU2880033 |
| Options | Leak Plate (GFK-E00) p.49 |

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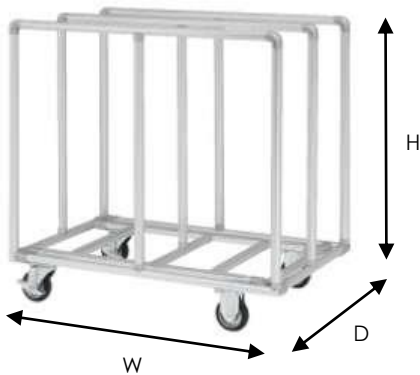
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Trolley for Long Items

Ready to ship in 5-10 business days



Unit Payload: 60kg/132lbs
Moment Load: 4-5kg/9-11lbs

| Item # | GFM-439 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| W | 900mm 35.4" |
| D | 600mm 23.6" |
| H | 880mm 34.6" |
| Price | 260.68 |
| DWG | GFU2804750-1 |
| Options | Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 |

Trolley for Long Items with Hammer Lock

Ready to ship in 5-10 business days



Example Application



Unit Payload: 60kg/132lbs
Moment Load: 4-5kg/9-11lbs
Price includes only one Trolley for Long Items w/HL

| Item # | GFM-440 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| W | 900mm 35.4" |
| D | 600mm 23.6" |
| H | 880mm 34.6" |
| Price | 327.69 |
| DWG | GFU2804442-2 |
| Options | Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 |

Flip-Up Trolley

Ready to ship in 15 business days



Unit Payload: 60kg/132lbs
Single Level Payload: 50kg/110lbs
Includes 3mm/0.11" thick aluminum panel
Price includes only one Flip-up Trolley

| Item # | GFM-441 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| W | 900mm 35.4" |
| D | 600mm 23.6" |
| H | 880mm 34.6" |
| Price | 625.49 |
| DWG | GFU2804749-2 |
| Options | Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 |

Flip-Up Trolley with Hammer Lock

Ready to ship in 15 business days



Unit Payload: 60kg/132lbs
Single Level Payload: 50kg/110lbs
Includes 3mm/0.11" thick aluminum panel

| Item # | GFM-442 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| W | 900mm 35.4" |
| D | 600mm 23.6" |
| H | 880mm 34.6" |
| Price | 684.01 |
| DWG | GFU2804441-3 |
| Options | Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 |

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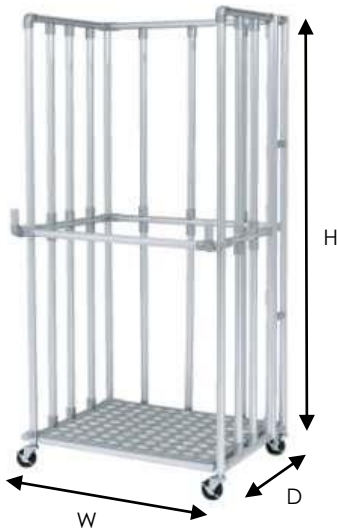
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Cage Trolley

Ready to ship in 15 business days



Unit Payload: 60kg/132lbs
Includes 3mm/0.11" thick aluminum panel

| Item # | GFM-443 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| W | 600mm 23.6" |
| D | 800mm 31.5" |
| H | 1700mm 67" |
| Price | 770.06 |
| DWG | GFU2804327-4 |
| Options | Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 |

Mobile Parts Container Stand

Ready to ship in 5-10 business days



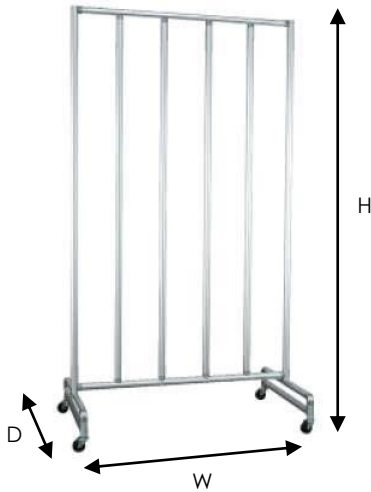
Example Application
using GFA-A07 (p.51)

Price includes only one Mobile Parts Container Stand

| Item # | GFM-J00 | GFM-J01 | GFM-J02 |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------|
| W | 900mm / 35.4" | | |
| D | 600mm / 23.6" | | |
| H | 600mm 23.6" | 900mm 35.4" | 1200mm 47.2" |
| No. of Shelves | 2 | 4 | 6 |
| Price | 135.50 | 166.51 | 198.24 |
| DWG | GFU 2804668-1 | GFU 2804440-3 | GFU 2804667-1 |
| Options | Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 Base Stand (GFN-E08) p.49 Parts Containers (GFA-A81/A07) p.51 Small Diameter Adjuster (GFN-000/002) p.52 Adjuster B (SFK-933) p.52 | | |

Mobile Partition with Gratings

Ready to ship in 5-10 business days



Distance Between Lattices: 166mm/6.5"

| Item # | GFM-801 | GFM-802 |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| W | 1000mm 39.4" | |
| D | 560mm 22" | |
| H | 1800mm 70.8" | 1000mm 39.4" |
| Price | 176.10 | 154.50 |
| DWG | GFU2803302-1 | GFU2803305-1 |
| Options | Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 Small Diameter Adjuster (GFN-000/002) p.52 Adjuster B (SFK-933) p.52 | |

Mobile Partition with Aluminum Composite Panel

Ready to ship in 5-10 business days



Includes 3mm/0.11" thick aluminum composite panel

| Item # | GFM-803 | GFM-804 |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| W | 1000mm 39.4" | |
| D | 560mm 22" | |
| H | 1800mm 70.8" | 1000mm 39.4" |
| Price | 251.40 | 178.45 |
| DWG | GFU2803304-1 | GFU2803307-1 |
| Options | Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 Small Diameter Adjuster (GFN-000/002) p.52 Adjuster B (SFK-933) p.52 | |

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Mobile Partition with Transparent PET and Aluminum Composite Panel

Ready to ship in 5-10 business days



Includes 3mm/0.11" thick aluminum composite panels

| Item # | GFM-805 |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| W | 1000mm 39.4" |
| D | 560mm 22" |
| H | 1800mm 70.8" |
| Price | 254.10 |
| DWG | GFU2803303-1 |
| Options | Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 Small Diameter Adjuster (GFN-000/002) p.52 Adjuster B (SFK-933) p.52 |

Mobile Partition with Transparent PET Panel

Ready to ship in 5-10 business days



Includes 3mm/0.11" thick PET panel

| Item # | GFM-806 |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| W | 1000mm 39.4" |
| D | 560mm 22" |
| H | 1000mm 39.4" |
| Price | 168.85 |
| DWG | GFU2803306-1 |
| Options | Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 Small Diameter Adjuster (GFN-000/002) p.52 Adjuster B (SFK-933) p.52 |

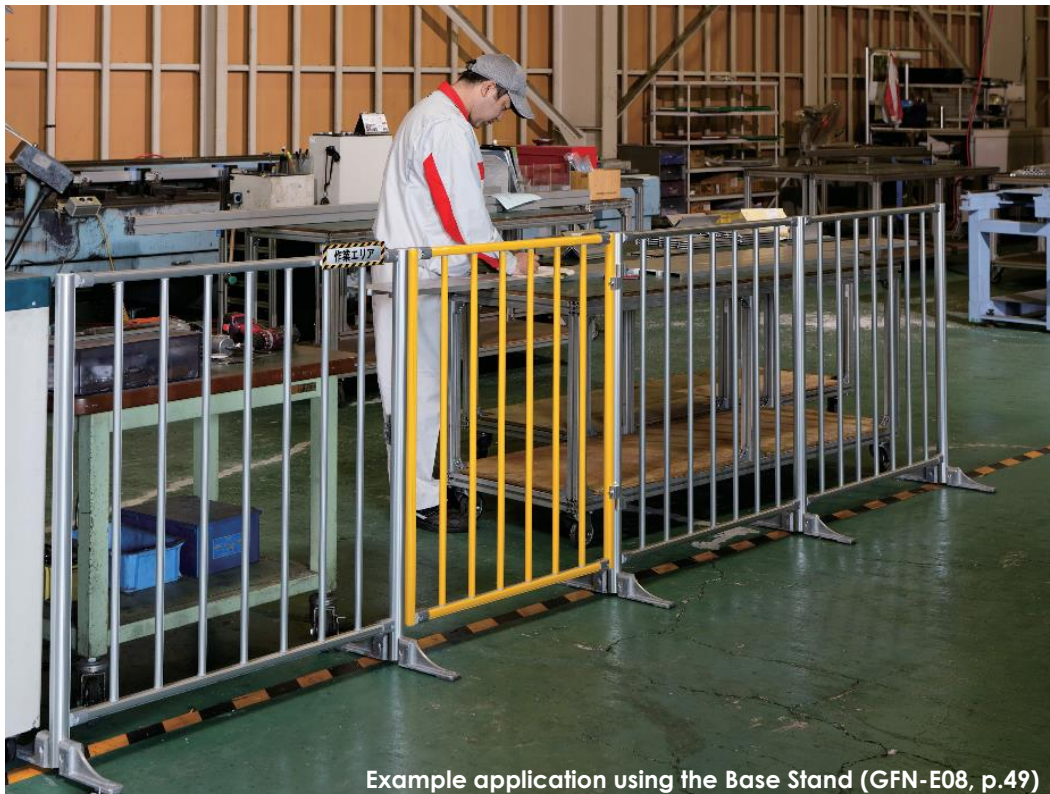
Area Guard and Support

Ready to ship in 5-10 business days



Price includes only one Area Guard or Support

| Item # | GFM-807 | GFM-807Y | GFK-909 | GFK-909Y |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------|----------|
| Color | Silver | Yellow | Silver | Yellow |
| W | 1000mm 39.4" | | - | |
| H | 1100mm 43.3" | | | |
| Price | 95.19 | 119.45 | 9.81 | 12.81 |
| Options | Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 Pipe Stand A (GFN-E15), p.49 Base Stand (GFN-E08) p.49 GF Slip-joint Hinge (GFP-012/013) p.50 Door Lock for Area Guard (GFQ-016) p.50 Catch for Area Guard (GFQ-013) p.50 Small Diameter Adjuster (GFN-000/002) p.52 Adjuster B (SFK-933) p.52 | | | |



Example application using the Base Stand (GFN-E08, p.49)

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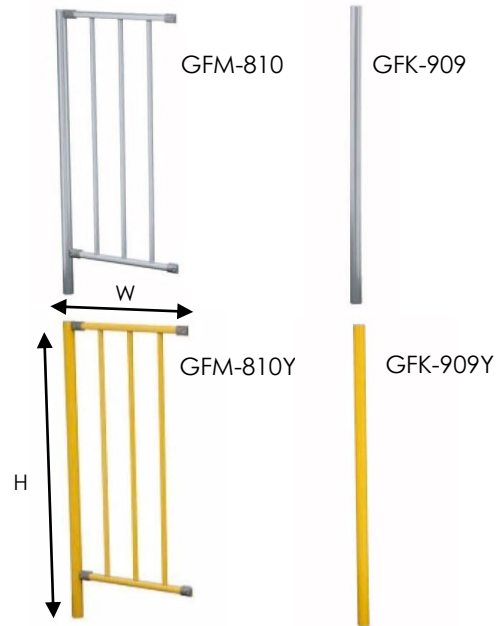
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Partitions

Area Guard (500mm) and Support

Ready to ship in 5-10 business days



Price includes only one Area Guard (500mm) or Support

| Item # | GFM-810 | GFM-810Y | GFK-909 | GFK-909Y |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------|----------|
| Color | Silver | Yellow | Silver | Yellow |
| W | 500mm 19.7" | | - | |
| H | 1100mm 43.3" | | | |
| Price | 67.91 | 92.19 | 9.81 | 12.81 |
| Options | Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p.48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 Pipe Stand A (GFN-E15), p.49 Base Stand (GFN-E08) p.49 GF Slip-joint Hinge (GFP-012/013) p.50 Door Lock for Area Guard (GFQ-016) p.50 Catch for Area Guard (GFQ-013) p.50 Small Diameter Adjuster (GFN-000/002) p.52 Adjuster B (SFK-933) p.52 | | | |

Area Guard Gate

Ready to ship in 5-10 business days



Price includes only one Area Guard Gate

| Item # | GFM-808 | GFM-809 | GFM-808Y | GFM-809Y |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|----------|
| Color | Silver | | Yellow | |
| Opens | Left | Right | Left | Right |
| W | 800mm 31.5" | | | |
| H | 952.5mm 37.5" | | | |
| Price | 108.28 | | 132.55 | |
| Options | Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p.48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 GF Slip-joint Hinges (GFP-012/013) p.52 Door Lock for Area Guard (GFQ-016) p.52 Catch for Area Guard (GFQ-013) p.52 | | | |

Rack

Ready to ship in 5-10 business days



Unit Payload: 80kg/176.4lbs
Single Level Payload: 40kg/88lbs

| Item # | GFM-A00 | GFM-A01 |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| W | 875mm 34.4" | |
| D | 300mm 11.8" | 450mm 17.7" |
| H | 1200mm 47.2" | |
| Price | 449.84 | 469.23 |
| DWG | GFU2804576-2 | GFU2804580-2 |
| Options | Frame Cushion (GFA-819) p.45 Ring Runner (GFA-A06) p.47 Name Plate Kit (GFK-J00) p.47 Aluminum Name Plate (GFA-A12) p.47 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 Pipe Stand A (GFN-E15) p.49 Base Stand (GFN-E08) p.49 | |

Rack with Melamine Boards

Ready to ship in 5-10 business days



Unit Payload: 80kg/176.4lbs
Single Level Payload: 40kg/88lbs
Includes 17mm/0.6" thick melamine panels

| Item # | GFM-A02 | GFM-A03 |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| W | 875mm 34.4" | |
| D | 300mm 11.8" | 450mm 17.7" |
| H | 1200mm 47.2" | |
| Price | 778.66 | 854.31 |
| DWG | GFU2804577-3 | GFU2804581-3 |
| Options | Frame Cushion (GFA-819) p.45 Ring Runner (GFA-A06) p.47 Name Plate Kit (GFK-J00) p.47 Aluminum Name Plate (GFA-A12) p.47 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 Pipe Stand A (GFN-E15) p.49 Base Stand (GFN-E08) p.49 | |

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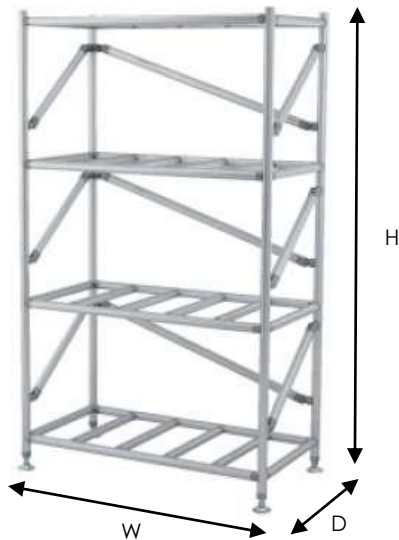
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Tall Rack

Ready to ship in 5-10 business days



Unit Payload: 80kg/176.4lbs
Single Level Payload: 40kg/88lbs

| Item # | GFM-A04 | GFM-A05 |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| W | 875mm 34.4" | |
| D | 300mm 11.8" | 450mm 17.7" |
| H | 1500mm 59" | |
| Price | 455.24 | 442.64 |
| DWG | GFU2804578-2 | GFU2804582-2 |
| Options | Frame Cushion (GFA-819) p.45 Ring Runner (GFA-A06) p.47 Name Plate Kit (GFK-J00) p.47 Aluminum Name Plate (GFA-A12) p.47 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 Pipe Stand A (GFN-E15) p.49 Base Stand (GFN-E08) p.49 | |

Tall Rack with Melamine Boards

Ready to ship in 5-10 business days



Unit Payload: 80kg/176.4lbs
Single Level Payload: 40kg/88lbs
Includes 17mm/0.6" thick melamine panels

| Item # | GFM-A06 | GFM-A07 |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| W | 875mm 34.4" | |
| D | 300mm 11.8" | 450mm 17.7" |
| H | 1500mm 59" | |
| Price | 840.33 | 801.78 |
| DWG | GFU2804579-2 | GFU2804318-4 |
| Options | Frame Cushion (GFA-819) p.45 Ring Runner (GFA-A06) p.47 Name Plate Kit (GFK-J00) p.47 Aluminum Name Plate (GFA-A12) p.47 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p. 48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 Pipe Stand A (GFN-E15) p.49 Base Stand (GFN-E08) p.49 | |

Chuter with One Line and One Tier

Ready to ship in 5-10 business days



Individual Line Payload: 70kg/154.3lbs

| Item # | GFM-C00 | | |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|----------------------------|
| W | Overall 533mm / 21" | Line 477mm / 18.75" | |
| D | 1065mm 41.9" | | |
| H | Overall 800mm 31.5" | Input 740mm 29.1" | Dispense 640mm 25.2" |
| Price | 188.78 | | |
| DWG | GFU2804891-2 | | |
| Options | Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p.48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 Small Diameter Adjuster (GFN-000/002) p.52 Adjuster B (SFK-933) p.52 | | |

Chuter with One Line and Two Tiers

Ready to ship in 5-10 business days



Individual Line Payload: 70kg/154.3lbs

| Item # | GFM-C01 | |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| W | Overall 1300mm / 51.2" | Line 477mm / 18.75" |
| D | 533mm / 21" | |
| H | Overall 1100mm / 43.3" | |
| | Upper Input 1040mm / 40.9" | Upper Dispense 940mm / 39" |
| | Lower Input 640mm / 25.2" | Lower Dispense 540mm / 21.25" |
| Price | 349.66 | |
| DWG | GFU2804892-2 | |
| Options | Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p.48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 Small Diameter Adjuster (GFN-000/002) p.52 Adjuster B (SFK-933) p.52 | |

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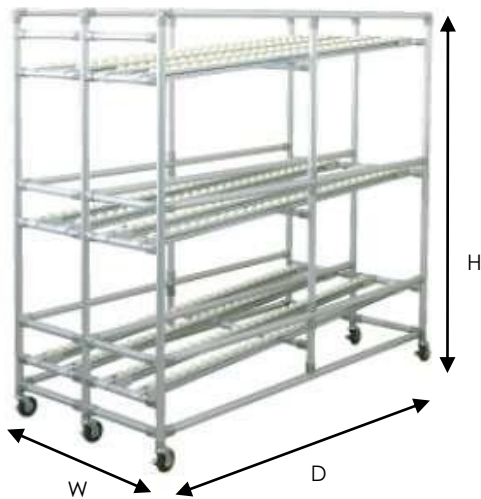
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Chuter with Two Lines and Three Tiers

Ready to ship in 5-10 business days



Individual Line Payload: 70kg/154.3lbs

| Item # | GFM-C02 | |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| W | Overall 1620mm / 63.8" | Line 335mm / 13.1" |
| D | 753mm / 29.6" | |
| H | Overall 1500mm / 59" | |
| | Upper Input 1440mm / 56.7" | Upper Dispense 1340mm / 52.7" |
| | Middle Input 940mm / 37" | Middle Dispense 840mm / 33" |
| | Lower Input 440mm / 17.3" | Lower Dispense 340mm / 13.4" |
| Price | 935.14 | |
| DWG | GFU2804893-1 | |
| Options | Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p.48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 Small Diameter Adjuster (GFN-000/002) p.52 Adjuster B (SFK-933) p.52 | |

Chuter with Three Lines and Three Tiers

Ready to ship in 5-10 business days



Individual Line Payload: 70kg/154.3lbs

| Item # | GFM-C03 | |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| W | Overall 1620mm / 63.8" | Line 335mm / 13.1" |
| D | 1116mm / 43.9" | |
| H | Overall 1500mm / 59" | |
| | Upper Input 1440mm / 56.7" | Upper Dispense 1340mm / 52.7" |
| | Middle Input 940mm / 37" | Middle Dispense 840mm / 33" |
| | Lower Input 440mm / 17.3" | Lower Dispense 340mm / 13.4" |
| Price | 1328.56 | |
| DWG | GFU2804894-1 | |
| Options | Frame Cushion (GFA-819) p.45 Frame Bumper (GFA-804) p.48 Cable Duct (GFA-801) p.48 Cable Lock (GFE-010) p.48 Leak Plate (GFK-E00) p.49 Small Diameter Adjuster (GFN-000/002) p.52 Adjuster B (SFK-933) p.52 | |

Drawer Kit

Ready to ship in 15 business days



Example Application



Maximum Side Extension: 430mm/16.9"
Includes 3mm/0.11" thick aluminum composite panel
Price includes only one Drawer Kit

| Item # | GFM-X01 |
|--------|--------------------------------------------------------------------------------------------------------------------|
| W | 617mm 24.3" |
| D | 750mm 29.5" |
| H | 110mm 4.3" |
| Price | 216.33 |
| DWG | GFU2804342-6 |
| Notes | Drawer Table Size W 500mm/19.7" D 500mm/19.7" Compatible with units from W 900mm/35.4" ~ 1200mm/47.25" |

Slide Table Kit

Ready to ship in 15 business days



Maximum Side Extension: 430mm/16.9"
Includes 16.5mm/0.6" thick MDF panel with non-static green top and finished sides

| Item # | GFM-X02 |
|--------|--------------------------------------------------------------------------------------------------------------------|
| W | 612mm 24.3" |
| D | 750mm 29.5" |
| H | 110mm 4.3" |
| Price | 176.61 |
| DWG | GFU2804343-5 |
| Notes | Drawer Table Size W 500mm/19.7" D 500mm/19.7" Compatible with units from W 900mm/35.4" ~ 1200mm/47.25" |

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Board Level Kit

Ready to ship in 15 business days



| Item # | GFK-900 |
|--------|---------------------------------------------------------------------------------|
| Price | 215.45 |
| Notes | Height adjustment: 200mm/7.9" Compatible with Work Tables and Work Stations. |



Example Application

Board Lifter Kit

GFK-903 is ready to ship in 5-10 business days
GFK-901 and GFK-902 are ready to ship in 15 business days



Payload while stationary: 100kg/220lbs
Payload during height adjustment: 20kg/44lbs

| Item # | GFK-901 | GFK-902 | GFK-903 |
|--------|---------------------------------------------------------------------------------|----------------|----------------|
| W | 400mm 15.75" | 600mm 23.6" | 800mm 31.5" |
| Price | 214.09 | 233.19 | 232.73 |
| Notes | Height adjustment: 200mm/7.9" Compatible with Work Tables and Work Stations. | | |



Example Application
GFM-031 (p.24)

Impact Holder Horizontal Kit

Ready to ship in 3 business days



| | |
|--------|----------------------------------------------------------------------------------------------|
| Item # | GFK-803 |
| Price | 29.25 |
| Notes | Compatible with Green Frame N (GFF-000). Holds tools such as impact drivers and other items. |

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Impact Holder Vertical Kit

Ready to ship in 3 business days



| | |
|--------|----------------------------------------------------------------------------------------------|
| Item # | GFK-802 |
| Price | 35.61 |
| Notes | Compatible with Green Frame N (GFF-000). Holds tools such as impact drivers and other items. |

Frame Cushion

Ready to ship in 3 business days



| | |
|--------|--------------------------------------------------------------------------------------------|
| Item # | GFA-819 |
| W | 2000mm 78.75" |
| Price | 6.24 |
| Notes | Compatible with Green Frame N (GFF-000). Protects frames and operators from minor impacts. |

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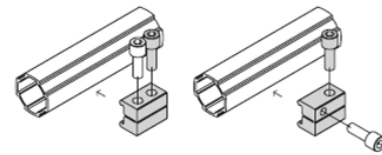
Connector Piece Compact

Ready to ship in 3 business days



Price includes only one Connector Piece Compact

| Item # | GFJ-B09 (Top bolt) | GFJ-B18 (Side bolt) |
|--------|--------------------------------------------------------------------------------------------------|------------------------|
| Price | 2.36 | 2.38 |
| Notes | Compatible with Green Frame N (GFF-000). For attaching parts and components using an M6 bolt. | |



Parts Holder

Ready to ship in 3 business days



| Item # | GFA-000 |
|--------|----------------------------------------------------------------------------------------------------------------------------------|
| Price | 2.40 |
| Notes | Compatible with Green Frame N (GFF-000). Uses ST Nut S (SFK-T07S) to install components and equipment. ST Nut S not included. |



ST Nut S

Ready to ship in 3 business days



| Item # | SFK-T07S |
|--------|------------------------------------------------------------------|
| Price | 0.55 |
| Notes | Includes anti-skid cap. Used with the Parts Holder (GFA-000). |

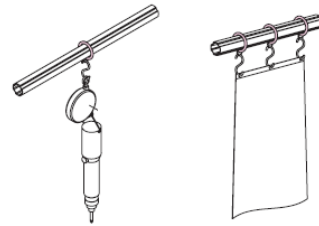
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Ring Runner

Ready to ship in 3 business days



| Item # | GFA-A06 |
|--------|-------------------------------------------------------------------------------------|
| Price | 2.34 |
| Notes | For use with hanging tools, curtains, etc. Compatible with Green Frame N (GFF-000). |



Name Plate Kit

Ready to ship in 5-10 business days



| Item # | GFK-J00 | |
|--------|-------------------------------------------------------------------|-------------------------|
| H | Base 28mm 1.1" | Cover 30.6mm 1.2" |
| W | 300mm 11.8" | |
| Price | 4.61 | |
| Notes | Includes base and cover. Compatible with Green Frame N (GFF-000). | |

Aluminum Name Plate

Ready to ship in 5-10 business days



| Item # | GFA-A12 |
|--------|------------------------------------------|
| W | 205mm 8" |
| H | 60mm 2.3" |
| Price | 5.89 |
| Notes | Compatible with Green Frame N (GFF-000). |

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Frame Bumper

Ready to ship in 3 business days



| Item # | GFA-804G | GFA-804Y |
|--------|------------------------------------------------------------------------------------------------------------------------|----------|
| Color | White | Yellow |
| L | 2000mm 78.75" | |
| Price | 5.76 | 3.79 |
| Notes | Low density polyethylene. Compatible with Green Frame N (GFF-000). Used to protect frames and identify lines. | |

Cable Duct

Ready to ship in 3 business days



| Item # | GFA-801 |
|--------|--------------------------------------------------------------|
| L | 2000mm 78.75" |
| Price | 4.50 |
| Notes | Polyethylene. Compatible with Green Frame N (GFF-000). |

Cable Lock

Ready to ship in 3 business days



| Item # | GFE-010 |
|--------|--------------------------------------------------------------|
| Price | 0.28 |
| Notes | Polyethylene. Compatible with Green Frame N (GFF-000). |

Leak Plate

Ready to ship in 3 business days



| Item # | GFK-E00 |
|--------|----------------------------------------------------------------------|
| Qty | 50 pieces per package |
| Price | 20.45 |
| Notes | For anti-static and ESD. Compatible with Green Frame N (GFF-000). |

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Pipe Stand A

Ready to ship in 3 business days



| Item # | GFN-E15 |
|--------|------------------------------------------|
| Price | 8.03 |
| Notes | Compatible with Green Frame N (GFF-000). |

Base Stand

Ready to ship in 3 business days



| Item # | GFN-E08 |
|--------|---------------------------------------------------------------------------------------------|
| Price | 9.98 |
| Notes | Compatible with Green Frame N (GFF-000). As seen with the Area Guard and Support (p.37). |

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Karakuri

Automated
Karakuri

Miniature
Karakuri

SiO
Controller

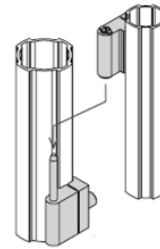
GF Slip-joint Hinge Left and Right

Ready to ship in 3 business days



Price includes only one GF Slip-joint Hinge

| Item # | GFP-012 (Left) | GFP-013 (Right) |
|--------|-------------------------------------------------------------------------------------|--------------------|
| Price | 8.45 | 8.45 |
| Notes | Compatible with Green Frame N (GFF-000). For use with an Area Guard Gate (p.38). | |



Door Lock for Area Guard

Ready to ship in 3 business days



| Item # | GFQ-016 |
|--------|------------------------------------------------------------------------------------------------|
| Price | 6.28 |
| Notes | Compatible with Green Frame N (GFF-000). Latch-style closure for an Area Guard Gate (p.38). |

Catch for Area Guard

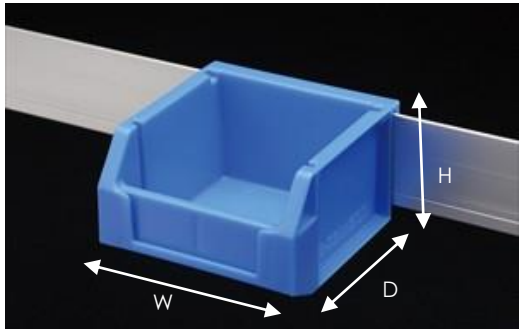
Ready to ship in 3 business days



| Item # | GFQ-013 |
|--------|-------------------------------------------------------------------------------------------|
| Price | 6.28 |
| Notes | Compatible with Green Frame N (GFF-000). Magnetic catch for an Area Guard Gate (p.38). |

Parts Container S

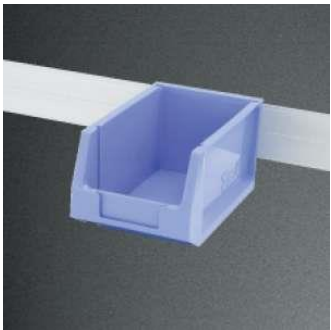
Ready to ship in 3 business days



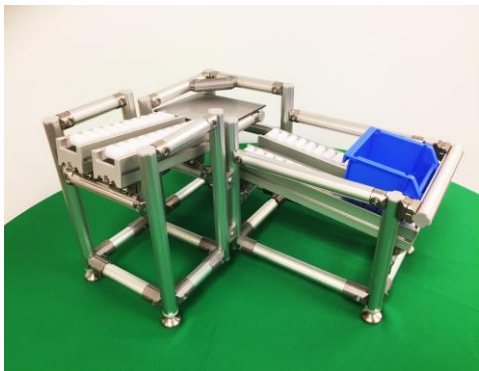
| Item # | GFA-A81 |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| W | 92.3mm 3.6" |
| D | 89mm 3.5" |
| H | 55mm 2.1" |
| Price | 4.64 |
| Notes | Compatible with Green Frame F35 (GFF-014) & Green Frame F50 (GFF-005), and Green Frame S F22 (GFF-403) & Green Frame S F35 (GFF-402). |

Parts Container

Ready to ship in 3 business days



| Item # | GFA-A07 |
|--------|------------------------------------------------------------------------------|
| W | 100mm 4" |
| D | 170mm 6.7" |
| H | 85mm 3.3" |
| Price | 7.08 |
| Notes | Compatible with Green Frame F35 (GFF-014) & Green Frame F50 (GFF-005). |



Example Application
USM-006 (p.81)



Example Application
GFM-J01 (p.34)

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Options

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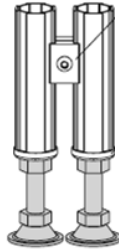
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Small Diameter Adjuster

Ready to ship in 3 business days

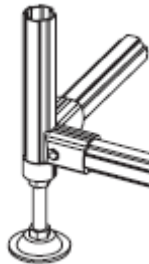


Price includes only one Small Diameter Adjuster

| Item # | GFN-000 | GFN-002 |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| W | 38mm 1.5" | |
| H | 100mm 3.9" | 60mm 2.3" |
| Price | 3.60 | 3.24 |
| Notes | Load capacity 2000N. Ideal for structures standing directly side-by-side. Compatible with Green Frame N (GFF-000). Used with Foot Connector (GFN-E05/E21). | |

Adjuster B

Ready to ship in 3 business days

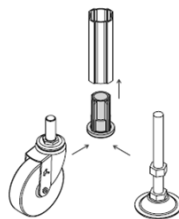


Price includes only one Adjuster B

| Item # | SFK-933 |
|--------|-------------------------------------------------------------------------------------------------------------|
| W | 55mm 2.1" |
| H | 100mm 3.9" |
| Price | 2.66 |
| Notes | Load capacity 5000N. Compatible with Green Frame N (GFF-000). Used with Foot Connector (GFN-E05/E21). |

Foot Connector

Ready to ship in 3 business days



Price includes only one Foot Connector

| Item # | GFN-E05 (Non-conductive) | GFN-E21 (Conductive) |
|--------|---------------------------------------------------------------------------------------------------------------------------|-------------------------|
| Price | 2.16 | 3.05 |
| Notes | Compatible with Green Frame N (GFF-000). Used with Small Diameter Adjuster (GFN-000/GFN-002) and Adjuster B (SFK-933). | |

Custom Structures

Custom Structures

Most of the structures in this catalog are ready to be modified to meet your needs, whether it's accommodating a different tote size or a different floor area. However, if your needs are especially distinct, our solutions team can work with you to design a completely new structure. The ordering process is outlined below.

1. Contact SUS

Contact SUS via email, phone, or directly through our website. Let us know about you and the situation you'd like help with. The more details you give us the more efficiently we can move towards a solution.

2. SUS Visits Your Site

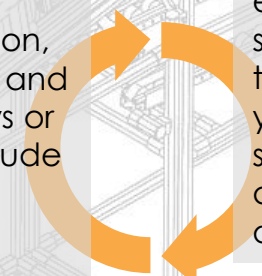
After seeing the area you want to improve, SUS will sit down with you to discuss possible solutions and build your company profile. This ensures fast, accurate service throughout the process.

3. Receive a Sketch and Estimate

Depending on the complexity of your situation, you will receive a sketch and estimate after a few days or a few weeks. This will include the lead time, assembly options, and purchasing preferences.

4. Make Adjustments

Discuss the sketch and estimate with your team to see if there are any features that need adjustment. If you'd like, SUS can visit your site again to talk about alterations and further options.



Solution Service

SUS provides a full design service. It all starts with an on-site consultation. Our team visits your location and works with you to create concept sketches for expert drafting. From these initial drawings all the way through adjustments and assembly, SUS maintains full communication to provide the structure you need to achieve your goals.

5. Send in a Purchase Order

Once we receive your purchase order, SUS processes your request and begins working on your structure.

6. Cutting and Assembly

Frames and connectors are prepared to millimeter precision and assembled by expert technicians, or packed into a ready-to-assemble kit.

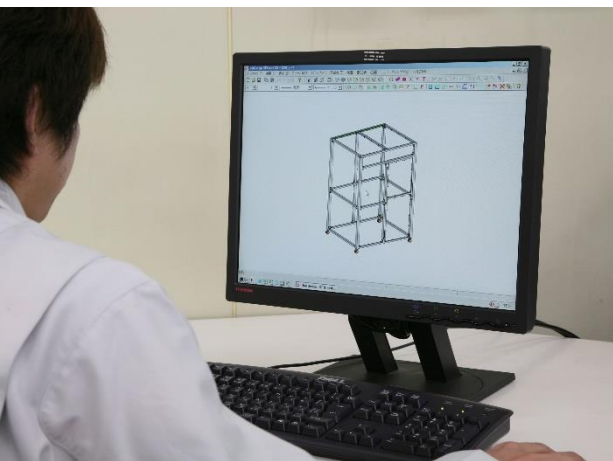
7. Shipping

The structure is carefully packaged and shipped to your location according to your instructions.

8. Check-up

SUS visits your site again to discuss any additional adjustments and continued improvements.



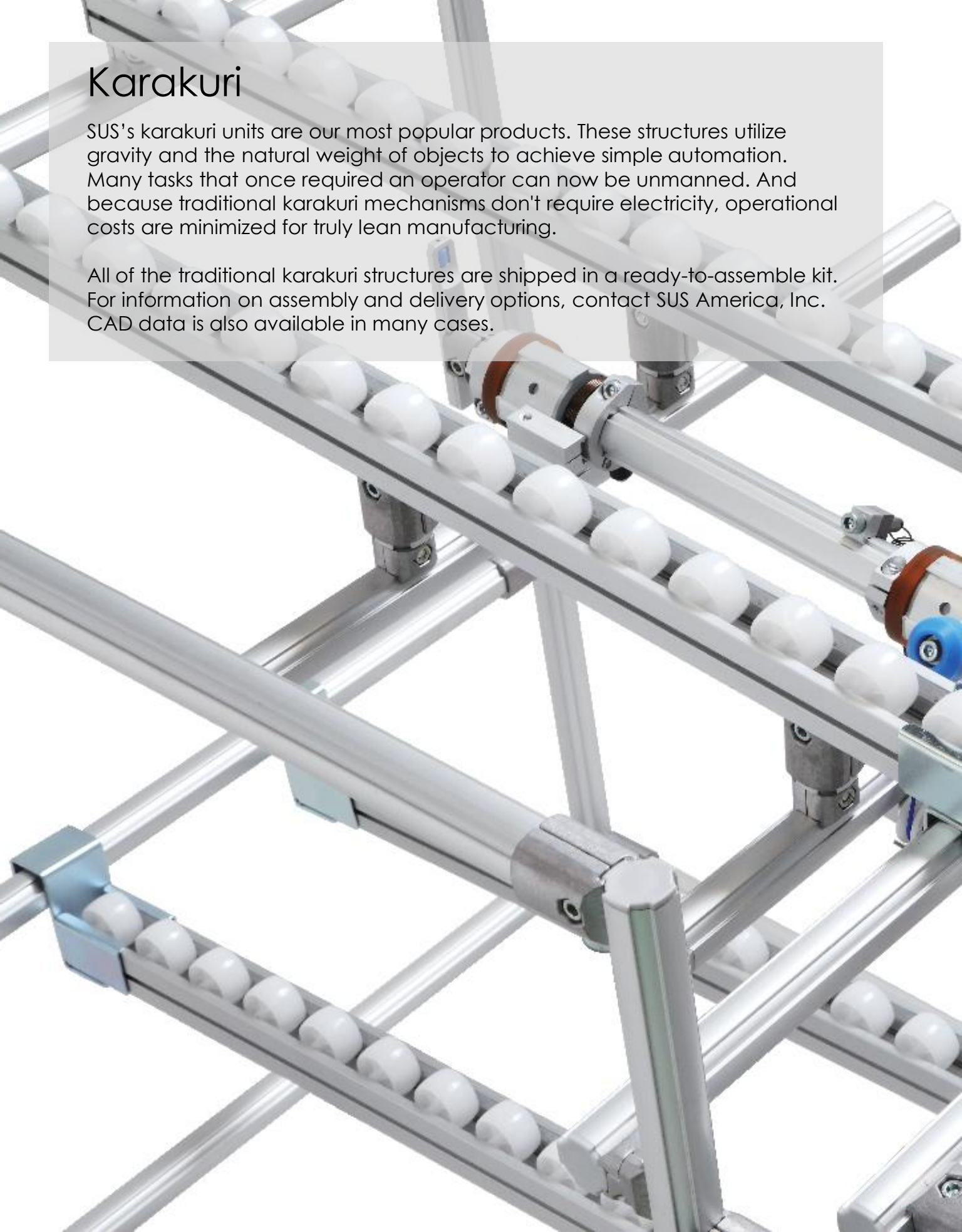


Traditional Karakuri

Karakuri

SUS's karakuri units are our most popular products. These structures utilize gravity and the natural weight of objects to achieve simple automation. Many tasks that once required an operator can now be unmanned. And because traditional karakuri mechanisms don't require electricity, operational costs are minimized for truly lean manufacturing.

All of the traditional karakuri structures are shipped in a ready-to-assemble kit. For information on assembly and delivery options, contact SUS America, Inc. CAD data is also available in many cases.



Benefits

Karakuri technology offers a wide range of incentives such as reduced manpower and shortened cycle times. Other benefits include improved product quality and a more efficient use of space. But this is only the beginning. Karakuri offers quick assembly and simple maintenance so you can keep things moving by keeping interruptions to a minimum.



Manpower



Time



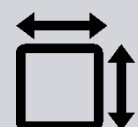
Cost



Safety




Quality

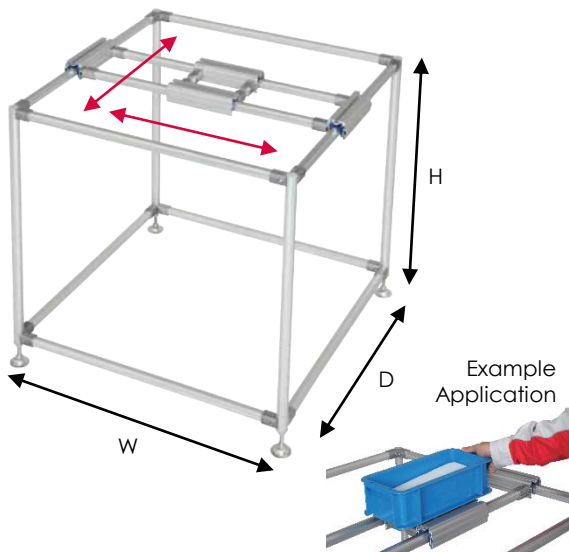


Space

Traditional Karakuri

XY Slide Table






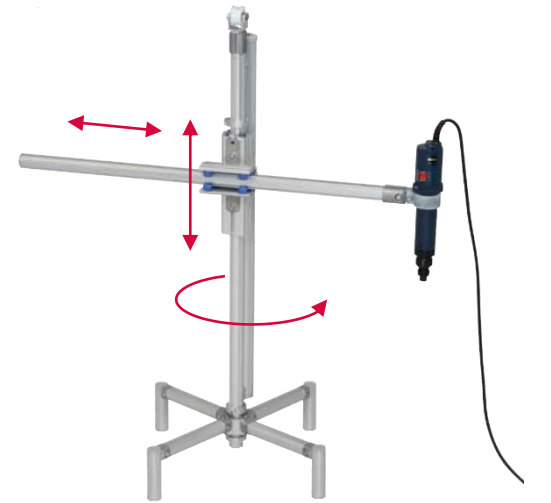
Ready to ship in 15-20 business days
Price includes only one XY Slide Table

| DWG | GFUUSA0656 |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------|
| W | 840mm 33" |
| D | 840mm 33" |
| H | 820mm 32.25" |
| Price | 300.00 |
| Function | Using linear sliders, operators can position the table to any position along the X and Y axes. This structure improves operator ergonomics. |



Tool Balancer





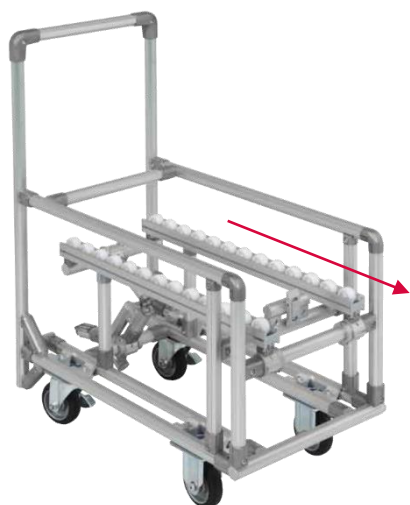
Ready to ship in 15-20 business days
Price includes only one Tool Balancer

| DWG | GFUUSA0657 |
|----------|----------------------------------------------------------------------------------------------------------------------------------------|
| W | 787mm 31" |
| D | 480mm 18.9" |
| H | 955mm 37.6" |
| Price | 300.00 |
| Function | Smoothly move the tool to the desired position using the linear slider and counterweight. This structure improves operator ergonomics. |



Traditional Karakuri

Discharge Trolley



Ready to ship in 15-20 business days

| DWG | GFUUSA0658 |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| W | 416mm 16.4" |
| D | 745mm 29.3" |
| H | 904mm 35.6" |
| Price | 450.00 |
| Function | A stopper and anti-back keep the tote securely in place. When the operator presses the pedal, the coroon rollers tilt up and the stopper releases, dispensing the tote. |



Level Lifter (Spring)



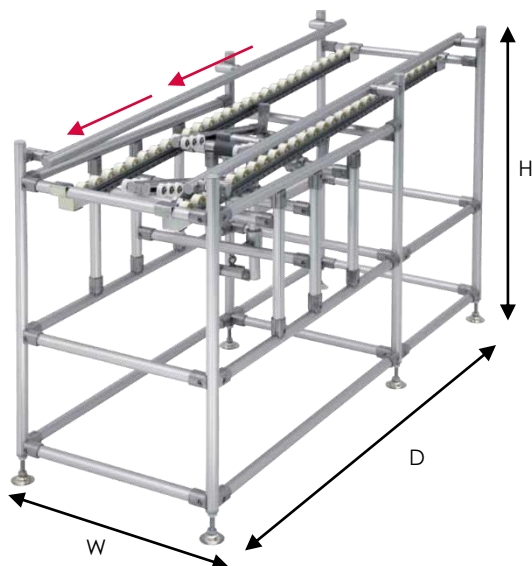
Ready to ship in 15-20 business days
Price includes only one Level Lifter (Spring)

| DWG | GFUUSA0659 |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| W | 470mm 18.5" |
| D | 596mm 23.5" |
| H | 1298mm 51.1" |
| Price | 675.00 |
| Function | Placing a tote on the table lowers its height, keeping the tote at the same relative level. This can be done with multiple totes so that the top tote is always at the same height. This structure improves operator ergonomics. |

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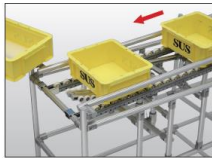
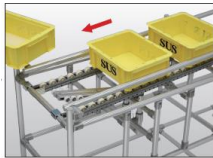
Traditional Karakuri

Stopper (See-saw)



Ready to ship in 15-20 business days

| DWG | GFUUSA0660 |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| W | 550mm 21.6" |
| D | 1500mm 59" |
| H | 910mm 35.8" |
| Price | 600.00 |
| Function | When the front tote is removed, the see-saw mechanism allows the next tote to move forward, but keeps all totes behind it waiting on the chuter. |



Unstacker



Ready to ship in 15-20 business days
Price includes only one Unstacker
Price does not include special processing

| DWG | GFUUSA0661 |
|----------|------------------------------------------------------------------------------------------------------------------------------|
| W | 530mm 20.8" |
| D | 540mm 21.25" |
| H | 800mm 31.5" |
| Price | 700.00 |
| Function | Pulling the lever raises the table and releases the bottom tote from the stack. The tote then dispenses onto the lower line. |



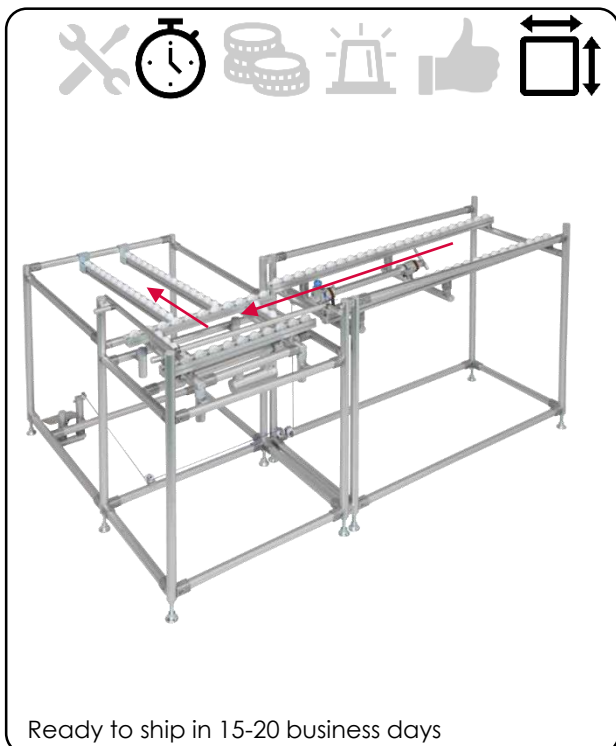
Traditional Karakuri

Flip-flop Chuter



| DWG | GFUUSA0662 |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| W | 480mm 18.9" |
| D | 1800mm 70.8" |
| H | 950mm 37.4" |
| Price | 900.00 |
| Function | Pressing down on the handle releases a tote from the upper line onto the table. Pressing the handle again tilts the table downward, dispensing the tote onto the lower line. Intermittent stoppers keep waiting totes on the upper line in place. |

Horizontal Turn

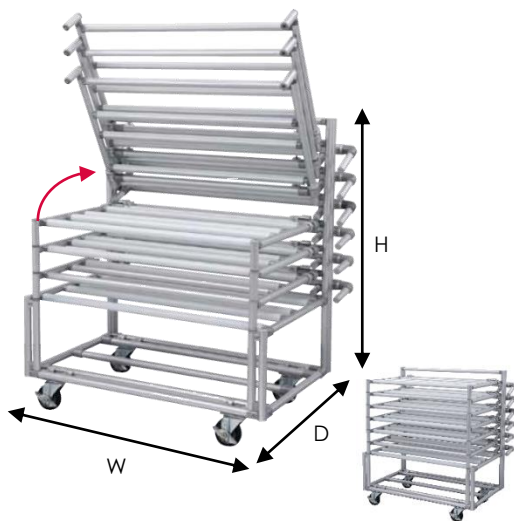


| DWG | GFUUSA0663 |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| W | 1780mm 70" |
| D | 1200mm 47.2" |
| H | 910mm 35.8" |
| Price | 900.00 |
| Function | Pressing on the pedal dispenses the tote. When it reaches the turn, the table tilts, allowing the tote to continue around the corner. The table returns to its original position via counterweight. The orientation of the tote is changed during the turn. Intermittent stoppers keep waiting totes in place. |

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Traditional Karakuri

Flip-up Trolley



Ready to ship in 15-20 business days
Price includes only one Flip-up Trolley
Price does not include special processing

| DWG | GFUUSA0664 |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| W | 800mm 31.5" |
| D | 640mm 25.2" |
| H | 822.5mm 32.4" |
| Price | 1000.00 |
| Function | Multiple layers of items can be placed on the flip-up trolley. Once the top layer is empty, the operator lifts it up and locks it into place, giving access to the next layer below. There are a total of seven layers. |

Reel Up



Ready to ship in 15-20 business days
Price includes only one Reel Up

| DWG | GFUUSA0665 |
|----------|------------------------------------------------------------------------------------------------------|
| W | 430mm 17" |
| D | 440mm 17.3" |
| H | 1150mm 45.25" |
| Price | 900.00 |
| Function | Use the reel to adjust the table to the desired height. This structure improves operator ergonomics. |

Traditional Karakuri

XYZ Slide Table

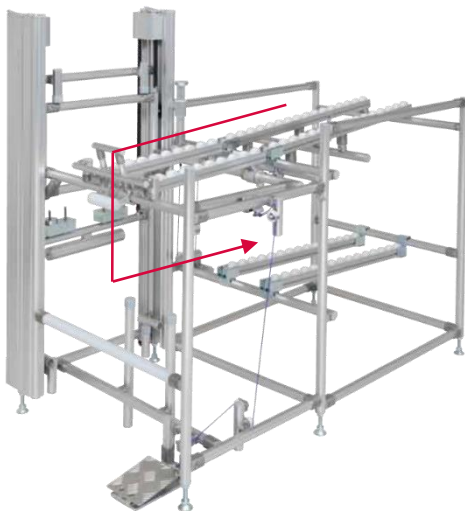


Ready to ship in 15-20 business days
Price includes only one XYZ Slide Table

| DWG | GFUUSA0666 |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| W | 2100mm 82.7" |
| D | 1100mm 43.3" |
| H | 2000mm 78.75" |
| Price | 1000.00 |
| Function | Using linear sliders, operators can position the table to any position along the X and Y and Z axes. This structure improves operator ergonomics. |



Elevator



Ready to ship in 15-20 business days

| DWG | GFUUSA0650-1 |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| W | 819mm 32.2" |
| D | 1385mm 54.5" |
| H | 1272mm 50" |
| Price | 1800.00 |
| Function | The foot pedal releases the table lock, lowering the tote and dispensing it onto the lower line. Once the tote dispenses, a counterweight returns the table to the upper position and automatically releases the next tote onto the table. |



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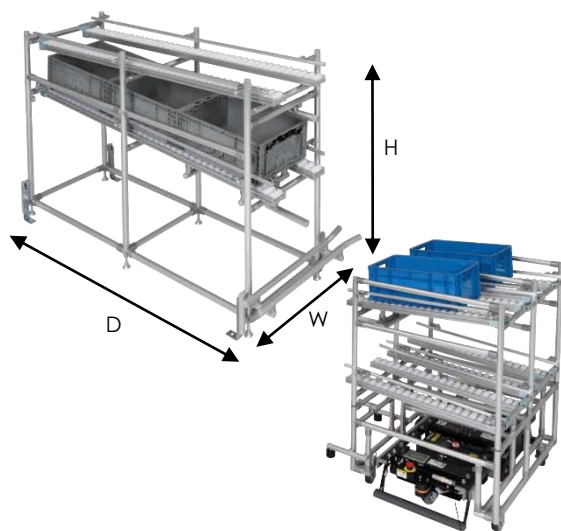
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Traditional Karakuri

AGV Chuter and Trolley



Ready to ship in 15-20 business days
Prices include only one AGV Chuter and one AGV Trolley
Prices do not include special processing or parts

| DWG | GFUUSA0668 (AGV Chuter) | GFUUSA0667 (AGV Trolley) |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| W | 970mm 38.2" | 499mm 19.6" |
| D | 800mm 31.5" | 970mm 38.2" |
| H | 1240mm 48.8" | 1240mm 48.8" |
| Price | 1300.00 | 1800.00 |
| Function | Angled guides bring the AGV into position for exchange. When the trolley docks with the chuter, the stoppers are released. The totes on the upper line of the AGV trolley dispense onto the chuter. Simultaneously, the totes on the lower line of the chuter dispense onto the AGV trolley. | |



Example
Application

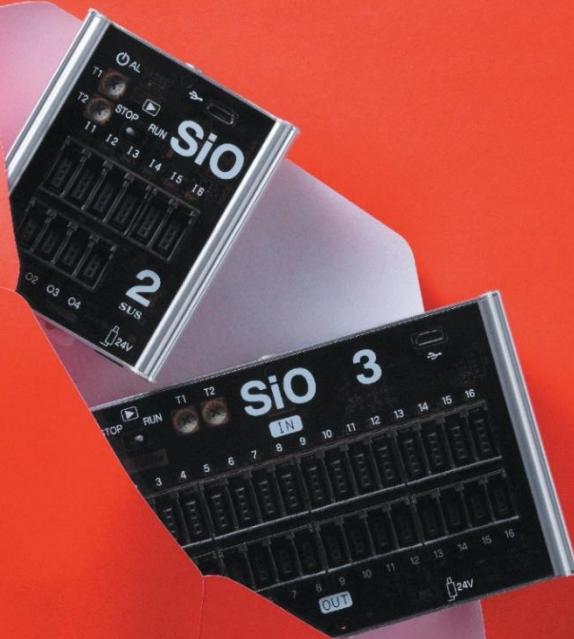


Automated Karakuri

Electric Automation

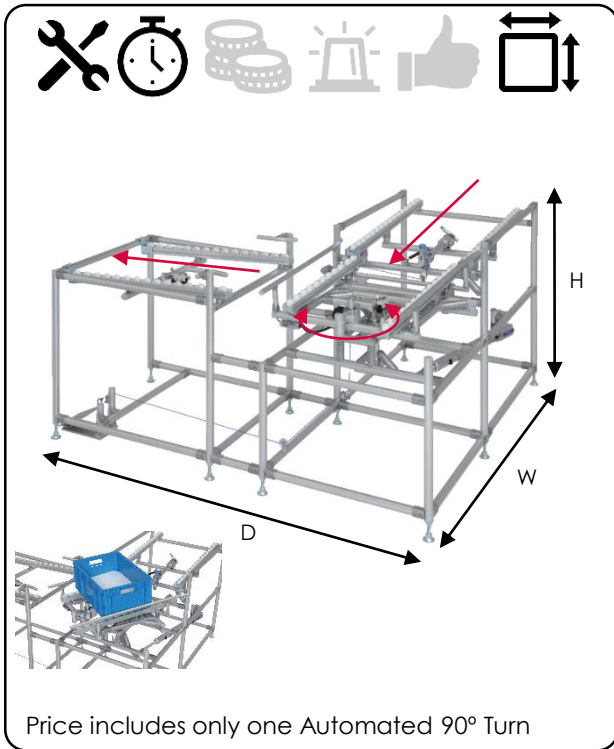
Thanks to SUS's SiO Controller, karakuri mechanisms are being used in new ways. In situations where the power of gravity isn't enough or a higher level of control is needed, SiO can combine with traditional karakuri concepts to meet new demands.

Because these structures contain numerous special parts, their lead times are variable. Please contact SUS America, Inc. for more information on delivery and assembly options. CAD data is also available in most situations.



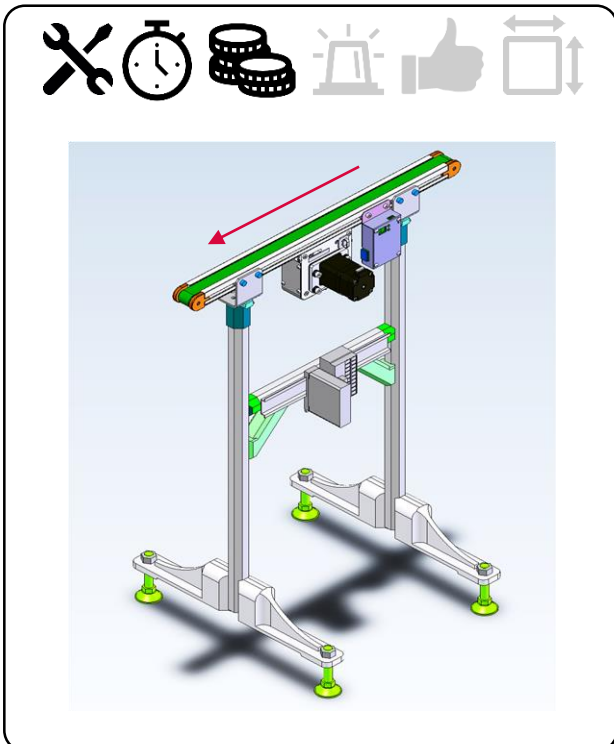
Automated Karakuri

Automated 90° Turn



| DWG | GFU28027140-4 | |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| W | 1430mm | 56.3" |
| D | 1550mm | 61" |
| H | 900mm | 35.4" |
| Price | 1250.00 | |
| Function | Pressing on the pedal dispenses the tote. When it reaches the turn, the table rotates with the help of a power unit and further dispenses it down the remainder of the chuter. The table then returns to its original position. The orientation of the tote is maintained through the turn. Intermittent stoppers keep waiting totes in place. | |

Automated Conveyor Belt

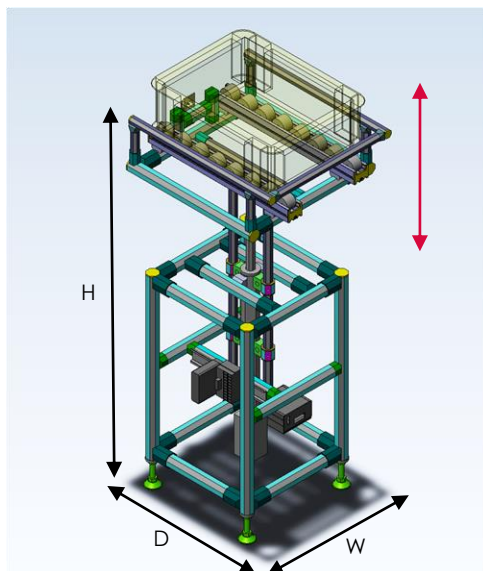


| DWG | GFU28034204 (ASW001738-00) | |
|----------|--------------------------------------------------------------------------------|------------------------|
| W | Base 344mm 13.5" | Belt 525mm 20.7" |
| D | 388mm 15.25" | |
| H | 702mm 27.6" | |
| Price | 1840.00 | |
| Function | Pressing the button activates the conveyor for a predetermined amount of time. | |

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Automated Karakuri

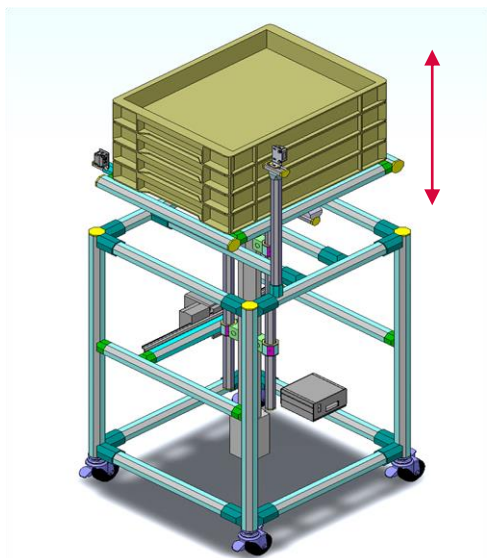
Automated Timed Lifter



Price includes only one Automated Timed Lifter

| DWG | GFU28034214 (ASW001730-00) | |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| W | 300mm 11.8" | |
| D | 300mm 11.8" | |
| H | 862mm 33.9" | |
| Price | 1880.00 | |
| Function | The lifter is connected to a switch box with three buttons. Each button lifts the table for a different, predetermined amount of time, for example, 5, 12, or 20 seconds. Once the selected time has elapsed, the table returns to the original position. This structure improves operator ergonomics. | |

Automated Level Lifter

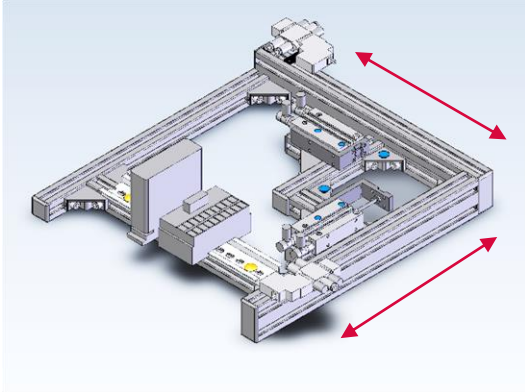


Price includes only one Automated Level Lifter

| DWG | GFU28034220 (ASW001734-00) | |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| W | 400mm 15.75" | |
| D | 400mm 15.75" | |
| H | Lowest Point 635mm 25" | Highest Point 990mm 39" |
| Price | 1930.00 | |
| Function | The lifter keeps totes at the height of the sensor. When the top tote is removed, the sensor recognizes the vacancy and raises the remaining totes to the height of the sensor. When all of the totes are removed, the table lowers to the original position. This structure improves operator ergonomics. Compare to the Level Lifter (Spring) on p.61. | |

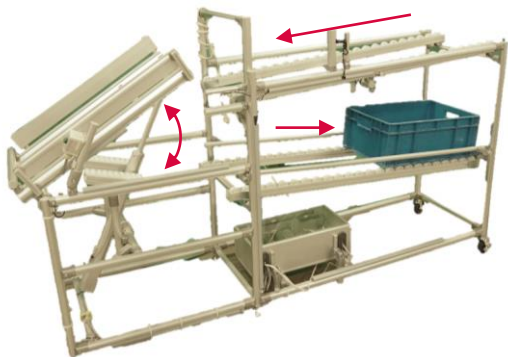
Automated Karakuri

Automated Positioner with Air Cylinder



| DWG | GFU28034211 (ASW001745-00) | |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| W | 324mm 12.75" | |
| D | 341mm 13.4" | |
| H | Base 55mm 2.1" | Overall 94mm 3.7" |
| Price | 2140.00 | |
| Function | The positioner is connected to a switch box with two buttons. Pressing the SET button activates the air cylinders which push the work piece to a predetermined position. Pressing the RELEASE button returns the cylinders to their original position. | |

Automated Flip-flop Chuter



Price includes only one Automated Flip-flop Chuter

| DWG | GFU28035505-2 | | |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-----------------------------|
| W | 480mm 18.9" | | |
| D | 1860.5mm 73.25" | | |
| H | Overall 1117.6mm 44" | Input 965.2mm 38" | Dispense 489mm 19.25" |
| Price | 2200.00 | | |
| Function | The flip-flop chuter is connected to a switch box with one button. Pressing the button dispenses the tote on the table onto the lower line. After a predetermined amount of time, the table will tilt up, triggering a sensor on the upper line and dispensing the next tote onto the table. Any totes waiting on the upper line will move forward one position via an intermittent stopper. Compare to the Flip-flop Chuter on p.63. | | |

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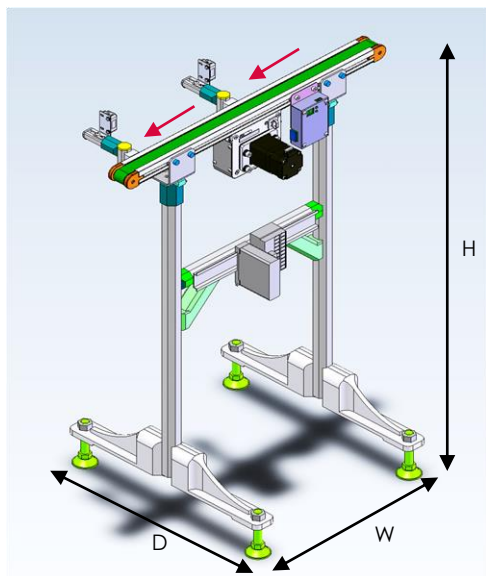
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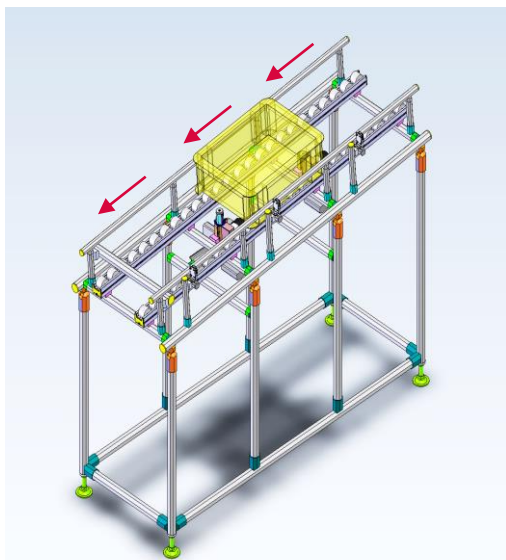
Automated Karakuri

Automated Conveyor Belt with Sensor Stopper



| DWG | GFU28034208 (ASW001739-00) | |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| W | Base 344mm 13.5" | Belt 525mm 20.7" |
| D | 388mm 15.25" | |
| H | 700mm 27.5" | |
| Price | 2274.00 | |
| Function | The conveyor is connected to a switch box with a button. Pushing the button turns on the conveyor after 2 seconds. If the work piece reaches the center sensor or the end sensor, the conveyor stops. | |

Automated Intermittent Stopper Chuter

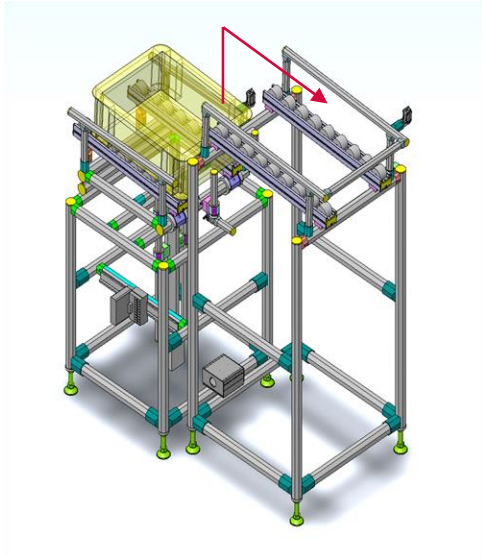


Price includes only one Automated Intermittent Stopper Chuter

| DWG | GFU28034210 (ASW001737-00) | |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| W | 440mm 17.3" | |
| D | 1200mm 47.25" | |
| H | Input 895mm 35.2" | Dispense 795mm 31.3" |
| Price | 2344.00 | |
| Function | This chuter utilizes three sensors. When the front sensor detects a vacancy, the middle and rear sensors confirm that a tote is present before lowering the stoppers in turn and allowing the totes to move forward one position on the chuter. | |

Automated Karakuri

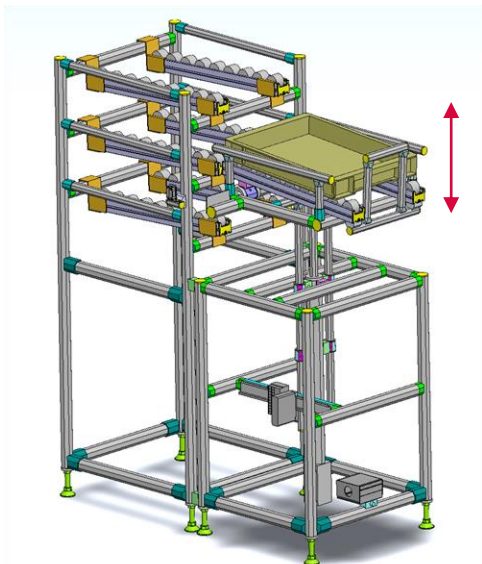
Automated Interlock Lifter



Price includes only one Automated Interlock Lifter

| DWG | GFU28034215 (ASW001735-00) | |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| W | 428mm 16.8" | |
| D | 828mm 32.6" | |
| H | Input Line 688mm 27" | Dispense Line 844mm 33.2" |
| Price | 2472.00 | |
| Function | The lower sensor detects a tote. The upper sensor checks if a tote is present. The power unit will not move if a tote is present on the upper level. | |

Automated Lifter (Middle → Upper → Lower Lines)



Price includes only one Automated Lifter (M>U>L)

| DWG | GFU28034217 (ASW001732-00) | | |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-------------------------------|
| W | 428mm 16.8" | | |
| D | 875mm 34.4" | | |
| H | Lower Line 747mm 29.4" | Mid. Line 897mm 35.3" | Upper Line 1047mm 41.2" |
| Price | 2646.00 | | |
| Function | The lifter is connected to a switch box with two buttons. Pressing the LIFT button raises the table to the middle line. Pressing the LIFT button a second time raises the table to the upper line. Pressing the LIFT button a third time lowers the table to the lower line. The RETURN button can be pressed at any time to return the table to the starting position on the lowest level. | | |

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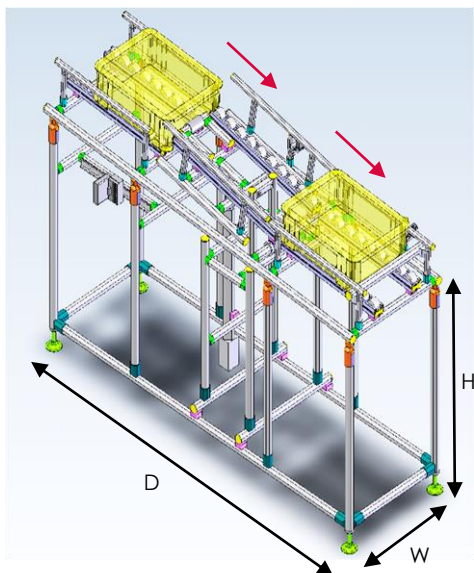
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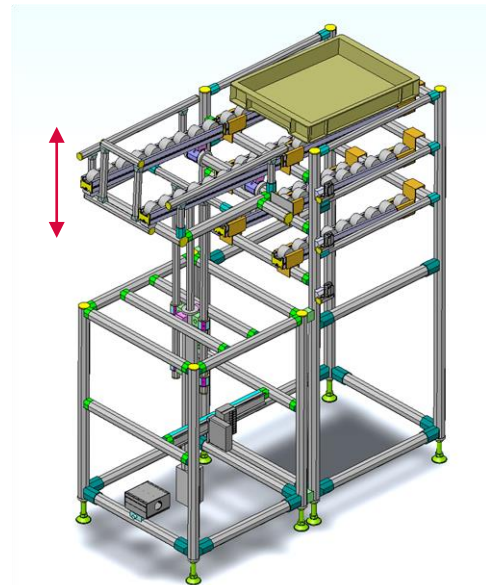
Automated Intermittent Chuter



Price includes only one Automated Intermittent Chuter

| DWG | GFU28034219 (ASW001736-00) | |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| W | 467mm 18.4" | |
| D | 1477mm 58" | |
| H | Input 894.5mm 35.2" | Dispense 802m 31.6" |
| Price | 2732.00 | |
| Function | When the middle sensor detects a tote, the front sensor confirms that there is not a tote. If there is no tote, the power unit tilts the center table and dispenses the tote forward. After a predetermined amount of time, the power unit lowers to the original position. | |

Automated Lifter (Selectable Height)

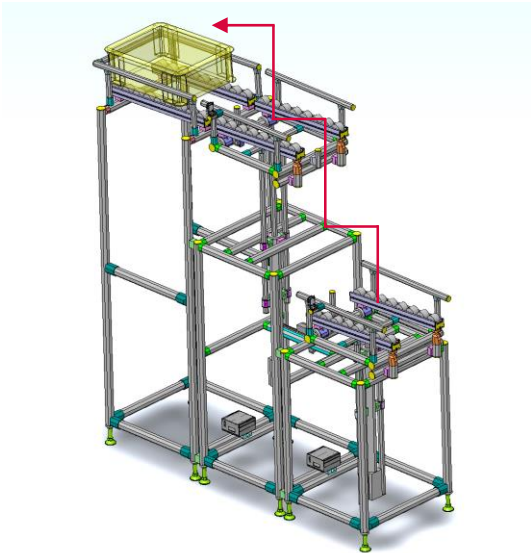


Price includes only one Automated Lifter (SH)

| DWG | GFU28034218 (ASW001733-00) | | |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-------------------------------|
| W | 428mm 16.8" | | |
| D | 875mm 34.4" | | |
| H | Lower Line 747mm 29.4" | Mid. Line 897mm 35.3" | Upper Line 1047mm 41.2" |
| Price | 3068.00 | | |
| Function | The lifter is connected to a switch box with three buttons, UPPER, MIDDLE, and LOWER. The power unit raises the table to the level of the selected button. | | |

Automated Karakuri

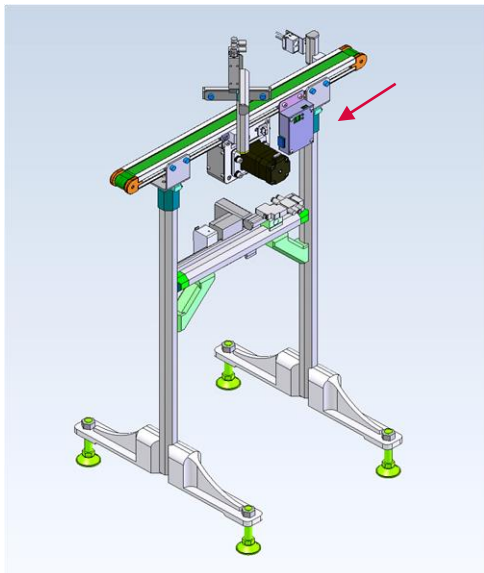
Automated Staircase Lifter



Price includes only one Automated Staircase Lifter

| DWG | GFU28034216 (ASW001731-00) | |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| W | 428mm 16.8" | |
| D | 1228mm 48.3" | |
| H | Input 787mm 31" | Dispense 1321mm 52" |
| Price | 3714.00 | |
| Function | When the sensor detects a tote on the lower level, the first power unit lifts the table and dispenses the tote on the middle level. When the sensor on the middle level detects the tote, the second power unit raises the table and dispenses the tote on the upper level. Once the tote is dispensed, each table returns to its original position. | |

Automated Quality Control Conveyor with Air Cylinder



| DWG | GFU28034212 (ASW001743-00) | |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| W | Base 344mm 13.5" | Belt 525mm 20.7" |
| D | 388mm 15.25" | |
| H | Belt 702mm 27.6" | Overall 870.5mm 34.25" |
| Price | 3784.00 | |
| Function | The sensor detects the errant items. After three seconds, the air cylinder moves the barrier forward. After five seconds the air cylinder returns the barrier to the original position. | |

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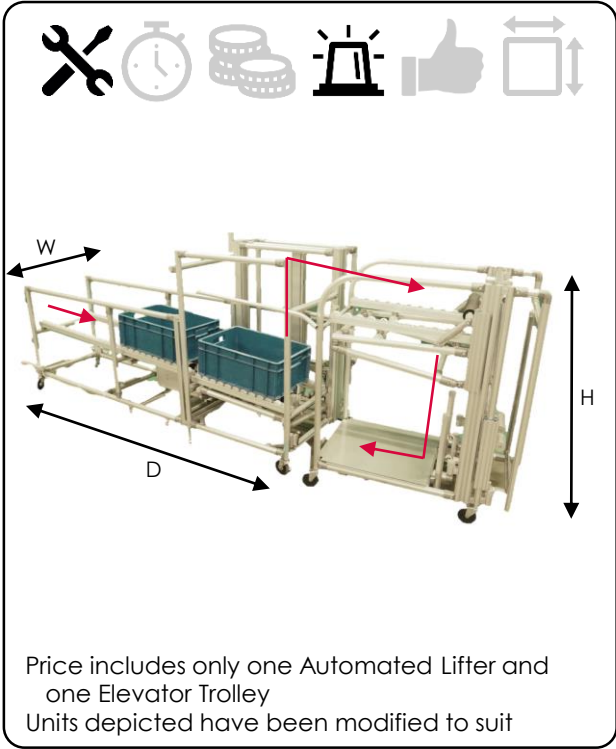
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Automated Karakuri

Automated Lifter with Elevator Trolley



| DWG | GFU 28035616-2 (Lifter) | GFU 28036500 (Elev. Trolley) |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| W | 705mm 27.75" | 481mm 19" |
| D | 3364mm 132.4" | 833mm 32.8" |
| H | Overall 998mm/39.3" | Overall 996mm/39.2" |
| | Input 501.3mm/19.7" | Input 879.1mm/34.6" |
| | Dispense 879.1mm/34.6" | Dispense 501.3mm/19.7" |
| Price | 3600.00 | 1400.00 |
| Function | <p>The lifter detects a tote and raises the table. Docking the trolley with the front of the lifter engages a sensor that dispenses the tote onto the trolley. The table then returns to the original position. An anti-back keeps the tote in place on the trolley during transport. Docking the trolley with the rear of the lifter lowers the table on the trolley and dispenses the tote back onto the lifter. The table on the trolley then returns to the original (elevated) position.</p> | |



Miniature Karakuri

Miniature Karakuri

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Karakuri Training

Miniature karakuri are the perfect training tool for lean engineers, maintenance technicians, and operators. Easy to build, these kits teach how and why karakuri works.

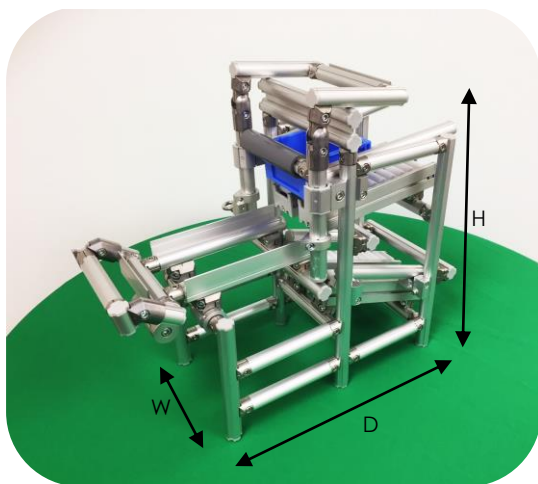
SUS offers two types of training units: key mechanisms and full miniatures.

Key mechanisms focus on a single karakuri element such as a stopper or turn. These are ideal for individuals with experience building whole structures who want to focus on karakuri basics.

Full miniatures are scaled-down replicas of traditional karakuri units, many of which appear in this catalog. Building and rebuilding these structures provides both karakuri and structural assembly training.

Miniature Flip-Flop Chuter

Ready to ship in 3 business days



| Item # | USM-001 |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| W | 173mm 6.8" |
| D | 316mm 12.4" |
| H | 306mm 12" |
| Price | 350.00 |
| DWG | GFU19000274-1 |
| Notes | Includes detailed parts list and assembly instructions. Actual structure may vary as designs are continually improved Assembly video available at https://youtu.be/th1wVedRhm8 Compare to the Flip-flop Chuter (p.63). |

Miniature Karakuri

Miniature 90° Turn Mechanism

Ready to ship in 3 business days



| Item # | USM-002 |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| W | 204mm 8" |
| D | 281mm 11" |
| H | 330mm 13" |
| Price | 200.00 |
| DWG | GFU19000156 |
| Notes | Includes detailed parts list and assembly instructions. Actual structure may vary as designs are continually improved. Assembly video available at https://youtu.be/gZ2ktlRe-gw Compare to the Automated 90° Turn (p.69). |

Miniature Horizontal Turn Mechanism

Ready to ship in 3 business days



| Item # | USM-003 |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| W | 178mm 7" |
| D | 278mm 11" |
| H | 134.5mm 5.25" |
| Price | 200.00 |
| DWG | GFU19000158 |
| Notes | Includes detailed parts list and assembly instructions. Actual structure may vary as designs are continually improved. Assembly video available at https://youtu.be/Qv1b7JkbAyg Compare to the Horizontal Turn (p.63). |

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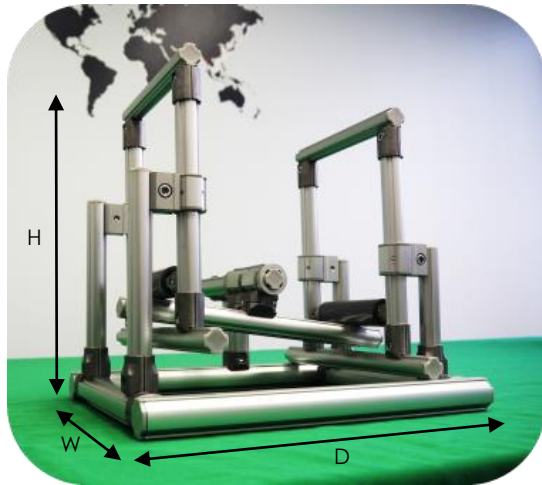
Miniature
Karakuri

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Miniature Karakuri

Miniature Stopper (See-saw) Mechanism

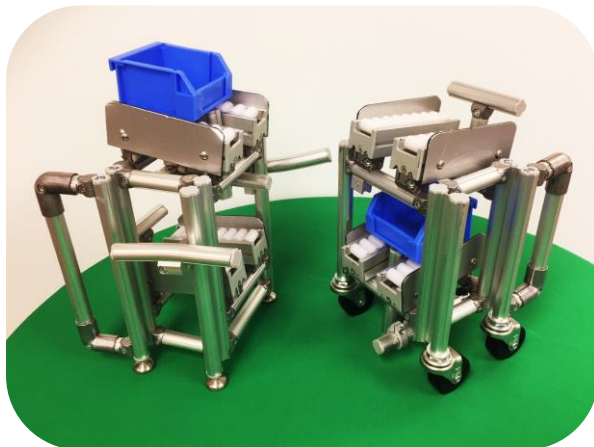
Ready to ship in 3 business days



| Item # | USM-004 | |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| W | 253mm 10" | |
| D | 306mm 12" | |
| H | 291mm 11.5" | |
| Price | 200.00 | |
| DWG | GFU19000157 | |
| Notes | Includes detailed parts list and assembly instructions. Actual structure may vary as designs are continually improved. Assembly video available at https://youtu.be/B60hGuL3wyQ Compare to the Stopper (See-saw) (p.62). | |

Miniature AGV Tote Transfer

Ready to ship in 3 business days

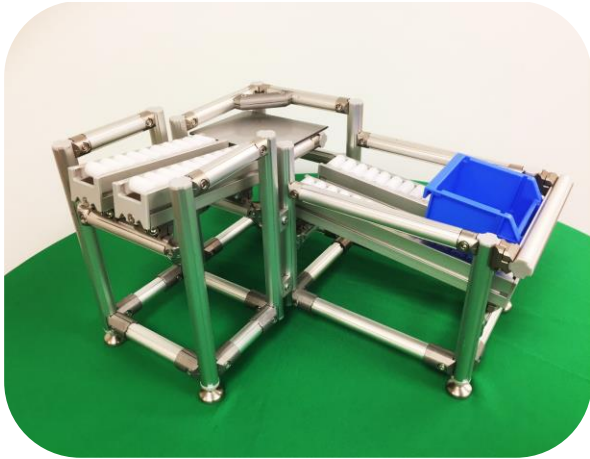


| Item # | USM-005 | |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| W | 188mm 7.4" | 188mm 7.4" |
| D | 119mm 4.7" | 119mm 4.7" |
| H | 311.5mm 12.25" | 311.5mm 12.25" |
| Price | 550.00 | |
| DWG | GFU19000171-1 | |
| Notes | Includes detailed parts list and assembly instructions. Actual structure may vary as designs are continually improved. Assembly videos available at https://youtu.be/IsC6md8Eq9E (Unit A) https://youtu.be/ZzOywhHcl2o (Unit B) Compare to the AGV Chuter and Trolley (p.66). | |

Miniature Karakuri

Miniature Horizontal Turn Chuter

Ready to ship in 3 business days



| Item # | USM-006 |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| W | 323.85mm 12.75" |
| D | 406.4mm 16" |
| H | 241.3mm 9.5" |
| Price | 450.00 |
| DWG | GFU19000273-1 |
| Notes | Includes detailed parts list and assembly instructions. Actual structure may vary as designs are continually improved. Assembly video available at https://youtu.be/Ek19tkE-b3k Compare to the Horizontal Turn (p.63). |

Miniature Intermittent Stopper Chuter

Ready to ship in 3 business days



| Item # | USM-007 |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| W | 165.1mm 6.5" |
| D | 425.45mm 16.75" |
| H | 171.45mm 6.75" |
| Price | 400.00 |
| DWG | GFU19000276-1 |
| Notes | Includes detailed parts list and assembly instructions. Actual structure may vary as designs are continually improved. Assembly video available at https://youtu.be/XnrpM36MtnU Compare to the Stopper (See-saw) (p.62). |

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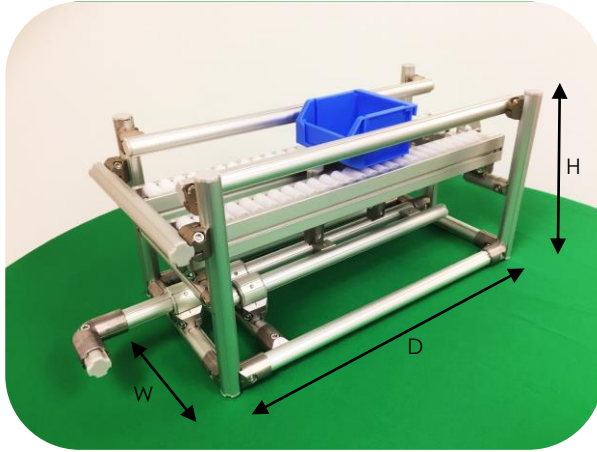
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Karakuri

SIO
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Miniature Karakuri

Miniature Incremental Conveyor

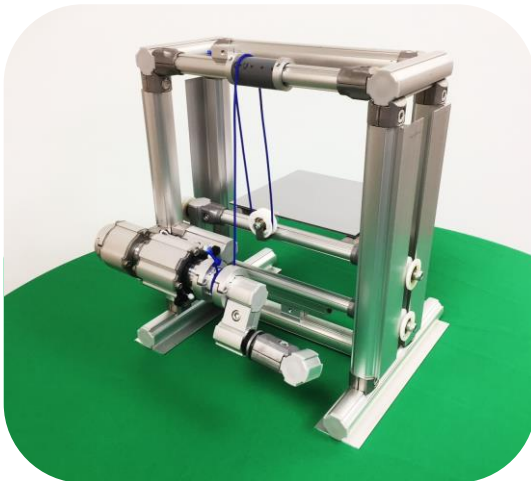
Ready to ship in 3 business days



| Item # | USM-008 |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| W | 203.2mm 8" |
| D | 520.7mm 20.5" |
| H | 203.2mm 8" |
| Price | 300.00 |
| DWG | GFU19000278-1 |
| Notes | Includes detailed parts list and assembly instructions. Assembly video available at https://youtu.be/MIQNwaYsyiQ Actual structure may vary as designs are continually improved. |

Miniature Reel Lifter Mechanism

Ready to ship in 3 business days

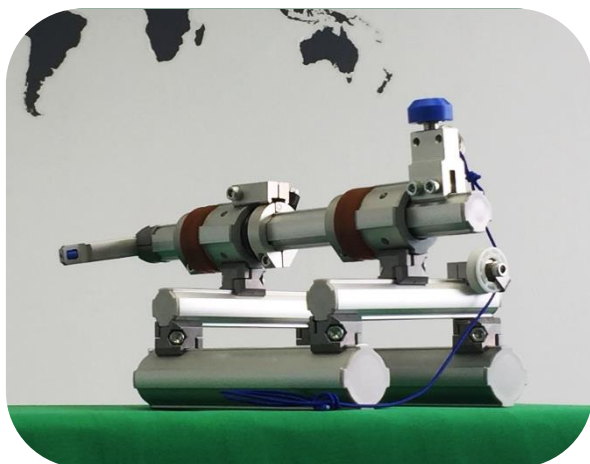


| Item # | USM-009 |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| W | 306mm 12" |
| D | 254mm 10" |
| H | 340.36mm 13.4" |
| Price | 500.00 |
| DWG | GFU28036425 |
| Notes | Includes detailed parts list and assembly instructions. Actual structure may vary as designs are continually improved. Assembly video available at https://youtu.be/8TfSvAlfM7k Compare to the Reel Up (p.64). |

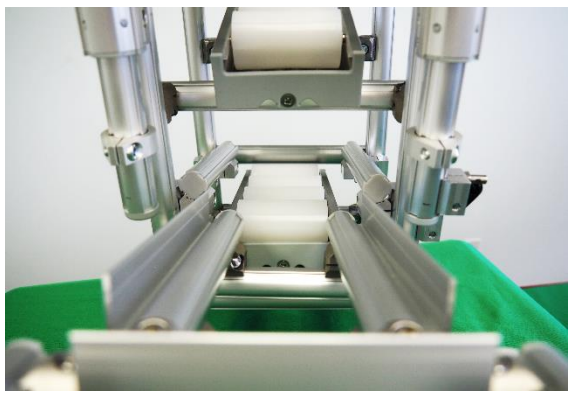
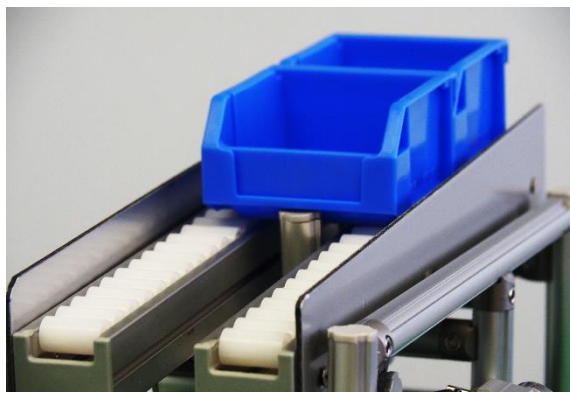
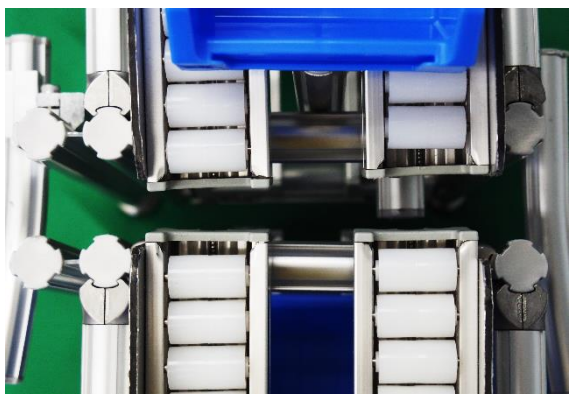
Miniature Karakuri

Miniature Intermittent Stopper Mechanism

Ready to ship in 3 business days



| Item # | USM-010 |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| W | 179mm 7.05" |
| D | 314.4mm 12.4" |
| H | 203mm 8" |
| Price | 150.00 |
| DWG | GFU28036461-2 |
| Notes | Includes detailed parts list and assembly instructions. Actual structure may vary as designs are continually improved. Assembly video available at https://youtu.be/900_VSUZbIY Compare to the Horizontal Turn (p.63). |



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SiO Controller

SiO Controller

The Simple Input Output Controller is designed for people using electric automation for the first time. Keeping things simple, SiO utilizes the world standard e-CON connector so you can join input/output devices just by plugging them in. For increased ease-of-use, SiO's software is multiple-choice, making programming easier than ever.

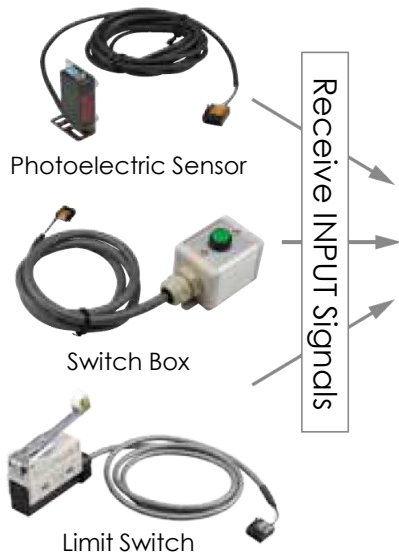
SiO Controller is compatible with a wide range of items across the market. SUS's controllers and accessories are specialty items. For details on lead times and shipping options, please contact SUS America, Inc.



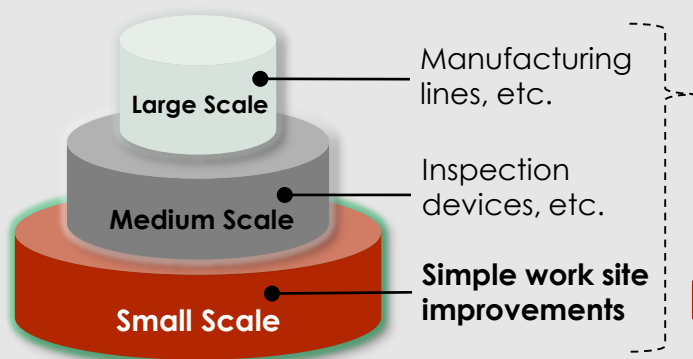
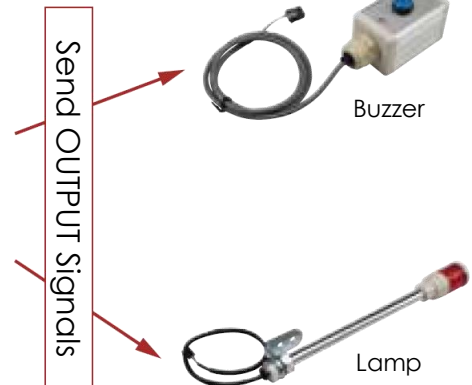
Simple Solution

SiO Controller is ideal for making simple worksite improvements or automating karakuri mechanisms, especially in cases where a Programmable Logic Controller (PLC) would be considered “overengineering.” By using SiO Controller, you can easily achieve automation on a small scale to meet your daily goals more efficiently.

Input Device



Output Device



When commands are entered with the same specifications...



PLC

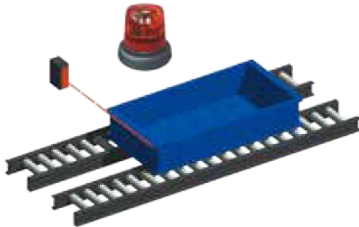

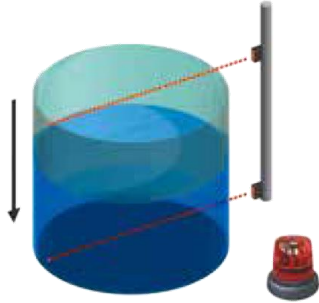






- Control program + Debug
- 8 hours labor/\$480




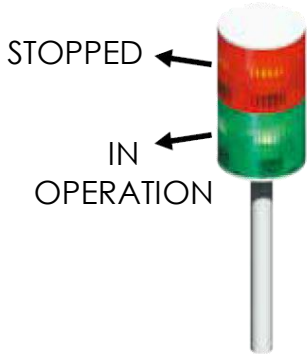
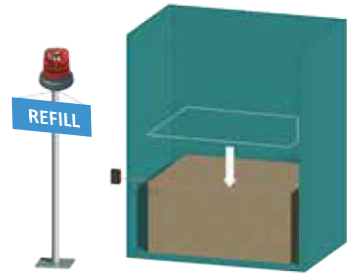
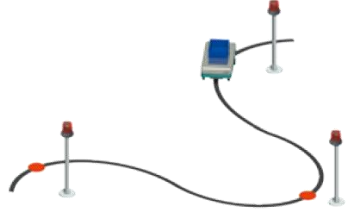




SiO

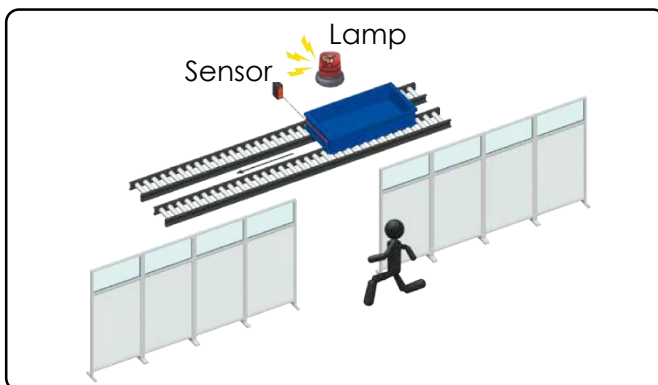
- SiO program + Debug
- 5 hours labor/\$200

SiO and Kaizen

| | | | |
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| |  |  |  |
| | 4 Detect & indicate empty rack | 5 Check assembly time | 6 Count work pieces |
| |  |  |  |
| | 7 Warn before collision | 8 Visitors' bell | 9 Call for assistance |
| |  |  |  |

| | | |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| 10 Detect & indicate open door | 11 Detect & indicate visitor | 12 Display time elapsed |
|  |  |  |
| 13 Indicate activity status | 14 Detect & indicate out of stock item | 15 Detect & indicate current location |
|  |  |  |
| 16 Detect & indicate items for AGV | 17 Detect & indicate for quality control | 18 Indicate correct procedure |
|  |  |  |

Case 1 Detect & indicate work piece



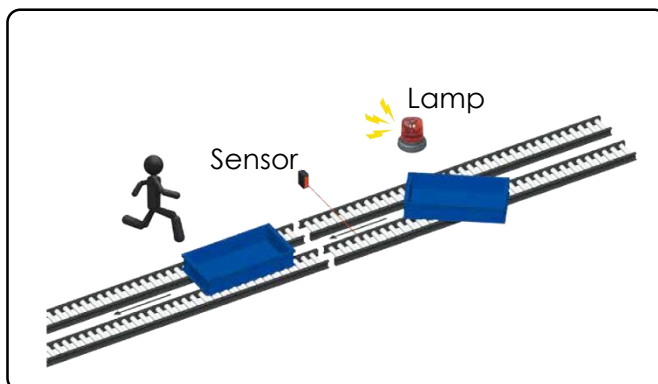
Work Flow

- 1) Sensor detects work piece
- 2) Lamp turns ON
- 3) After 10 seconds, lamp turns OFF

Program

| OUT | Condition 1 | | | | | Condition 2 | | | Duration Time (Until) | | | | |
|-------------|--------------|----|-----|-----|-----|-------------|------------|-----|-----------------------|-------|------------|------|-----|
| OUT1 (Lamp) | IN1 (Sensor) | ON | --- | --- | --- | THEN | DELAY TIME | 0.0 | Sec | later | DELAY TIME | 10.0 | Sec |
| | | | | | | | | | | | | | |

Case 2 Detect & indicate problem



Work Flow

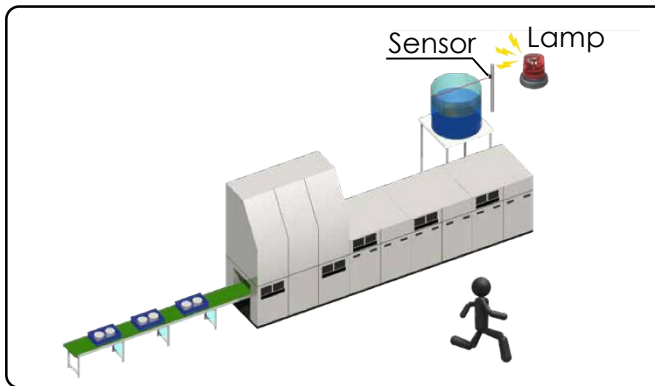
- 1) Sensor does not detect work piece for 60 seconds
- 2) Lamp turns ON
- 3) After 10 seconds, lamp turns OFF

Program

| OUT | Condition 1 | | | | | Condition 2 | | | Duration Time (Until) | | | | |
|---------------|--------------|-----|-----|-----|-----|-------------|------|-----|-----------------------|------------|------|-----|--|
| OUT1 (Sensor) | IN1 (Sensor) | OFF | --- | --- | --- | DELAY TIME | 60.0 | Sec | CONTINUES | DELAY TIME | 10.0 | Sec | |
| | | | | | | | | | | | | | |

Case 3

Detect & indicate tank level



Work Flow

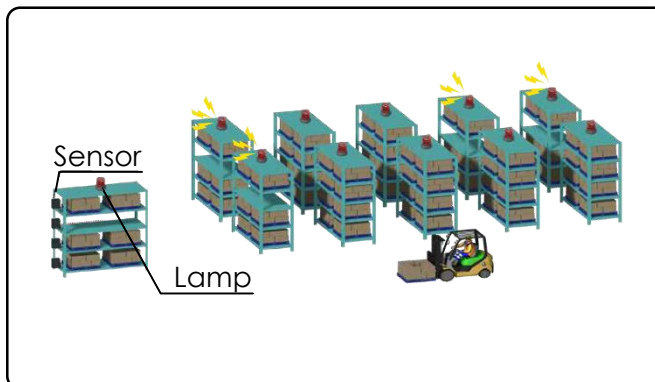
- 1) Sensor does not detect material for 10 seconds
- 2) Lamp turns ON
- 3) After ten seconds, lamp turns OFF

Program

| OUT | Condition 1 | | | | Condition 2 | | | | Duration Time (Until) | | | | | |
|-------------|--------------|-----|-----|-----|-------------|------------|------|-----|-----------------------|------------|------|-----|-----|-----|
| OUT1 (Lamp) | IN1 (Sensor) | OFF | --- | --- | --- | DELAY TIME | 10.0 | Sec | CONTINUES | DELAY TIME | 10.0 | Sec | --- | --- |

Case 4

Detect & indicate empty rack



Work Flow

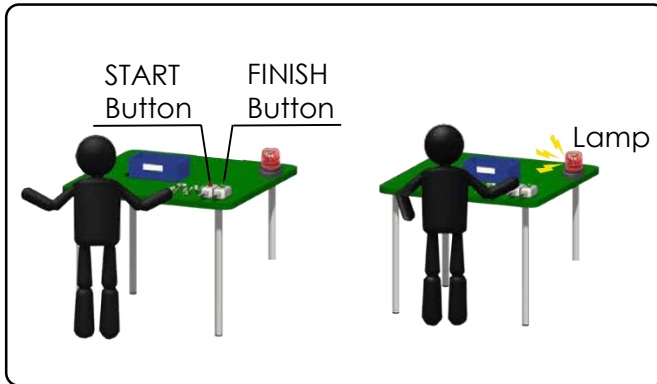
- 1) Sensor does not detect items
- 2) Lamp turns ON
- 3) When sensor detects items, lamp turns OFF

Program

| OUT | Condition 1 | | | | Condition 2 | | | | Duration Time (Until) | | | | | |
|----------------|---------------|-----|----|----------------|-------------|------------|------------|-----|-----------------------|-------------|-----|-----|-----|-----|
| OUT1 (Lamp) | FLAG1 (Top) | ON | OR | FLAG2 (Bottom) | ON | DELAY TIME | 0.0 | Sec | CONTINUES | CONDITION 1 | OFF | --- | --- | --- |
| FLAG1 (TOP) | IN1 (Sensor1) | OFF | OR | IN2 (Sensor2) | OFF | THEN | DELAY TIME | 0.0 | Sec later | CONDITION 1 | OFF | | | |
| FLAG2 (Bottom) | IN3 (Sensor3) | OFF | OR | IN4 (Sensor4) | OFF | THEN | DELAY TIME | 0.0 | Sec later | CONDITION 1 | OFF | | | |

Case 5

Check assembly time



Work Flow

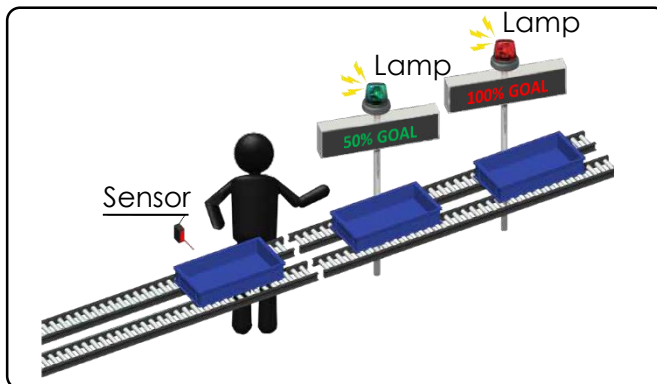
- 1) Operator presses START Button
- 2) Operator presses FINISH Button
- 3) Assembly time is recorded
- or
- 1) Operator presses START Button
- 2) Lamp turns ON after 3 minutes
- 3) Assembly time is recorded

Program

| OUT | | Condition 1 | | | | Condition 2 | | | | Duration Time (Until) | | | | | |
|-----------------|-----------------|-------------|-----|-----|-----|-------------|------------|-----|-----------|-----------------------|-----|-----|-----|-----|-----|
| OUT1 (Lamp) | FLAG1 (Measure) | ON | --- | --- | --- | DELAY TIME | 180.0 | Sec | CONTINUES | CONDITION 1 | OFF | --- | --- | --- | --- |
| FLAG1 (Measure) | IN1 (Start BT) | ON | --- | --- | --- | THEN | DELAY TIME | 0.0 | Sec later | IN2 (Complete BT) | ON | | | | |

Case 6

Count work pieces



Work Flow

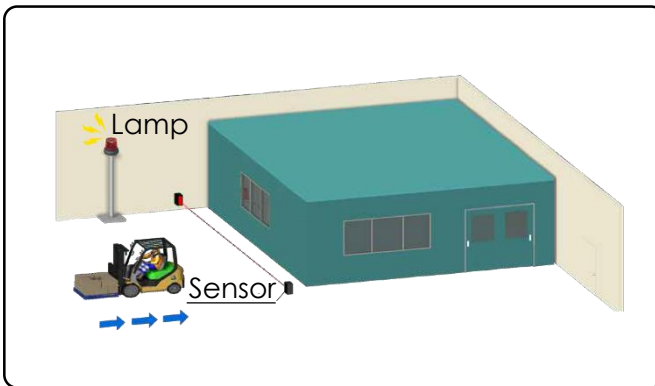
- 1) Sensor detects and counts work pieces
- 2) Lamp 1 turns ON after 50% of the goal has been met
- 3) Lamp 2 turns ON after 100% of the goal has been met

Program

| OUT | Condition 1 | | | | | Condition 2 | | | Duration Time (Until) | | | | | |
|-------------|--------------|----|-----|-----|-----|-------------|------------|-----|-----------------------|-----|-----|--|--|--|
| OUT1 (50%) | IN1 (Sensor) | ON | --- | --- | --- | 50 | TIMES THEN | 0.0 | Sec later | RUN | OFF | | | |
| OUT2 (100%) | IN1 (Sensor) | ON | --- | --- | --- | 100 | TIMES THEN | 0.0 | Sec later | RUN | OFF | | | |

Case 7

Warn before collision



Work Flow

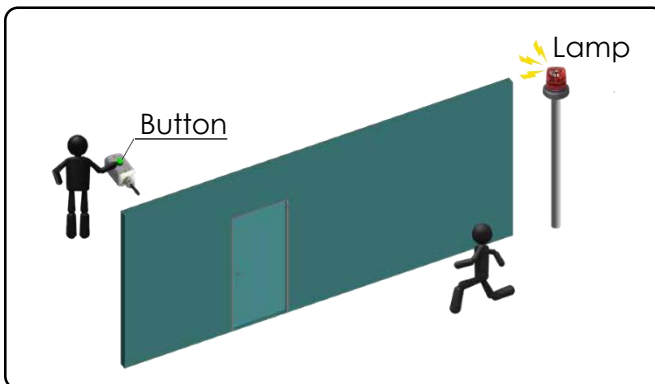
- 1) Sensor detects an object
- 2) Lamp turns ON
- 3) After 10 seconds, lamp turns OFF

Program

| OUT | Condition 1 | | | | | Condition 2 | | | Duration Time (Until) | | | | | | |
|-------------|--------------|----|-----|-----|-----|-------------|------------|-----|-----------------------|------------|------|-----|-----|-----|-----|
| OUT1 (Lamp) | IN1 (Sensor) | ON | --- | --- | --- | THEN | DELAY TIME | 0.0 | Sec later | DELAY TIME | 10.0 | Sec | --- | --- | --- |

Case 8

Visitors' bell



Work Flow

- 1) Visitor presses the button
- 2) Lamp turns ON
- 3) After 10 seconds, lamp turns OFF

Program

| OUT | Condition 1 | | | | | Condition 2 | | | Duration Time (Until) | | | | | | |
|-------------|--------------|----|-----|-----|-----|-------------|------------|-----|-----------------------|------------|------|-----|-----|-----|-----|
| OUT1 (Lamp) | IN1 (Button) | ON | --- | --- | --- | THEN | DELAY TIME | 0.0 | Sec later | DELAY TIME | 10.0 | Sec | --- | --- | --- |

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Standard Units

Custom Structures

Traditional Karakuri

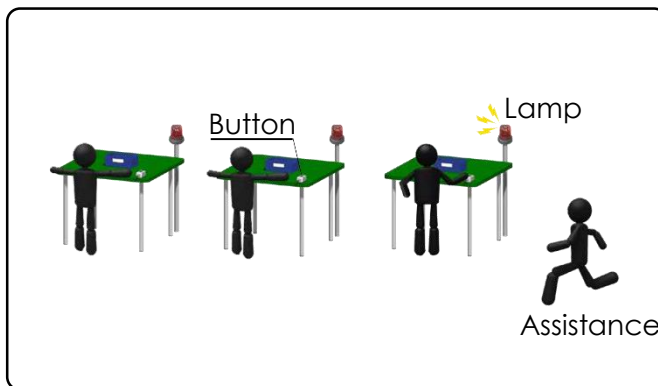
Automated Karakuri

Miniature Karakuri

SiO Controller

Case 9

Call for assistance



Work Flow

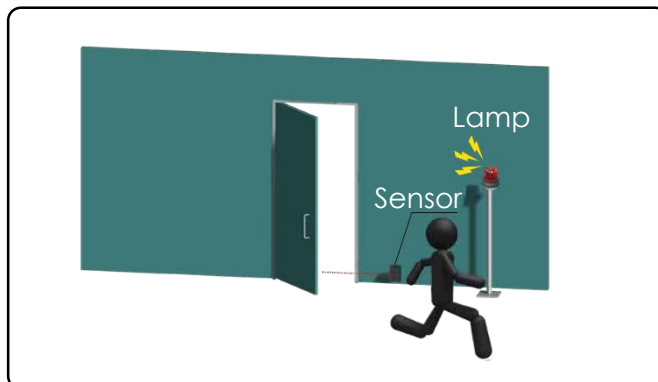
- 1) Operator presses button
- 2) Lamp turns ON
- 3) After 10 seconds, lamp turns OFF

Program

| OUT | Condition 1 | | | | | Condition 2 | | | Duration Time (Until) | | | | | |
|-------------|--------------|----|-----|-----|-----|-------------|------------|-----|-----------------------|------------|------|-----|-----|-----|
| OUT1 (Lamp) | IN1 (Switch) | ON | --- | --- | --- | THEN | DELAY TIME | 0.0 | Sec later | DELAY TIME | 10.0 | Sec | --- | --- |

Case 10

Detect & indicate open door



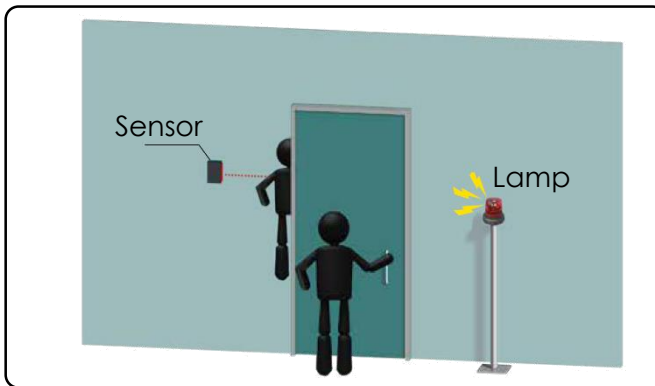
Work Flow

- 1) Door is opened
- 2) Sensor detects door for over 10 seconds
- 3) Lamp turns ON
- 4) After 5 seconds, lamp turns OFF

Program

| OUT | Condition 1 | | | | | Condition 2 | | | Duration Time (Until) | | | | | |
|-------------|--------------|----|--|--|--|-------------|------|-----|-----------------------|------------|-----|-----|-----|-----|
| OUT1 (Lamp) | IN1 (Sensor) | ON | | | | DELAY TIME | 10.0 | Sec | CONTINUES | DELAY TIME | 5.0 | Sec | --- | --- |

Case 11 Detect & indicate visitor



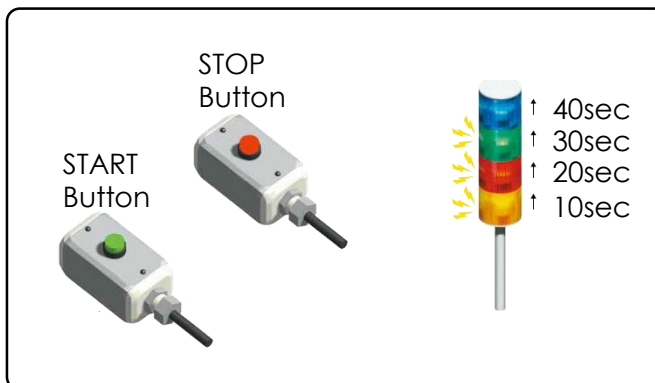
Work Flow

- 1) Sensor detects object behind door
- 2) Lamp turns ON
- 3) Sensor does not detect object
- 4) Lamp turns OFF

Program

| OUT | Condition 1 | | | | | Condition 2 | | | Duration Time (Until) | | | | | |
|-------------|--------------|----|-----|-----|-----|-------------|------------|-----|-----------------------|-------|-------------|-----|-----|-----|
| OUT1 (Lamp) | IN1 (Sensor) | ON | --- | --- | --- | THEN | DELAY TIME | 0.0 | Sec | later | CONDITION 1 | OFF | --- | --- |

Case 12 Display time elapsed



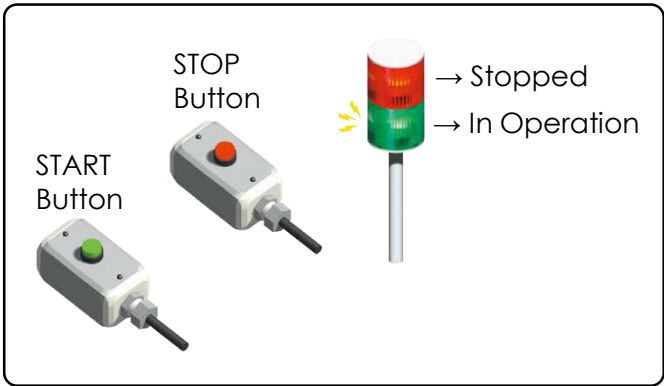
Work Flow

- 1) Operator presses START button
- 2) Lamps turn ON every 10 seconds
- 3) Lamps turn OFF after 50 seconds or when STOP button is pressed

Program

| OUT | Condition 1 | | | | | Condition 2 | | | | Duration Time (Until) | | | | | | |
|------------------|-------------------|----|-----|-----|-----|---------------|----------------|-----|--------------|-----------------------|------|-----|-----|------------------|-----|-----|
| OUT1 (Lamp1) | FLAG1 (START) | ON | | | | DELAY TIME | 10.0 | Sec | CONTINUES | CONDITION 1 | OFF | --- | --- | --- | --- | |
| OUT2 (Lamp2) | FLAG1 (START) | ON | | | | DELAY TIME | 20.0 | Sec | CONTINUES | CONDITION 1 | OFF | --- | --- | --- | --- | |
| OUT3 (Lamp3) | FLAG1 (START) | ON | | | | DELAY TIME | 30.0 | Sec | CONTINUES | CONDITION 1 | OFF | --- | --- | --- | --- | |
| OUT4 (Lamp4) | FLAG1 (START) | ON | | | | DELAY TIME | 40.0 | Sec | CONTINUES | CONDITION 1 | OFF | --- | --- | --- | --- | |
| FLAG1 (START) | IN1 (START BT) | ON | --- | --- | --- | THEN | DELAY ZIFAS | 0.0 | Sec later | DELAY TIME | 50.0 | Sec | OR | IN2 (STOP BT) | ON | --- |

Case 13 Indicate activity status



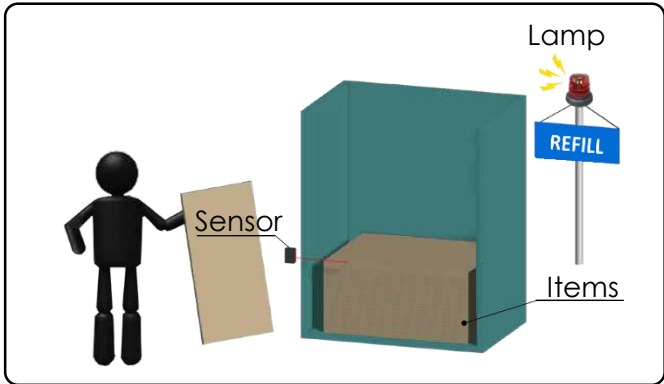
Work Flow

- 1) Operator presses START button
- 2) Green lamp turns ON (red lamp is off)
- 3) Operator presses STOP button
- 4) Red lamp is ON (green lamp is off)

Program

| OUT | Condition 1 | | | | | Condition 2 | | | Duration Time (Until) | | | | | |
|-----------------|----------------|----|-----|-----|-----|-------------|------------|-----|-----------------------|--------------------|----|-----|-----|-----|
| OUT1 (Op Lamp) | IN1 (START BT) | ON | --- | --- | --- | THEN | DELAY TIME | 0.0 | Sec later | IN2 (STOP SW) | ON | --- | --- | --- |
| OUT1 (STP Lamp) | IN1 (STOP BT) | ON | --- | --- | --- | THEN | DELAY TIME | 0.0 | Sec later | IN1 (Operation SW) | ON | --- | --- | --- |

Case 14 Detect & indicate out of stock item



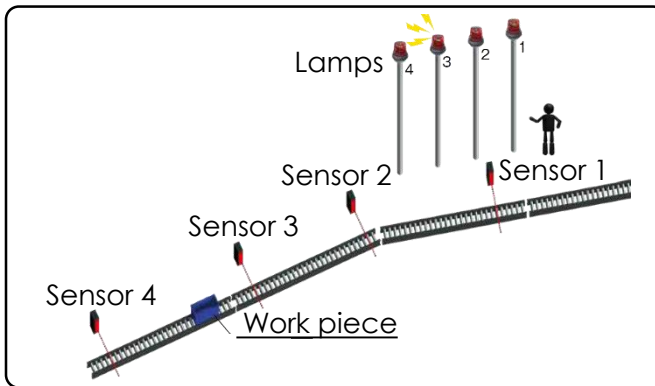
Work Flow

- 1) Operator removes item from rack
- 2) Sensor does not detect item
- 3) Lamp turns ON
- 4) After 10 seconds, lamp turns OFF

Program

| OUT | Condition 1 | | | | | Condition 2 | | | Duration Time (Until) | | | | | |
|-------------|--------------|-----|--|--|--|-------------|-----|-----|-----------------------|------------|------|-----|-----|-----|
| OUT1 (Lamp) | IN1 (Sensor) | OFF | | | | DELAY TIME | 3.0 | Sec | CONTINUES | DELAY TIME | 10.0 | Sec | --- | --- |

Case 15 Detect & indicate current location



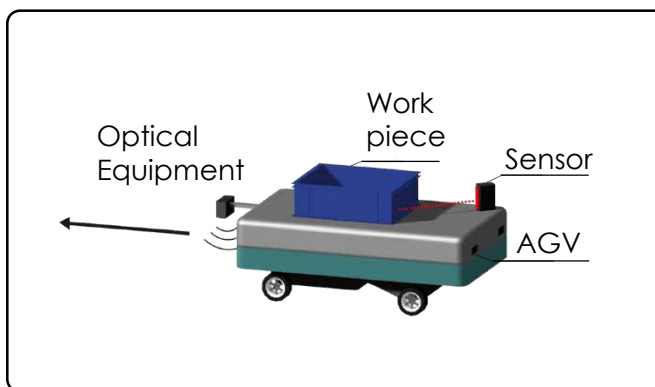
Work Flow

- 1) Work piece travels down the line
- 2) Each sensor detects the work piece in sequence
- 3) Each lamp turns ON in sequence
- 4) The fourth lamp turns OFF after 5 seconds

Program

| OUT | Condition 1 | | | | | | Condition 2 | | | | Duration Time (Until) | | | | | |
|------------------|-------------------|----|-----|-----|-----|------|---------------|-----|--------------|--|-----------------------|-----|-----|-----|-----|-----|
| OUT1 (Lamp 1) | IN1 (Sensor 1) | ON | --- | --- | --- | THEN | DELAY TIME | 0.0 | Sec later | | IN4 (Sensor 4) | ON | --- | --- | --- | --- |
| OUT2 (Lamp 2) | IN2 (Sensor 2) | ON | --- | --- | --- | THEN | DELAY TIME | 0.0 | Sec later | | IN4 (Sensor 4) | ON | --- | --- | --- | --- |
| OUT3 (Lamp 3) | IN3 (Sensor 3) | ON | --- | --- | --- | THEN | DELAY TIME | 0.0 | Sec later | | IN4 (Sensor 4) | ON | --- | --- | --- | --- |
| OUT4 (Lamp 4) | IN4 (Sensor 4) | ON | --- | --- | --- | THEN | DELAY TIME | 0.0 | Sec later | | DELAY TIME | 5.0 | Sec | --- | --- | --- |

Case 16 Detect & indicate items for AGV



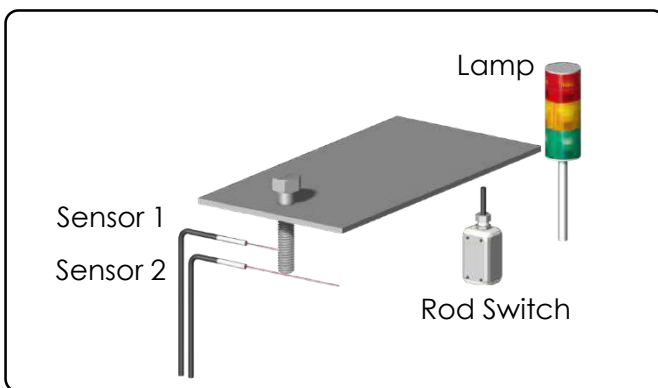
Work Flow

- 1) Sensor detects work piece
- 2) Optical equipment signals AGV to start
- 3) AGV arrives at destination
- 4) AGV dispenses work piece
- 5) Sensor does not detect work piece
- 6) Optical equipment signals AGV to start

Program

| OUT | Condition 1 | | | | | Condition 2 | | | | Duration Time (Until) | | | | | | |
|--------------------|-----------------|-----|-----|--------------------|-----|-------------|------------|-----|-----------|-----------------------|-----|-----|-----|-----|-----|-----|
| OUT1 (Start) | FLAG1 (Work in) | ON | OR | FLAG2 (Work out) | ON | THEN | DELAY TIME | 0.0 | Sec later | DELAY TIME | 1.0 | Sec | --- | --- | --- | --- |
| FLAG1 (Work in) | IN1 (Sensor) | ON | --- | --- | --- | THEN | DELAY TIME | 1.0 | Sec later | DELAY TIME | 1.0 | Sec | --- | --- | --- | --- |
| FLAG2 (Work out) | IN1 (Sensor) | OFF | AND | FLAG3 (Initialize) | ON | THEN | DELAY TIME | 1.0 | Sec later | DELAY TIME | 1.0 | Sec | --- | --- | --- | --- |
| FLAG3 (Initialize) | IN1 (Sensor) | ON | --- | --- | --- | THEN | DELAY TIME | 0.0 | Sec later | RUN | OFF | --- | --- | --- | --- | --- |

Case 17 Detect & indicate for quality control

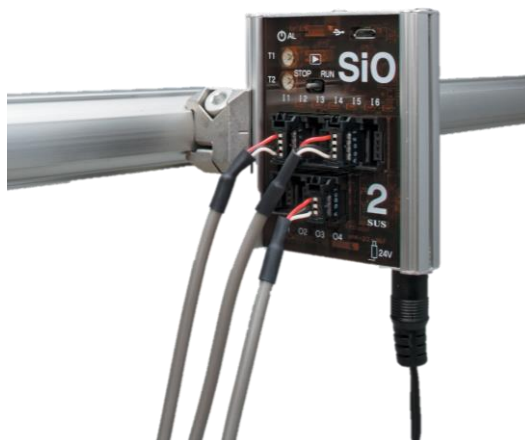


Work Flow

- 1) Insert work piece into jig plate
- 2) Flip rod switch
- 3) Sensors detect length of work piece
- 4) Lamp reports result (long, short, correct)

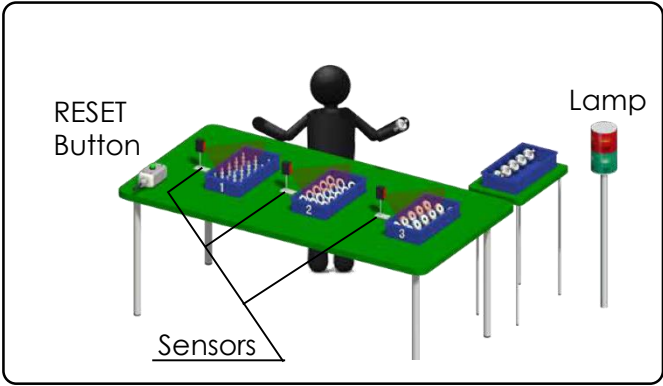
Program

| OUT | Condition 1 | | | | | Condition 2 | | | | | Duration Time (Until) | | | | | |
|--------------------|----------------|-----|-----|--------------------|-----|-------------|------------|-----|-----|-------|-----------------------|-----|-----|-----|-----|-----|
| OUT1 (Blue Lamp) | IN1 (Switch) | ON | AND | FLAG1 (Normal) | ON | THEN | DELAY TIME | 0.0 | Sec | later | DELAY TIME | 5.0 | Sec | --- | --- | --- |
| OUT2 (Yellow Lamp) | IN1 (Switch) | ON | AND | FLAG2 (Abnormal L) | ON | THEN | DELAY TIME | 0.0 | Sec | later | DELAY TIME | 5.0 | Sec | --- | --- | --- |
| OUT3 (Red Lamp) | IN1 (Switch) | ON | AND | FLAG3 (Abnormal S) | ON | THEN | DELAY TIME | 0.0 | Sec | later | DELAY TIME | 5.0 | Sec | --- | --- | --- |
| FLAG1 (Normal) | IN2 (Sensor 1) | ON | AND | IN3 (Sensor 2) | OFF | THEN | DELAY TIME | 0.0 | Sec | later | CONDITION 1 | OFF | --- | --- | --- | --- |
| FLAG2 (Abnormal L) | IN2 (Sensor 1) | ON | AND | IN3 (Sensor 2) | ON | THEN | DELAY TIME | 0.0 | Sec | later | CONDITION 1 | OFF | --- | --- | --- | --- |
| FLAG3 (Abnormal S) | IN2 (Sensor 1) | OFF | AND | IN3 (Sensor 2) | OFF | THEN | DELAY TIME | 0.0 | Sec | later | CONDITION 1 | OFF | --- | --- | --- | --- |



Case 18

Indicate correct procedure

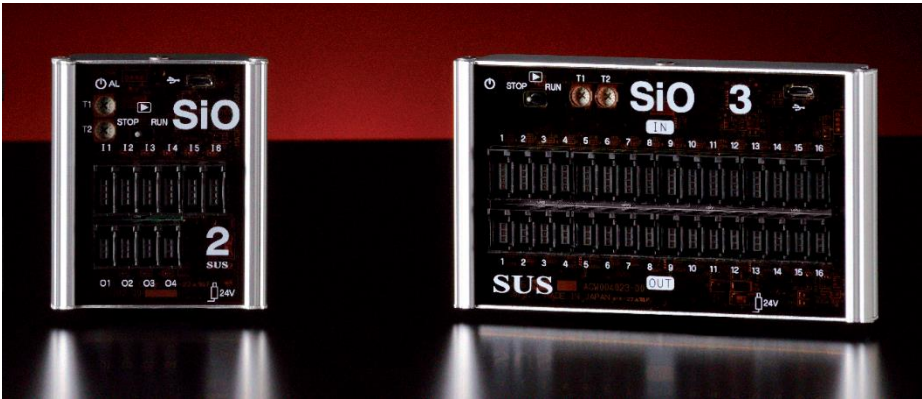


Work Flow

- 1) Operator takes items in correct order (1→2→3)
- 2) If the order is not correct, lamp turns ON
- 3) When RESET button is pressed, lamp turns OFF

Program

| OUT | Condition 1 | | | | | Condition 2 | | | | Duration Time (Until) | | | | | |
|---------------------|---------------------|-----|-----|----------------------|-----|-------------|---------------|-----|--------------|--------------------------------|-----|-----|---------------------------|-----|-----|
| OUT1 (NG Order) | FLAG4 (NG Cond1) | ON | OR | FLAG5 (NG Cond 2) | ON | THEN | DELAY TIME | 0.0 | Sec later | IN4 (Reset BT) | ON | --- | --- | --- | --- |
| OUT2 (OK) | FLAG6 (NG Cond2) | ON | AND | FLAG3 (IN3 END) | ON | THEN | DELAY TIME | 0.0 | Sec later | DELAY TIME | 2.0 | Sec | --- | --- | --- |
| FLAG1 (IN1 END) | FLAG7 (IN1 ON) | ON | AND | IN1 (Sensor 1) | OFF | THEN | DELAY TIME | 0.0 | Sec later | OUT1 (NG Order) | ON | OR | FLAG 10 (Release Cond) | ON | --- |
| FLAG2 (IN2 END) | FLAG8 (IN2 ON) | ON | AND | IN2 (Sensor 2) | OFF | THEN | DELAY TIME | 0.0 | Sec later | OUT1 (NG Order) | ON | OR | FLAG 10 (Release Cond) | ON | --- |
| FLAG3 (IN3 END) | FLAG9 (IN3 ON) | ON | AND | IN3 (Sensor 3) | OFF | THEN | DELAY TIME | 0.0 | Sec later | OUT1 (NG Cond) | ON | OR | FLAG 10 (Release Cond) | ON | --- |
| FLAG4 (NG Cond1) | FLAG1 (IN1 END) | OFF | AND | IN2 (Sensor 2) | ON | THEN | DELAY TIME | 0.0 | Sec later | FLAG 10 (Release Condition) | ON | --- | --- | --- | --- |
| FLAG5 (NG Cond2) | FLAG2 (IN2 END) | OFF | AND | IN3 (Sensor 3) | ON | THEN | DELAY TIME | 0.0 | Sec later | FLAG 10 (Release Condition) | ON | --- | --- | --- | --- |
| FLAG6 (NG Cond2) | FLAG1 (IN1 END) | ON | AND | FLAG2 (IN2 END) | ON | THEN | DELAY TIME | 0.0 | Sec later | Condition 1 | OFF | --- | --- | --- | --- |
| FLAG7 (IN1 ON) | IN1 (Sensor 1) | ON | --- | --- | --- | THEN | DELAY TIME | 0.0 | Sec later | Condition 1 | OFF | --- | --- | --- | --- |
| FLAG8 (IN2 ON) | IN2 (Sensor 2) | ON | --- | --- | --- | THEN | DELAY TIME | 0.0 | Sec later | Condition 1 | OFF | --- | --- | --- | --- |
| FLAG9 (IN3 ON) | IN3 (Sensor 3) | ON | --- | --- | --- | THEN | DELAY TIME | 0.0 | Sec later | Condition 1 | OFF | --- | --- | --- | --- |
| FLAG10 (Release) | OUT2 (OK Order) | ON | OR | IN4 (Reset BT) | ON | THEN | DELAY TIME | 0.0 | Sec later | Condition 1 | OFF | --- | --- | --- | --- |



SiO Controllers

| |
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| | | |
|------------------------------|------------------------------------------------------------------------------|-------------------------------------------------|
| Item # | XAC-046 | XAC-050 |
| Product Name | SiO2 | SiO3 |
| Power-Supply Voltage | DC24V ± 10% 0.3A DC Plug: 5.5mm (outer diameter) x 2.1mm (inner diameter) | |
| Number of Inputs/Outputs | 6 Inputs / 4 Outputs | 16 Inputs / 16 Outputs |
| Input Specifications | DC24V ±10% 7mA/DC24V Non-Voltage Contact Input (NPN) Non-Insulated | |
| Output Specifications | DC24V ± 10% 100mA/DC24V Open Collector (NPN) Non-Insulated | |
| Communication Specifications | USB 2.0 Compliant/Micro-B Type | |
| RoHS Compatible | RoHS Compatible | |
| I/O Interface | e-CON Connector | |
| External Dimensions | W65mm × D29mm × H81mm W2.6" × D1.1" × H3.2" | W130mm × D29mm × H81mm W5.1" × D1.1" × H3.2" |
| Weight | Approximately 107g | Approximately 178g |
| Installation Method | GF/DIN Rail | |
| Price | 106.36 | 261.82 |

SiO Accessories

Input Devices (Device → SiO)



| Item # | Description | Price |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| SUC-195 | Photoelectric Sensor (Reflective Type) <ul style="list-style-type: none"> • Detects objects by reflecting light off of them • Can detect almost any material • Cable length: 2m/78.75" | 137.73 |
| SUC-193 | Limit Switch <ul style="list-style-type: none"> • Mechanically detects objects • Cable length: 2m/78.75" | 27.95 |

Power Accessories



| Item # | Model & Notes | Price |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| IFP-A034 | Cable With DC Plug <ul style="list-style-type: none"> • For connecting SiO to an external power supply of DC 24 volts • Use in situations where an AC adapter is not suitable • Can be used with an electric winch • Cable length: 0.5m (19.7") | 8.18 |
| SUC-261 | AC Adapter <ul style="list-style-type: none"> • For supplying SiO with DC 24 volt power | 23.18 |

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SiO Accessories

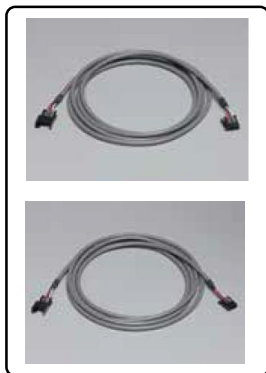
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Input Aggregate & Output Splitters



| Item # | Model & Notes | Price |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| SUC-208 | Input Aggregate Cable <ul style="list-style-type: none"> Combines signals of 2-3 input devices Cable length: 0.1m/4" | 8.05 |
| SUC-230 | Output Splitter Cable <ul style="list-style-type: none"> Splits signals to output devices Cable length: 0.1m/4" | 7.91 |

Extension Cables



| Item # | Description | Price |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| SUC-210 | Extension Cable for INPUT (4 pins) <ul style="list-style-type: none"> Use to extend the length of input cables Cable length: 2m/78.75" | 6.95 |
| SUC-209 | Extension Cable for OUTPUT (3 pins) <ul style="list-style-type: none"> Use to extend the length of output cables Cable length: 2m/78.75" | 6.82 |

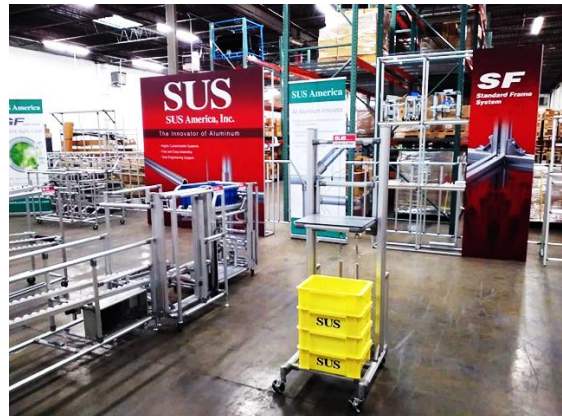
e-CON Connectors



| Item # | Model & Notes | Price |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| SUC-212 | Connector Inputs (4 pins) 10 pieces <ul style="list-style-type: none"> For heavy lines (37104-2206-000FL): x7 For light lines (37104-4080-G00FL): x3 | 28.91 |
| SUC-211 | Connector Outputs (3 pins) 10 pieces <ul style="list-style-type: none"> For heavy lines (37104-2206-000FL): x7 For light lines (37104-4080-G00FL): x3 | 20.18 |

This image shows a full page of blank white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page, typical of notebook paper or a document template. There are no margins, text, or other markings present.

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SUS America, Inc.

1822 Brummel Avenue, Elk Grove Village, IL 60007

TEL 847.350.1525 FAX 847.350.1533

EMAIL sales2@susamericainc.com

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