

engineering innovations
worldwide



Manipulators + Carts Collection

esmo
semicon

esmo semicon manipulators, carts, and test floor equipment – top cost | performance ratio for most reliable testing

All esmo semicon manipulator products come with standardized features for easy integration into all test floor environments, including engineering, wafer sort, and final test, with all test system and mating equipment types. Upon request, optional features are available for specific test cell and mating equipment requirements.

esmo design specialists can develop individual solutions for adapting and integrating test head manipulators and mechanical interfacing systems into test cells for front-end and back-end testing. Based on an extensive determination and definition of requirements in collaboration with the customer, esmo provides comprehensive services, from selecting suitable equipment to completely new designs, to create optimized and highly efficient test cells.

quick and easy test head installation

arm systems with left or right set-up options

official certifications ensuring first-class quality

active cable management for optimized handling

motorized or manual operation options for all motions

modular configurations catering to individual requirements

configurable for all test heads with minimized footprint

esmo force control system guarantees high-level safety for operators and equipment

esmo's all in one service | packages

Specialized and experienced staff to provide excellent design and technical support.

Reduction of inadvertent damage to testing hardware caused by operating errors.

Smart design, high-quality production, state-of-the-art products, virtually maintenance-free.

Quick return on investment, reduced set-up times, increased test yields, and long-term value.

Exceptionally short design and lead times plus customized installation/training services.

ideal solutions tailored to meet your specific needs

Universal Manipulators

leto

universal test manipulator
up to 90 kg / 198 lbs
for prober and handler
docking with lowest possible
floor space



- large range of motion in relation to manipulator size
- easy motion for all linear and rotatable motions
- designed as per customer specifications
- several upgrades like rotation gear / keyboard and pc holder possible

lightweight
tailor-made
design

pegasus

universal test manipulator
up to 160 kg / 353 lbs
for prober and handler docking



- easy motion for all linear and rotatable motions
- high range of motion in x / y-axes
- durable + robust design
- optimized footprint for various small test heads
- several linear- and rotate motions available
- several upgrades like keyboard and pc holder possible

small +
convenient
solution

ikarus

universal test manipulator
up to 300 kg / 661 lbs
for prober and handler docking



- easy motion for all linear and rotatable motions
- motor-assisted motion for z-axes + twist axes available
- different swing configurations possible
- different linear footings available
- durable + robust design
- optimized footprint for various test heads
- several linear- and rotate motions available
- several upgrades like rotation gear / keyboard and pc holder

bestselling
manipulator

kronos

universal test manipulator
up to 400 kg / 882 lbs
for prober and handler docking



- easy motion for all linear and rotatable motions
- motor-assisted motion for z-axes, twist axes + tumble axes available
- different linear footings available
- durable + robust design
- optimized footprint for various test heads
- several linear- and rotate motions available
- several upgrades like rotation gear / keyboard and pc holder possible

durable +
robust design

esMP4 plus

universal test Manipulator
up to 450 kg / 992 lbs
for prober and handler docking



- easy motion for all linear and rotatable motions
- motor-assisted motion for z-axes, twist axes and tumble axes available
- column rotation for maximum range of motion (90°-360°)
- durable + robust design
- optimized footprint for various test heads
- several linear- and rotate motions available
- several upgrades like rotation gear / keyboard and pc holder possible

easy motion
easy handling

Universal + Final Test Manipulators

orion

universal test Manipulator
up to 500 kg / 1102lbs
for prober and handler docking



- various linear footings available
- motor-assisted motion for z-axes / x-axes and twist axes available
- different swing configurations possible
- durable + robust design
- several linear and rotate motions available
- several upgrades like keyboard and pc holder possible

multi-directional movings

pallas

universal test manipulator
up to 750 kg / 1651 lbs
for prober and handler docking
docking with
lowest possible floor load



- no counterweight – floorload reduction up to 40%
- motorized motion for z-axes / x-axes and twist axes
- force feedback control ensuring operator safety + protecting equipment
- durable + robust design
- optimized footprint for various large test heads
- several linear- and rotate motions available
- several upgrades like keyboard and pc holder possible

next generation manipulator

neptune evolution

hinge Manipulator
up to 650 kg / 1433 lbs
for prober docking



- with motorized motion for z-axes and hinge axes
- one button control for easy operation
- full automated work sequences + individual docking height settings
- password-protected control options for operator + docking modes
- durable + robust design
- several linear- and rotate motions available
- several upgrades like keyboard and pc holder possible

strong hinge with z-axis

ares

final test manipulator up to
250 kg / 551 lbs
for handler
docking with
lowest possible floorload



- motorized motion for z-axes – no counterweight
- force feedback control ensuring operator safety + protecting equipment
- durable + robust design
- optimized footprint for various test heads
- several linear- and rotate motions available

docking with lowest possible floorload

ares plus

final test cart
up to 500 kg / 1102 lbs
for handler
docking with
lowest possible floorload



- motorized motion for z-axes – no counterweight
- force feedback control ensuring operator safety + protecting equipment
- durable + robust design
- optimized footprint for various test heads
- several linear- and rotate motions available

docking with lowest possible floorload

ideal solutions tailored to meet your specific needs

phoenix cart

final test cart up to
250kg / 551 lbs

for handler

docking with lowest possible
floor space



- effective solution for DUT horizontal and vertical docking
- mobile design with manually driven z-axes
- floating test head mounting by automatic spring system
- several linear- and rotate motions available
- several upgrades like keyboard and pc holder possible

lupo cart

all-in-one for
transport | installation | handling



- mobile and multi-functional lifting / handling unit
- effective handling / manually lifting solution for handler equipment
- quick and easy exchange of carrier assemblies

aurora cart

all-in-one for
transport | installation | handling



- wireless, battery powered motor-assisted motion for z-axes
- effective handling / lifting solution for Prober and test head equipment
- quick and easy exchange of carrier assemblies
- multifunctional grippers with quick change system available

engineering carts



- functional assembly + mobile cart for various test head types
- effective solution for engineering
- several upgrades like rotation gear / keyboard and pc holder possible

trolleys | test floor equipment



- facilitating assembly + transportation
- preventing potential damage
- flexible cable guiding

here for you, wherever you are:
 worldwide sales + service network



**esmo Europe
 Rosenheim**

esmo AG
 Brueckenstrasse 1
 83022 Rosenheim
 Germany

P +49 (8031) 233 88 0
 F +49 (8031) 233 88 10

sales@esmo-ag.com

**esmo USA
 Sacramento**

esmo USA Corp.
 1020 Winding Creek Road
 Suite #120
 Roseville, California 95678
 USA

P +1 (916) 307 6345
 F +1 (916) 307 6341

sales@esmo-usa.com

**esmo Asia
 Singapore**

esmo Asia Pte. Ltd.
 115 Eunoz Avenue 3
 #05-03
 Singapore 409839
 Singapore

P +65 (656) 288 57
 F +65 (656) 288 60

sales@esmo-asia.com

**esmo China
 Shanghai**

esmo Asia North Co. Ltd.
 Building 5-6 N. 388 Xin Run Rd.
 Xin Qiao Industrial Zone
 Song Jiang District
 201612 Shanghai · China

P +86 (21) 5768 7228 + ex. 201
 F +86 (21) 5768 7132

info@esmo-ag.com.cn

**esmo Taiwan
 Zhubei**

esmo TW Ltd. Co.
 9F., No. 247, Dong Sec. 1,
 Guangming 6th Rd.,
 Zhubei City · Hsinchu County
 302044 · Taiwan (R.O.C.)

M +886 932-290-662
 M +886-988-313-705

sales@esmo-asia.com