

CATEGORY SELECTION GUIDE

Adaptive/Angular Gripper Category Selection Guide

Adaptive angular electric grippers use a screw-nut and linkage mechanism to drive angular finger motion, allowing the fingers to conform to different workpiece profiles after contact. The catalog supports collaborative robots and flexible handling cells, with selection centered on workpiece size, total stroke, gripping force, payload, cycle time, installation space and interfaces.

CATEGORY SELECTION GUIDE

CATEGORY	CURRENT CATALOG	REVISION / ISSUE
Adaptive/Angular Grippers	1 Product Platforms / 2 SKUs	R01 2026-09-04

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01 | Category Scope and Objective

Item	Current category
Product catalog	1 Product Platform / 2 SKUs
Suitable use	Adaptive angular gripping using a linkage mechanism to accommodate different workpiece shapes, where size, stroke, gripping force, payload and mounting interfaces must be considered together.

02 | Product Principle and Typical Applications

Product overview

Adaptive/angular grippers use a screw-nut and linkage mechanism to drive angular finger motion, allowing the fingers to conform to different workpiece profiles for collaborative robots and flexible handling cells.

Typical applications

Flexible gripping of irregular workpieces

Use workpiece geometry and size to determine stroke, then check the specific SKU against gripping force and allowable payload.

Collaborative robot tending

Check robot end-of-arm integration against payload, cycle time, dimensions and communication method.

03 | Selection Inputs

Prepare before selection

- Record workpiece shape, size, mass and contact-surface conditions.
- Confirm total stroke, gripping force per side and maximum recommended payload.
- Confirm opening/closing time, repeatability and static-load/moment conditions.
- Confirm installation space, supply, communications and environment.

04 | Product Platform Catalog



Adaptive/Angular Gripper Product Platform 01

This Product Platform contains 2 SKUs using a screw-nut and linkage mechanism for adaptive angular gripping. Start with total stroke, gripping force and payload, then confirm cycle time, dimensions, static loads, moments and interfaces.

2 SKUs

05 | Product Platform and SKU Selection Path

- Use workpiece envelope and contact pose to confirm finger-motion space.
- Build the SKU shortlist from total stroke, gripping force and payload.
- Check the operating condition using opening/closing time, repeatability, static load and moments.

04 Finally confirm dimensions, supply, communications and environment.

Selection note

This category has one Product Platform; the main differences are at SKU level. Use stroke, gripping force and payload directly for shortlisting.

06 | Selection Parameters and SKU Refinement

Product Platform parameter span

Product Platform	SKUs	Total Stroke	Gripping Force (Per Side)	Maximum Recommended Payload	Full-Stroke Opening Time	Full-Stroke Closing Time	Overall Dimensions	Product Mass	Position Repeatability
Adaptive/Angular Gripper Product Platform 01	2	145 / 95	35-105 N / 35-105 / 45-160 N / 45-160	2 / 3	0.9	0.9	203.9 mm x 212.3 mm x 67 mm / 184.6 mm x 162.3 mm x 67 mm	1.3 / 1	□ 0.03 mm

SKU shortlist matrix

SKU	Total Stroke	Gripping Force (Per Side)	Maximum Recommended Payload	Opening Time	Closing Time	Overall Dimensions	Product Mass	Position Repeatability
ES-EG-C00-S00 9-V001	145	35-105 N / 35-105	2	0.9	0.9	203.9 mm x 212.3 mm x 67 mm	1.3	□ 0.03 mm
ES-EG-C00-S00 9-V002	95	45-160 N / 45-160	3	0.9	0.9	184.6 mm x 162.3 mm x 67 mm	1	□ 0.03 mm

07 | Integration Checklist

Design inputs

- 01** Check finger design, contact surfaces, opening envelope and collision clearance.
- 02** Check gripping force, payload, static load, moments and mounting orientation.
- 03** Check supply, communications, I/O, cabling and control timing.
- 04** Check temperature, humidity, ingress protection and operating noise.

08 | Engineering Use and Verification Notice

Engineering verification

- 01** Before design freeze, verify mechanical, electrical, communications and controlled engineering documents for the specific SKU.
- 02** Do not infer missing payload, life or compatibility data from an SKU code or a single gripping-force value.
- 03** Use the Datasheet and Dimensional & Integration Guide as the primary engineering verification documents.

Responsibility boundary

This guide organizes candidate scope. Final selection, finger design, interface confirmation and system responsibility remain subject to controlled engineering documents for the specific SKU and project verification.