

# Economy range

The Economy range consists of the ICP, ICV, Compac, EuroMod and FlatCom machine ranges. This Economy machine range has been in use successfully for many years in industrial, trade and training sectors. The minimal space requirements, the excellent value for money, the ease of operation and the special design are all priorities with this range. Economy machines are frequently used when a requirement exists for smaller parts for medium machining capacity, or where particularly economical solutions are required. The machines are available in various sizes and can be expanded with a range of options as required (e.g. up to 5 axes/automation).

And this is what our customers say about the Economy range:

## Obrira - Low Vision Rathenow

*"With the procurement of the ICP, it has been possible to replace extensive conventional drilling and milling technology in our production. The ICP 3020 operates in just the smallest space without complication, entirely fault-free, is low maintenance and requires minimal set-up work. Thanks to the isyCAM training in Eiterfeld, as a complete beginner we have been able to work on a CNC-controlled system from day one. Excellent service, excellent team, great value for money and made in Germany too"*

André Schwolow, Managing Director

## Keramikinstitut Meißen

*"An FE project begins with planning the required devices and equipment. Within the framework of a collaborative project, KI Keramik-Institut GmbH was set to embark on the development of a ceramic rotor disc and required a CNC machine for this purpose with a particularly high degree of flexibility and expandability. We decided to opt for the EuroMod from imes-icore GmbH, which met the very special requirements in our project entirely."*

Michael Bormann, project manager

## Fielmann Modebrillen Rathenow

*"Since January 2014, we have been successfully using the ICV 4030 in the production of temples. Particularly commendable is that we could start working with this machine immediately. The machine operators were familiar with the control after just a short induction time. It is also top class when it comes to surface quality and repetition accuracy, as well as machining time."*

Roland Platzke, product manager

The perfect  
CAD/CAM software  
simply integrated!





# ICP ranges 4030

Your entry into the world of CNC!



## Equipment

- Stable aluminium / steel construction in table design
- Plug & play via USB for direct connection with a conventional PC
- 4-axis microstep stepper motor control fully integrated in the machine
- Highest step resolution
- Main spindle drive UFM 500
- Enclosed working area according to the CE safety requirements
- Integrated WIN® Remote software integrated and suitable for running on every conventional PC with Windows® 7/8/10

## Options

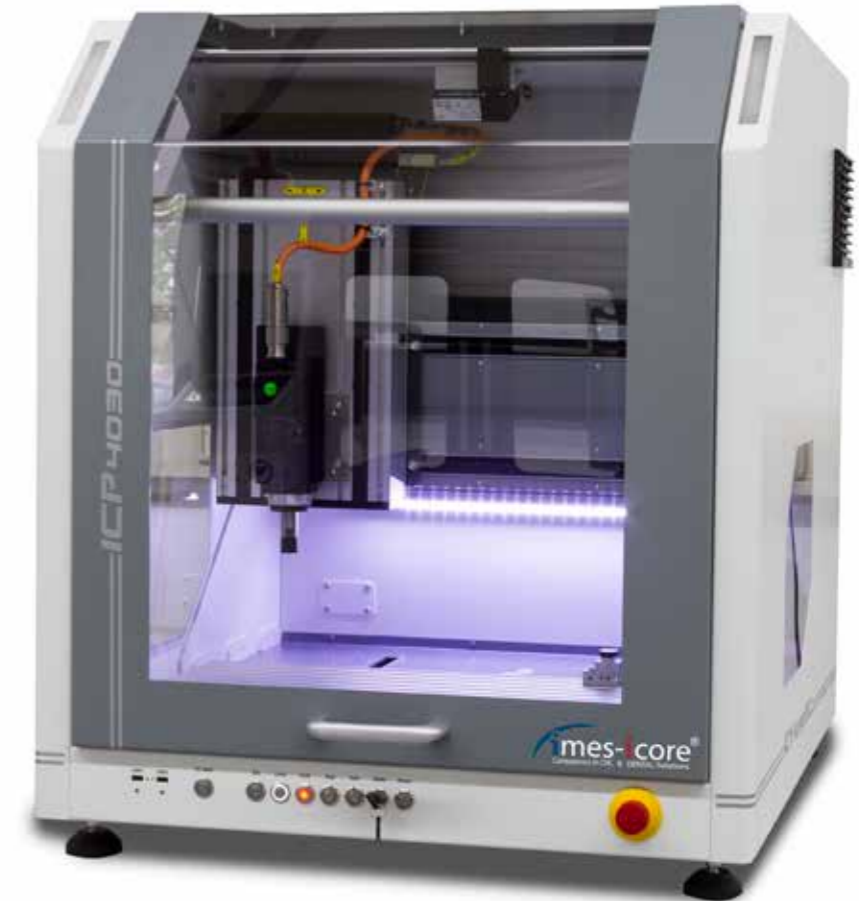
- Automatic tool changer
- Working area lighting
- Length measuring switch
- Main spindle drives iSA 500/iSA 750 HF spindle up to 80,000 rpm
- Engraving spindles with mechanical height compensation
- Minimum quantity lubrication cooling system
- CNC-controlled rotating axis (4th axis)
- Suction unit
- 4-axis rail control function
- Engraving mat
- isyCAM 3.6
- And many more options

## Application examples

- Training/teaching
- Jewellery industry
- Engraving plates
- Architecture/model construction
- Cylindrical surface processing
- Milling circuit boards
- Prototype manufacture
- Milling contours
- Milling pockets
- 3D milling

## Typical materials

- Plastics
- Wood
- Brass
- Circuit board material
- Wax



The cost-effective CNC compact system **ICP** is a CE-compliant, 3D-compatible milling machine ready for mains connection. The CNC system is ready for operation through a simple connection with a conventional PC. The sliding door is quiet-running and enables simple loading and unloading of the machine. The housing is optimally accessible and has been acoustically optimised. On request, various expansion options are available, including a rotating axis, minimum quantity cooling lubrication or an extraction system.



Technical data	ICP 4030
Dimensions (L x W x H) in mm	769 x 836 x 901
Weight in kg	approx. 150
Travel ranges (X / Y / Z) in mm	400 x 300 x 140
Speed range X / Y / Z in m/min	6
Table clamping area WxD in mm	700 x 375
Clearance height in mm	200
Repetition accuracy in mm	± 0.02
Drive motors	High-torque step motors
Drive elements (X / Y / Z)	Ball screw, zero backlash adjustable
Guides	Linear guides with ball circulation slides
Connection voltage	16A / 110-240 V
Control	Step controller iMC-P
Operation	Function keys and emergency stop
Software	WIN®-REMOTE / isy-CAM 2.8

Machine dimensions without operating panel or additional accessories.  
Travel ranges without processing unit and other attachments (tool changer, length measuring switch, etc.).

# ICV 4030

The all-in-one system  
for diverse use!



## Equipment

- Stable aluminium / steel construction in table design
- Servo-motor technology with encoder
- Integrated PC and control electronics
- Optionally iSA 500 / iSA 750 and iSA 900 spindle
- Integrated WIN® Remote and isyCAM 2.8 control software
- Enclosed working area according to the CE safety requirements

## Options

- Working area lighting
- Automatic tool changer
- CNC-controlled rotating axis (4th axis)
- Minimum quantity lubrication cooling system
- Extraction system
- Can be updated to isyCAM 3.6
- And many more options



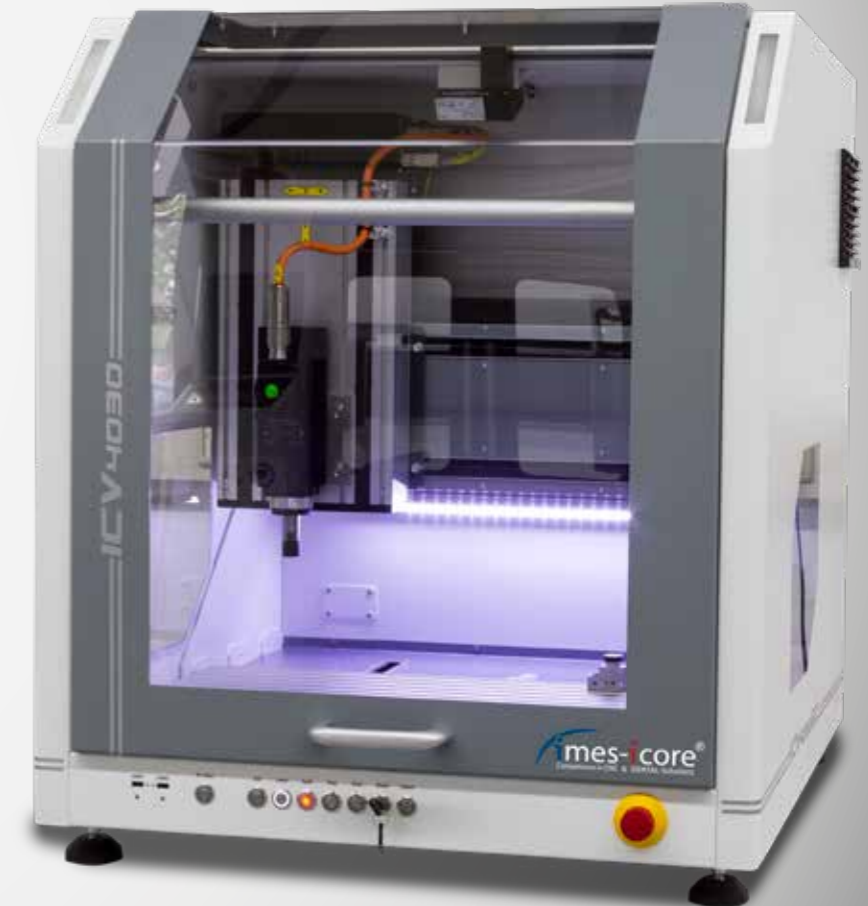
Modern servo technology and  
integrated control computer

### Application examples

- Plate/front panel production
- Professional engraving
- Orthopaedic technology
- Stamp production
- Rapid prototyping
- 3D model milling
- Cylindrical surface processing (with 4th axis)
- Multi-sided processing (with 4th axis)

### Typical materials

- Model materials
- Plastics
- Light metals (copper/aluminium/brass)
- Wood
- Foams



The **ICV 4030** is outstanding in particular due to its very small installation area and is designed for rapid, professional 3D applications in model construction, rapid prototyping and similar applications. The complete control and power electronics, as well as the control computer, are integrated and protected in the rear wall of the chassis. As such, only an external monitor, a mouse and a keyboard are also required for operation. All of the relevant CE safety regulations are guaranteed during milling by the protective hood interlocking. The modern servo motors enable improved quiet running and precision. Through the expansion options, such as a vacuum table or a fourth axis, the **ICV** is also suitable for flexible future use with many applications.



Technical data	ICV 4030
Dimensions (L x W x H) in mm	769 x 901 x 836
Weight in kg	approx. 120
Speed range (X / Y / Z) in mm	400 x 300 x 140
Table clamping area W x D in mm	700 x 375
Speed range X / Y / Z in m/min	max. 12
Clearance height in mm	200
Repetition accuracy in mm	± 0.02
Drive motors	Servo motors
Drive elements (X / Y / Z)	Ball screw 16 x 10 / 16 x 10 / 16 x 5 mm zero backlash adjustable (optionally 16x4 mm in X/Y/Z)
Guides	Linear units with precision steel shafts and ball recirculation carriage, play-free adjustable
Connection voltage	230 V / 16 A
Control	CAN controller iMC with 3 integrated drive controllers I/O module, safety circuit
Operation	Function keys and emergency stop
Software	WIN®-REMOTE (optional: ProNC, CAD/CAM isy 2.8)



# Compac 140

Precision in the smallest space!

## Application examples

- Jewellery industry
- Medical engineering
- Toy production
- Keyhole technology
- Milling dental products
- Prototype construction

## Typical materials

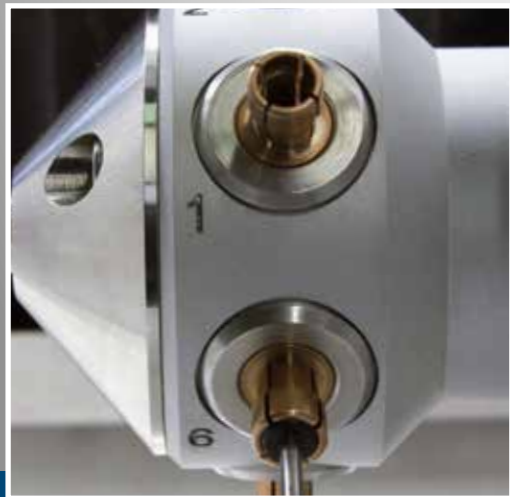
- Plastics such as PMMA/composites
- Stainless steel metals for jewellery production
- Ceramics

## Highlights

- High resolution micro-step controller and motors in the axes
- Processing station with 360-degree axis and precision gearing for vibration-free stability
- Suction unit for optimum extraction of the generated dusts
- Tool holder direct change system
- Precision length measuring switch already integrated
- Play-free adjustable circulating ball screws

## Options

- Extraction system
- Machine table
- Wet processing
- isyCAM 3.6



With the minimal size of the **Compac 140**, imes-core is setting benchmarks for the production of very small parts in the smallest space while still providing the customary highlights of far larger machines. The **Compac 140** is equipped with 4 axes, a tool changer with 6 spaces, a length measuring switch and a high frequency spindle with up to 60,000 rpm. The **Compac 140** has a tare weight of just 55 kg despite the stable steel/aluminium chassis design. The system is optimised for dry and wet processing. The coolant circuit with coolant tank, filter station and pump is pre-integrated in the machine.



Technical data	Compac 140
Dimensions (W x D x H) in mm	535 x 575 x 405
Weight in kg	approx. 55
Travel range (X / Y / Z / A) in mm	130 / 35 / 90 / 360°
Speed range (X / Y / Z) in m/min	2,5
Repetition accuracy in mm	± 0.02
Drive motors	High torque stepper motors
Drive elements (X / Y / Z)	Ball screw, zero backlash adjustable
Guides	Precision profile rail guides
Connection voltage	16A/110-240V
Control	Mirco-Step controller IME 482
Operation	14" notebook and operating keys
Software	WIN®-REMOTE

Machine dimensions without notebook or additional accessories.

# Compac 250

5-axis precision on granite base—  
stable, precise, fast!



## Highlights

- Polished granite base plate for maximum precision and stability
- 5-axis processing in 3+2 or 5-axis simultaneous processing
- Processing station as rotating/swivelling axis with harmonic drive gears
- High frequency spindle with up to 60,000 rpm
- Automatic 10-times tool changer as a direct changing system
- Suction unit
- Play-free adjustable circulating ball screws

## Options

- Extraction system
- Machine table
- Wet processing
- isyCAM 3.6

### Application examples

- Jewellery industry
- Keyhole technology
- Medical engineering
- Milling dental products
- Prototype construction

### Typical materials

- Stainless steel metals for jewellery production
- Plastics such as PMMA/composites
- Ceramics



With the **Compac 250** milling machine from imes-icore, you do not have to go without any of the equipment that is normally only customary on much larger CNC systems. The 5-axis processing with up to 30° axis adjustment, in combination with the integrated 10-times tool changer and the length measuring switch, guarantees optimum flexibility. The rotating/swivelling axis with harmonic drive gearing ensures superb milling results. The complete machine system's stability results from the high quality, polished granite base plate on which the system is constructed. This guarantees vibration-free processing.



Technical data	Compac 250
Dimensions (W x D x H) in mm	537 x 625 x 612
Weight in kg	approx. 85
Travel range (X / Y / Z / A / B) in mm	150 / 115 / 90 / 360° / 110°
Speed range in m/min	2,5
Repetition accuracy in mm	± 0.02
Drive motors	High-torque stepper motors
Drive elements (X / Y / Z)	Ball screw, zero backlash adjustable
Guides	Precision profile rail guides
Connection voltage	16 A / 110-240 V
Control	Micro-Step controller IME 482
Operation	14" notebook and operating keys
Software	WIN@-REMOTE

Machine dimensions without notebook or additional accessories.



# Compac 350

The 5-axis table machine for precise small part processing!



## Highlights

- 5-axis simultaneous processing
- Integrated wet and dry processing
- 20-times direct tool changer
- HF spindle with up to 60,000 rpm
- Control PC with integrated touchscreen
- Tool changer chip protection
- Frontal processing of the workpiece possible (B-axis in 90 degree position)

## Options

- Zero point clamping system
- Suction unit
- Expandable with automated material changer
- isyCAM 3.6

Optional as a loader system for complete automation



## Application examples

- Jewellery and watch industry
- Aerospace industry
- Medical engineering
- Electronic industry
- Professional engraving
- Milling circuit boards/plates
- Multi-sided processing
- Small part processing
- Rapid prototyping

## Typical materials

- Various non-ferrous metals upon request
- Stainless metals
- Various plastics upon request
- Wood
- Circuit board material
- Acrylic
- Plate materials
- Ceramics and graphite
- Materials for medical engineering



Due to its modern design with precise EC servo technology, the **Compac 350** is particularly suitable for processing fine mechanical parts and complex parts. Wet and dry processing are possible thanks to the integrated cooling circuit. Aluminium, brass, chrome-cobalt, steel, titanium, plastic, ceramic or other materials (upon request) can therefore be processed using the machine. The **Compac 350** is frequently used in companies in which high precision is vital in conjunction with limited spatial requirements. The complete control and power electronics are integrated in the machine's rear wall. The machine is operated via a modern 12" touchscreen monitor. Entry-level fully-automated processing and therefore also serial production is also possible with an optional material changer.



Technical data	Compac 350
Dimensions (W x D x H) in mm	760 x 790 x 860
Weight in kg	approx. 180
Travel ranges (X / Y / Z / A / B) in mm	250 / 130 / 90 / 360° / +30 bis -90°
Speed range in m/min	6
Clearance height in mm	145
Repetition accuracy in mm	± 0.01
Drive motors	Servo motors
Drive elements (X / Y / Z)	Ball screw, zero backlash adjustable
Guides	Precision profile rail guides
Connection voltage	16 A / 110-240 V
Control	5-axis Logosol
Operation	CNC operating panel with 12" touchscreen monitor and operating keys
Software	WIN®-REMOTE

Machine dimensions without additional accessories.

# EuroMod range

The intuitive, stable, space-saving solution!

**230 V**  
Complete system  
including operating terminal  
and control cabinet

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## Equipment

- Stable aluminium profile construction
- Rapid servo technology with EC servo motors
- Control PC with Windows® insite
- Play-free adjustable steel ball screw and steel linear guides
- 230 Volt connection
- Network connection
- Up to 2 kW milling spindles possible
- Swivelling operating terminal

## Options

- Milling spindles iSA 500 / iSA 750 / iSA 1500
- Spindles with changer iSA 900 / iSA 2200 / ES325 / HF spindle
- Automatic tool changer SK11 / SK20 / HSK-E 25 / direct change systems
- Safety light curtain with light barrier
- Pneumatic sliding door, front
- Minimum quantity cooling lubrication system
- Suction unit
- Vacuum table
- 4th axis
- Closed hood attachment, top
- isyCAM 3.6
- Hand-held operating unit / joystick

## Application examples

- Front panel production
- Engraving plates
- Drilling
- Architecture model construction
- Advertising technology
- Surface processing
- Multi-sided processing (4th axis)
- Orthopaedic technology

## Typical materials

- Aluminium
- Milling plastics (CibaTool, Ureol®)
- Various plastics upon request
- Plate materials
- Circuit board material
- Brass
- Foams



The CNC system **EuroMod** is a CNC system ready for connection with extensive user convenience for numerous tasks and applications. The mechanical base for the **EuroMod** is formed by stable, low-vibration steel-aluminium components. The play-free ball screws used in the linear axes ensure high accuracy. When developing the **EuroMod** particular value was placed on minimal space requirements. The servo motors used are optimally tailored to the mechanics, the power electronics and the control. As a result, the user benefits from high performance and quiet running. The complete electronics for the **EuroMod** are installed in a switch cabinet. Operation takes place via an operating panel with a 19" touchscreen monitor. The design has been conceived such that the gantry area is fixed and the workpiece moved within a stable table range (in the y-direction).



Technical data	EUROMOD MP30	EUROMOD MP45	EUROMOD MP65
Dimensions (frame) (W x H x D) in mm	1834x800x2414	1834x1110x2414	2154x1510x2414
Weight in kg	approx. 250	approx. 300	approx. 400
Travel ranges (X / Y / Z) in mm	650 / 300 / 250*	650 / 450 / 250*	1000 / 650 / 250
Speed range X / Y / Z in m/min	max. 15		
Table clamping area (X / Y) in mm	900 x 350	900 x 500	1200 x 700
Clearance height in mm	350		
Repetition accuracy in mm	± 0.02		
Drive motors	Servo motors		
Drive elements (X / Y / Z)	Ball screw, zero backlash adjustable		
Guides	Linear guides with ball circulation slides		
Connection voltage	16 A / 230 V		
Control	CAN controller iMD with 3 or 4 drive regulators (expandable to 12 axes)		
Operation	Swivelling CNC operating panel with 19" touchscreen monitor, keyboard, touchpad and operating keys		
Software	WIN® Remote / isyCAM 2.8		

Machine dimensions without operating panel or additional accessories.  
Travel ranges without processing unit and other attachments (tool changer, length measuring switch, etc.).



# FlatCom range

Large travel ranges  
at a small price!

Excellent  
value for  
money

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## Highlights

- Stable aluminium profile construction
- Rapid servo technology with EC servo motors
- Control PC with Windows® insite
- Play-free adjustable steel ball screw and steel linear guides
- Network connection
- Large travel ranges
- Milling spindles with output of up to 2 kW possible
- Swivelling operating terminal

## Options

- Milling spindles iSA 500 / iSA 750 / iSA 1500
- Spindles with changer iSA 900 / iSA 2200 / ES325 / HF spindle
- Automatic tool changer SK11 / SK20 / HSK-E 25 / direct change systems
- Safety light curtain with light barrier
- Pneumatic sliding door, front
- Minimum quantity cooling lubrication system
- Suction unit
- Vacuum table
- 4th axis
- Closed hood attachment, top
- isyCAM 3.6
- Hand-held operating unit / joystick

## Application examples

- Orthopaedic technology
- Rapid prototyping
- Design model construction
- Mould model construction
- Architecture model construction
- Advertising technology
- Panel processing
- Aluminium front panels
- Deep drawing part processing

## Typical materials

- Plastics/composite materials
- Milling plastics
- Wood
- Plexiglas
- Aluminium/light metals



The **FlatCom** machine range is supplied in four sizes with travel ranges of 700 x 600 mm to 1200 x 1400 mm in framework construction with protective hood. The steel/aluminium profiles used in the design enable a high degree of stiffness together with simultaneous low weight. The gantry clearance is 200 mm (optionally 300 mm). Hardened ball screws with EC servo motors are used as the axis drives.

The systems are equipped as standard with a CAN-CNC controller that is based on Windows® 7 with look-ahead rail processing. The complete power electronics with safety circuit are installed in a mounted switch cabinet. The **FlatCom** is superbly well suited when large travel distances are required. Thanks to retrospective expansions such as a vacuum clamping table or tool changer, you can ensure that your machine is well equipped for future challenges.



Technical data	FlatCom M20	FlatCom M30	FlatCom M40	FlatCom M50
Dimensions (frame) (W x H x D) in mm	1420 x 1150 x 2335	1420 x 1450 x 2335	1920 x 1450 x 2335	1920 x 1950 x 2335
Weight in kg	approx. 300	approx. 340	approx. 450	approx. 525
Travel ranges (X / Y / Z) in mm	700 / 600 / 150 (optional 250)	700 / 900 / 150 (optional 250)	1200 / 900 / 150 (optional 250)	1200 / 1400 / 150 (optional 250)
Speed range in m/min	max. 15			
Table clamping area (W x H) in mm	750 x 750	750 x 1000	1250 x 1000	1250 x 1500
Clearance height in mm	200 (optional 300)			
Repetition accuracy in mm	± 0.03			
Drive motors	Servo motors			
Drive elements (X / Y / Z)	Ball screw, zero backlash adjustable			
Guides	Linear guides with ball circulation slides			
Connection voltage	16 A / 230-400 V			
Control	CAN controller iMD with 3 or 4 drive regulators (expandable to 12 axes)			
Operation	Swivelling CNC operating panel with 19" touchscreen monitor, keyboard, touchpad and operating keys			
Software	WIN® Remote / isyCAM 2.8			

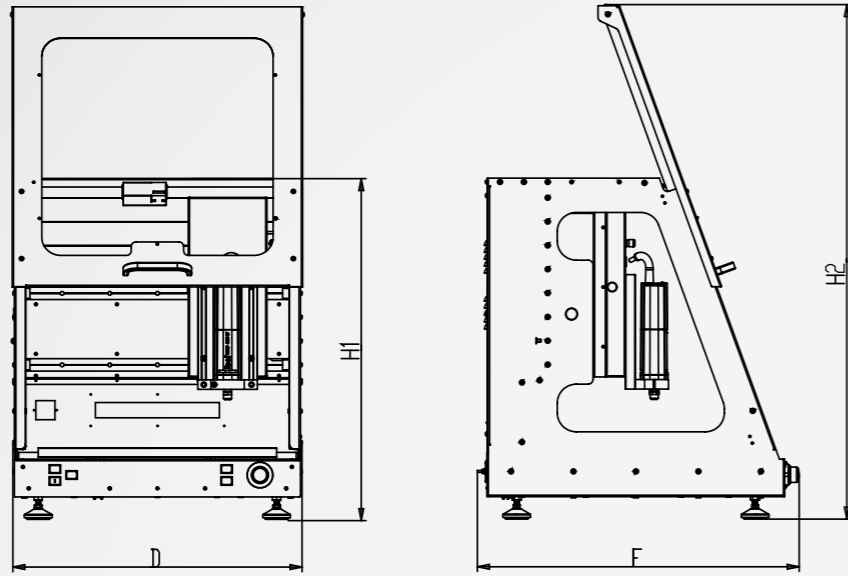
Machine dimensions without operating panel or additional accessories.  
Travel ranges without processing unit and other attachments (tool changer, length measuring switch, etc.).



# Economy range with detailed dimensions

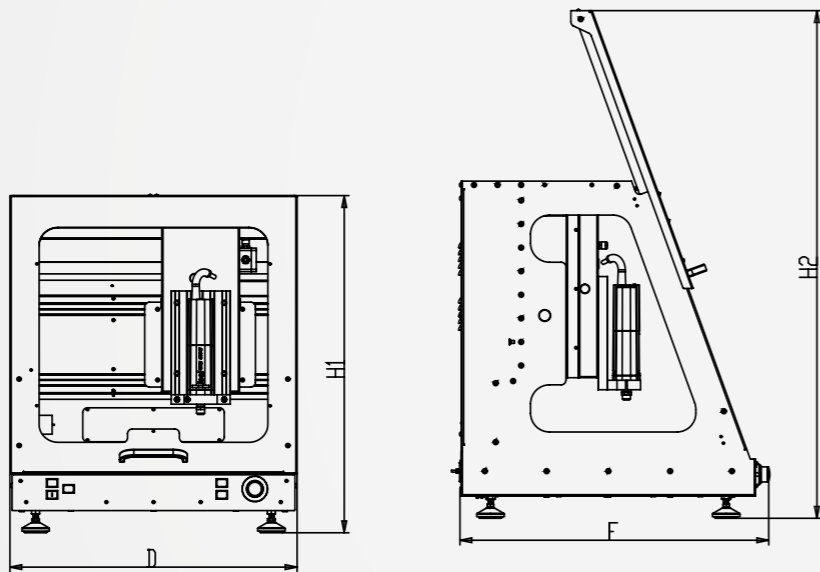
## ICP 4030

Dimensions in mm	ICP 4030
Width D	780
Depth F	850
Height H1	810
Height H2	1179



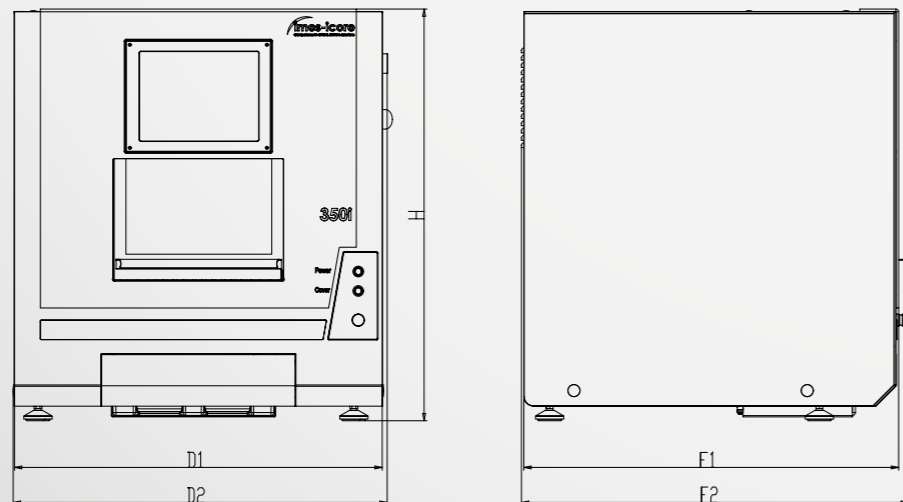
## ICV 4030

Dimensions in mm	ICV 4030
Width D	780
Depth F	850
Height H1	810
Height H2	1077

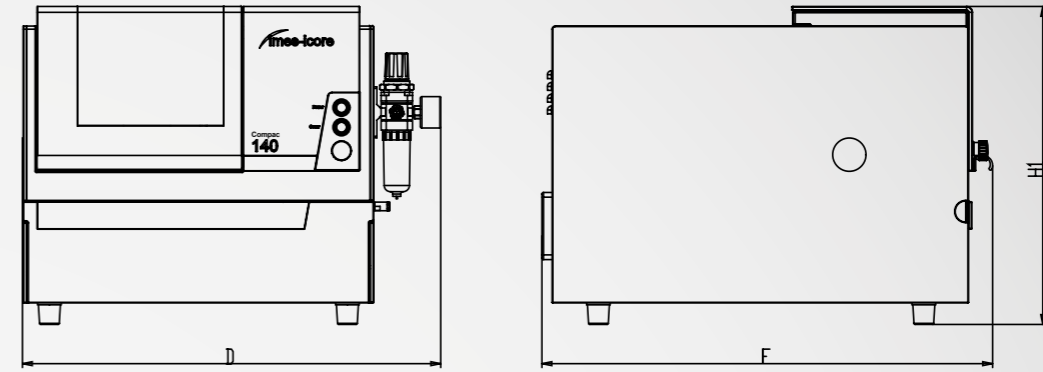


## Compac 350

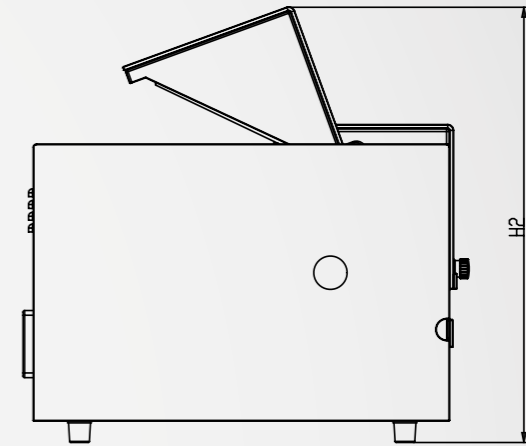
Dimensions in mm	Compac 350
Width D1	760
Width D2	770
Height H	860
Depth F1	772
Depth F2	790



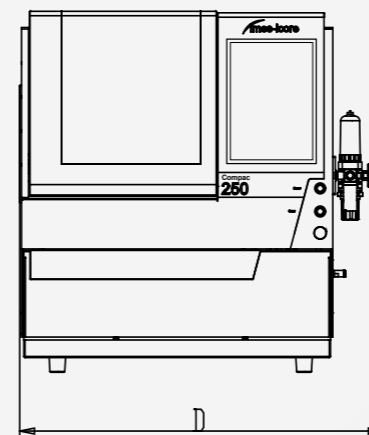
## Compac 140



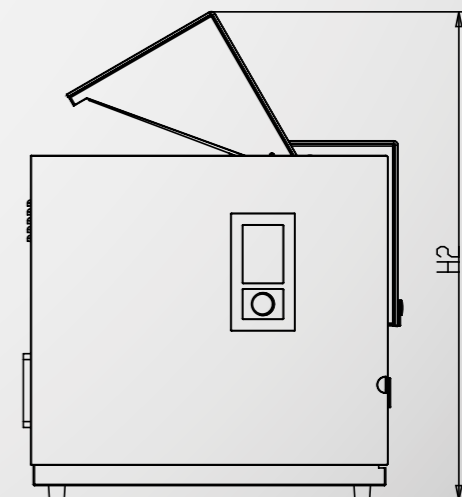
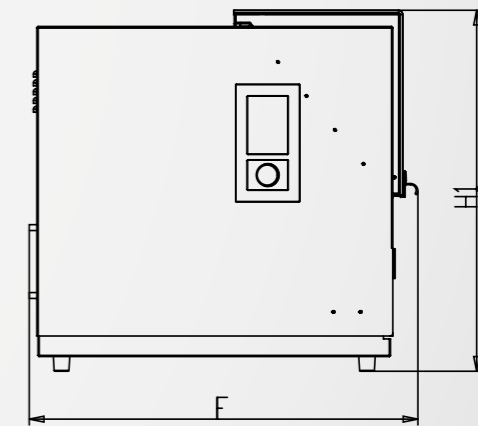
Dimensions in mm	Compac 140
Width D	535
Depth F	575
Height H1	405
Height H2	560



## Compac 250



Dimensions in mm	Compac 250
Width D	537
Depth F	625
Height H1	612
Height H2	835



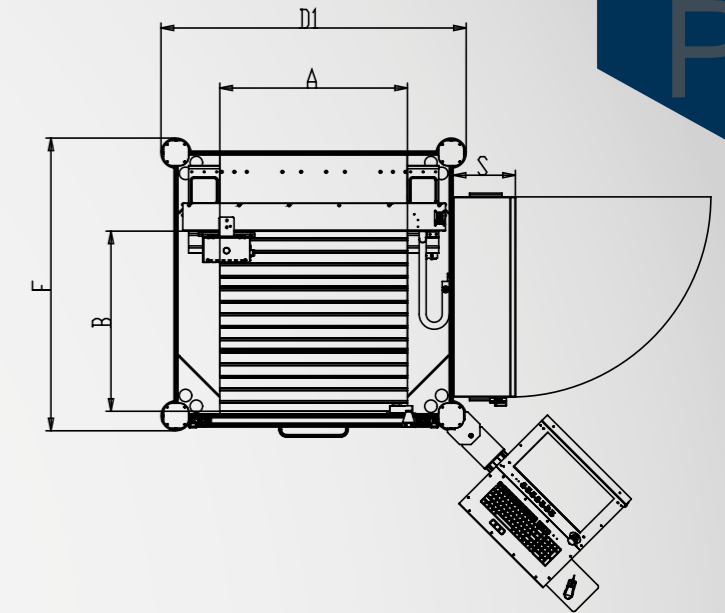
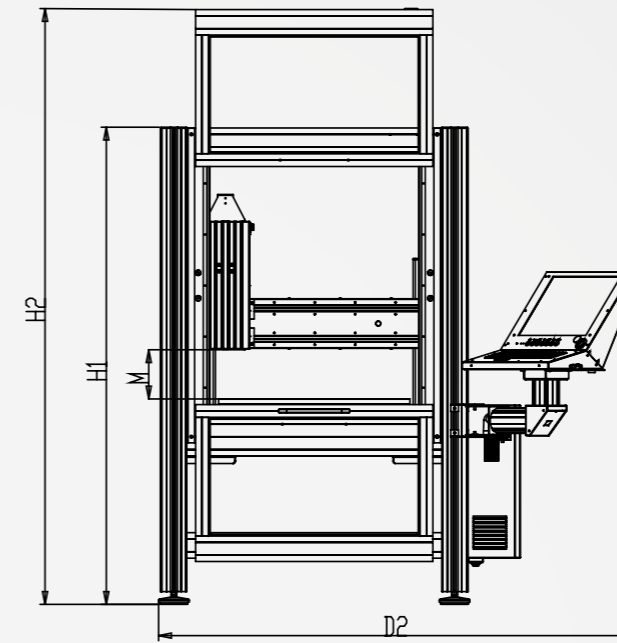
# Economy range with detailed dimensions

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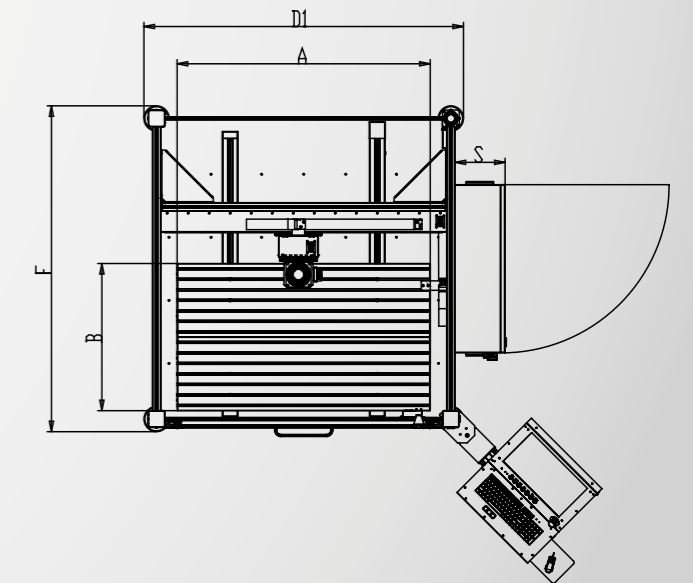
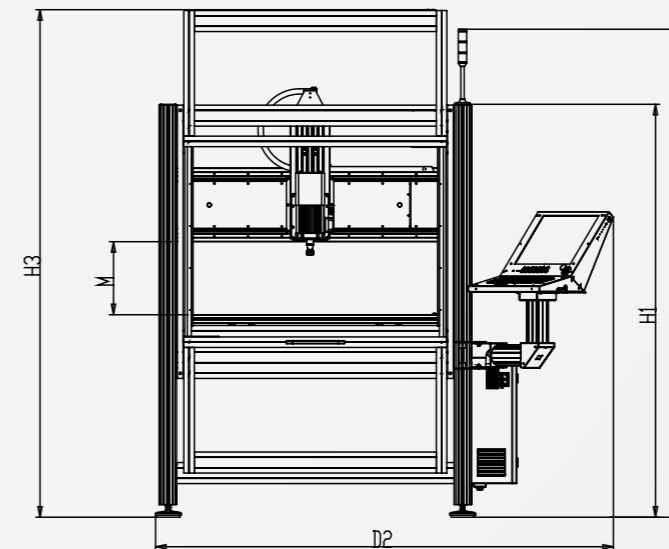
## FlatCom

Dimensions in mm	FlatCom M20	FlatCom M30	FlatCom M40	FlatCom M50
Width A	750	750	1250	1250
Depth B	750	1000	1000	1500
Width D1	1200	1200	1700	1700
Width D2	1868	1868	2368	2368
Depth F	1150	1450	1450	1950
Height H1	1870	1870	1870	1870
Height H2	2335	2335	2335	2335
Height M	193	193	193	193
Width S	249	249	249	249



## EuroMod

Dimensions in mm	EuroMod MP30	EuroMod MP45	EuroMod MP65
Width A	350	500	700
Depth B	900	900	1200
Width D1	1160	1160	1480
Width D2	1834	1834	2154
Depth F	800	1110	1510
Height H1	1964	1964	1964
Height H2	2321	2321	2321
Height H3	2414	2414	2414
Height M	348	348	348
Width S	238	238	238



Many **imes-icore** machines can be individually aligned.  
Simply ask our sales team! We will be happy to advise you!  
Tel.: +49 (0) 6672 - 898 228





# Accessories for Economy CNC machines

## Spindle motors iSA / HF



### General features

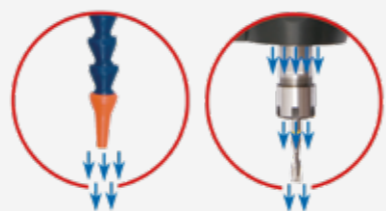
- Outputs from 0.5 kW to 3.6 kW
- High frequency spindles up to 80,000 rpm

## Optional CoolMin

Tool and material cooling for iSA spindle motors:

### General features

- Compressed air inlet: 6-10 bar
- Cooling air outlet: up to max. -25 °C
- Warm air outlet: up to max. 70 °C
- Air consumption: approx. 150 l/min.



## Tool changer SK11 / SK20 / SK30 and direct change systems

### General features

- Simple, functional tool changer
- Compact design through change systems with open stations
- Direct clamping system up to 6 mm, processing tool is clamped directly in the shaft
- Pneumatic rotating cylinder with end position check for chip protection cover and safe change



## Rotating axes

The RDH-S with harmonic drive gearing and the RDH-M rotating axes both have the following characteristics: a highly robust and stiff output bearing, as well as play-free and high torsional stiffness. The only difference is their sizes.

### General features

- Gear reduction 1:51 or 1:101
- Drive motors: DC / AC or EC servo
- Protection class IP 65
- Rust-free finish
- Transmission accuracy: < 1 arcmin
- Repetition accuracy: <± 6 arcsec
- Optionally full shaft or hollow shaft design
- Maintenance-free

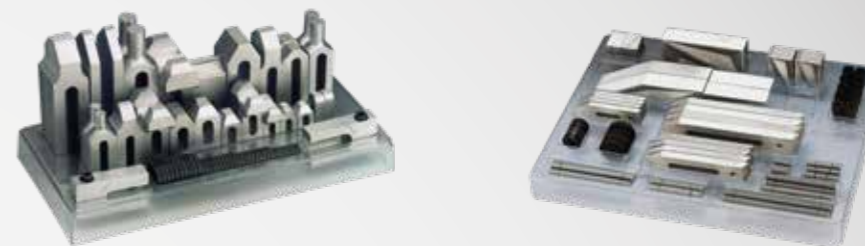


Rotating axis RDH-S

Rotating axis RDH-S with tailstock unit

## Clamping sets

We offer you universal clamping technologies for clamping small and large parts. Two different entry-level sets comprise device half tools, clamping brackets and tighteners for everyday use on machine tools.



## Vacuum systems

The ERWIN grid vacuum clamping system is used to clamp workpieces with simple, large geometries, e.g. panel material. The necessary clamping ranges are safely clamped through the use of sealing cords. The work table of a CNC system is equipped with multiple vacuum plates, which are manufactured from PVC. The individual plates and the required groove grid are processed directly on the CNC system, so that a plane surface of the vacuum table is guaranteed.



### General features

- Aluminium
- Rotary slide vacuum pump
- Oil-lubricated
- Air-cooled
- Max. suction air volume: 63 m³/h
- Max. vacuum (mbar abs.): 3.0
- Max. vacuum (mbar rel.): -997
- Motor output: 1.55 kW
- Speed: 1420 rpm
- Voltage: 380 V



## VakuFit

### General features

- Finished elements
- Simple installation
- Modular expansion possible



## Extraction system Basic A 1EC

Extraction technology is increasingly gaining in significance. When utilised correctly and perfectly designed for the respective application, it provides enormous advantages:

- Production interruptions (downtimes plus cleaning work), resulting from frequent cleaning work on the CNC system, are significantly reduced.
- Premature wear and unnecessary defects in high-value components (axes, control, accessory components) are avoided.

The aspect of health should always be the priority. Fine dust is generated with many applications, visible as deposits on level surfaces. However, the fact that respirable fine dust in the intake area of the CNC system swirls invisibly in the air is often underestimated.

