



ROMHELD

AUTOMATION



PRODUCTS GUIDE

AUTOMATION EQUIPMENT

- Gripper Systems • Linear & Rotary Systems
- Robot Tooling & End Effectors • Fastening & Finishing Systems
- Die Clamping & Quick Change Systems

PRECISION WORKHOLDING SOLUTIONS

- Clamps • Cylinders • Fixture Components
- Chucks • Vices • Mandrels

MACHINE TOOLING & ACCESSORIES

- Lathe Tooling & Accessories
- CNC Milling Tooling & Accessories



Dear Customer,

Please browse through this catalogue which outlines the comprehensive line-up of automation, CNC tooling and workholding products that we distribute exclusively throughout Australia and New Zealand.

Our aim is to offer proven, leading edge products from the world's technology leaders so you have confidence in applying them into your machines, equipment or processes. Please do not hesitate to contact us should you require any further information or assistance in relation to any of the products outlined herein.

We look forward to the next time we can support you with our 'Proven Productivity' products.

*Peter Hope
General Manager*

A unique Australian company.

Established in 1995, Romheld Automation has become the premier source for quality automation, workholding, CNC and robot tooling systems throughout Australia and New Zealand. We offer products with leading edge technology to enhance the productivity within our customers manufacturing processes.

We market our automation products to line builders, robot integrators, machine shops, toolrooms, fixture builders and machine tool companies. We support our end-user customers with technical solutions, advice and spare parts etc.



Experience you can trust.

We represent many of the world's leading manufacturers of automation, CNC tooling and workholding systems. These suppliers have each built an enviable reputation for quality and precision which is reflected in their market leading positions and broad acceptance in our local manufacturing industry.

Our people are regularly sent overseas for factory training and themselves have broad local industry experience in toolmaking, engineering, automation and project management.

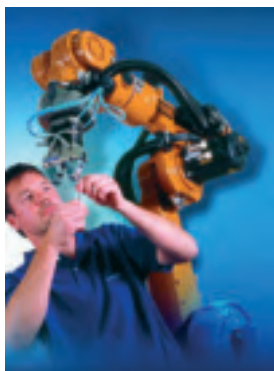


Australia's trusted range of CNC tooling products.

We offer a comprehensive range of chucks, vices, mandrels and clamps along with toolholders, angle heads, VDI tooling and CNC accessory products to improve productivity in the machine shop.

Brands such as Hainbuch, Roemheld, Schunk, Heimatic and Hilma are extensively used and specified throughout the automotive, aerospace and general machining sector to provide reliable and trusted performance over the long term.

Our proven productivity products are suitable for use in every machine shop.



A comprehensive range of automation products.

We present the largest range of gripper systems, robot tooling, end effectors and linear systems along with automation support products and systems for consideration by robot integrators, line and machine builders.

Our respected automation brands include ATI, Pushcorp, SAS Automation, Schunk, Tunkers and Unigripper, all of which are deployed across various industry sectors and applications.

Visit our website www.romheld.com.au for direct links to supplier websites where all the latest product information, technical and CAD data can be accessed.

Automation

Advanced Robotic Systems	18
Automation Accessories	22
Connectors for Pressure & Leak Testing	21
Die Clamping/Quick Change Systems	19
Fastening Systems	16
Finishing Systems	17
Gripper Systems	
- Custom	7
- Pneumatic	4
- Hydraulic	6
- Magnetic	6
- Electric	7
- Modular	7
- Unigripper	8
Linear Systems	12
Magnetic Conveyors and Sheet Separators	20
Multi-Spindle & Turret Heads	15
Robot End Effectors	11
Robot Protection – Robosuit	11
Robotic Tool Changers	10
Rotary Modules	14
Servo Spindle Motors	15
Turntables & Index Drives	20
Vision System	15

Clamps and Workholding Systems

Clamps	
- dovetail	33
- electric	25
- hydraulic	24
- pneumatic	27
- magnetic	33
- manual	23
Cylinders	
- hydraulic	24
- pneumatic	27
Expanding Mandrels	34
Fixture Components	23
Hydraulic Pumps & Accessories	26
Lathe Chucks	
- Jaw Type	28
- Collet Type	30
Quick Change Systems	34
Stationary Chucks	31
Vises	32

Tooling & Accessories

Lathe Tooling & Accessories	35
Milling Tooling & Accessories	37

Worldwide Supplier Partners

Pneumatic Grippers

✓ *Proven Productivity*

2-Finger Parallel Grippers



Gripper for small components MPG

- Gripping force from 7N to 330N
- Stroke per finger 1mm to 14mm
- 10 sizes from 10 to 80
- For small and medium-sized components for assembly automation.



Gripper for small components KGG

- Gripping force from 130N to 670N
- Stroke per finger 15mm to 60mm
- 5 sizes from 80 to 280
- Thin gripper with robust T-slot guides



Universal Gripper PGN-plus

- Large gripping force from 125N to 21800N
- Stroke per finger 2mm to 45mm
- 11 sizes from 40 to 380
- Robust multi-tooth guides with high maximum moments (suit applications with long fingers)



Universal Gripper PGN

- Gripping force from 100N to 15100N
- Stroke per finger 2mm to 45mm
- 9 sizes from 50 to 380
- Robust T-slot guides



Universal Gripper PGF

- Gripping force from 240N to 1970N
- Stroke per finger 7.5mm to 31.5mm
- 5 sizes from 50 to 125
- Very good guidance characteristics

IP 67



Sealed Gripper DPG-plus

- High gripping forces from 110N to 6230N
- Stroke per finger 2mm to 25mm
- 8 sizes from 40 to 200
- Robust multi-tooth guides with high maximum moments



Long-Stroke Gripper PFH

- Gripping forces from 510N to 2650N
- Stroke per finger 30mm to 300mm
- 6 sizes from 30 to 300
- For large parts (i.e. alloy wheel rims) and a broad range of workpieces



Long-Stroke Gripper PSH

- Gripping forces from 320N to 1760N
- Stroke per finger 14mm to 64mm
- 4 sizes from 22 to 52
- Sealed round guides for applications in slightly dirty environments

3-Finger Concentric Grippers



Grippers for small components MPZ

- Gripping forces from 55N to 310N
- Stroke per finger 3mm to 5mm
- 3 sizes from 30 to 45
- For small and medium-sized components for automated assembly



Universal Gripper PZN-plus

- Large gripping forces from 250N to 38000N
- Stroke per finger 2mm to 35mm
- 10 sizes from 40 to 300
- Robust multi-tooth guides with high maximum moments for the use of long gripper fingers



Universal Gripper PZN

- Gripping forces from 260N to 16000N
- Stroke per finger 2mm to 25mm
- 7 sizes from 50 to 200
- Robust T-slot guides

IP 67



Sealed Gripper DPZ-plus

- Large gripping forces from 230N to 16800N
- Stroke per finger 2.5mm to 25mm
- 8 sizes from 40 to 200
- Robust multi-tooth guides with high maximum moments

Multi-Finger Grippers



Assembly Gripper ORG

- Gripper for O-Ring assembly from dia 5mm to 150mm
- Process reliability for O.D. and I.D. assembly with just one gripper
- Adjustable opening strokes
- Size 85

Food Industry Grippers



IP 69K



Fresh Food Gripper LMG

- Gripper for handling fresh food and other items requiring extreme hygiene
- Product weights from 0.9 kg to 2.2 kg
- Opening angle adjustable from 20 to 180 deg
- Easy clean stainless steel construction sealed to IP69K
- Size 44 and 64
- Ideal for meats and other fresh produce



Stacking Gripper SG

- Flexible, tough gripper for a diverse range of handling tasks in food & packaging operations
- Max product weight 0.03 kg
- Opening angle per finger 6 and 17.5 deg
- Size 47
- Ideal for the removal of food products from conveyor belts to packaging machines



Angular Grippers



Gripper for small components SWG

- Gripping moment from 0.06Nm to 2.8Nm
- Opening angle per finger 15 degree
- 8 sizes from 10 to 50
- Thin and compact design



Universal Gripper PWG

- Gripping moment from 6Nm to 934Nm
- Opening angle per finger 20 degree
- 4 sizes from 65 to 230
- Robust gripper with spring loaded gripping force safety device



Radial Gripper GWB

- Gripping moment from 2.1Nm to 127Nm
- Adjustable opening angle from 20 to 180 deg
- 6 sizes from 34 to 100
- For areas of application which require short-est possible motion sequences



Sealed Gripper DWG

IP 67

- Gripping moments from 8Nm to 143Nm
- Adjustable opening angle from 20 to 180 deg
- 5 sizes from 44 to 100
- Completely sealed mechanics

Lean Grippers



Gripper LGP / LGZ / LGW / LGR

- Parallel & Concentric Grippers with stroke per finger from 2mm to 13mm and gripping force from 13N to 440N
- Angular & Radial Grippers with gripping moments from 0.11Nm to 7.2Nm
- 19 economical sizes

Grippers with Spindle Interface



- PGN-plus and PZN-plus in sizes 50 to 100
- Standard interfaces HSK-A, Capto C6, etc
- Ideal for machining centres for fully automated loading and without the use of robots.

Gripper Swivel Modules



Swivel Module with Parallel Gripper GSM-P

- Gripping forces from 65N to 270N
- Stroke per finger 4mm to 10mm
- 4 sizes from 32 to 64
- Compact module for automated assembly



Swivel Module with Centric Gripper GSM-Z

- Gripping forces from 55N to 310N
- Stroke per finger 3mm to 5mm
- 3 sizes from 30 to 45
- Flexible adjustment of the swivel angle via steel balls

Clean Room Gripper



Clean Room Gripper DKG RR

- Parallel gripper with integrated pump mechanism for evacuation of contaminants for clean room environment
- Gripping force 30N
- Stroke per finger 3mm

KONEX Modular Gripping System



Konex weight-reduced, modular gripping system for economical assembly & production automation

- Gripping force 100N
- Rotational torque 0.9Nm
- Linear thrust (extending) 250N x 60mm stroke
- Gripper, rotary & linear units are connected with snap-on connectors for quick and easy assembly.
- Suitable for clean environments & light loads

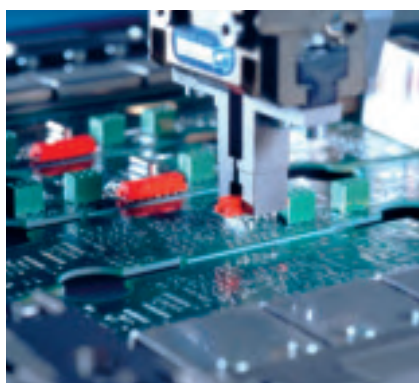
Manually Guided Gripper



Assembly
Sorting
Lab Work

Tweezer Gripper MGM

- Comfortable, ergonomically designed tweezer gripper.
- Exchangeable gripper fingers
- Time controlled gripping cycle
- Powered by micro batteries



Pneumatic Grippers

Compact Class Grippers

NEW



2-finger parallel gripper JGP

- Gripping force from 250N to 1,640N
- Stroke per finger 6mm to 16mm
- 5 sizes from 64 to 160
- Compact, low cost gripper with t-slot guides



3-finger concentric type JZG

- Gripping force from 580N to 6,000N
- Stroke per finger 6mm to 16mm
- 5 sizes from 64 to 160
- Compact, low cost gripper with t-slot guides

Toggle Lock Grippers



Mini type PKS

- Grip force from 8 Nm to 120 Nm
- Holding force from 25 Nm to 380 Nm
- 5 sizes from 16 to 40
- Square, round, threaded & cartridge body types
- Options include;
 - Clamp arms
 - Detection switches
 - Manual lever



Compact type APG

- Grip force from 950 to 1,300 N
- Single and double arm types
- 2 sizes 32 and 40
- Options include;
 - Detection switches
 - Spherical mounting



Compact type PG/PGS

- Grip force from 900 to 1,500 N
- 2 sizes 32 and 40
- Various gripping configurations

Pneumatic Bag Gripper

NEW



- With stainless steel fingers
- For picking from conveyor
- Handles heavy bags of 11kg to 27kg
- For grain, chemicals, powders, granules etc

Hydraulic Grippers



HGH

2-finger parallel gripper with large stroke



HGN

universal 2-finger parallel gripper

UFG

3-jaw insertion gripper

HZN

3-finger concentric gripper



Magnetic Grippers

Magnetic Grab Head Grippers



Pneumatically actuated magnetic grab heads with a permanent magnet system.

- Fine pole versions for picking thin sheets one by one.
- Reinforced version for maximum lifting power.
- Optional spring loaded mounting arm
- Safe – magnet holds even if air pressure is lost

Part Number	Magnet Type	Max Holding Force	Dimensions Dia x Height (mm)	Working Pressure (bar)
TPGC 050014	Fine pole	60 N	50 x 48	2
TPGC 050018	Reinforced	90 N	50 x 63	2.5
TPGC 080014	Fine pole	130 N	80 x 55	2
TPGC 080018	Reinforced	250 N	80 x 70	3
TPGC 100014	Fine pole	410 N	100 x 55	2.5
TPGC 100018	Reinforced	550 N	100 x 70	3
TPGC 130004	Fine pole	900 N	130 x 65	2.5
TPGC 130008	Reinforced	1,100 N	130 x 80	3.5

MagVacu Combi Grippers



Combination magnet and vacuum gripper, pneumatically operated for extra lifting force.

- One gripper can handle various materials (e.g. steel, aluminium, stainless steel, perforated)
- Heavy lifting with combined magnet and vacuum holding force
- Switch from vacuum only to magnet only or a combination of both to suit the application.
- Optional vacuum blow-off valve

Part Number	Dimensions Dia x Height (mm)	Suction Force	Magnet Force	Combined Force
TPMV 040024	40 x 35	50 N	25 N	75 N
TPMV 040028	40 x 55	50 N	40 N	90 N
TPMV 070024	70 x 46	150 N	85 N	235 N
TPMV 070026	70 x 63	150 N	120 N	270 N
TPMV 070028	70 x 80	150 N	165 N	310 N
TPMV 100024	100 x 46	320 N	180 N	500 N
TPMV 100028	100 x 63	320 N	320 N	640 N

Palletising Grippers



- For palletizing or de-palletising
 - Empty steel cans and aerosols
 - Filled and closed steel cans
 - Filled glass jars with steel twist-off caps

- Versions to suit all applications;
 - Standard with mild steel housing
 - Sanitary with stainless steel housing
 - Lightweight with aluminium housing for robotic applications.

- Pneumatically actuated, safe even if air pressure is lost

- Standard pallet sizes 1200 x 800, 1200 x 1000 and 1420 x 1120

- Optional slip sheet handling



Electric Grippers

2-Finger Parallel Grippers



Gripper for small components MEG

- Stroke per finger from 6mm to 10mm
- 3 sizes from 40 to 64
- Step motor drive for flexible force, stroke and speed



Universal Gripper EGN

- Gripping force up to 620 N
- Stroke per finger 10mm
- Gripper with servo motor size 100
- Pre-positioning capability to reduce cycle times



Universal Gripper PG

- Highly precise gripping force control from 30 N to 200 N
- Stroke per finger 70mm
- Size 70
- Fully integrated control and power electronics including various interfaces.



Long Stroke Gripper PEH

- Gripping force control from 200 N to 1150 N
- Stroke per finger 120mm
- Size 40
- Fully integrated control and power electronics including various interfaces.

3-Finger Concentric Grippers



Universal Gripper EZN

- Gripping force up to 500 N
- Stroke per finger 6mm
- Gripper with servo motor size 64
- Prepositioning capability to reduce cycle times

3-Finger Angular Grippers



Gripper for small components SMG

- Gripping force from 12 N to 15 N
- Opening angle up to 7 degree
- Compact, light weight gripper with short cycle times
- Suitable for handling CD's and small components

Servo Electric Packaging Gripper



NEW

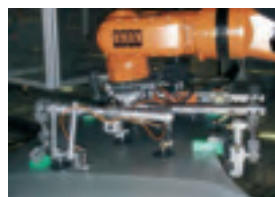


Packaging Gripper LEG-760

- For packing and palletizing applications
- Gripping force max 1,500N
- Stroke per finger 286mm
- Modular drive concept is compatible with all robot controls
- Synchronous and asynchronous operation
- Force and position control via servo motor
- Optional pneumatic drive

Modular Grippers

Automotive Body Shop Grippers



Modular Body Shop Grippers *

Developed for use in automotive body shops these grippers can handle large, heavy components and use re-usable components for lower lifetime gripper costs.

Assemble from comprehensive line-up of standard gripper components including;



- Steel, aluminium and carbon fibre tube with a selection of joiners.
- Gripper clamps, vacuum cups and locating pins.

* Features a crash recovery strategy.

Plastics Industry Grippers



Modular EOAT

Modular end of arm tooling (EOAT) system for handling plastic and other parts.

Re-usable components for lower lifetime gripper costs

Assemble from comprehensive line-up of standard gripper components including;



- Aluminium profiles, clamps & connectors
- Vacuum cups & extension arms
- Sprue pliers and cutters
- Quick change systems
- Cylinders & rotary units
- Pneumatic grippers & gripper fingers
- Vacuum generators
- Kits available

Modular Vacuum Grippers



Modular EOAT

Modular end of arm tooling (EOAT) system using re-usable components for lower lifetime gripper costs

Assemble from comprehensive line-up of standard gripper components including;



- Aluminium profiles, clamps & connectors
- Vacuum cups & extension arms
- Quick change systems
- Cylinders & rotary units
- Pneumatic grippers & gripper fingers
- Vacuum generators

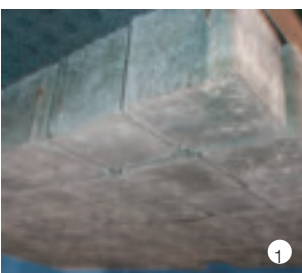
Custom Gripper Systems

Turnkey Custom Grippers

Romheld Automation, in conjunction with it's worldwide and local partners can supply complete, turnkey, custom gripper systems for any application.



- Any part, component or workpiece
- Any industry
- Any robot, loader or handling system
- Any application



1



2



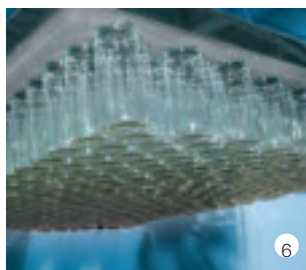
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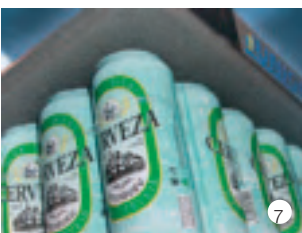
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9

Unigripper – The most effective and universal vacuum tool on the market.

Developed by Tepro Machine & Pac System of Sweden, Unigripper is an intelligent vacuum gripper system that automatically senses the position of products and creates the necessary lifting force where it is needed. Ideal for robot and automated material handling systems, Unigripper provides a flexible, effective and economical solution that is capable of processing a wide variety of work.

In packaging and material handling applications for example, it is often desirable for one gripper to accommodate several different products without re-setting or adjustment. The unique, patented, UniGripper can handle pallets, crates, boxes, barrels, steel plates and corrugated sheets. Items such as bottles, cans, bricks and glasses can be handled in singles, trays or full layers with, or without shrink wrapping.

Suitable for all industries and applications.

Unigripper is widely used in packaging and palletizing operations across all industry sectors. It is also used in general material handling applications where a flexible gripper system can offer increased productivity through its ability to handle various products without the need for any changeover.

Some common applications include;

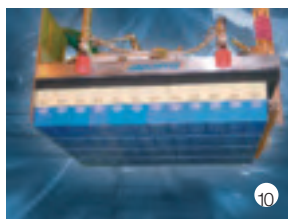
- **Packaging**
- **Jars**
- **Glasses**
- **Cans**
- **Food**
- **Bricks**
- **Timber products**
- **Grocery items**
- **Automotive parts**
- **Consumer goods**
- **Pharmaceutical goods**
- **Windows & doors**
- **Kitchen furniture**
- **Boxes**
- **Wire coils**
- **Paper**
- **Plastic parts**
- **Bottles**
- **Bags**
- **Drums & pails**
- **Sawn Timber**

1. Concrete pavers in full layer
2. Cans of beans in full layer
3. Potato chip tubes in full layers
4. Milk bottles, shrink wrapped in full layers
5. Corrugated, profiled timber products
6. Empty jars in full layers
7. Cans of beer, full or empty in full layers
8. TetraPaks with loose trays or shrink wrapped
9. Heavy cardboard cartons, various sizes in full layers
10. Cardboard boxes in many configurations and layer sizes
11. Portion packs of food in open trays

**Robots
Gantries**

Automated Handling Systems

**Cranes & Hoists
Manual Handling**



10



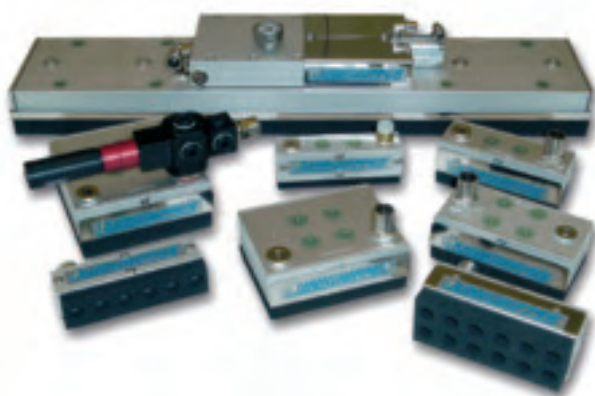
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UNIGRIPPER

Standard Module System (SMS)

Unigripper Standard Module System (SMS) is a compact, space efficient, modular tool-system with a patented valve system inside.

The SMS range is available in two module sizes, 80mm and 120mm, each of which can be banked together to provide larger coverage. Standard lengths are available for quick delivery and custom lengths up to 6 metres can be supplied.



Unigripper SMS—Your new standard !

Unigripper standard module system (SMS) can be supplied with, or without, integrated vacuum generators, or for connection to an external power supply (side channel blower etc).

SMS Features

- Quick-change of gripping surface (Screw-On or Snap-On)
- Vacuum indicator gauge
- Reverse blow function
- Standard lengths and custom lengths to 6 metres

SMS Options

- Valve hole pitch configuration 15/20, 20/20 or 30/30 to suit different product sizes
- Floating attachments and robot mounting interface
- Rubber thickness and grade

SMS Model	Size (mm)	Suction Holes	Lifting Force @ 600 mBar
80/400/20/20-E	86 x 406	76	516 N
80/600/20/20-E	86 x 606	116	787 N
80/800/20/20-E	86 x 806	156	1058 N
80/1000/20/20-E	86 x 1006	196	1330 N
80/1200/20/20-E	86 x 1206	236	1610 N
120/30/20/10	30 x 59	6	40 N
120/45/20/10	121.5 x 49	12	81 N
120/60/20/15	121.5 x 64	12	81 N
120/90/20/15	121.5 x 94	24	162 N
120/120/20/15-E	121.5 x 124	30	203 N
120/200/20/20-E	126 x 206	42	284 N
120/400/20/20-E	126 x 406	114	770 N
120/600/20/20-E	126 x 606	174	1175 N
120/800/20/20-E	126 x 806	234	1580 N
120/1000/20/20-E	126 x 1006	294	1985 N
120/1200/20/20-E	126 x 1206	354	2390 N

Special (Custom) Grippers

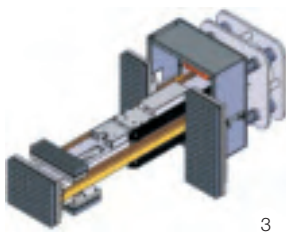
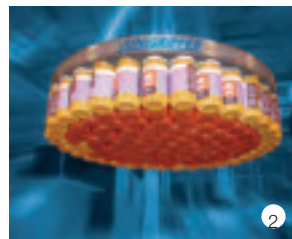
Custom Grippers – A Unigripper Speciality !

Unigrippers project engineers have many years experience in a wide range of handling applications to support design and building of the most cost effective solutions.

Unigrippers can be supplied fully integrated, with floating attachments, robot adaptors, sensors, BUS-systems, interface, pneumatics, electrical and mechanical components.

Unigripper Types

- **Mutlichamber** - with independently controlled zones
- **SideGripper** - with one or more moveable or fixed side supports
- **LayerGripper** - handling full layers with adjustable side supports
- **BottleGripper** - handling full or empty PET or glass bottles
- **CoilGripper** - for all kinds of coils to 2000 kg plus
- **WingGripper** - for auto picking of SKU's into mixed pallets
- **BagGripper** - for handling full bags and sacks
- **TimberGripper** - optimized for wood handling



1. LayerGripper with adjustable side bar supports
2. Unigripper for handling different cans and jars into autoclave
3. WingGripper with 7 different gripping sizes
4. SideGripper, foldable for multi-purposes
5. Unigripper with 8 controllable zones
6. Unigripper SMS handling kitchen furniture parts
7. Unigripper SMS with suction cups
8. CoilGripper for coils of different materials from copper to paper rolls.

Robots - Gantries - Auto Handling Systems



Robotic Tool Changers

✓ **Proven Productivity**

QC- Series



Automatic Tool Changer QC-Series

Quick-Change automatic tool changers provide added flexibility to robot applications by allowing a robot to change end effectors such as grippers and vacuum tooling. Provides air, fluid and electrical pass throughs and can be mounted to all makes/types of robot.

QC Model	Suggested Payload (kg)	Pneumatic Pass Thru s	Weight (kg)
QC-5	8	6 x M5	0.37
QC-11	16	6 x M5	0.21
QC-21	25	8 x 1/8" NPT	0.8
QC-20	25	12 x M5	0.8
QC-40	50	8 x 1/8" NPT	1.7
QC-41	50	6 x 3/8" NPT 4 x 1/8" NPT	2.1
QC-60	75	8 x 1/8" NPT	2.0
QC-71	79	8 x 1/4" NPT	3.1
QC-110	150	8 x 3/8" NPT	5.9
QC-150	200	10 x 3/8" NPT	7.5
QC-300	455	2 x 3/8" BSP	19.1



Gripper Change Systems



Gripper Change System GWS

- Positive pneumatic locking device
- Very compact
- Automatic gripper or tool changer
- Up to 8 internal air ports
- High payload & moments
- Integrated plug connectors for energy transmission up to 380V/25A
- 3 sizes available
- 2 x 18-pin electrical feed-thru's as standard
- Optional storage rack system



Welding & Heavy Material Handling



Automatic Tool Changer for Heavy Duty & Spot Welding Applications

Developed for the resistance welding and medium to heavy duty material handling.

Provides utility (e.g. water, electrical, pneumatic etc) pass-thru via selection of required modules. DeviceNet and high flow modules are available.

Model	Suggested Payload (kg)	Weight (kg)
QC-210	225	7.7
QC-310	455	20.0
QC-510	700	28.0

Plastics Industry



Quick Change Chuck SMW

- Manual actuation via hand levers
- Integrated pneumatic quick disconnect system
- 4 types — 16 models
- Adaptable to every robot



Semi-Automatic Quick Change Chuck SWM

Same features as SMW plus..

- Automatic coupling of air and vacuum lines
- 2 models (7-port or 10-port)
- Adaptable to every robot

Manual Tool Changers



Manual Tool Change System HWS

- Manual actuation
- Compact design
- Payloads to 500N
- 6 sizes to choose from
- Hard coated aluminium housing

Tool Stands



Modular Tool Stands

Build your own tool storage rack based on the number of tools, positioning, orientation and mounting arrangements required.

- Tool stand small (TSS) for ATI QC-5 to QC-21
- Tool stand medium (TSM) for ATI QC-40 to QC-150
- Tool stand large (TSL) for ATI QC-210 and larger

Robotic Crash Protection Device



Protector

- Prevents costly damage to robotic end-effectors resulting from robot crashes.
- Complies with the collision and signals robot to emergency stop, minimizing tool damage.
- 6 models to suit all robots.

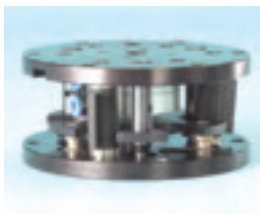


Compensator for Automated Assembly



Compensator - Insertion/Alignment Device

- Allows a robot or assembly machine to compensate for positioning errors.
- Dowel pin insertion, assembly of misaligned and close-fit parts.



Robotic Rotary Joint



Rotary Distributor DDF

- Prevents tangling of cables and hoses during rotation of 6th axis.
- 14 models to suit every robot & application
- 9 sizes from 50 to 380
- Robust T-slot guides



Multi Axis Force & Torque Sensors



Force & Torque Sensors

Six-axis force and torque sensors give robot and research applications the ability to sense forces and moments applied in six degrees of freedom (Fx, Fy, Fz, Tx, Ty and Tz). The transducer mounts behind the application tooling and is connected to its support electronics via a small diameter, high-flex, long life cable.

Applications:

Product testing, biomedical research, polishing, remote manipulators, automated assembly, wind tunnels.

Product Advantages:

- 23 models to suit every application
- Senses any combination of forces and torques.
- Extremely robust—safety factors from 3.85 to 36.0
- Silicon strain gauge sensing elements allow for small size, high overload protection and low noise output.
- Intelligent controllers - Sensor systems available with either RS232 stand alone controller or DAQ (data acquisition) system.

Robot Protection - Robosuit

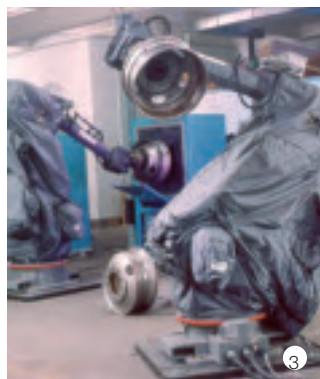
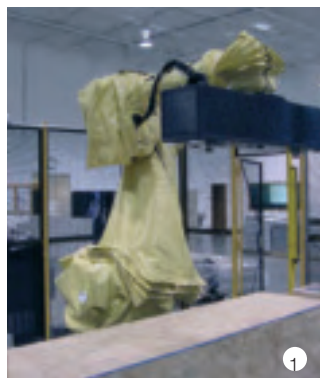
Robot Protection with Uncompromised Flexibility

Today's complex manufacturing processes can place your robotic equipment in damaging environments. A Robosuit from Roboworld will help protect your investment from component failure, reduce maintenance and increase automation uptime.

Robosuit Features:

- Bellows built into the wrist and lower arm unit to permit unrestricted movement over the robot's complete working envelope
- Pockets incorporated for protruding servo motors
- Highest quality materials are used in the construction of each Robosuit™
 - Aluminum Coated Silica Fabric
 - Aluminum Coated Kevlar®
 - DuPont Hypalon® Impregnated Nylon®
 - DuPont Nylon®
 - Laminated Teflon®(PTFE)
 - Silicone Coated Fiberglass
- Flap protected industrial grade zippers extend the full length of each linear piece for quick and easy suit installation and removal
- Integrated heating/cooling options

Any Robot – Any Application – Anywhere



1. Fanuc R2000iA with Hypalon suit
2. ABB IRB 6400 with Hypalon suit
3. Motoman SK120 with Cordura nylon suit
4. Fanuc R2000iB with Hypalon suit

Linear Systems

✓ *Proven Productivity*

Mini Slides



Mini Slide FST

- Strokes from 10mm to 120mm
- Sizes from 6 to 25
- Per size 3 stroke graduations available
- Integrated recirculating ball-bearing guide



Stroke Modules - Pneumatic



Stroke Module PHE

- Strokes from 20mm to 120mm
- Actuation force from 130 N to 430 N
- 3 sizes from 64 to 100
- Double bearing guidance



Stroke Module SLE

- Strokes from 40mm to 250mm
- Actuation force from 259 N to 1135 N
- 3 sizes from 25 to 50
- Stable bearing guide



Hydraulic Slide Units



Hydraulic Slide RS

- Strokes from 50mm to 200mm
- 7 bore sizes from dia 25 to dia 100mm
- Double acting with 4 guide rods
- Operating pressure to 250 bar



Hydraulic Slide RM

- 4 sizes each with 3 stroke lengths
- 4 bore sizes from dia 25 to dia 50mm
- Double acting with 4 guide rods
- Operating pressure to 500 bar



Electro-Mech Linear Units



Electro-mechanical linear units for universal use as electrically operated actuators for linear movements.

- Dynamic lifting force from 1.5 to 8 kN
- Strokes to 1500 mm
- 12, 24 and 36 VDC units



Linear Axes - Pneumatic Drive



Gemotec Type PMP

- Gantry/portals type actuators
- Pneumatic drive
- Strokes to 5000 mm
- Piston forces 100N & 250N



Linear Axes - Direct Drive



Linear Axes with direct linear motor drive MLD

- Modular system with a stroke capacity up to 2700 mm
- Actuation force up to 600 N
- Moment capacity up to 5000 Nm
- For high dynamic applications with a high repeat accuracy
- Accelerations up to 70 m/s²



Linear Motor Actuator MLD 50K/100K/200K

- Strokes to 300mm
- Useful load up to 6 kg
- Repeat accuracy +/- 0.01mm

Linear Motor Actuators

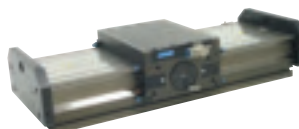
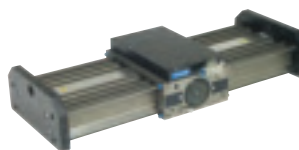
Standard

- Strokes up to 2700mm
- Self-supporting for loads to 20kg
- Supported for loads to 30kg



Heavy Duty

- Self-supported for loads to 30kg
- Supported for loads to 50kg



Type	Strokes To	Moment Load
MLD-T	2.2 m	680Nm
MLD-TL	2.2 m	5000Nm
MLD-TLH	2.2 m	810Nm
MLD-TU	2.7 m	700Nm
MLD-TUL	2.6 m	900Nm
MLD-TULH	2.2 m	900Nm

Linear Axes - Complete Systems



Complete Linear Systems

Complete linear systems designed and built to customer requirements, or build your own from our vast range of linear, rotary and gripper units.



Linear Axes - Electric



Electrical Linear Axes system HSB

- Modular, flexible and universal
- 58 versions
- Ball screw, toothed belt or gear rack drives.
- Strokes up to 7770mm
- Actuation force up to 18,000N

Base Modules:

HSB system is based on two different series of linear axes and a linear table.

- **Beta**
Mechanical linear units available in 10 sizes
- **Delta**
Compact linear units as self-supporting systems. With processed cross sections for more precise applications and double track system for large torque loads.
- **Alpha**
Flat linear tables designed for large forces and torques.

Actuation - Electric



Servo Motor PSM/PDU

- Nominal torque from 0.19 to 142 Nm
- 3 sizes from 70 to 110
- Fully integrated control and power electronics including interfaces
- PDU with integrated precision gear



Linear Axes with Servo Drive



Type PLB/PLS

- Stroke from 60 to 1200 mm
- Actuation force from 180 N to 3990 N
- Moment capacities up to 2280 Nm
- 3 sizes from 70 to 110
- High dynamic servo drive with different interfaces.

PLB with toothed belt drive

PLS with recirculating ball-bearing spindle



Lifting Units



Lifting Units

- Manual-hydraulic, pneumatic-hydraulic or electro-hydraulic actuation
- Strokes from 200 to 600 mm
- Lifting force up to 6 kN
- Synchronisation control option for electric units



Duplex Lifting Unit

- Hydraulic, pneumatic or electrical actuation
- Strokes from 200 to 600 mm
- Lifting force from 5 kN to 10 kN

Telescopic Lifting Units

- Electric actuation (AC motor)
- 4 models with stroke lengths from 340 to 940 mm
- Lifting force up to 2.5 kN
- Ideal for controlled lifting and lowering in automation and applications where motor driven height adjustment of fixtures etc is required.



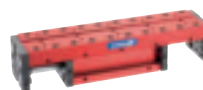
Lifting Table



Lift Table

- Lift unit with crank arm drive for loads to 100 kg, locking in both directions.
- 100 mm stroke
- Pneumatic or electric drive
- Position monitoring, both ends.

Pick & Place Units - Pneumatic & Electric



The Gemotec product range covers pneumatically driven linear, rotary and gripper actuators as well as electrically driven linear axes.

Using the comprehensive range of accessories including assembly elements and adaptor plates, complete multi-axis handling systems can be configured on the basis of a modular concept.



Rotary Modules

✓ *Proven Productivity*

Swivel Units - Pneumatic



Swivel module SFL

- Axial force from 10 N to 50 N
- High torque from 0.12 Nm to 3.9 Nm
- 3 sizes from 25 to 64
- Compact module for easy swiveling tasks to 180 degrees

Miniature Rotary Unit MRU

- Axial force from 280 N to 330 N
- Torque from 0.09 Nm to 1.15 Nm
- 4 sizes from 8 to 14
- Large end position adjustment for varying the swivel angle

Universal Swivel Unit SRU

- Axial force from 800 N to 11,000 N
- High torque from 1.1 Nm to 115 Nm
- 7 sizes from 20 to 63
- 90 or 180 degree versions
- Optional electrical feed through

Swivel Heads - Pneumatic



Swivel Head SRH

- Torque from 0.9 Nm to 67.8 Nm
- Integrated media supply and transmission from BUS and digital signals
- 6 sizes from 20 to 60 with 180 degree swivel
- Modular design with many options

Swivel Fingers - Pneumatic



Swivel Finger GFS

- Axial force from 330 Nm to 3300 Nm
- Torque from 0.64 Nm to 10 Nm
- 4 sizes from 16 to 40
- For turning of workpieces

Heavy Duty Rotators



Rotator/Dump/Swivel Unit KS

- Axial force from 180 Nm to 1300 Nm
- Totally enclosed, self-locking with integrated end position damping
- 5 sizes from 80 to 200
- For rotating, pivoting & swivelling heavy elements into position
- Pneumatic operation at 6 bar max

Electro-Pneumatic Rotary Modules



Masterdrive SRU-MD

- Peak drive torque of 15 N
- Size 40
- Up to 3 intermediate positions
- Control via digital inputs

Rotary Modules Electric



Miniature Swivel Units MRD

- Infinite angle of rotation.
- High torque from 1.2 Nm to 3.6 Nm
- 3 sizes from 4 to 12
- Module with torque motor, integrated rotary distributors



Universal Swivel Unit MPR

- Axial force from 345Nm to 895Nm
- High torque from 7.5 Nm to 142 Nm
- 3 sizes from 70 to 110
- Fully integrated control and power electronics including interfaces



Swivel Tilting Unit PW

- Axial force from 80 N to 200 N
- Torque up to 23 Nm
- 2 independent axes in one module
- 2 sizes from 70 to 90
- Fully integrated control and power electronics including interfaces

Rotary Distributors



Rotary Distributor DDF

- Pneumatic-electrical rotary distributor for stationary applications
- Up to 500 rpm
- Sizes 80 and 120
- Up to 6 pneumatic pass throughs to 10 bar
- Up to 8 electrical signals (max 60V, 1A)



Vision Systems

Camera Sensors

NEW



Camera Sensor type SRV [IP67]

- For complex image processing tasks without additional peripheral equipment
- 2 dimensional analysis of 3-D objects in any position or orientation
- All-in-one unit consists of camera, precision lens, super bright LED lights, electronics, interfaces and powerful software
- User friendly application software

- Applications include;
 - As a “seeing gripper” – optical sensors for pick & place tasks for fixed-position and flexible objects (cables, hoses etc)
 - Completeness and presence monitoring of mechanical components (e.g. pins, rings, nuts, screws, other metal and plastic parts)
 - Pattern search (x, y, rotational orientation 360°, degree of consistency)
 - Periodicity of objects is taken into account
 - Assembly and characteristic monitoring
 - Detection of broken edges
 - Packing monitoring
 - Sorting of defective parts
 - Verification of molded parts
 - Function inspection
 - Fluid levels
 - Closure and label position
 - Print and symbol monitoring
 - Display inspection
 - Tracing of documentation for the purpose of consistent quality control



Multi-Spindle & Turret Heads

Multi-Spindle Drill Heads



Multi-Spindle Heads

- Precision spindles & bearings
- Through tool coolant
- Number of spindles, speed and power according to application requirements.
- For machining centres and special purpose machines.
- Many types to choose from



Turret Heads



Turret Heads

- 2, 3, 4, 6 or 8 station non-lift turrets
- Each spindle independently driven at the working position either via the machine drive or other drive unit.



Servo Spindle Motors

Tool Holding Servo Motors



Tool Holding Servo Motors

Powerful high speed, high torque servo motors accept standard BT30 and BT40 toolholders. With pneumatic collet release for use with robots and automated equipment.

STC-1503-BT30

High speed servo motor 2.2 kW and 15,000 rpm

STC-0605-BT30

High torque servo motor 3.8 kW and 6,000 rpm

STC-0610-BT40

High torque servo motor 7.5 kW and 6,000 rpm

STC-1615-BT30

High torque servo motor 3.8 kW and 16,000 rpm.

STC-0320-BT40

High torque servo motor 13.6 kW and 3,000 rpm

Servo Toolchangers



Servo Toolchangers with collapsing collet

Powerful high speed, high torque servo motors accept tools with round shanks. With pneumatic collet release for use with robots and automated equipment.

STC-3002

High speed servo motor 1.5 kW and 30,000 rpm

STC-1503

High torque servo motor 2.2 kW and 15,000 rpm

STC-0605

High torque servo motor 3.8 kW and 6,000 rpm

STC-0610

High torque servo motor 7.5 kW and 6,000 rpm.



Servo Motors - Manual Collet



Servo Toolchangers with manual ER collet system

Powerful high speed, high torque servo motors accept tools with round shanks of various diameters. With manual collet release.

SM-3002

High speed servo motor 1.5 kW and 30,000 rpm

SM-1503

High torque servo motor 2.2 kW and 15,000 rpm

SM-0605

High torque servo motor 3.8 kW and 6,000 rpm

SM-0610

High torque servo motor 7.5 kW and 6,000 rpm.



Fastening Systems

✓ **Proven Productivity**

Auto Screw & Assembly Systems

SIOGER
AUTOMATION



Hand Screwdriver HST/HS

Hand screwdrivers with telescopic function and automatic screw feeding.

HST 1000

Especially developed for the smallest screws, mainly for manual assembly of modern IT equipment. With push start.

HST 1200

Robust and economical telescope screwdriver for manual assembly. With push start.

HS

With screw advance for easy positioning. With push start. Can be fitted to robots.

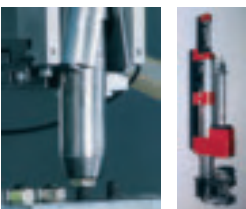


High Capacity Screwdriver SES

- Tool bit change in 10 seconds.
- For transfer lines, rotary table machines, positioning systems, robots and manual work stations.

Vacuum Screwdriver SVS

- Tool bit change in 15 seconds
- For applications where access is poor.
- Version with feeder tube or feeder track
- For transfer lines, rotary table machines, positioning systems, robots and manual work stations.

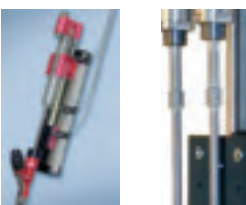


Nut Driver SEM

- Available in 3 versions, with & without auto feeding.
- For transfer lines, rotary table machines, positioning systems, robots and manual work stations.

Economy Screwdriver SML

- With automatic screw feeding
- For transfer lines, rotary table machines, positioning systems and manual work stations.
- Suitable for short screw driving times



Electric Rivet Setter BMS

- For blind rivetnuts and studs
- For use with machines and robots.



Insertion System EPE/HVS

EPE Series

With pressure and distance control for setting pins, studs, rivets & roll pins etc

HVS Series

Manual system for clips including 'Starlock' types



Clinching, Joining & Riveting Setting

TUNKERS



Clinching & Joining

- Mechanical joining of sheet metal components using clinching/pressed joints.
- Incorporates Tunkers multi-point tool sets
- Uses pneumatic power cylinders
- C-frame, machine or robot mount.
- Simple, fully tooling systems.



Setting

- Mechanical joining of sheet metal components using press nuts, punch bolts, set nuts, punch screws and punch rivets etc.
- Uses pneumatic power cylinders
- C-frame, machine or robot mount.
- Simple, fully tooling systems.

Piercing, Forming & Marking

TUNKERS



Piercing & Forming

- Mechanical punching, piercing & forming of sheet metal components.
- Uses pneumatic or hydraulic power cylinders
- C-frame, machine or robot mount.
- Simple, fully tooling systems.



Marking & Stamping

- Mechanical marking and stamping of sheet metal components.
- Stamping units with manual or automatic wheel change.
- Scratch marking units. Marking heads and complete systems with/without linear unit.
- Needle stamping units (portable hand-held dot matrix marking).

Weld Clamps & Pedestals

TUNKERS



Weld Clamps

- Automatic welding clamp with toggle mechanics
- Sizes 63 and 80 with weld forces from 2 kN to 4 kN
- Stroke compensation & soft touch closing action
- Automatic resetting for constant weld force and longer electrode life.
- Operates on 6 bar compressed air.



Pedestal Weld Gun

- Fully enclosed power unit based on 1:10 toggle mechanism force intensification.
- On board transformer.
- Optional swivel unit for tip dresser
- Central equalizing cylinder
- Integrated pneumatic controls for rapid/slow stroke and for weld tip equalization.



Robotic Deburring Tools

Flexdeburr

- Radially compliant deburring tool for robots and CNC's.
- 5 models to choose from
- Ideal for removing parting lines & flash from castings

Flexfinish

- Axially compliant finishing tool for robots.
- 3/8" chuck suits various tools (abrasive brushes, wire brushes, sanding discs etc)
- For aluminum, plastics, steel etc.

Speedeburr

- Axially compliant deburring tools for robots and CNC's.
- For deburring and chamfering
- Free floating piston design



Compliant Force Tools

Compliant Force Tools

- Enables robotic equipment to perform delicate grinding, sanding and polishing operations.
- Adjustable force control with feedback via force control unit (FCU).
- Active and passive versions
- Linear compliance to 40 mm
- Robot mounted and table top versions.



Glass Grinding

Servo Glass Grinder

- Designed to radius the edges on flat glass blanks.
- Precise speed control.
- 9 kW high torque servo motor
- Integral water cooling jets
- Mounts on compliant force tool for adjustable force control.
- 5,000 rpm max (reversible)
- Suits dia 150 mm diamond wheels



Grinding

Controlled Grinding

- Adjustable force control via compliant force tools and force control unit.
- Precise speed control from high speed, high torque servo motors.
- Automatic tool changing system (standard BT30/40 or straight shank tools).
- For grinding, fettling, deburring, weld blending etc.



Finishing, Polishing & Deburring

Controlled Polishing

- Adjustable force control via compliant force tools and force control unit.
- Precise speed control from high speed, high torque servo motors.
- Automatic tool changing system (standard BT30/40 or straight shank tools).



Routing & Drilling

Controlled Routing

- Adjustable force control via compliant force tools and force control unit.
- Precise speed control from high speed, high torque servo motors.
- Automatic tool changing system (standard BT30/40 or straight shank tools).



Wet Sanding

Wet Sander

- Adjustable constant force control via active compliant force tool and force control unit.
- Precise speed control from high speed, high torque servo motors.
- Rugged, water resistant design.
- Integral water supply.



Weld Shaving

Weld Shaver

- Adjustable force control via compliant force tool and force control unit.
- 2.8 kW servo motor- 1,600 rpm
- Uses dia 6" slotting cutter
- Chip removal via vacuum tube
- Removes weld beads



Servo Beltstand

Servo Beltstand

- Adjustable force control via compliant force tool and force control unit.
- High torque servo motor.
- Uses 2", 3" and 4" contact wheels x 132" belt media.
- Remote belt media tracking.



Disc Manager

Disc Manager

- For applications where automatic abrasive disc changing is required
- 30 disc capacity.
- Disc change in less than 8 secs.
- Accepts 4" to 7" discs in any mix.
- Load discs safely from outside the workspace.



Die Clamping/Quick Change Systems

Optive Clamping



- Wedge clamps
- Ledge clamps
- Hollow piston cylinders
- Spring clamping cylinders
- Swiveling clamping cylinders
- Clamping cylinder pivot/swing

Mechanical Clamping



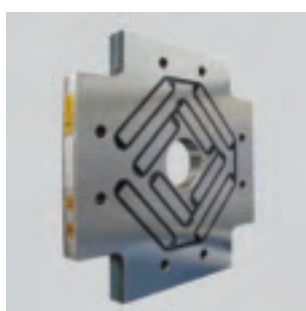
- Mechanical clamping blocks with high pressure spindle
- Clamping nut, hydro-mechanical
- Clamping nut with T-slots
- High pressure spindle
- Sliding clamp with T-slot

raulic Clamping



- Angular clamps with T-slot adaptor
- Clamping block—angular clamp
- Clamping block - sliding clamp
- Hollow piston cylinder with T-bolt
- Hollow piston cylinder - spring clamping
- Rapid clamping system with mechanical lock - double acting

Magnetic Clamping



M-TECS Power Die Clamping for the Plastics & Rubber Industries.

- M-TECS 130 for thermoplastics up to 130 degree C
- M-TECS 210 for elastomer & duroplastics up to 230 degree C
- M-TECS die cart
- For presses, injection moulding machines & transfer presses

egrated Clamping



- Built-in piston elements
- Pull clamps double acting
- Pull clamps with T-slot
- Swing clamps
- Swing sink clamps

Power Units



Hydraulic Power Units

- A complete range of hydraulic pumps and power units for every die clamping application

etro Mechanical Clamping



- Angular clamps
- Swing clamps
- Swivel & pull clamps
- Tenon type clamps

Die Changing



Die Changing Equipment

- Roller bars and ball bars for supporting dies into and out of machine/press.
- Roller consoles
- Die carts



Turntables & Index Drives

✓ *Proven Productivity*

Turntables

EXPERT



Trunnion Drives E/ET

- Table dia's from 250 to 1500mm
- Output torque 50,000 Nm max
- Number of stops (indexes) 2 to 24
- C-flange or integrated brake motor



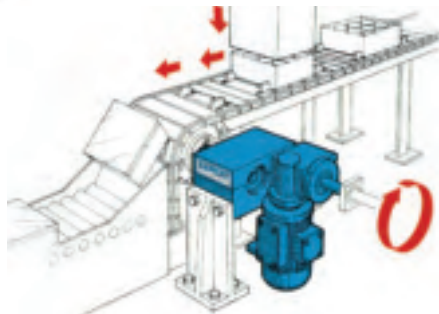
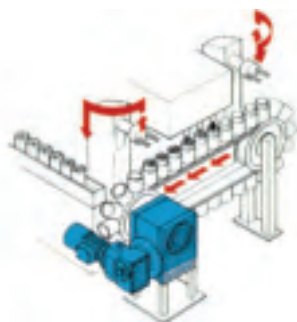
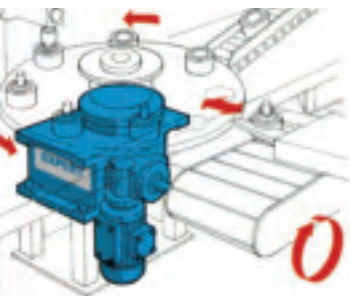
Standard Turntables E/ED

- Table dia's from 195 to 3150mm
- Output torque 63,000 Nm max
- Number of stops (indexes) 2 to 24
- C-flange or integrated brake motor



Heavy Duty Turntables E/ED

- Table dia's from 1650 to 8000mm
- Output torque 100,000 Nm max
- Number of stops (indexes) 2 to 24
- Integrated brake motor



Index Drives

EXPERT



Globoidal Cam Drives EG/EGF

- Shaft centre distance from 80 to 250 mm
- Output torque 10,000 Nm
- Number of stops (indexes) 1 to 10
- Input speed 1 to 500 rpm
- EG for output shaft
- EGF for output flange



Globoidal Turntables EGD

- Shaft centre distance from 80 to 250 mm
- Output torque 4,500 Nm
- Number of stops (indexes) 2 to 12
- Input speed 1 to 500 rpm
- Output flange



Parallel Shaft Drives EP

- Shaft centre distance from 40 to 315 mm
- Output torque 4,500 Nm
- Number of stops (indexes) 2 to 12
- Input speed 1 to 1,000 rpm
- Output shaft or flange

Magnetic Conveyors & Sheet Separators

Magnetic Conveyors

EXPERT



Goudsmit magnetic conveying systems specialize in the transportation of all ferrous products for the tin can, canned goods, metal and steel goods and automotive industries.

In addition to complete transport systems, Goudsmit also supplies individual stainless steel components for application in self-constructed transport systems.

Magnetic conveying systems include;

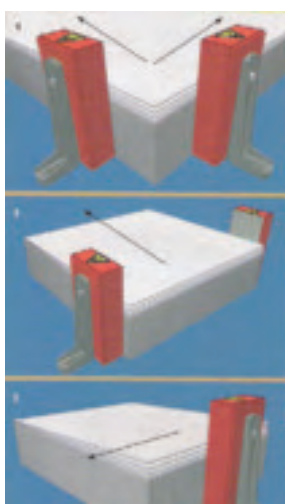
- **G-lowerator** accommodates various can heights with a smooth and quick operating process
- **Rails, rollers & specials**, as individual conveyor components
- **Matt conveyors** in single line and mass configurations
- **Magnetic conveyors** in sanitary stainless steel



Sheet Separators

EXPERT

Powerful magnetic sheet separators loosen and separate sticky or oily steel sheets one by one.



- Prevent tool and die damage by eliminating double blank problems.
- Separates sheets of almost any length, width or shape, including round and asymmetrical products.
- The permanent magnetic power does not decrease and is guaranteed for several decades.
- CE-safe version dedicated to separating tailored blanks in the automotive industry.
- Ideal for press lines, stamping plants, robot handling, blanking lines etc.



Quick Connectors for Pressure & Leak Testing

Connectors for Internal Threads



Type TW17

For hydraulic, pneumatic and pressure testing on components with internal threads.

- 8 body sizes
- Manual lever, push button or pneumatic actuation (semi/full automation)



Type TW19

For hydraulic, pneumatic and pressure testing on components with internal threads.

- 6 body sizes
- Manual lever actuation



Type TW05

For function and pressure tests on components with internal threads

- 6 body sizes
- Pull back sleeve actuation



Type MIT

Screw-in connector for pressure & vacuum tests on components with internal threads.

- 6 body sizes
- Screw-in sleeve actuation

Connectors for External Threads



Type TW18

For hydraulic, pneumatic and pressure testing on components with external threads.

- 3 body sizes
- Manual lever actuation



Type MET

Screw-on connector for pressure & vacuum tests on components with external threads.

- 6 body sizes
- Screw-on actuation



Universal for Threads, Unions & Tubes



TW800 Vacuum to 50 bar
TW850 Vacuum to 630 bar

Type TW800/TW850

For function and pressure tests on components with a bead, rim, collar, flange, stub or external thread.

- TW800 = 8 body sizes
- TW850 = 4 body sizes
- Pull-back sleeve actuation
- Ideal for testing pressure vessels, compressors, cooling systems, hose ends, tubes & pipelines



Max 350 bar

Type TW130

Specially designed for testing components with banjo tube connections & hose connections with sleeve nuts..

- 2 body sizes
- Push button actuation
- 4-station version available

Vacuum to 35 bar



Type FE

For pressure & vacuum tests on straight tubes, hoses and components with external threads.

- 6 body sizes
- Pneumatic actuation
- For fixture mount & automated applications

Vacuum to 9 bar



Type FI

For pressure & vacuum tests on straight tubes, hoses and components with internal threads.

- 8 body sizes
- Pneumatic actuation
- For fixture mount & automated applications

Vacuum to 100 bar



Type 141

For pressure tight connections on straight tube

- 8 body sizes
- Tube dia's from 3.5 to 22.2 mm
- Hand lever actuation



Vacuum to 70 bar

Type JXL

For pressure & vacuum tests on straight tubes

- 2 body sizes
- Tube dia's from 3.2 to 22.2 mm
- Hand lever actuation
- Suitable for underwater, pressure decay & helium testing



Type JNL

For pressure & vacuum tests on straight tubes and bores

- 2 body sizes
- Tube dia's from 9.5 to 31.8 mm
- Hand lever actuation

Automation Accessories

✓ *Proven Productivity*

Static Eliminators

VESSEL

Compact unit SDJ-02R

- Small lightweight unit ideal for mounting on unloaders to eliminate static on plastic moulded parts
- 24 VDC power supply

Wide blow type SDJ-03R

- Ideal for eliminating static on plastic sheets/films and plastic parts in bowl feeders etc
- 24 VDC power supply

Benchtop fan type SDJ-05R

- For static control in electronic assembly work areas, processing and filling plastic food containers etc
- Stable ionic air with ion balance of +/- 5V

Gun/Wide blow type SDJ-06R

- Ergonomic hand held unit for a wide range of static removal applications
- 24 VDC power supply

Coupling Systems

ROEMHELD

Automatic Coupling Systems

- For transfer of hydraulic pressure to equipment that is required to be connected and disconnected
- For single & double acting elements to 500 bar.

Coupling Elements

- Built-in & threaded body types.
- For transmission of compressed air or hydraulic media to 500 bar.
- Simple & compact design for easy integration to equipment.

Multi-Couplings

- For oil, water, air & vacuum up to 300 bar.
- Integrated air blast for cleaning.
- 2, 4, 6, 8 & 12 passage versions

Escapements - Pneumatic

SCHUNK

Single Escapement PES

- 15 models
- Integrated position monitoring
- Can be used as a stop cylinder

Double Escapement PED

- 12 models
- Integrated position monitoring

Air Nippers

VESSEL

GT-NS Series

- For automatic machines & fixtures
- 6 body sizes
- Light weight, compact design
- For cutting plastics to dia 10 mm
- Suitable for cutting copper and steel wires
- Mounting screw holes on 5 sides
- Large range of blades

GT-NR Series

- For mounting at any angle
- 7 body sizes
- Compact, round body design
- For cutting plastics to dia 12 mm
- Ideal for cutting sprue gates etc
- Large range of blades

NF Series

- For mounting at any angle
- 3 body sizes
- Light weight, compact size
- For cutting plastics to dia 3 mm
- Ideal for use in gate cutting devices
- Large range of blades

NY Horizontal Slide-off Series

- Horizontal slide type
- 16 models
- Adjustable slide stroke (0-3mm)
- For cutting plastics to dia 5 mm
- Ideal for use on chuck plates
- Large range of blades

NT Vertical Slide-off Series

- Vertical slide type
- 16 models
- Adjustable slide stroke (0-3mm)
- For cutting plastics to dia 5 mm
- Ideal for mounting to gate cutting robots
- Large range of blades

NB Large Slide-off Series

- Horizontal slide bracket type
- 5 models
- Adjustable slide stroke (0-10mm)
- For cutting plastics to dia 10 mm
- Ideal for mounting to gate cutting robots
- Large range of blades



Manual Clamps & Fixture Components

One-Touch Clamps



Mini Series

NEW

- Swing clamps
- Swing clamp with cam handle
- Swing clamps with torque control
- Retractable clamps with cam handle
- Retractable clamps with adjustable handle

Standard Series

- Swing clamps
 - Clamp range up to 1.8mm
 - Clamp force up to 1,200N
- Pull clamps
 - Clamp range up to 2mm
 - Clamp force up to 2,500N
- Side clamps
 - Clamp range up to 2mm
 - Clamp force up to 4,000N
- Push Clamps
 - Clamp range up to 2.5mm
 - Clamp force up to 1,200N

Heavy Duty Series

- Swing clamps
 - Clamp range up to 1.6mm
 - Clamp force up to 6,000N
- Pull clamps
 - Clamp range up to 2.5mm
 - Clamp force up to 8,000N
- Snap clamps
 - Clamp range up to 2.5mm
 - Clamp force up to 8,000N

Snap Clamps

- Simple One-Touch operation
- Hold-down and side clamp versions
- For assembly, inspection, welding and light cutting fixtures.

Power Tool Actuated Clamps



- Actuate with impact wrench or nut-runner
- Swing and swivel clamps
- Clamp force 6,000N and 10,000N
- Manual and robotic application

Standard Fixture Parts

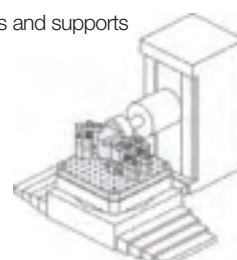


- Toe and side clamps
- Cam clamps
- Block push clamps
- Hook clamps
- Clamp straps
- Stops and stop buttons
- Work supports
- Screw jacks
- Contact bolts

Modular Fixture Parts



- Sliding units
- Clamp assemblies
- Quick lock risers and buttons/screws
- Stops and locators
- Screw jacks
- Locators and supports



Wedge Clamps



Low cost, low profile wedge clamps for economical work holding fixtures.

- Designed to fit between parts to be processed.
- Simple clamping via hex wrench.
- Compact sizes with clamp forces up to 150kN
- Versions and sizes for all applications
- Various contact surface options

Spring Pins



Low cost lateral spring pins for locating and clamping.

- 5 body sizes with forces up to 300N
- Screw-in or press-fit body styles
- Selection of pins types and materials
- Versions with different functions

Hydraulic Clamps & Clamp Cylinders

Hydraulic Cylinders



Hydraulic Cylinders

- Double acting up to 200 bar
Bores from dia 16mm to dia 80mm
Strokes up to 1,200mm
- Double acting up to 250 bar
Bores from dia 25mm to dia 80mm
Strokes up to 1,200mm



Universal Clamping Cylinders

- Threaded body up to 500 bar
Bores from dia 16mm to dia 63mm
- Universal single acting up to 500 bar
Bores from dia 10mm to dia 50mm
- Universal double acting up to 400 bar
Bores from dia 25mm to dia 63mm



Low-Block Clamping Cylinders

- Single acting up to 500 bar
- Spring return
- 3 bore sizes from dia 16mm to dia 36mm
- Clamp force up to 40kN



Threaded Body Cylinders

- Single acting up to 500 bar
- Spring return
- Bore sizes from dia 8mm to dia 32mm
- Clamp force up to 40kN



Threaded Body Clamping Cylinders

- Single acting up to 500 bar
Bore sizes from dia 8mm to dia 32
- Double acting up to 500 bar
Bore sizes dia 16mm to dia 40mm
- Various types to choose from



Hydro-Cylinder with Locking Piston

- Single acting up to 500 bar
- Spring return
- Threaded body, block & low-block versions



Threaded Body Clamping Modules

- Pull type, anti-rotate up to 500 bar
- Single & double acting
- Ideal for bore clamping applications

Hydraulic Cylinders



Slideway Locking Cylinders

- Single acting up to 500 bar
- Single & double piston types
- Locking force up to 49kN



Block Cylinders

- Single & double acting up to 500 bar
- Bore sizes dia 16mm to dia 200mm
- Clamp forces up to 1,570kN
- Strokes up to 200mm
- Various body materials
- Optional position monitoring



Clamping Elements

- Clamp sleeves for circular guides
- Clamping strips
- Clamping discs
- Clamping rings



Clamping & Supporting Element

- Double acting up to 300 bar
- Wedge design for support
- Clamp force 12kN and 18kN



Position Flexible Clamp

- Double acting up to 250 bar
- Floating jaws
- Separate locking port
- Clamp force 7kN



Hollow Piston Cylinders

- Single & double acting up to 500 bar
- Bores from dia 20mm to dia 80mm
- Pull force to 37.7kN

Hydraulic Work Supports



Hydraulic Work Supports

- For the support of workpieces during processing
- Single and double acting up to 500 bar
- Various operating configurations
- Self-locking versions



Threaded Body Hydraulic Work Supports

- Cartridge style for compact installations
- Various operating configurations
- Self-adjusting



Hydraulic Clamps & Clamp Cylinders

Hydraulic Clamps



Flat Clamp

- Double acting up to 500 bar
- Clamp force up to 23.6kN
- Dome head or swivel contact bolt
- Resistant to weld spatter



Block Clamp

- Double acting up to 160 bar
- Clamp force up to 20.5kN
- Self-locking versions
- Clamping in different directions



Swing Clamps

- Single and double acting up to 500 bar
- Mini, compact and standard body sizes
- Various mounting configurations
- Overload protection
- Full range of accessories



Threaded Body Swing Clamps

- Single acting up to 500 bar
- Cartridge style for compact installation
- Overload protection device
- Full range of accessories



Hinge & Pivot Clamps **NEW**

- Hinge clamps up to 250 bar
 - Various body types
- Slide pivot clamps up to 500 bar
 - Clamp force up to 50 kN
 - Various configurations



Bore Clamps **NEW**

- Double acting up to 350 bar
- Versions with centering function
- Clamps diameters from 7.8mm to dia 46mm
- Various mounting styles



Concentric Clamping

- Variable range external clamping, hydraulic or mechanical to 500 bar
- 2 & 3 point internal clamping, hydraulic to 250 bar
- Parallel slide centering elements to 500 bar
- Collet vices to 250 bar



Hydraulic Valves



Poppet Type ND4

- Directional control valves up to 500 bar
- 2, 3 and 4-way types
- Manual, mechanical and solenoid operated
- Versions with machine tool interlock



Spool Type ND6 and ND10

- Directional control valve
- ND6 up to 350 bar
- ND10 up to 315 bar
- 4/2 and 4/3 types, solenoid operated



Shut-Off, High Pressure

- Lever type up to 500 bar
- Sizes 1/4" BSP and 1/2" BSP



Flow Control Valves

- For pressure up to 500 bar
- Inline in 3 sizes, 2 styles
- Swivel banjo type in 1/4" BSP
- Fully adjustable



Check Valves, Pilot Operated

- For pressure up to 500 bar
- 1/4" and 1/2" BSP sizes
- Inline and manifold versions



Pressure Relief Valve

- For pressure up to 500 bar
- 1/2" BSP inline



Pressure Reducing Valves

- For pressure up to 500 bar
- Versions with check valve
- Inline, threaded body and flange mount



Sequence Valves ND4

- For pressure dependent sequence control
- With check valve up to 500 bar
- 1/4" BSP inline or manifold mount

Electric Clamps



Electrically actuated, fully enclosed power clamps with integrated position sensing. 42V 3-phase motor with hollow drive screw design for up to 3 million cycles.

Hydraulic Pumps & Accessories

✓ *Proven Productivity*

Power Units, Pumps & Valves

ROEMHELD



Power Units—fully equipped

- With valves and electrical controls
- Operating pressures 50 up to 500 bar
- Flow rates from 0.82 to 24 l/min



Hydro-Pneumatic Pumps

- For single and double acting cylinders
- Operating pressure to 500 bar
- Flow rates from 0.85 to 1.5 l/min
- Powered by compressed air.



Manually Operated Pumps

- For single acting cylinders
- Operating pressure to 500 bar
- Flow rates from 0.85 to 1.5 l/min
- Hand or foot pedal operated
- Screw operated unit for small displacement

Hydraulic Intensifiers (Boosters)

miniBOOSTER



In-Line Hydraulic Boosters

For use where it is necessary to increase the output pressure from a given hydraulic system. The patented mini-BOOSTER range of intensifiers are oscillating boosters that compensate for oil loss on the high pressure side.

- Intensification ratios from 1.2:1 to 20:1
- Outlet pressures to 5,000 + bar
- Suitable for oil, water, glycol and most other fluids
- Dual flow, dual media and stainless steel versions.
- Large range of sizes and types for every hydraulic boosting requirement.

Typical flow performance from popular HC2 versions.

Intensification Ratio	Max Outlet Flow (L/min)	Maximum Inlet Flow (L/min)
1.2 : 1	1.2	8.0
1.5 : 1	1.0	8.0
2.0 : 1	0.8	8.0
2.8 : 1	0.6	8.0
3.2 : 1	2.5	15.0
4.0 : 1	2.0	14.0
5.0 : 1	1.6	14.0
6.6 : 1	1.3	13.0
9.0 : 1	0.9	13.0
13.0 : 1	0.6	12.0
20.0 : 1	0.3	12.0

Boost your hydraulic system pressure !



Air Driven Hydraulic Pumps

HEYPAC



GX Series

Double acting, free piston, compressed air driven hydraulic pumps

- 8 models
- Pressure up to 560 bar max
- Flow up to 80 l/min max
- Optional reservoirs, manifolds etc.



KR Series

Double acting, free piston, compressed air driven hydraulic pumps

- 6 models
- Pressure up to 680 bar max
- Flow up to 15 l/min max



Complete Power Units

Complete power units utilize Heypac air driven pumps.

Ideal for OEM use in the machines and equipment you build.

Coupling Systems

ROEMHELD



Automatic Coupling Systems

- For transfer of hydraulic pressure to equipment that is required to be connected and disconnected
- For single & double acting elements to 500 bar.



Coupling Elements

- Built-in & threaded body types.
- For transmission of compressed air or hydraulic media to 500 bar.
- Simple & compact design for easy integration to equipment.



Multi-Couplings

- For oil, water, air & vacuum up to 300 bar.
- Integrated air blast for cleaning.
- 2, 4, 6, 8 & 12 passage versions

Rotary Joints

ROEMHELD



Hydraulic Rotary Couplings

- 1, 2 4 and 6 passage
- Operating pressure 250/500 bar
- With or without leakage oil port
- 20 to 85 rpm
- Mount in centre of rotation

Rotary Valves

ROEMHELD



Hydraulic Rotary Valve Couplings

- 5 to 10 stations
- Operating pressure 500 bar

Lathe Chucks – Jaw Type

✓ *Proven Productivity*

Power Chucks



Rota THW-plus

- Quick jaw change system
- Wedge bar type
- For short stroke cylinders
- Large thru hole and high RPM
- 3-jaw in sizes 165 to 630mm



Rota THW-B

- Quick jaw change system, extra wide
- Wedge bar type
- For short stroke cylinders
- Large thru hole and high RPM
- 3-jaw in sizes 210 to 630mm



Rota THW vario

- Quick jaw change system
- Quickly converts to collet chuck or expanding mandrel
- Large thru hole and high RPM
- 3-jaw in size 215mm



Rota NCD

- Universal chuck
- Wedge bar type
- Conventional top jaws or collet jaws for bar work
- Vary large thru hole and high RPM
- 3-jaw in sizes 130 to 500mm
- 2-jaw in sizes 130 to 315mm



Rota NCF-plus

- With centrifugal force compensation
- High rigidity and precision
- 3-jaw in sizes 185 to 500mm



Rota NC-plus

- Large thru hole
- High TIR and face play accuracy
- 3-jaw in sizes 185 to 630mm



Rota NCK-plus

- High precision, high clamp force
- Wedge hook type
- Large thru hole
- Fully compatible with Kitagawa B-200 series
- 3-jaw in sizes 165 to 315mm

Power Chucks



Rota NCO

- For horizontal & vertical lathes, no thru hole
- Wedge hook type
- High clamp force and long stroke
- Top jaws 1/16" x 90 degree
- 3-jaw in sizes 165 to 500mm
- Sizes 630 to 1000mm upon request



Rota 2B

- For vertical lathes, no thru hole
- Large jaw stroke and high clamp force
- Top jaws 1/16" x 90 degree
- 2-jaw in sizes 165 and 400mm
- Sizes 500 to 630mm upon request



Rota NCR

- Compensating chuck, no thru hole
- With oscillating pairs of jaws
- Precise centering without workpiece distortion
- 6-jaw in sizes 165 to 315mm
- Sizes 400 to 1000mm upon request

Manual Chucks



Rota-S plus

- Quick jaw change system
- Wedge bar type
- High precision, run-out and clamp force
- 3-jaw in sizes 160 to 1000mm



Rota-G

- Quick jaw change system
- Wedge bar type
- Large thru holes
- 3-jaw in sizes 160 to 315mm



Rota Classic-C and Rota Classic-W

- Scroll type, self centering
- 3 and 4-jaw in sizes 100 to 1600mm
- Up to size 3000mm upon request
- 6-jaw options available
- W-type with individually adjustable jaws



Rota Classic P

- Independent type
- 4-jaw in sizes 150 to 2000mm
- Sizes up to 3000mm upon request

Lathe Chucks – Jaw Type

Pneumatic Power Chucks



Rota TP

- Self-contained with integrated cylinder
- Wedge hook type
- For short stroke cylinders
- Large thru hole and high RPM
- 3-jaw in sizes 125 to 350mm
- 2-jaw in sizes 125 to 350mm



Rota EP/TB

- Self-contained with integrated cylinder
- Wedge hook type
- For short stroke cylinders
- Large thru hole and high RPM
- Rota EP 3-jaw in sizes 400 to 1000mm
- Rota TB 3-jaw in sizes 380 to 460mm



Rota EP-LH/TB-LH

- Very large through hole
- Perfect for pipe machining
- Rota EP-LH 3-jaw in size 460mm
- Rota TB-LH 3-jaw in sizes 400 to 1200mm
- 2-jaw on request



Electro-Pneumatic Control Unit

- For control of pneumatic front mount chucks
- Interfaces with machine control
- Controls and monitors chuck functions

Precision Power Chucks



Rota P

- High precision pneumatic chuck
- High T.I.R. and repeatability accuracy
- 3-jaw in sizes 100 to 250mm
- Ideal for hard turning and grinding
- 6-jaw and high speed versions

Special Power Chucks



Not every workpiece can be clamped with a standard chuck - even in combination with customized chuck jaws. With more than 30 years of experience in manufacturing standard and special workholding equipment, SCHUNK is your competent partner for many customized solutions in workholding technology.

Contact us for your next special chucking requirement.



Precision Air Chucks



Guaranteed accuracy from 2.5 to 0.25 micron for precision turning, grinding, boring, milling and measuring.

- 3-jaw in sizes 76 to 305mm
- 2-jaw in sizes 100 to 254mm
- Some models with through bore
- Rotary and stationary applications.

Precision Diaphragm Chucks



Chucks with high radial and axial accuracy.

- Air open/close, with or without diaphragm clamping.
- High rpm's
- Sizes from 76mm to 254mm

B-Top Chucks



- With large thru hole
- High speed up to 6,500 rpm
- Jaw change in less than 1 minute per set.
- Sizes 165mm to 315mm

B-Top 3 Chucks



3-jaw chuck can be converted to collet chuck or expanding mandrel.

- Mando Adapt for internal clamping to 80mm
- Spanntop Adapt for collet clamping to 100mm
- Size 215mm



Order chuck jaws on-line at www.romheld.com.au



Lathe Chucks – Collet Type

✓ *Proven Productivity*

Fronttop Chucks



Nova Modular

- Parallel cylindrical clamping
- Large thru hole for bar work
- Extremely rigid
- Fast, precise collet change system
- Sizes 32 to 140mm



Nova Combi Pull Back

- Axial draw force (pull back)
- Fixed end stop for chucking work
- Fast, precise collet change system
- Suitable for bar work
- Sizes 32 to 140mm



Nova Combi Deadlength

- Radial clamping
- Axial fixed end stop for chucking work
- Thru hole for bar work
- Clamps parts with short collar or shoulder
- Sizes 32 to 140mm

Plus Chucks



TOPlus Modular

- Cast, mineral composite construction
- Unequalled rigidity
- Ideal for hard machining
- 25% greater clamp force
- Sizes 65mm & 100mm



TOPlus Combi Pull Back

- Cast, mineral composite construction
- Pull back clamping
- 25% greater clamp force
- Sealed against contamination
- Size 65mm



TOPlus Combi Deadlength

- Cast mineral composite construction
- Radial clamping without axial movement
- For clamping on short collar or shoulder
- Converts to 'bar chuck' when end stop plate removed.
- Sizes 65 and 100mm

Annual Chucks



Torok

- Quick jaw change system
- Combi-pull back type
- Fast, precise collet change system
- Bar work or chucking
- Size 65mm

Eccentric Chucks



- Eccentric turning in one set-up
- Select concentric or eccentric turning via CNC program
- Fast precise collet change system
- Sizes 32 to 80mm

Shaft Chucks



- Very high clamping forces
- Turning between centres
- Very high cutting speeds
- Fast, precise collet change system

Large Chucks



- O.D. clamping to dia 400mm
- Short set-up time
- Axial pull back against end stop
- Extremely stable construction
- High rigidity and clamping force

2 x 2 Chucks



- For rectangular profiles
- Compensates for material variations
- 4-sided clamping
- Maximum holding power

Collets



Clamp Head Collets

- Precision, segmented, high performance collets
- Serrated or smooth bore
- Soft types for customer machining
- Specials for any profile
- Genuine Hainbuch clamp head collets for all Hainbuch chucks



Stationary Chucks

Hydraulic Jaw Chucks



Rota NCH

- Universal, wedge hook type chuck
- 2 and 3-jaw versions
- Size 140mm



Rota 2BS

- 2-jaw chuck for powerful cutting
- 5 models
- Sizes 125 to 315mm

Automatic Jaw Chucks



Rota TPS

- Wedge hook type
- 3-jaw
- Sizes 125 to 315mm

Manual Jaw Chucks



Rota S-plus

- Quick jaw change system
- Large bore
- Sizes 125 to 315mm

Clamping Force Blocks



KSP/PGS

- Pneumatic, concentric clamping
- 2,500 to 50,000 N clamp force
- Sizes 64 to 250mm



KSP-F

- Pneumatic, one fixed jaw
- 50,000 N clamp force
- Size 160mm



PZS/PZS-D

- Pneumatic, concentric clamping
- 9,000 to 85,000 N clamp force
- Sizes 110 to 250mm



KSH

- Hydraulic, concentric clamping
- 13,000 to 43,000 N clamp force
- Sizes 100 to 250mm



HZS

- Hydraulic, concentric clamping
- 28,000 to 80,000 N clamp force

Hydraulic Collet Chucks



Spanntop Stationary Chucks

- Very high clamping forces
- Fast, precise collet change system
- Extreme rigidity & holding power
- Sizes 32 to 100mm



Hydrok SE

- 25% greater clamp force
- Sizes 65 to 100mm



Hydrok RD

- Pull back type
- Sizes 42 to 100mm
- Accepts mandrel & jaw adaptors

Manual Collet Chucks



Manok

- High performance, precision clamping
- Integrated clamp lever
- Sizes 42 to 100mm



Manok Plus

- High performance precision clamping
- Ideal for 5-sided machining
- Repeatability to <0.01mm possible
- Versions for round and hexagon collets
- Size 65
- Accepts mandrel and jaw adaptor options



Mandrel & Jaw Adaptors



Mando Adapt

- Converts collet chuck into mandrel
- Simple, quick changeover

One Minute Changeover



Jaw Adaptor

- Converts collet chuck into jaw chuck
- Quick changeover
- Drill/mill between jaws

Vises

✓ *Proven Productivity*

Machine Vises



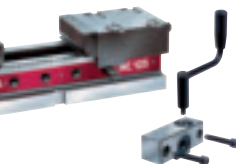
EL mechanical-hydraulic

- Affordable quality and technology
- Clamp forces from 25 to 50 kN
- Large range of jaws and options
- Sizes 100 to 160mm



NC-H hydraulic-hydraulic

- Clamp forces from 25 to 63 kN
- Optional hydraulic power pack
- Sizes 100 to 160mm



NC-M mechanical-hydraulic

- Minimum effort via crank handle
- Clamp forces from 25 to 50 kN
- Sizes 100 to 160mm



KNC mechanical-hydraulic

- Premium, powerful, high precision vice
- Large capacity, compact design
- Universal, horizontal & vertical application
- Clamp forces from 25 to 50 kN
- Sizes 100 to 160mm

Axis Machining



These vises offer optimum access for 5-axis and multi-side machining.

MC

- Standard and concentric clamping versions
- Clamp forces from 7.5 kN to 35 kN
- Sizes from 40 to 125mm



Quintus

- Quick change dock for MC series vises
- Mechanical zero point mounting
- Sizes 60 and 100



SCS

- Clamp forces from 25 to 40 kN
- Large range of jaws & accessories
- Sizes 80 and 120mm



Double Clamping



DUO

- Compact, rapid, user-friendly double clamping
- Clamp forces 12 and 20 kN
- Size 80 in mechanical or hydraulic actuation



DF

- Flexible double clamping system
- Clamp forces 25 to 50 kN
- Sizes 100 to 160 with mechanical or hydraulic actuation



DS

- One, two or 4 workpiece clamping
- Clamp forces 25 to 40 kN
- Sizes 100 and 125mm

Tower Clamping



T

- Mech-hydraulic clamping for at least 4 workpieces
- Clamp forces 25 to 40 kN
- Sizes 100 and 125mm



TS

- Mechanical clamping for up to 16 workpieces
- Clamp forces 25 to 40 kN
- Sizes 100 and 125mm

Vise Jaws



Hilma vises are supported by a large range of clamping jaws to suit every application.

- Standard clamping jaws
- QIS (quick insert change system) jaws
- Fixed and floating central jaws
- Slim flex jaws for 3-side machining of small parts



Expanding Mandrels

✓ *Proven Productivity*

Stationary Mandrels



Mando T211

Solid clamping with pull-back effect

- 5 sizes for clamping dia's 20mm to 100mm
- Uses standard segmented sleeves
- Superb concentricity and rigidity

Mando T212

For short clamping lengths in blind bores.

- Clamping dia's 13mm to 100mm with just 7 mandrel sizes
- Can incorporate front end-stop
- Concentricity < 10 microns
- Use with ms-dock or hs-dock for stationary applications

Type 213

For small clamping diameters and very slender mandrel bodies.

- Ideal for gear cutting applications
- Axial draw force for end stop location
- High rigidity

Type 611

For radial clamping without pull-back of the clamp sleeve.

- Short clamp length in blind bores
- Actuation by pull motion

Type 811

For radial clamping without pull-back of the clamp sleeve

- Small clamping diameters via offset sleeve
- Actuation by push motion

Multi-Centering Mandrel

For clamping multiple workpieces in one.

- Play-free centering even at bore tolerances up to +/- 0.2mm
- High rigidity

Rotating Mandrels



Mandrex Mandrel

For minimum deformation of thin-walled workpieces.

For fragile, thin-walled tubes

Compensation clamping with minimum distortion

Talement Mandrel

For minimum deformation of thin-walled workpieces

For out of round workpieces.

Elastic membrane complies with contours

Stationary Mandrels



These mandrel systems are ideal for 5-sided machining.

Mando ms dock

Actuating unit for manual clamping of internal bores.

- Accepts Mando T211 and T212 mandrel units
- Actuation by hand lever (removable wrench)
- Sensitive manual clamping is possible

Mando hs dock

Hydraulic actuating unit for clamping of internal bores.

- Accepts Mando T211 and T212 mandrel units
- Actuation by hydraulic cylinder for automated systems
- Versions;
 - Hydraulic clamp and release
 - Spring clamp with hydraulic release

Quick Change Systems

Zero Point System



The high precision locating and clamping system that is ideal for quick change of pallets, fixtures, tooling plates and machine elements. Systems available for manual, semi or fully automatic applications.

Stark is a world leader in zero point systems and offers several variants including;

SPEEDY metec

solid, low cost, mechanical actuation

SPEEDY classic

mechanical clamp, hydraulic unclamp

SPEEDY airtec

pneumatic actuation in 3 sizes

SPEEDY hydratec

compact hydraulic actuation

Quick Fixture Plates



This system comprises fixture plates with cone locations that mount directly onto base or angle plates with corresponding taper pins.

Available in sizes to suit pallets 400, 500, 630 and 800mm

Fixture plates can be blank or with grid system for modular fixturing.

Unilock Quick Change Pallet System



Pneumatically actuated quick change, pallet clamping system for reduced set-up costs and times.

- 8 module sizes with clamp force up to 5,000N
- Common pull stud for all modules

Lathe Tooling & Accessories

✓ *Proven Productivity*

Knurling Tools



High performance knurling tools and wheels can produce high quality straight, spiral, square and diamond patterns.

- Single and double wheel types
- For CNC and conventional machines
- Multi-wheel, revolving head version



Pressure Knurling

This is done by cold forming the material which causes a predictable increase in the diameter of the workpiece.



Cut Knurling

In this case the knurl wheel is like a milling cutter and actually cuts the workpiece with a very small increase in diameter.



Knurl Wheels

Knurl wheels are available in all sizes and to produce all patterns. Options include;

- Wheel size and pattern
- Pitch of knurl
- Wheel material
- Wheel coating (TiN, TiCN, TiAlN etc)
- Conical, concave and convex wheels

Chuck Jaws



Jaws for all Chucks

From the world's largest manufacturer of chuck jaws we offer a large range of popular jaw types and sizes ex-stock Sydney.

- Soft jaws with metric or imperial serrations.
- Ground slots and serrations
- Hard jaws and claw jaws.
- Pendulum jaws
- Fibreglass jaws
- Special jaws
- Serrated bars
- Quick change system

Online Ordering System

Try our easy to use on-line ordering system to place your chuck jaw orders and take advantage of our special offers.

www.romheld.com.au

Centres & Facedrivers



Main-Line Live Centres



- Precise, robust, high performance unit.
- Dirt and coolant resistant
- Sizes from Morse taper 1 to 7 and metric tapers.



Eco-Line Live Centres

- Precise, budget priced live centres
- Splash proof and durable.



Varia-Line Live Centres

- Flexible centres with detachable cones
- Ideal for large diameters



HP-Line Live Centres

- Super accurate centres for grinding and fine turning
- Accuracy guaranteed to 0.002mm



Dead Centres

- Low cost hardened steel or carbide tipped models



Facedrivers

- Self aligning drive pins
- 5 sizes with Morse taper or flange mount
- For workpieces up to 555 kg

Rotary Broaching Tools

NEW



Polyprofile Broach Heads

Pendulous rotation of the broach head enables fast, simple and economic broaching of internal, blind and through profiles. External broaching is also possible on a wide variety of materials.

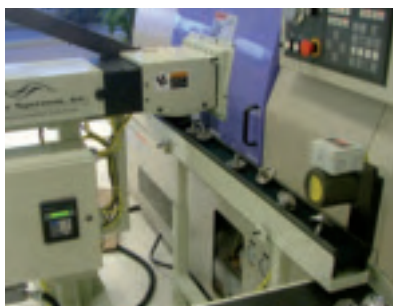
- 3 models for square profiles to 16mm and hex profiles to 24mm
- VDI, morse taper and round shaft versions
- Large range of standard broaches



Automated Loading Systems

Automated loading system for turning, grinding etc.

• Adaptable to any machine
• Handles a variety of part shapes and sizes.
• Typically 30% to 50% throughput increase
• Unload can be as little as 3 seconds.
• 360 degree part rotation for 2nd operation
• Swivels for access to machine
• Conveyance technology



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Magnetic chucks, vices and pods.
www.alphaworkholding.com



ATI Industrial Automation
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Clamps & workholding elements.
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Centres and facedrivers
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www.expert-tuenkers.de



Goudsmit Magnetics BV
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Modular gripper system & robotic EOAT.
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Precision chucks and mandrels.
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Air driven hydraulic pumps & power units.
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Advanced robotic hands & systems.
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Robotic deburring tools.
www.speedeburr.com



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Manual clamps & fixture components.
www.imao.co.jp



Stark GmbH
Zero point clamping systems
www.stark-inc.com



Integi S.A.
Knurling Tools
www.integi.com



Stoeger Automation
Automatic screw & assembly systems.
www.stoeger.com



Kostyrka GmbH
Universal holding fixture.
www.kostyrka.com



Technigrip
Dovetail clamping system
www.technigrip.com



Macro Tool & Machine Co.
Rotary & Shuttle Pallet Systems
www.macrotool.com



Tepro Machine & Pac Systems
Intelligent vacuum gripper systems.
www.unigripper.com



Magnetic Systems Ltd
Magnetic chucks and Workholding
www.magsystems.co.uk



Toellner Systems Inc
Automated loading systems
www.toellner.com



Minibooster Hydraulics AS
Hydraulic intensifiers & power units.
www.minibooster.com



Tunkers Maschinenbau
Body shop clamping & gripper systems.
www.tunkers.com



Neuronics AG
Human friendly intelligent robotics.
www.neuronics.ch



Vessel Co Inc.
Air nippers & static eliminators.
www.vessel.co.jp



Northfield Precision Corp
Pneumatic & diaphragm chucks
www.northfield.com



WEH GmbH
Connectors for leak & pressure testing.
www.weh.com



OK-Vise Oy
Wedge clamping system
www.ok-vise.com



WPR System
Lateral spring pins
www.wpr.de

MONOmaster



Pneumatic Selffeeder units

- Spindle speeds up to 18'000rpm
- Total Stroke up to 125mm
- Actuation force up to 8'200N
- Motorcapacity up to 5.5kW
- Precision angular contact bearings
- Honed sleeves and chrome plated quill

POWERmaster

Pneumatic, Hydraulic and Servoslides

- Total Stroke up to 480mm
- Actuation force up to 15'000N
- Rigid cast iron or aluminium base
- Precision rails
- Modular and flexible for use as cross slides



POWERmaster



Highspeed Spindle units

- Precision, preloaded angular contact bearings
- Concentricity 0.01mm
- Spindle speed up to 23'000rpm
- ER, ISO and HSK Toolholder system
- Motorcapacity up to 5.5kW
- Transmissible torque up to 300Nm
- Flexible motorposition

TAPmaster

Tapping units

- Complete range of tapping sizes and pitches
- Short cycle times achievable
- Rapid and working stroke
- Programmable and fast pitch change available
- Easy to change leadscrew system
- Transmissible torque up to 80Nm
- Flexible motorposition



POLYdrill

Multispindle heads

- Standard range of 2, 3 and 4 spindle adjustable heads
- Custom made fixed heads up to 10 spindles
- Heads with preloaded angular contact bearing for use of carbide tools
- Easy to attach to any machine
- Drilling capacity up to 25mm and tapping up to M22 in steel 600N/mm²



TOOLholder



Toolholder for our units

- Precision toolholder for our range of spindle types
- Various ER collets
- Tapping toolholders with length extension for ISO30, B12 and B16 taper
- Automotive toolchanger type ST16 and 28

MULTImaster

Pneumatic Selffeeder and spindles with flexible shaft drive

- Central motor drive for up to 8 spindles
- Very small spindle setup
- Energy and cost efficient
- High reliability and long life flexible shaft drive



CNCmaster



CNC Controlled Selffeeder

- CNC axis with BoschRexroth servomotor for unlimited cycle possibilities
- Available with control and easy to use software
- Spindle speed up to 10'000rpm
- HSK Toolholder system
- Motorcapacity up to 3.0kW
- Feedrate of 5000m/min
- Flexible motorposition



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