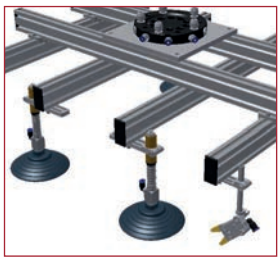
FIPA Gripper assembly – your options for the highest benefit of technology and know-how

> Providing a workpiece sample or CAD drawing allows us to offer the optimal gripper
> We will be pleased to perform gripping tests with your material to select the appropriate components

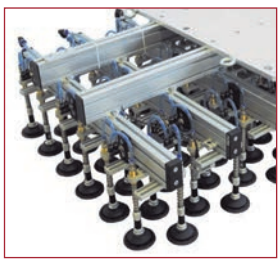
Option 1

> FIPA provides full technical support and supplies all required components
> You conduct the final assembly



Option 2

> FIPA designs the gripper according to your specification in 3D CAD and all components and an installation guide are provided
> You conduct the final assembly



Option 3

> FIPA plans and assembles the gripper according to your specification
> The gripper is delivered already preset and needs only on-site fine-tuning

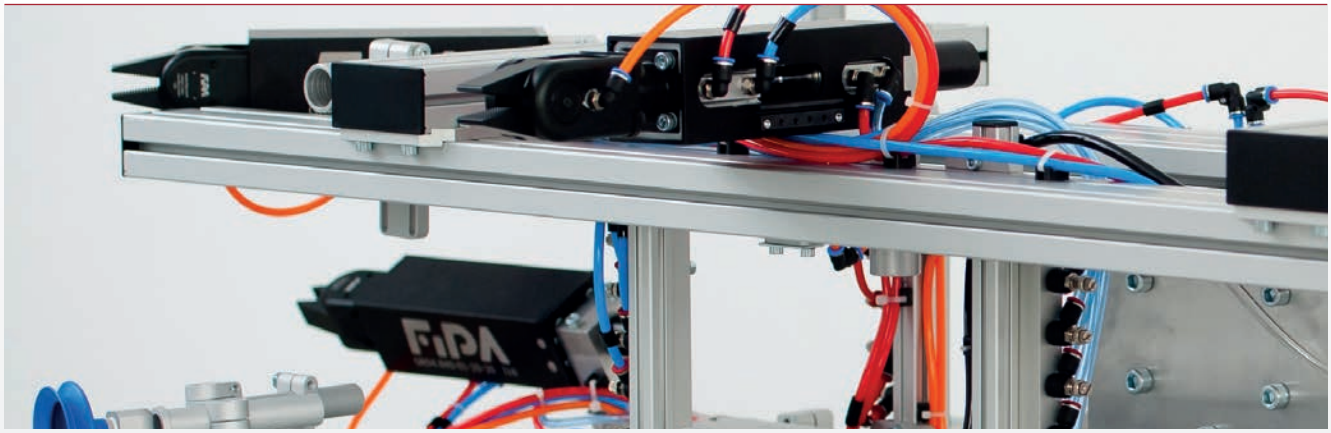
Cutting stations

> FIPA plans and realizes cutting stations for cutting off sprues
> For our extensive range of air nippers and suitable blades please refer to this catalog

Please complete the questionnaire on pageles 462 - 465, so that we can select the optimal product for you.

You can also find and download the questionnaire on www.fipa.com.

FIPA Components for gripper assembly



Suction fingers or vacuum cup fittings

Suction fingers, rigid

Suction fingers, rotatable

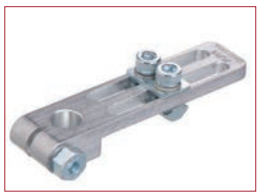
Suction fingers, spring-loaded, rotatable, with anit-twist protection

Adjustable vacuum cup fitting

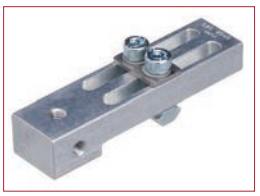
Application example

Extrusions and connectors

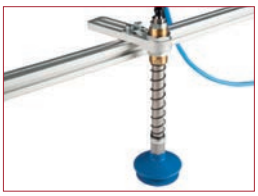
Extrusion systems / S, M and XLine



Angle clamps



Angle connectors



Application example

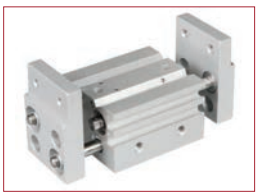
Application example

Active gripping elements

Grippers

ID grippers

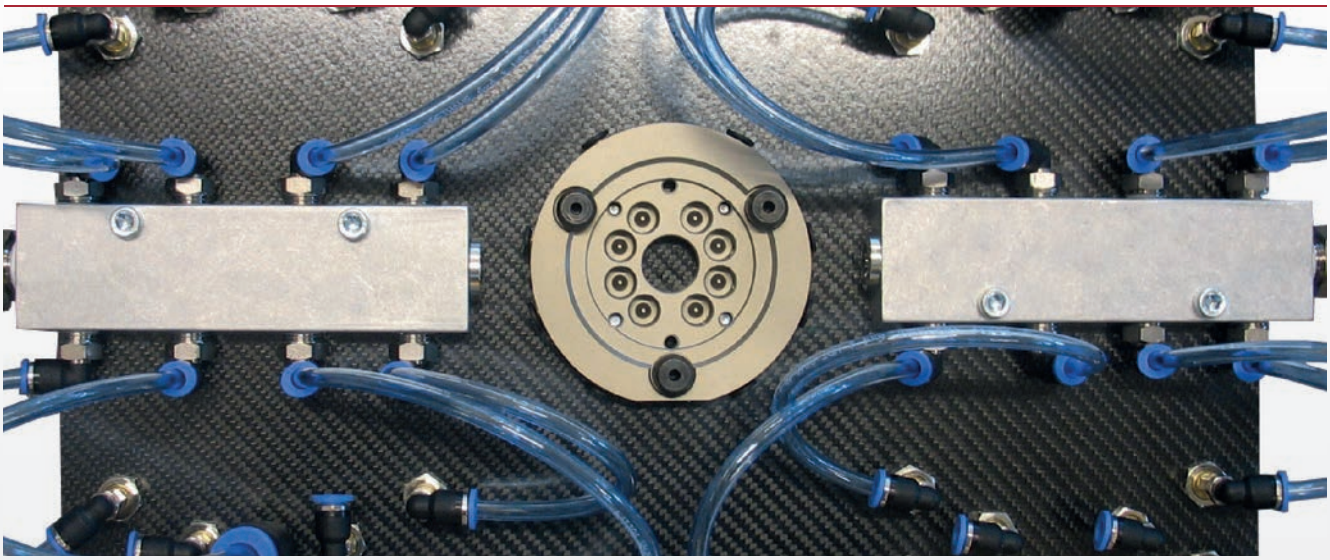
Finger grippers



Parallel grippers

Needle grippers

FIPA Plate-based gripper systems



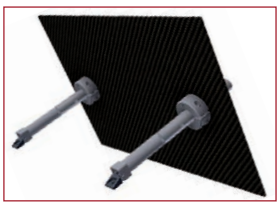


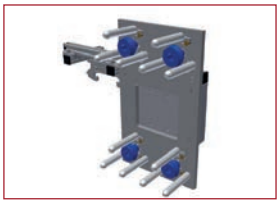
Plate-based gripper systems made of aluminum or carbon fiber (CFK)

Properties

> Simplified gripper construction reduces costs and weight compared to extrusion-based systems
> Connecting elements such as angle clamps or profile connectors can be omitted
> Lower total weight enhances gripping dynamics and reduces current consumption

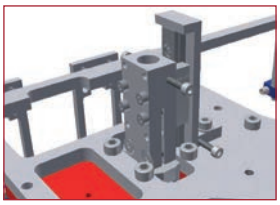
Example 1 – Tool for gripping a two-component part

> Four parallel grippers
> Linear guiding block
> Four customized centering plates
> Quick-change system
> Holder for harting plug



Example 2 – Tool for gripping a cylindrical part

> Four vacuum cups made of vinyl
> Twelve POM centering pins
> Quick-change system
> Holder for harting plug



Example 3 – Tool for gripping an electronic part

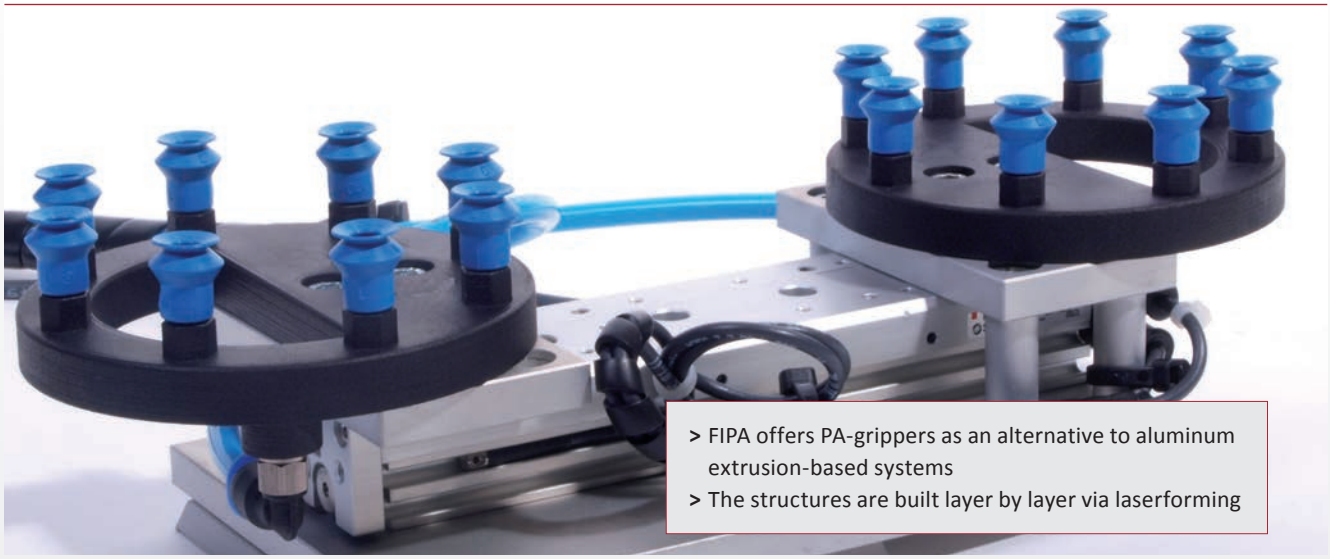
> Four grippers on guide blocks
> Six parallel grippers
> Quick-change system

Clamping rings

> Mounting gripper components with a shaft to plate-based EOAT

Larger grippers can be realized by combining extrusions and plates:
> Extrusions for supporting structure
> Plates for integration of gripper components

FIPA Grippers based on polyamide (PA) laserforming



> FIPA offers PA-grippers as an alternative to aluminum extrusion-based systems
> The structures are built layer by layer via laserforming

Properties of PA-grippers

> Realization of special gripping tools in quantities of one or more
> Use of PA-components reduces weight and increases gripping dynamics
> Adjustment to workpiece contour enables high accelerations and gentle handling of sensitive products
> Vacuum or air channels integrated into the material minimize piping and complexity and enable space-saving installation
> High-performance PA-material approved for direct food contact
> Combining aluminum (support structure) and PA (custom gripper geometry) extends range of applications

Example 1

> Modular grippers for chocolate bars for use with Delta Robots
> Flexible gripper fingers for gentle product handling

Example 2

> Modular gripper for short duty cycles
> Integrated ejector EMM and Varioflex® bellows vacuum cup for height compensation

Example 3

> Modular gripper for cans
> Gripper design follows the contours of the can and thus enables high accelerations

> Using PA-grippers reduces weight by up to 70 % compared to conventional systems!
> We will be happy to develop your customized gripper solution!