PRODUCTS

INNOVATIVE SOLUTIONS FOR FAST CLAMPING SYSTEM

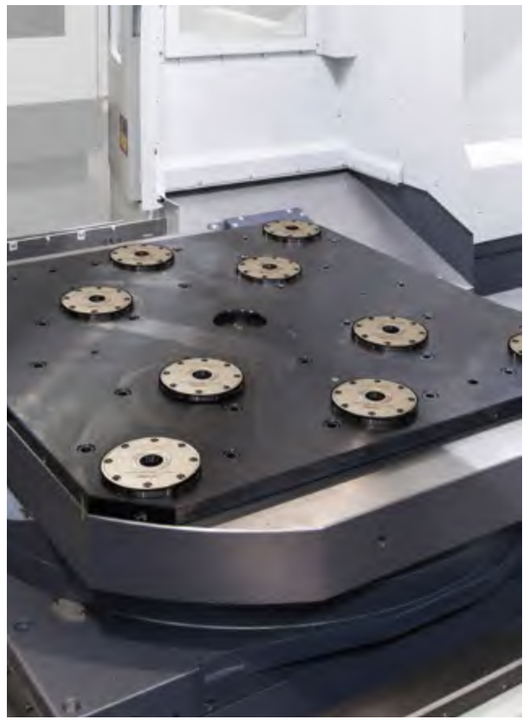
FASTMILL.IT

FAST MILL®

FASTMILL.IT

FASTMILL: AN INNOVATIVE CLAMPING SYSTEM

SAVE TIME AND INCREASE PRODUCTIVITY



ADVANTAGES

Increased productivity, decreased production costs and flexibility in operations are concrete purposes, directly measurable by adopting a system which is able to exceed industry expectations in a short time. Thanks to its easy-to-use products, FASTMILL® ensures a rapid return on investments by standardizing machining processes of complex elements too.

SAFETY

FASTMILL® drastically reduces risk. The entire process from handling the workpiece to start of machining is managed at a safe distance and the operator approaches the work area only to tighten the locking screws.

CLAMPING TIME REDUCTION

During CAD or CAM programming, it is possible to choose where to mount FASTMILL® elements on the workpieces, and eventually on the machine table; this allows to arrange everything without interrupting machining processes.

HIGH CLAMPING FORCE

FASTMILL® modules are designed to tolerate extremely high axial and radial loads. Permissible loads depending on the type of application are mentioned in the user manual.

MAXIMUM ACCURACY IN REPOSITIONING

FASTMILL® is developed and manufactured in stringent temperature and humidity controlled environments to guarantee system accuracy both in dimensions andpositioning repeatability.

PRECISE POSITIONING REPEATABILITY

Tolerances of all FASTMILL® parts have been defined to ensure a positioning accuracy that avoids any waste of time in moving the workpiece after clamping.

SYSTEM FOR WORKPIECE REPOSITIONING WITHOUT TENSIONING

FASTMILL® offers a patented solution to work pieces after they have been thermally processed, and ensures the repositioning and clamping without applying stress on even finer, smaller work pieces.

SETUP TIME REDUCTION

PLANNING - CAD/CAM

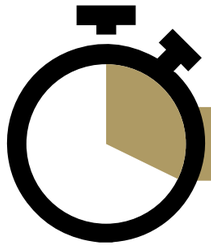
Planning and finalize the best clamping solution during your CAD/CAM process. 3D Model of the whole range available.

ROUGHING DEEP HOLES DRILLING FINISHING / EDM - CMM

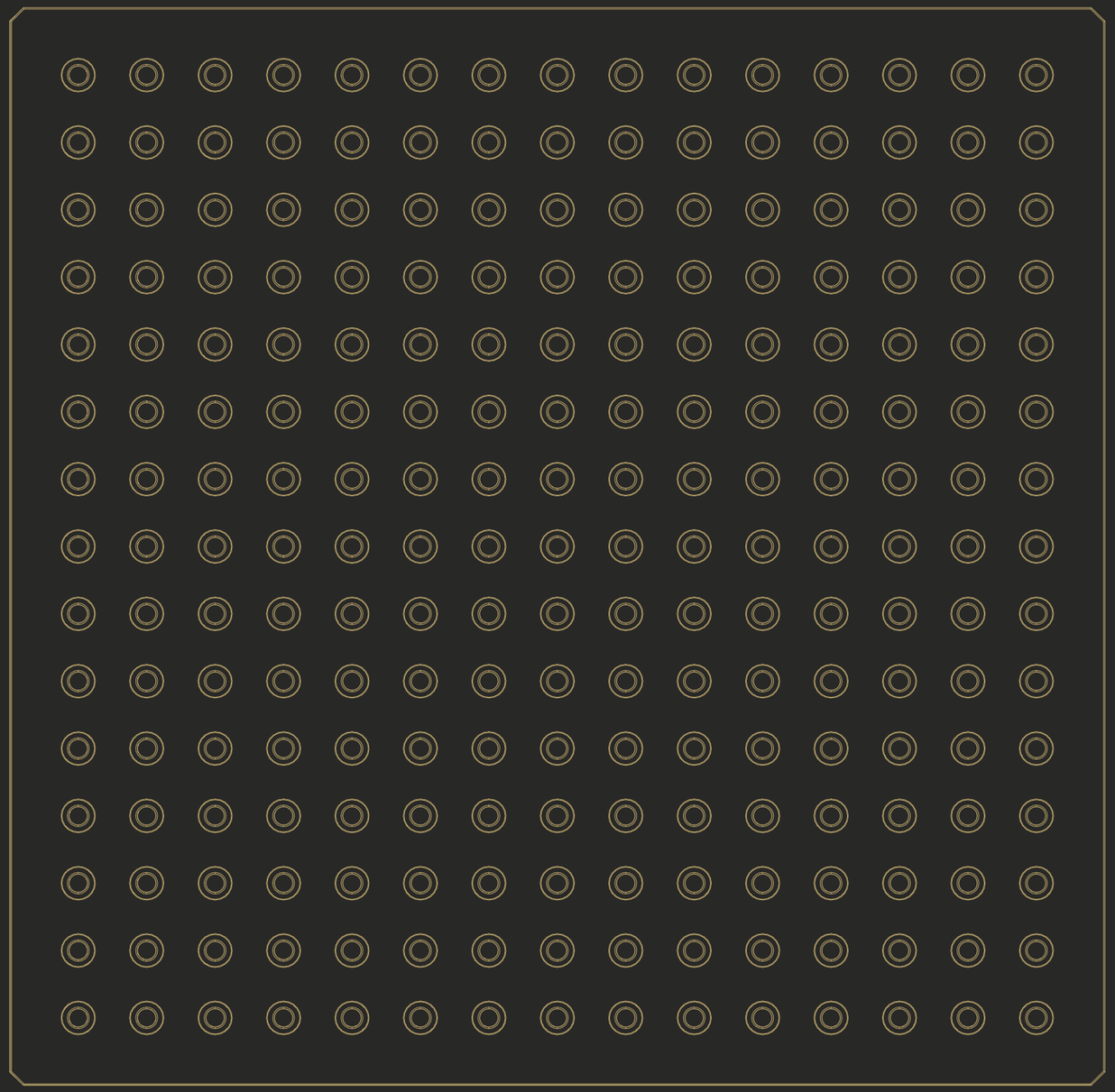
Five free faces of the work piece can be machined without interference. Less set up needed.
Easy to coupling and easy to rise up.

NO CLAMPING LIMITS

Workpieces free positioning from vertical to horizontal (0°-180°).

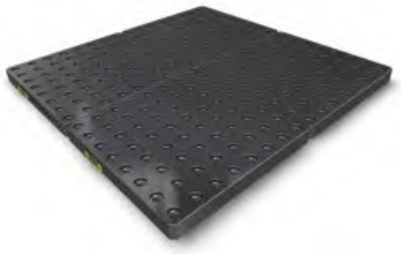


PRODUCTIVITY INCREASE **≥30%**



PLATES AND BUSHES

PLATES AND BUSHES
MODULES AND PINS D90
MODULES AND PINS D49
SPACERS
RISERS
THIRD POINT
MAGNETIC
VERTICAL CLAMPING
MINI RANGE
FASTMILL ZERO
CLAMPS



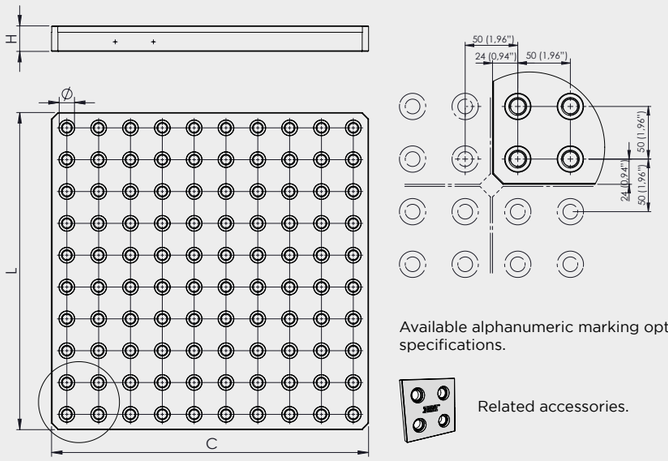
FINISHED MODULAR PLATE

Modular plate, is the first step in equipping a machine with FastMill technology, it allows the user to obtain a grid drilled plate in tolerance directly on the machine table. Made with the utmost precision, it ensures known points where to fix the FastMill systems.

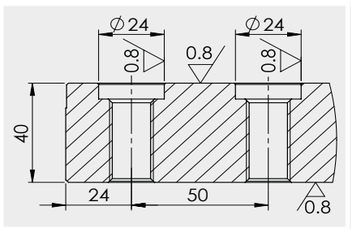
Alternative dimensions and grid as custom solutions on demand.

CODE	DESCRIPTION	L x C	HEIGHT	GRID	Ø
FM PLATE	Finished modular plate	ON DEMAND	40 (1,57")	50 (1,96")	24H

CODE	DESCRIPTION	L x C	HEIGHT	GRID
FM46195201	Finished modular plate	600X400 (23,6"X15,7")	40 (1,57")	50 (1,96")
FM46195202	Finished modular plate	500X500 (19,6"X19,6")	40 (1,57")	50 (1,96")
FM46195203	Finished modular plate	600X500 (23,6"19,6")	40 (1,57")	50 (1,96")
FM46195204	Finished modular plate	800X600 (31,4"23,6")	40 (1,57")	50 (1,96")
FM46195205	Finished modular plate	1000X500 (39,3"X19,6")	40 (1,57")	50 (1,96")
FM46195206	Finished modular plate	1000X600 (39,3"23,6")	40 (1,57")	50 (1,96")
FM46195207	Finished modular plate	1000X800 (39,3"X31,4")	40 (1,57")	50 (1,96")
FM46195208	Finished modular plate	1000X1000 (39,3"X39,3")	40 (1,57")	50 (1,96")
FM46195210	Finished modular plate	800X800 (31,4"X31,4")	40 (1,57")	50 (1,96")
FM46195223	Finished modular plate	800X400 (31,4"X15,7")	40 (1,57")	50 (1,96")



FINISHED



Available alphanumeric marking option for the hole grid according to customer specifications.

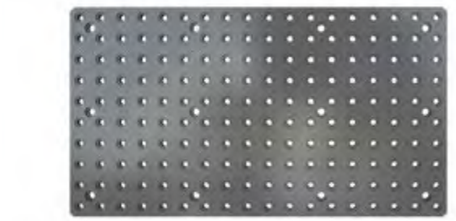
Related accessories.

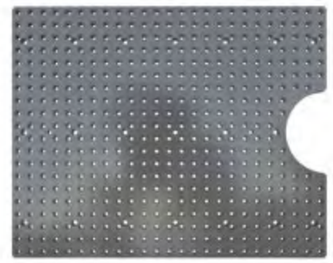
CAP FOR PLATE

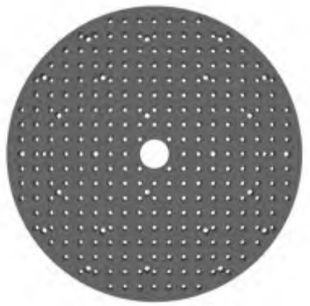
Threaded plug to cover the plate holes when not in use. They prevent chips and dirt from entering the tolerance counterbore.

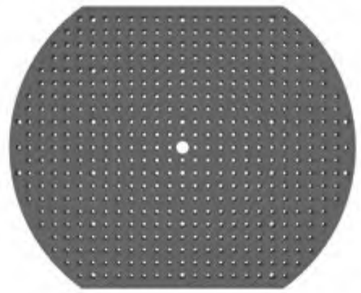
CODE	DESCRIPTION	Ø	M
FM46191016	Cap for plate	24 (0,94")	M16
FM46191012	Cap for plate	20 (0,78")	M12
FM46191011	Cap for plate	18 (0,70")	M12

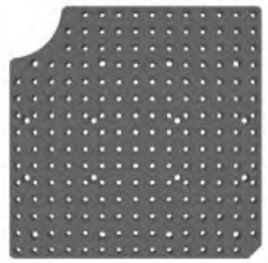
FINISHED MODULAR PLATE EXAMPLE

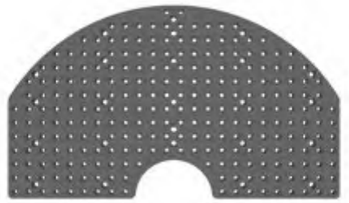












T-NUT

CODE	DESCRIPTION	T	M
FM36008012	T-Nut	T12	M8
FM36008014	T-Nut	T14	M8
FM36012014	T-Nut	T14	M12
FM36012018	T-Nut	T18	M12
FM36016018	T-Nut	T18	M16

CODE	DESCRIPTION	T	M
FM36016022	T-Nut	T22	M16
FM36016024	T-Nut	T24	M16
FM36016028	T-Nut	T28	M16
FM36316028 *	T-Nut	T28	M16

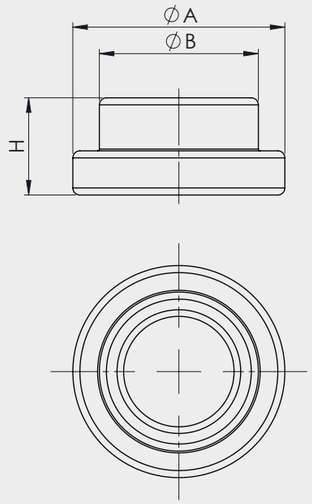
* Rhomboidal version.

BUSH

FastMill bushings are the connection element between our systems. They allow perfect alignment between the elements and are made in several sizes to adapt even to non-standard plates. They are hardened steel and finished ground for a long life under daily use.

CODE	DESCRIPTION	ØA	ØB	HEIGHT
FM46190924	Standard Bush	24 (0,94")	24 (0,94")	11 (0,43")

CODE	DESCRIPTION	ØA	ØB	HEIGHT
FM93000003 *	Bush	24 (0,94")	24 (0,94")	13 (0,51")
FM93000042 *	Bush	24 (0,94")	24 (0,94")	16 (0,23")
FM46190918	Bush	24 (0,94")	18 (0,70")	11 (0,43")
FM46190920	Bush	24 (0,94")	20 (0,78")	11 (0,43")
FM46190922	Bush	24 (0,94")	22 (0,86")	11 (0,43")
FM46190925	Bush	24 (0,94")	25 (0,98")	11 (0,43")
FM93000040 **	Bush	36 (1,41")	24 (0,94")	15 (0,59")
FM93000041 **	Bush	36 (1,41")	36 (1,41")	20 (0,78")

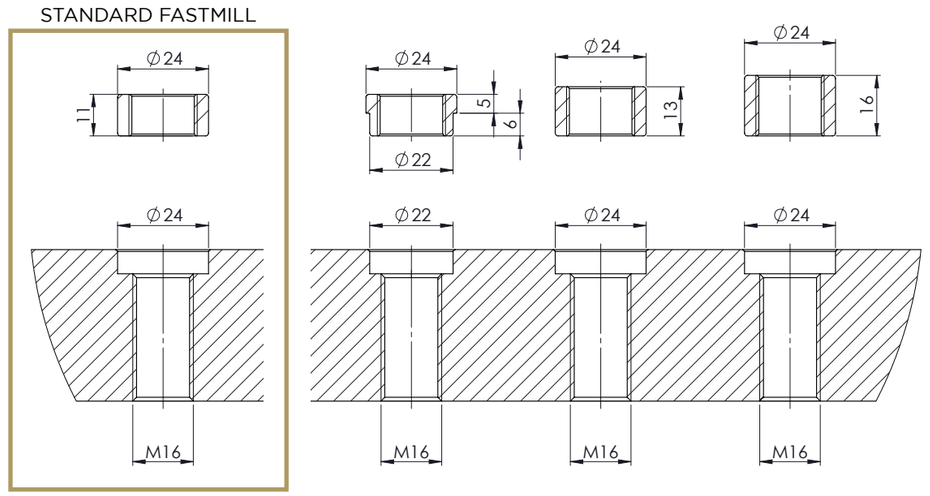


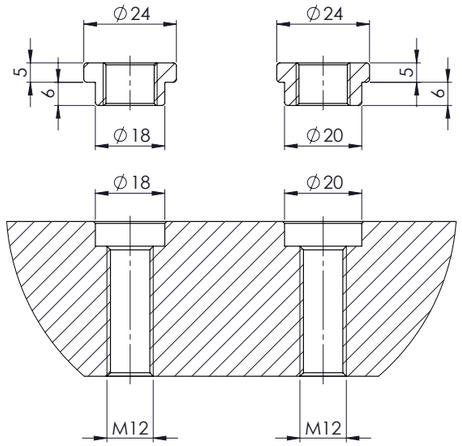
* For special applications.
** For vertical clamping.

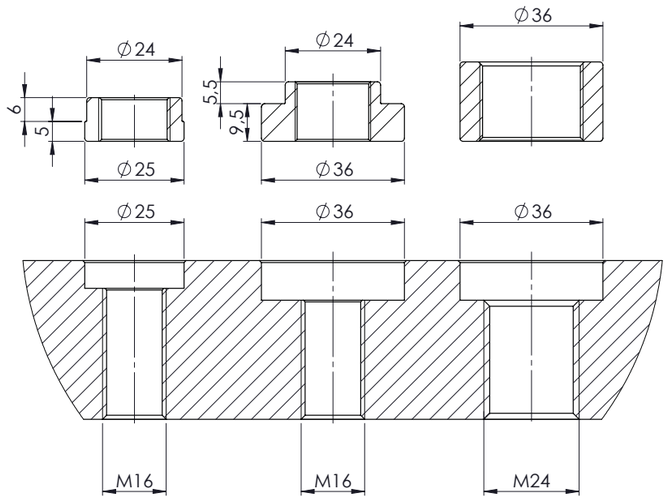
Minimum order quantity for all bushes is 5 pieces or multiple of 5.

EXAMPLE BUSH

STANDARD FASTMILL







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SET FOR MODULAR PLATE ALIGNMENT

Alignment tool with tapered bushings. Allows you to maintain the exact 50mm pitch between 2 adjacently modular FastMill plates.

CODE	DESCRIPTION	DIMENSION	GRID
FM71290172	Set for modular plate alignment	100x100 (3,93"x3,93")	50 (1,96")

SET CONFIGURATION	N°
Plate for alignment	1 piece
Cones bushes	4 pieces

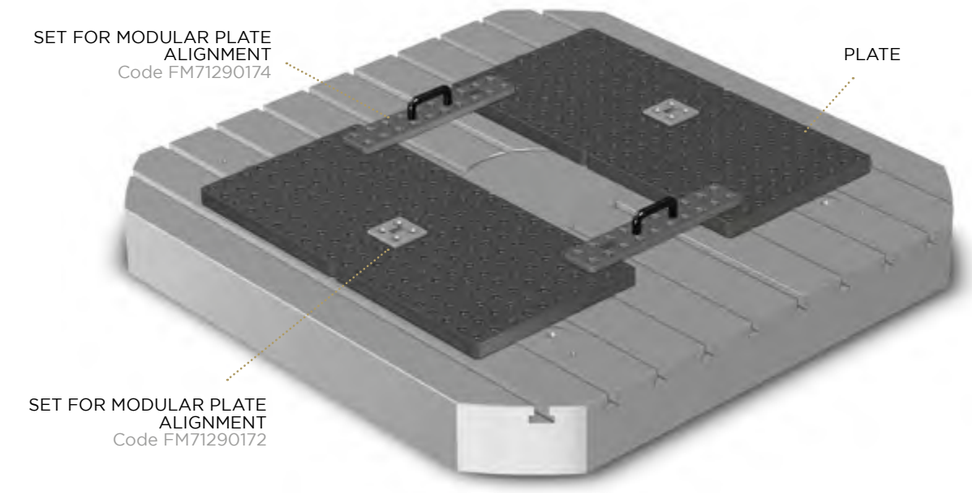
SET FOR MODULAR PLATE ALIGNMENT

Alignment tool with tapered bushings. Allows you to maintain the exact pitch between 2 modular FastMill plates at a pitch between 50mm and 450mm.

CODE	DESCRIPTION	DIMENSION	GRID
FM71290174	Set for modular plate alignment	500x100 (19,6"x3,93")	50 (1,96") / 450 (17,71")

SET CONFIGURATION	N°
Plate for alignment	1 piece
Cones bushes	4 pieces

SETUP EXAMPLE

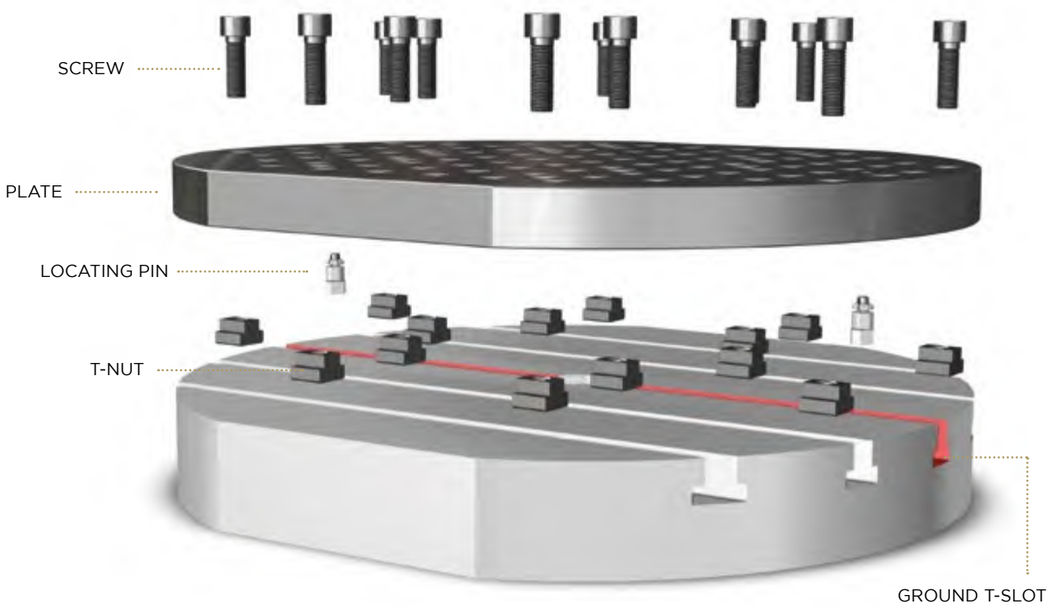


LOCATING PIN EXPANDING FOR H7 T-SLOT

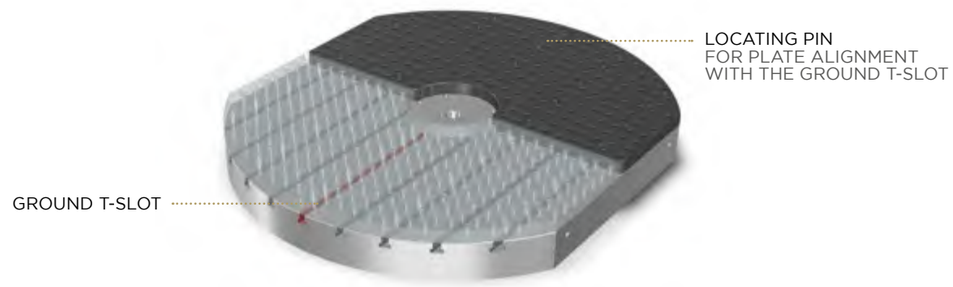
The locating pin ensures the correct alignment of a FastMill plate mounted on a machine table having at least one ground slot.

CODE	DESCRIPTION	Ø	T-SLOT
FM71290181	Locating pin expanding for H7 t-slot	16 (0,72")	12-22
FM71290182	Locating pin expanding for H7 t-slot	16 (0,72")	14-16-18
FM71290183	Locating pin expanding for H7 t-slot	16 (0,72")	10-20
FM71290184	Locating pin expanding for H7 t-slot	20 (0,78")	24-28-32

SETUP EXAMPLE



SETUP EXAMPLE



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CUBE/TOMBSTONE

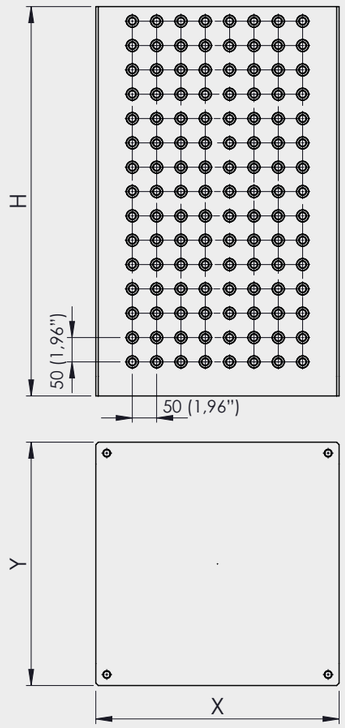
FastMill cubes are made to customer specifications and can have one to five faces with a FastMill grid. Can be fixed on T-slots or by modules.

ON DEMAND

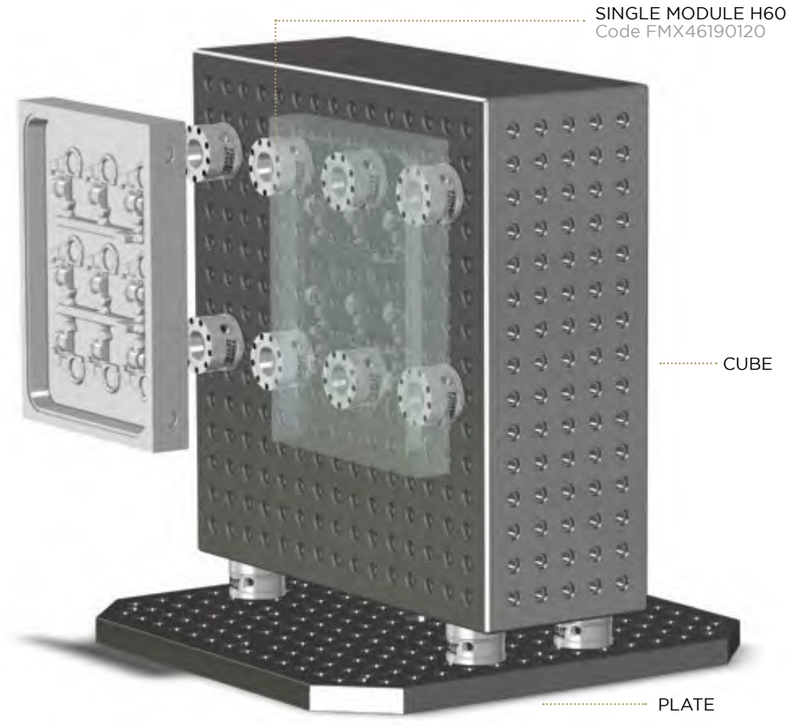
Alternative dimensions or custom solutions on demand.

CODE	DESCRIPTION	DIMENSION	HEIGHT	WEIGHT
FM57700700	Cube/Tombstone	500x500 (19,6"x19,6")	800 (31,4")	597 (1316 lbs)

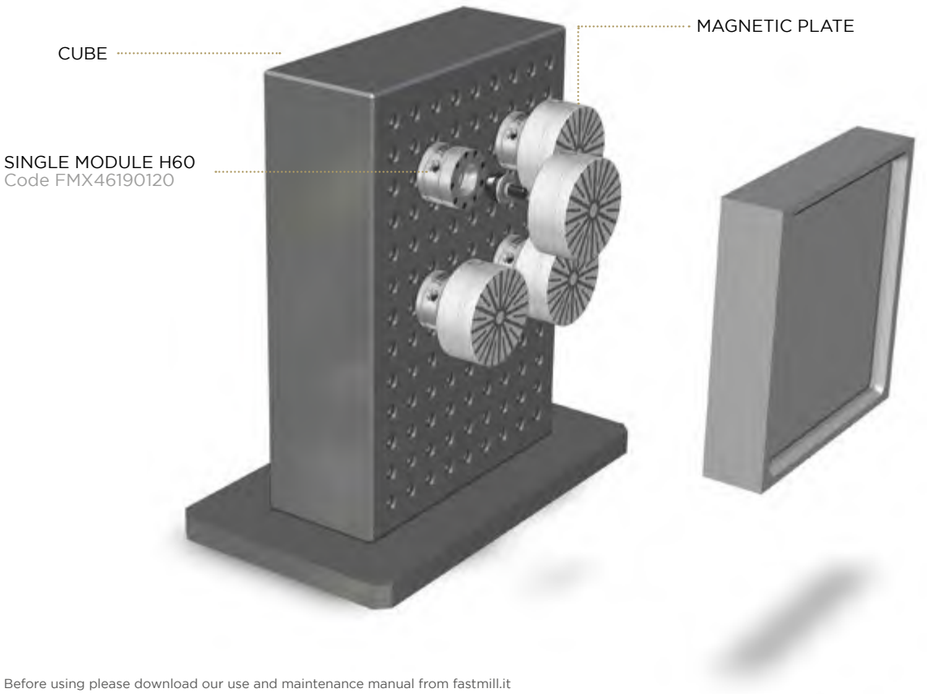
CUBE/TOMBSTONE



SETUP EXAMPLE



SETUP EXAMPLE



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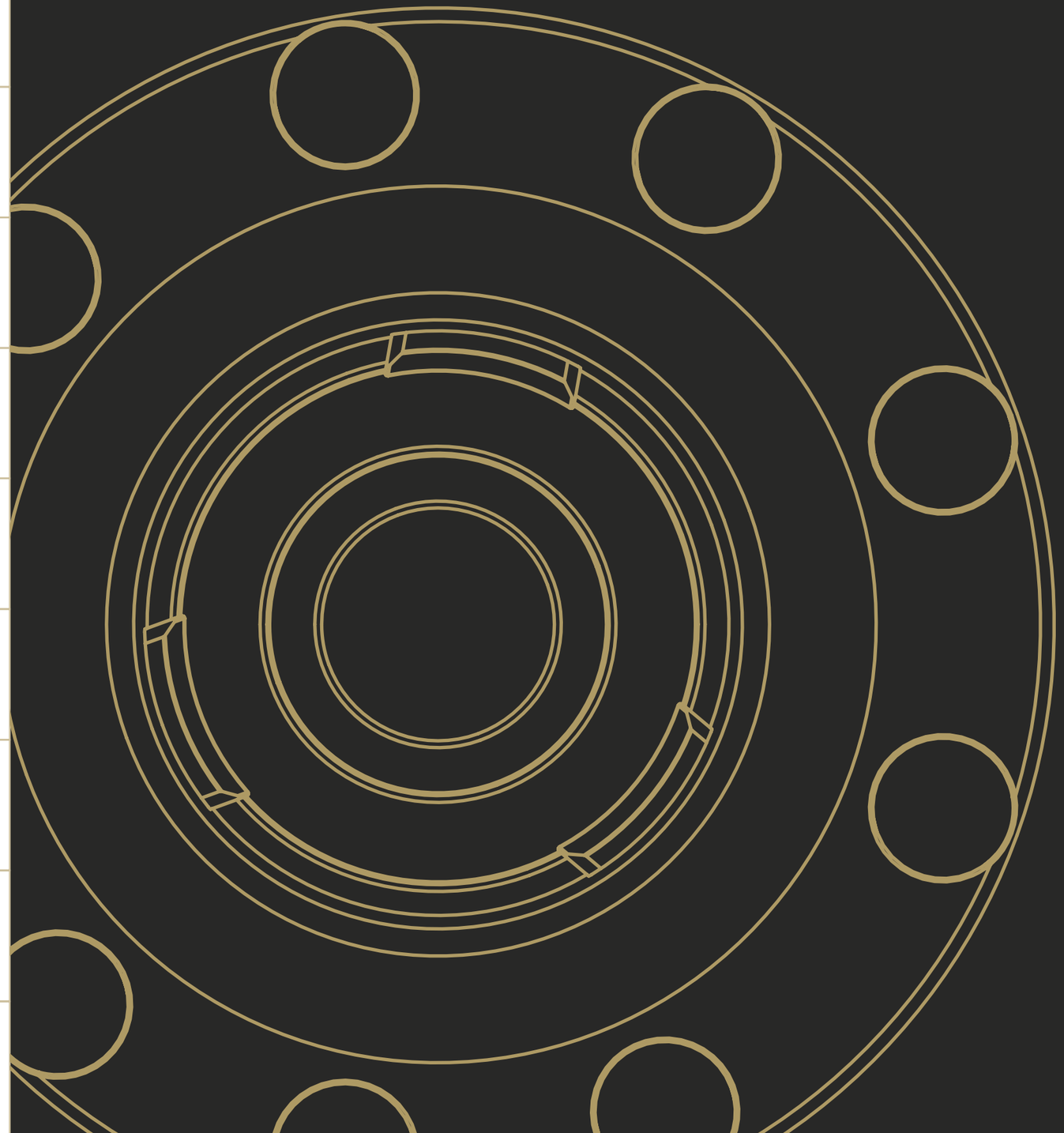


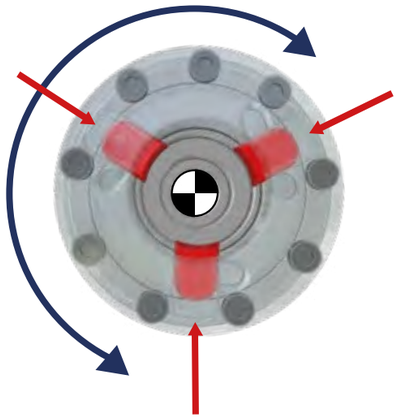
MODULES AND PINS D90

PLATES AND BUSHES
MODULES AND PINS D90
MODULES AND PINS D49
SPACERS
RISERS
THIRD POINT
MAGNETIC
VERTICAL CLAMPING
MINI RANGE
FASTMILL ZERO
CLAMPS

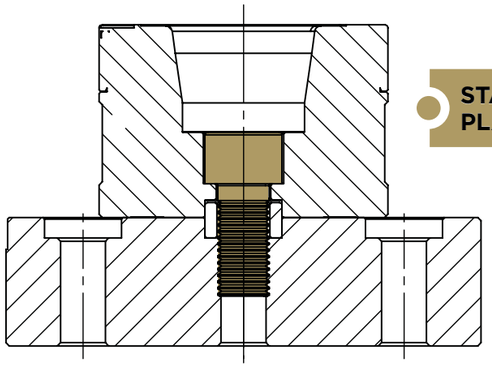
MAIN FEATURES

360° POSITIONING / NO NEED TO ORIENT THE SYSTEM

- STAINLESS STEEL
- HARDENED BODY
- 15Nm LOCKING SCREW
- SAFETY SYSTEM FOR EMERGENCY OPENING



- ULTRA PRECISE ZERO POINT
- AUTO-CENTERING SYSTEM



- STANDARD SCREW FOR PLATE FIXING 12.9 GRADE

MAIN FEATURES

360° POSITIONING / NO NEED TO ORIENT THE SYSTEM

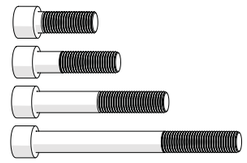
- RING FOR ZERO POINT POSITIONING
- PROTECTED BY THE PRE-CENTERING BODY

- PRE-CENTERING BODY
- WITHSTANDS SHOCK WITHOUT COMPROMISING FUNCTIONALITY
- ALLOWS WORKPIECE TO REST ON THE FLOOR

- STANDARD SCREW (12.9 GRADE) FOR WORKPIECE FIXING
- QUICK AND LOW COST CHANGEOVER FOR DIFFERENT HEIGHT SETTINGS BY CHANGING THE SCREW LENGTH

TECHNICAL TIPS

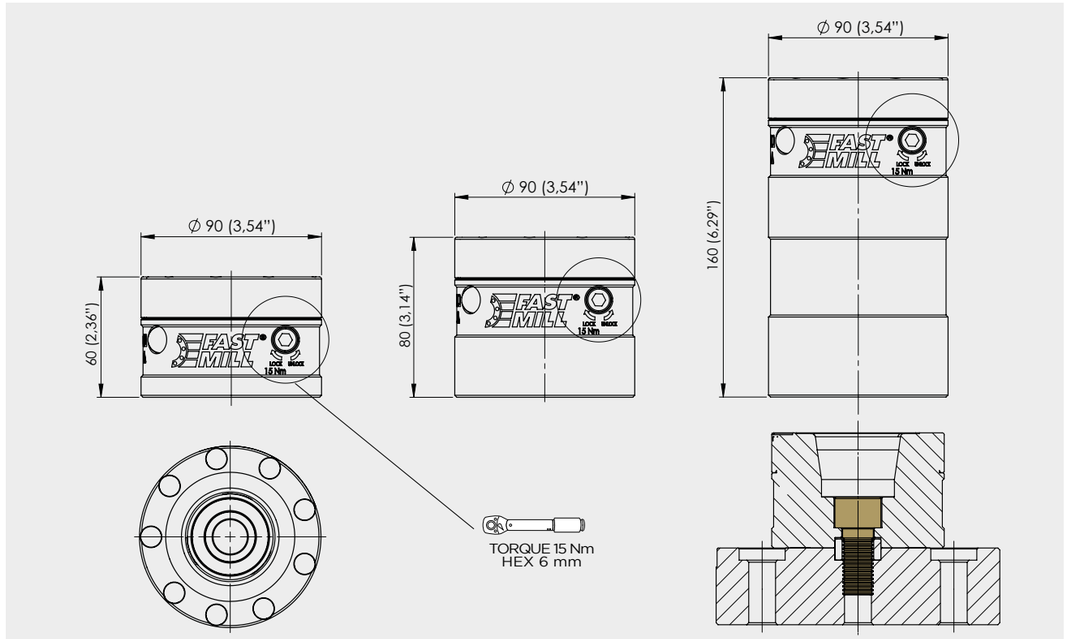
The whole range of FASTMILL® modules use standard 12.9 (DIN912) screws from M6 to M10 or higher of different heights for the connection of the pieces, to the pallets and to the spacers.



SINGLE MODULE Ø90

The FastMill module is the heart of the system. Developed over the years based from extensive R&D, this module is the connection point between the workpiece and the FastMill plate. Extreme resistance and precision at the highest levels. The workpiece becomes a single body with the machine table. Set up the machine and start working in a snap.

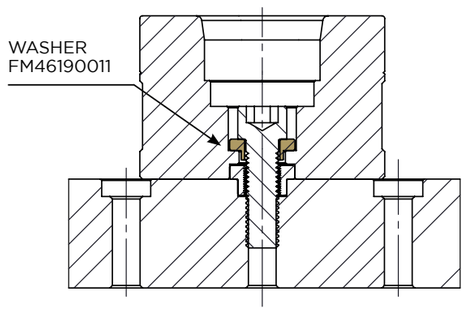
CODE	DESCRIPTION	HEIGHT	Ø	FIXING SCREW	WEIGHT
FMX46190120	Single module H60	60 (2,36")	90 (3,54")	M16 - M12 *	2,3 (5,07 lbs)
FMX46190130	Single module H80	80 (2,36")	90 (3,54")	M16 - M12 *	2,3 (5,07 lbs)
FMX46190140	Single module H160	160 (2,36")	90 (3,54")	M16 - M12 *	2,3 (5,07 lbs)
FM93000022	Torque wrench				



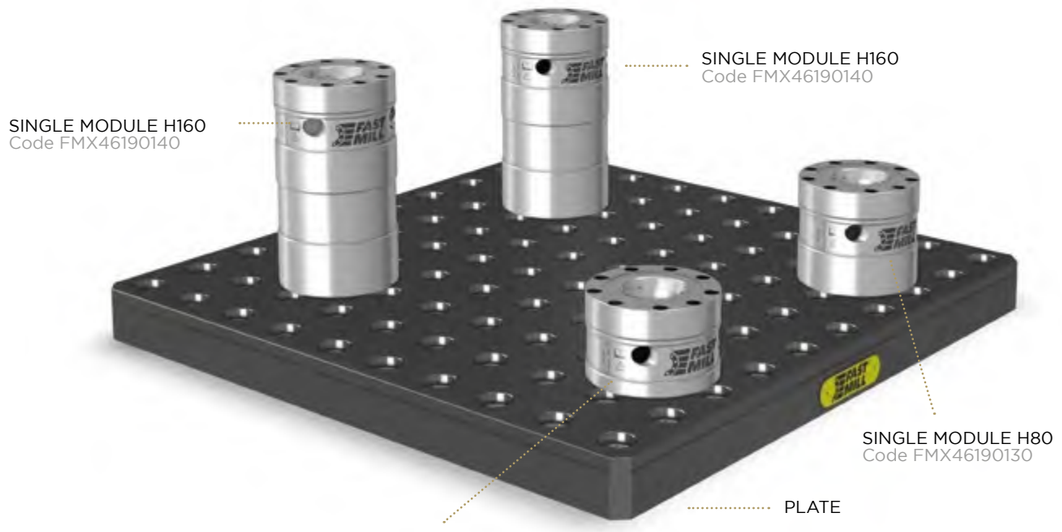
REDUCER WASHER FOR SCREW M12 (*)

CODE	DESCRIPTION	Ø	M
FM46190008	Reducer washer for pin	M12	M6
FM46190010	Reducer washer for pin	M12	M8
FM46190011 **	Reducer washer for pin	M16	M10-M12

** Usable with single modules h 60/80/160 mm.



SINGLE MODULES COMBINATION EXAMPLE



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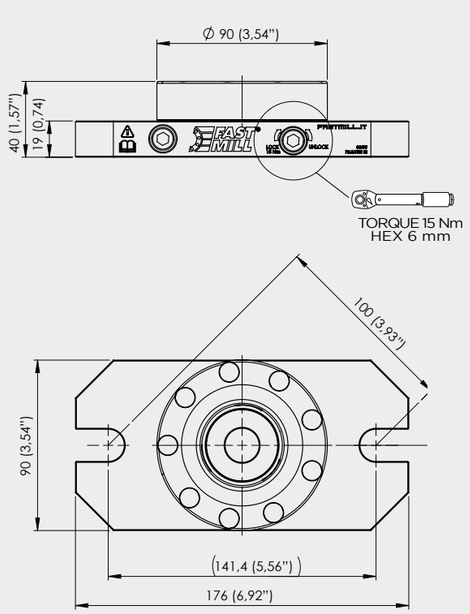
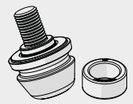
SINGLE MODULE H40

The FastMill H40 module is designed for mixed use in a T-slot as a clamping system or on a plate as a clamping and positioning system. The H40 allows customers to utilize the FastMill system with or without plate.

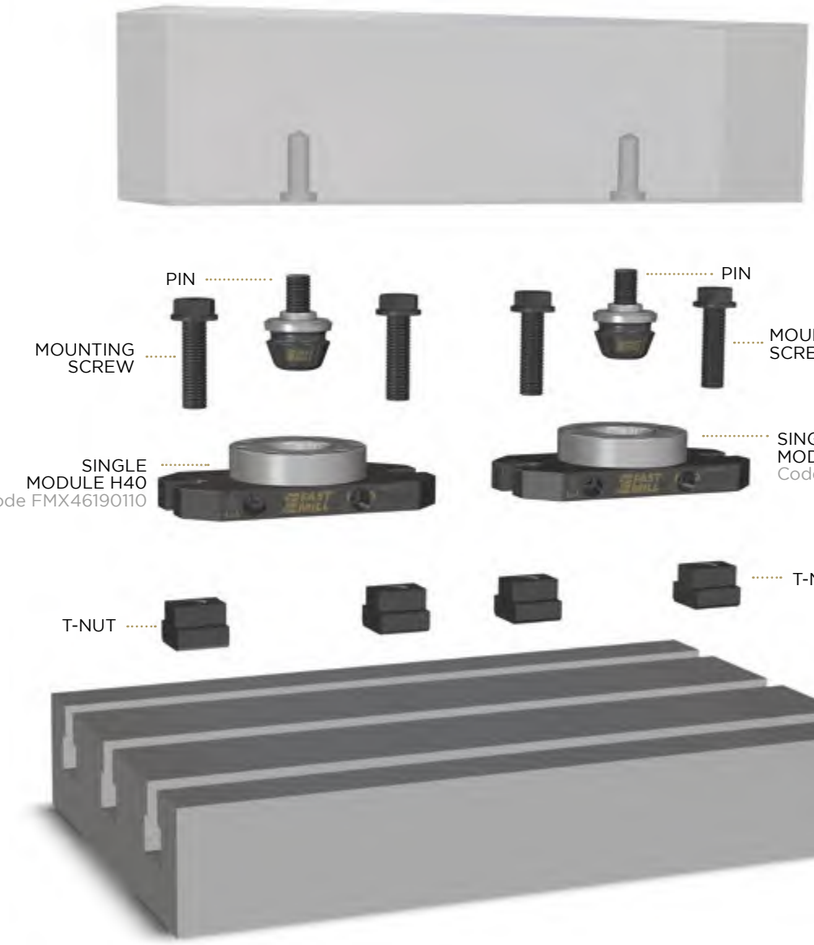
CODE	DESCRIPTION	DIMENSIONS	Ø	WEIGHT
FMX46190110	Single module H40	40x176 (1,57"x6,92")	90 (3,54")	2,7 (5,95 lbs)
FM93000022	Torque wrench			





Related pins and bushes.

SINGLE MODULES H40 COMBINATION EXAMPLE



SINGLE MODULES H40 COMBINATION EXAMPLE

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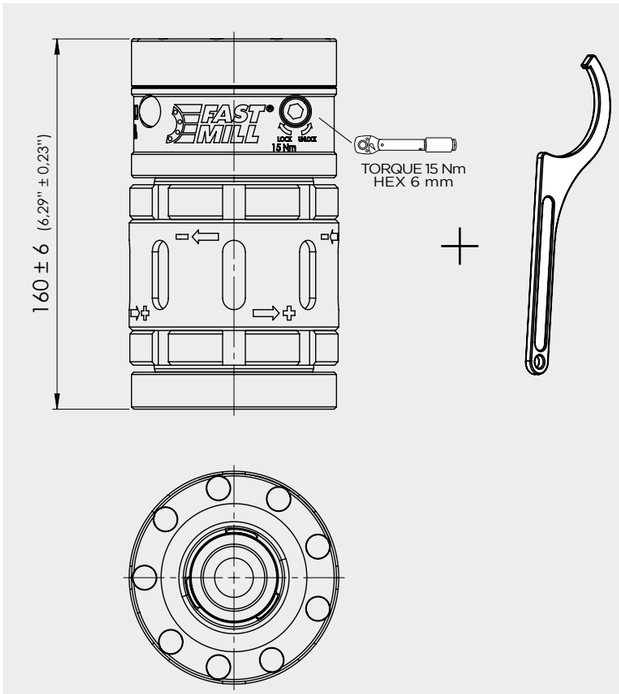
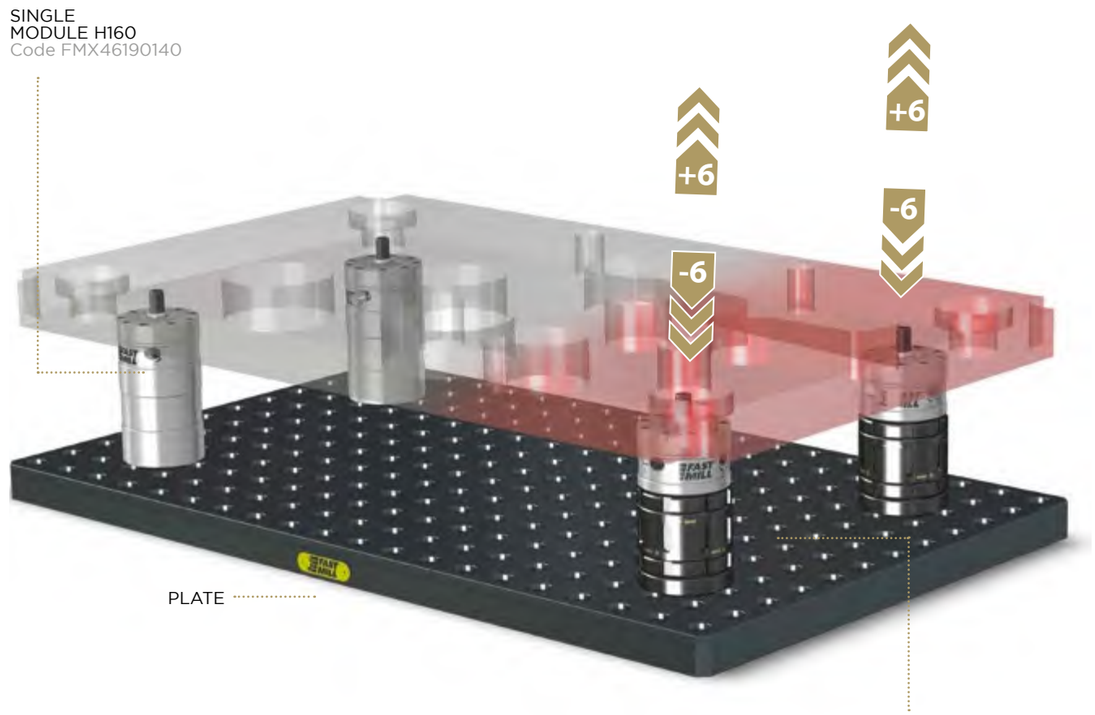
ADJUSTABLE MODULE Ø90

The adjustable FastMill module allows a vertical movement of +/-6mm. It allows you to push and align the workpiece but also to pull it downwards, a condition that is impossible with traditional clamping systems. Featuring a fine pitch M70 thread system, it provides the force you need with the precision you expect.

CODE	DESCRIPTION	HEIGHT	Ø	WEIGHT
FMMSADJ901606	Adjustable module Ø90	160 ± 6 (6,29" ± 0,23")	90 (3,54")	5,1 (11,24 lbs)
FM93000022	Torque wrench			
FM93000019	Hook wrench 92-95			



SETUP EXAMPLE



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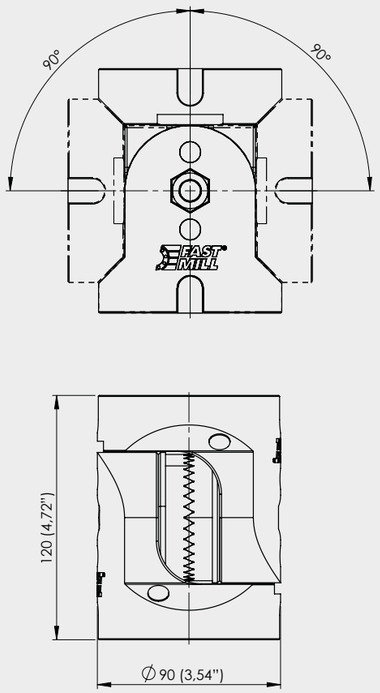
TILTING MODULE Ø90 WITH 10° HIRTH

BASE PLATE FOR TILTING MODULE

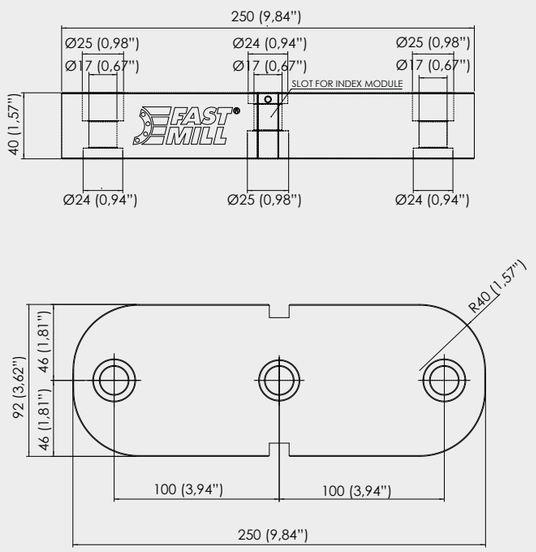
The tilting module with incremental 10° pitch hirt allows you to convert the set up from 3 to multiple axes without repositioning the workpiece. Compact and extremely rigid, it guarantees maximum clamping dynamics.

CODE	DESCRIPTION	DIMENSION	HEIGHT	WEIGHT
FMTMSS1090120	Tilting module Ø90 with 10° hirth	Ø 90 (3,54")	120 (4,72")	4,8 (10,58 lbs)
FMTMSS1090C06	Base plate for tilting module	250x92 (9,84"x3,62")	40 (1,57")	5,1 (11,24 lbs)

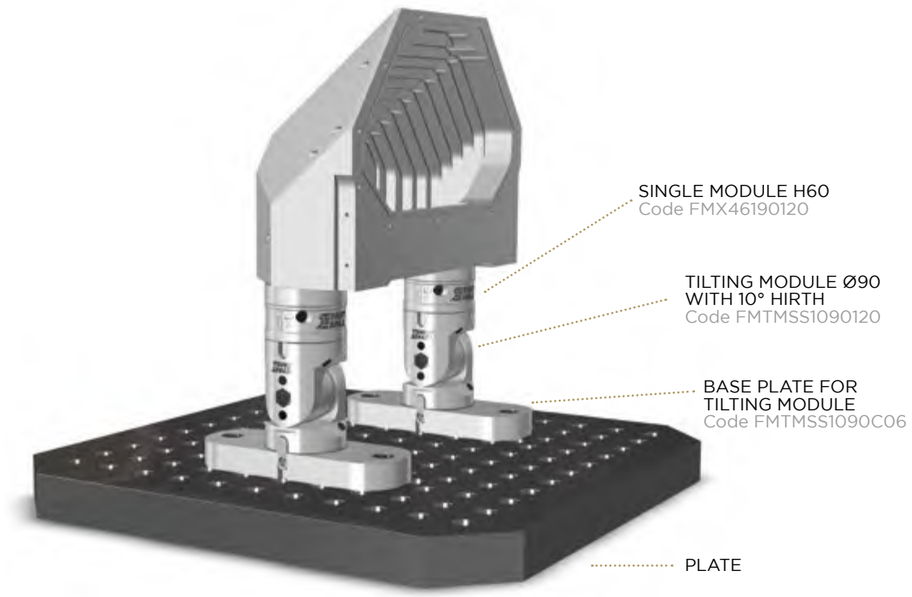
TILTING MODULE Ø90 WITH 10° HIRTH



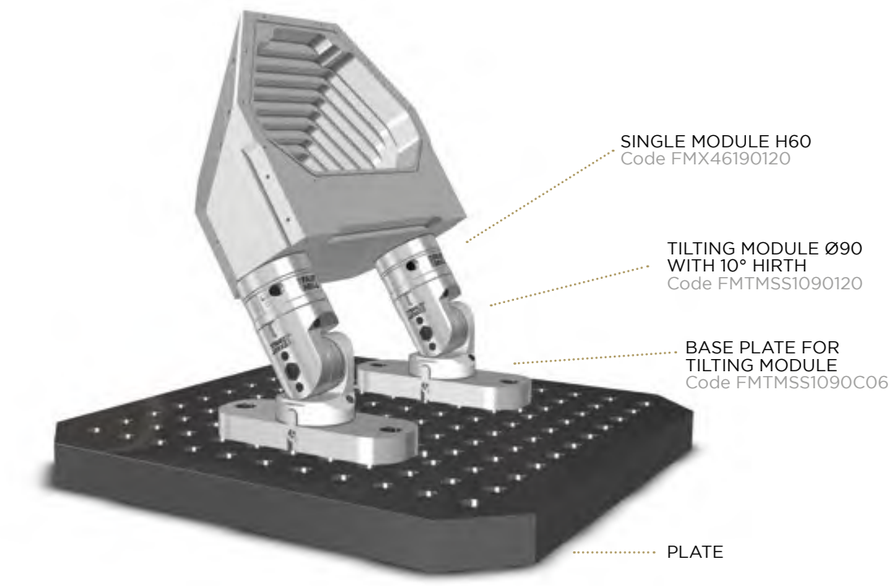
BASE PLATE FOR TILTING MODULE



SETUP EXAMPLE 0°



SETUP EXAMPLE 30°



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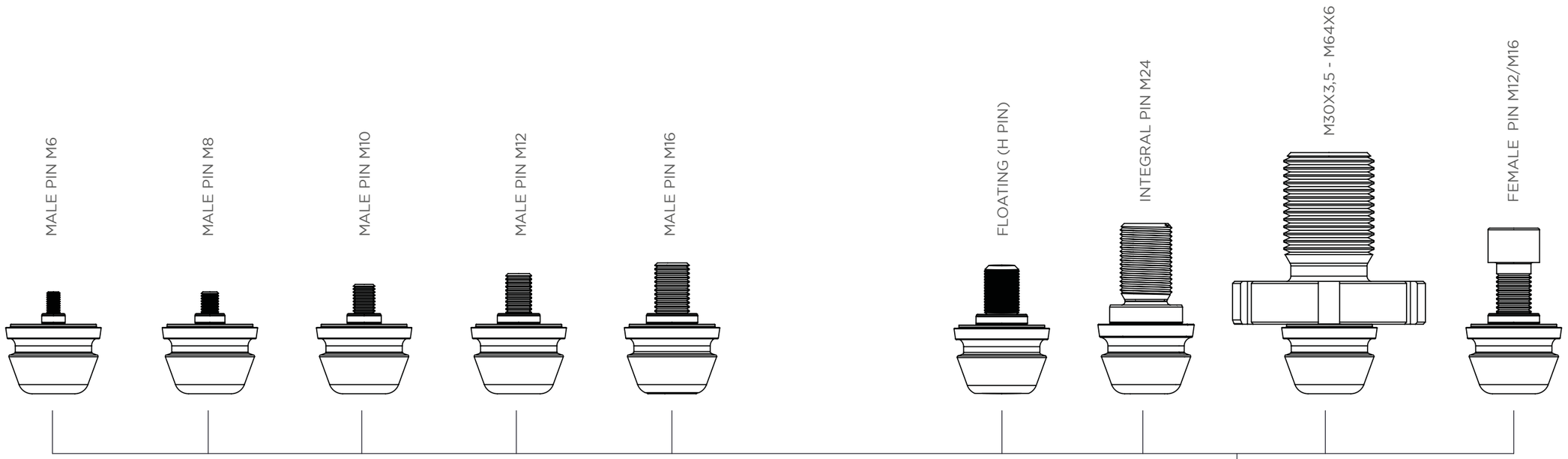
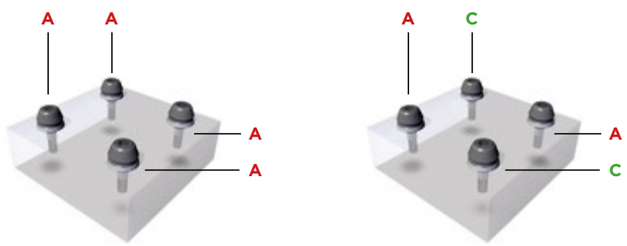
SINGLE MODULE Ø90 ASSEMBLY EXAMPLE



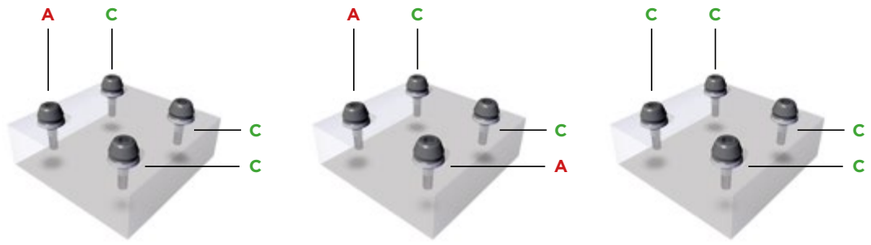
TECHNICAL INFORMATION

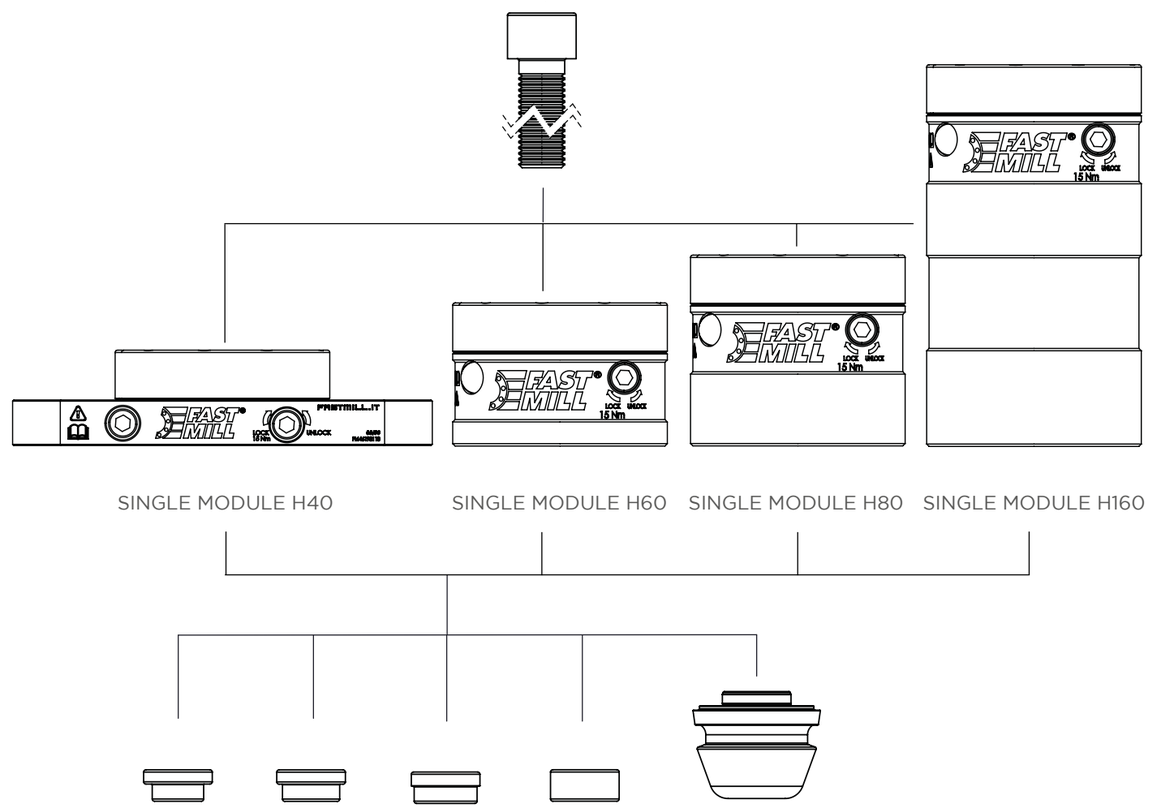
A	C	
CENTERING PIN	**CLAMPING PIN**	Clamping and positioning of fixture and/or workpiece are achieved through the clamping pins. Type A is used for centering and clamping, type C only for clamping.

SMALL PARTS



BIG PARTS





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MALE PIN FOR SINGLE MODULE Ø90

The male pins for D90 modules are a concentration of technology expressed in the smartest way possible. The rugged pre-centering body of the pin absorbs shock and pre-centers the workpiece with the module, while protecting the overlying centering ring ensuring mating accuracy. Finally, the commercial standard screw holds everything to the workpiece and can be swapped out in a flash to change your clamping setup. Available type A for clamping and positioning and type C for clamping with a slight freedom in positioning.

A = CENTERING AND CLAMPING **C = CLAMPING**

Screw 12.9 (DIN912) included.

M6 MALE PIN FOR SINGLE MODULE Ø90

CODE	DESCRIPTION	M	Ø	TYPE
FM46191105	Male pin	M6	10 (0,39")	A
FM46193105	Male pin	M6	10 (0,39")	C
FM46191106	Male pin	M6	11 (0,43")	A
FM46193106	Male pin	M6	11 (0,43")	C

M8 MALE PIN FOR SINGLE MODULE Ø90

CODE	DESCRIPTION	M	Ø	TYPE
FM46191107	Male pin	M8	12 (0,47")	A
FM46193107	Male pin	M8	12 (0,47")	C
FM46191108	Male pin	M8	14 (0,55")	A
FM46193108	Male pin	M8	14 (0,55")	C

M10 MALE PIN FOR SINGLE MODULE Ø90

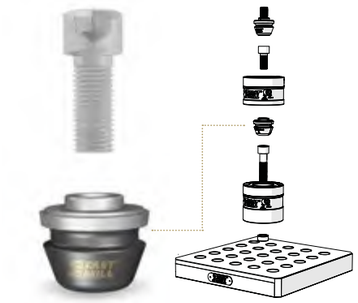
CODE	DESCRIPTION	M	Ø	TYPE
FM46191109	Male pin	M10	14 (0,55")	A
FM46193109	Male pin	M10	14 (0,55")	C
FM46191110	Male pin	M10	16 (0,62")	A
FM46193110	Male pin	M10	16 (0,62")	C

M12 MALE PIN FOR SINGLE MODULE Ø90

CODE	DESCRIPTION	M	Ø	TYPE
FM46191111	Male pin	M12	18 (0,70")	A
FM46193111	Male pin	M12	18 (0,70")	C
FM46191121	Male pin	M12	20 (0,78")	A
FM46193121	Male pin	M12	20 (0,78")	C

M16 MALE PIN FOR SINGLE MODULE Ø90

CODE	DESCRIPTION	M	Ø	TYPE
FM46191132	Male pin	M16	22 (0,86")	A
FM46193132	Male pin	M16	22 (0,86")	C
FM46191142	Male pin	M16	24 (0,94")	A
FM46193142	Male pin	M16	24 (0,94")	C
FM46191143	Male pin	M16	25 (0,98")	A



FEMALE PIN FOR SINGLE MODULE Ø90

Female pin with threaded body, with identical characteristics to the male pin. This concept allows the fixing of a screw from above. Used for clamping on workpieces with reduced thickness (where it would not be possible to thread) or for assembling one module on top of the other.

A = CENTERING AND CLAMPING **C = CLAMPING**

Screw not included.

M12 FEMALE PIN FOR SINGLE MODULE Ø90

CODE	DESCRIPTION	M	Ø	TYPE
FM46191211	Female pin	M12	18 (0,70")	A
FM46193211	Female pin	M12	18 (0,70")	C
FM46191221	Female pin	M12	20 (0,78")	A
FM46193221	Female pin	M12	20 (0,78")	C

M16 FEMALE PIN FOR SINGLE MODULE Ø90

CODE	DESCRIPTION	M	Ø	TYPE
FM46191232	Female pin	M16	22 (0,86")	A
FM46193232	Female pin	M16	22 (0,86")	C
FM46191242	Female pin	M16	24 (0,94")	A
FM46193242	Female pin	M16	24 (0,94")	C

INTEGRAL PIN M24

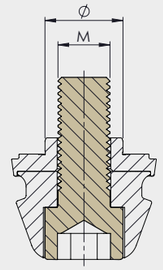
The integral pin M24 has been designed for extremely heavy use, thus covering the entire range of machining. Available type A for clamping and centering or type C for clamping with a slight freedom of positioning.

A = CENTERING AND CLAMPING **C = CLAMPING**

M24 INTEGRAL PIN FOR SINGLE MODULE Ø90

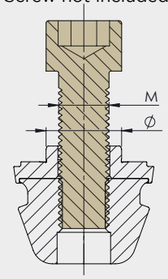
CODE	DESCRIPTION	M	Ø	TYPE
FM46191162	Integral Pin	M24	34 (1,33")	A
FM46191164	Integral Pin	M24	34 (1,33")	C
FM46191163	Integral Pin	M24	36 (1,33")	A
FM46191165	Integral Pin	M24	36 (1,33")	C

MALE PIN FOR SINGLE MODULE Ø90

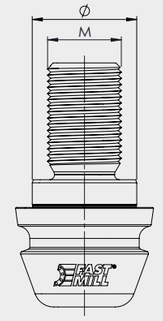


FEMALE PIN FOR SINGLE MODULE Ø90

Screw not included.



INTEGRAL PIN M24



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PATENTED

FLOATING PIN (H PIN)

The patented H pin is a system created by FastMill that allows clamping on workpieces offering a limited degree of deformation on the face in contact with the FastMill modules.
H pin, utilizing the sliding and tilting design, allows workpieces to be machined after hardening without the need to make further clamping holes by simply enlarging the centering counterbore.

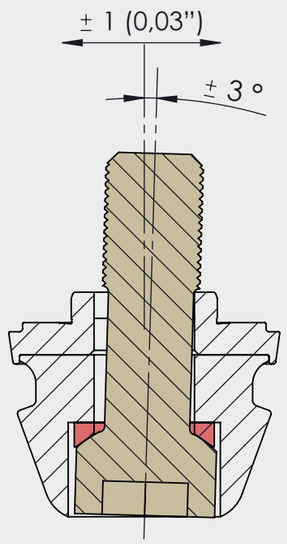
A = CENTERING AND CLAMPING **C = CLAMPING**

M12 FLOATING PIN

CODE	DESCRIPTION	M	Ø	TYPE
FM46191411	Floating Pin	M12	18 (0,70")	A
FM46193411	Floating Pin	M12	18 (0,70")	C
FM46191421	Floating Pin	M12	20 (0,78")	A
FM46193421	Floating Pin	M12	20 (0,78")	C

M16 FLOATING PIN

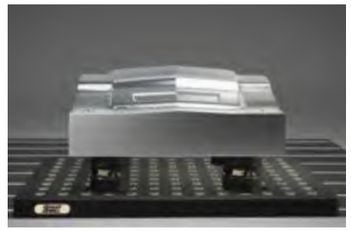
CODE	DESCRIPTION	M	Ø	TYPE
FM46191442	Floating Pin	M16	24 (0,94")	A
FM46193442	Floating Pin	M16	24 (0,94")	C



PATENTED

RE-MACHINING PROCESS OF THE COUNTERBORES TO COMPENSATE FOR DISTORTION OF THE PART.

1: MACHINING COUNTERBORES (SMALLER Ø) EX. M16 Ø22



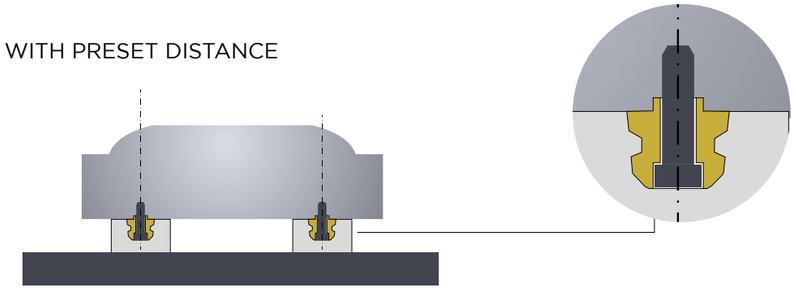
2: ROUGHING

3: HEAT TREATMENT

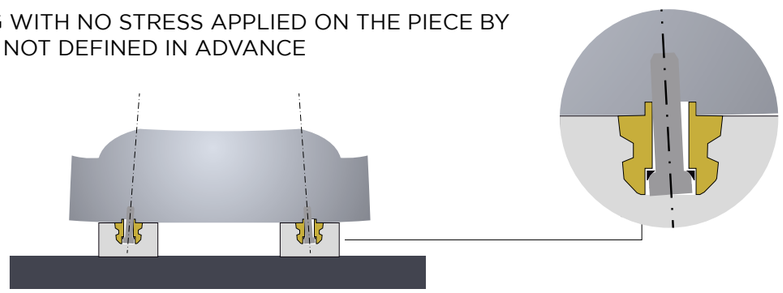
4: ENLARGING HOLES (LARGER Ø) EX. M16 Ø24

FLOATING PIN (H PIN): INNOVATIVE SOLUTION FOR WORKPIECE RE-POSITIONING WITH NO STRESS APPLIED ON THE PIECE.

CLAMPING WITH PRESET DISTANCE



CLAMPING WITH NO STRESS APPLIED ON THE PIECE BY DISTANCE NOT DEFINED IN ADVANCE



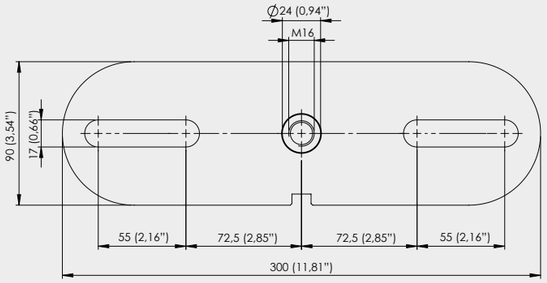
SLIDE PLATE AND CLOCK PLATE FOR Ø90 MODULE

(FOR CLAMP ON ANY POSITION)

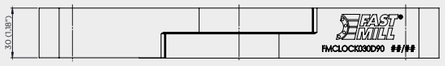
The FastMill slide and clock solutions for D90 module allow the fixing on the plate grid of a component on which it is not possible to maintain a drilling and counterbore at 50mm pitch: Maximum clamping flexibility and possibility of using existing holes on the workpiece.

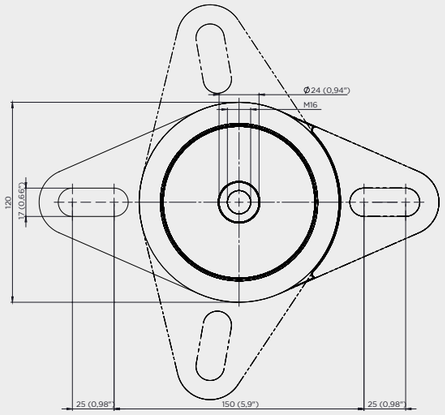
CODE	DESCRIPTION	DIMENSION	HEIGHT	WEIGHT
FMSLIDE030D90	Slide plate for Ø90 module	300x90 (11,81"x3,54")	30 (1,18")	5,1 (11,24 lbs)
FMCLOCK030D90	Clock plate for Ø90 module	240x120 (9,44"x4,72")	30 (1,18")	2,2 (4,85 lbs)

SLIDE PLATE FOR Ø90 MODULE
FMSLIDE030D90

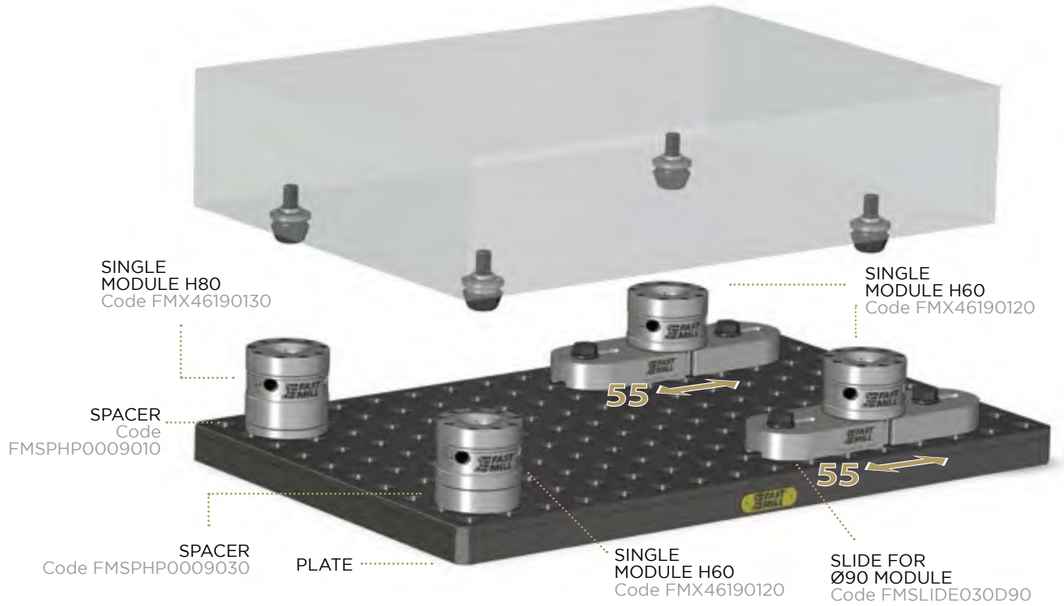


CLOCK PLATE FOR Ø90 MODULE
FMCLOCK030D90

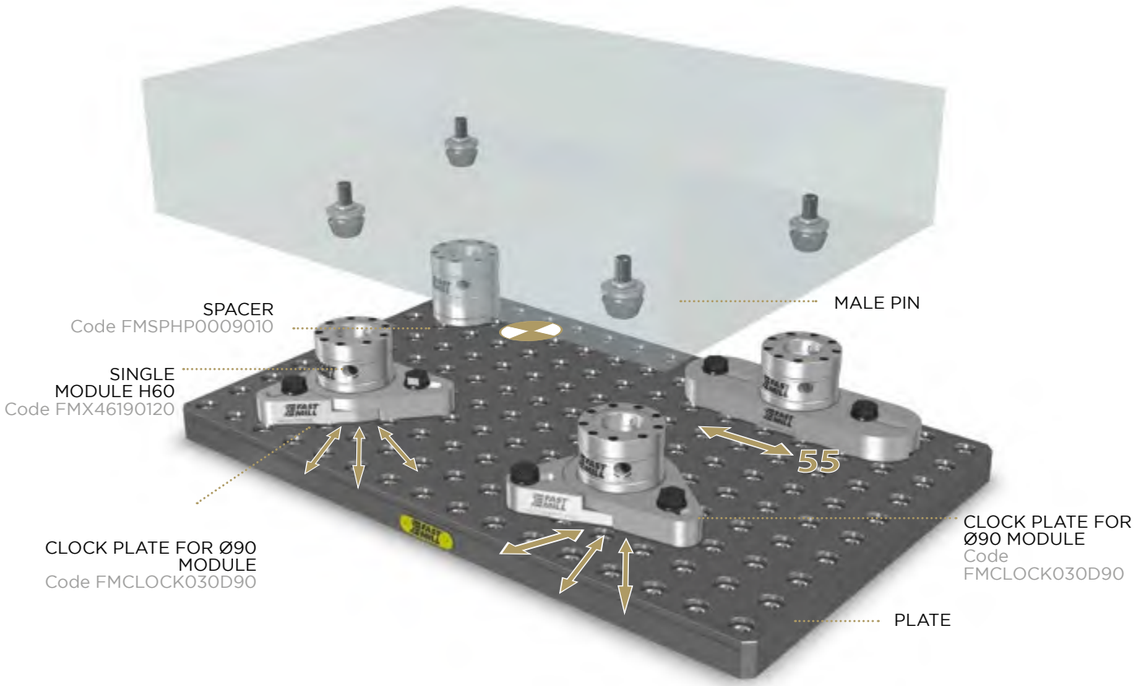




SETUP 2 ZERO POINTS / 2 SLIDE POINTS



SETUP 1 ZERO POINT / 3 FREE POINTS



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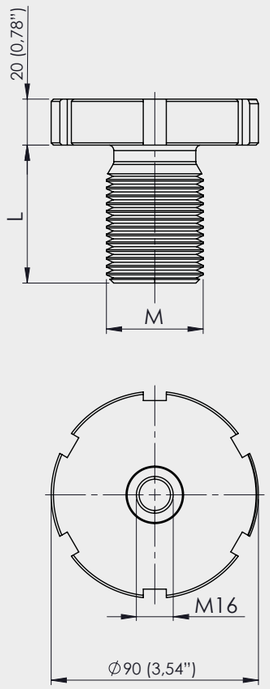
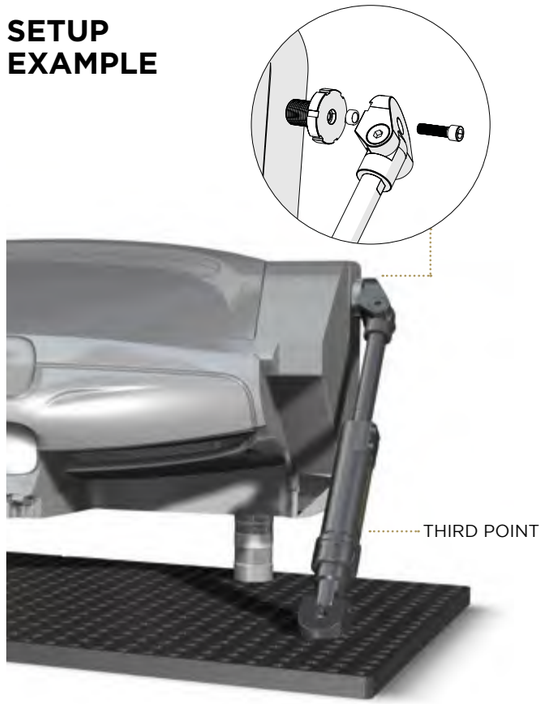
ADAPTER M20 > M64 FOR CLAMPING ON EXISTING LIFTING HOLES

FastMill adapter is used directly on the workpiece lifting holes for fixing our clamping systems where it is not possible to perform any type of machining to house the pins. The available threads cover the main lifting eye range. On the face opposite the thread there is a standard FastMill interface with M16 hole and D24 counterbore.

CODE	DESCRIPTION	M	L
FM93000043	Adapter	M20x2,5	30 (1,18")
FM93000028	Adapter	M24X3	35 (1,37")
FM93000010	Adapter	M30X3,5	40 (1,57")
FM93000023	Adapter	M36X3	50 (1,96")
FM93000011	Adapter	M36X4	50 (1,96")
FM93000024	Adapter	M42X3	60 (2,36")
FM93000012	Adapter	M42X4,5	60 (2,36")
FM93000025	Adapter	M48X3	70 (2,75")
FM93000013	Adapter	M48X5	70 (2,75")
FM93000014	Adapter	M56X5,5	80 (3,14")
FM93000015	Adapter	M64X6	90 (3,54")



SETUP EXAMPLE



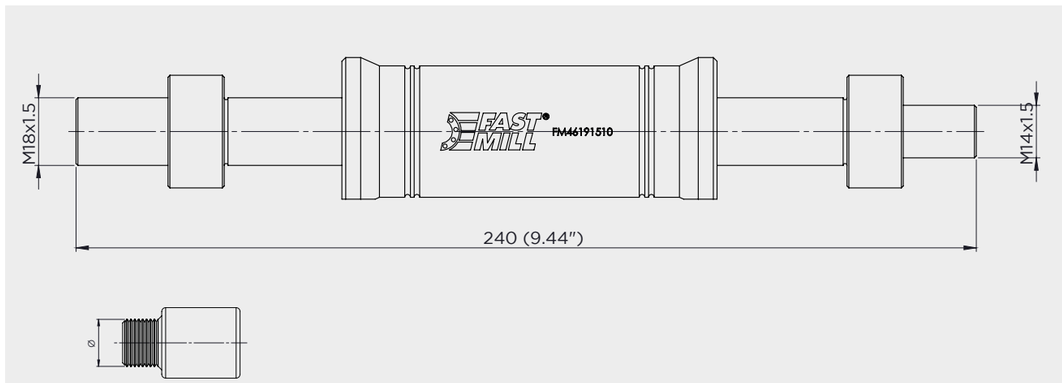
EXTRACTOR ADAPTER PIN AND BUSH EXTRACTOR

Extractor pin used for the removal of FastMill components.

CODE	DESCRIPTION	DIMENSION
FM46191510	Pin and bush extractor	295 (11,61")

CODE	DESCRIPTION	FOR PIN
FM46191520	Extractor adapter	M6
FM46191521	Extractor adapter	M8
FM46191522	Extractor adapter	M10
FM46191523 *	Extractor adapter	M14
FM46191525 **	Extractor adapter	M26

* Usable with FMZ range.
** For vertical clamping.



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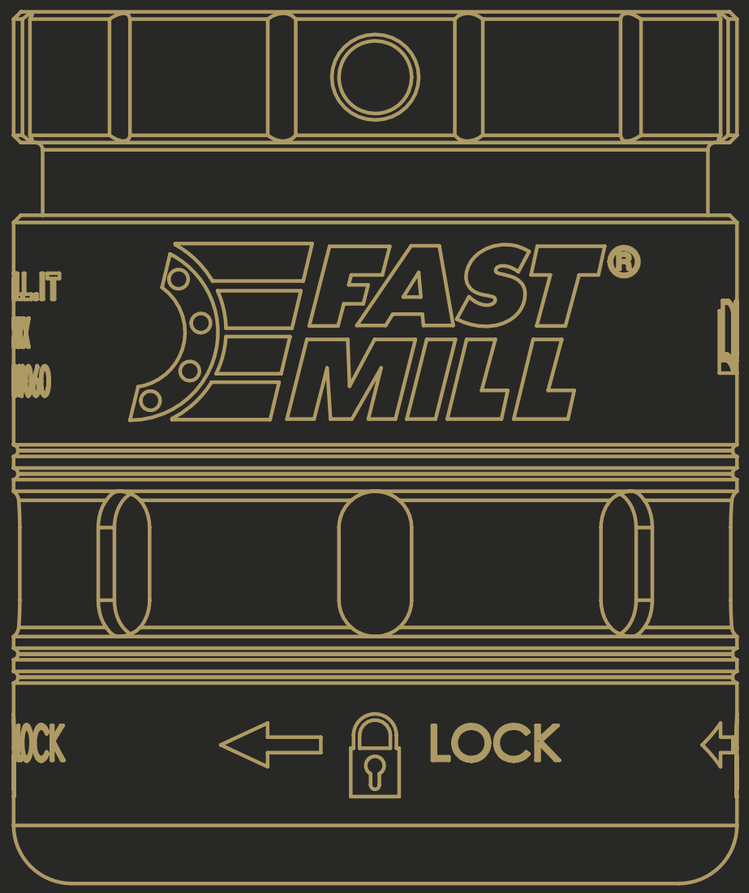
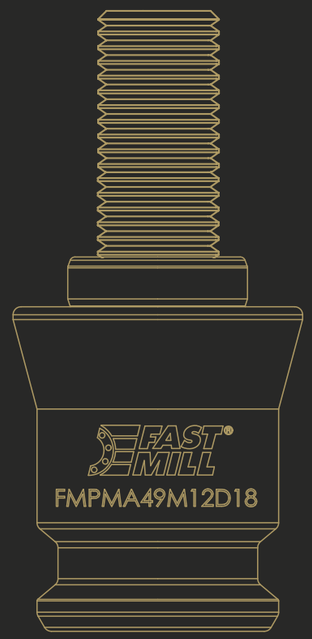
MODULES AND PINS D49

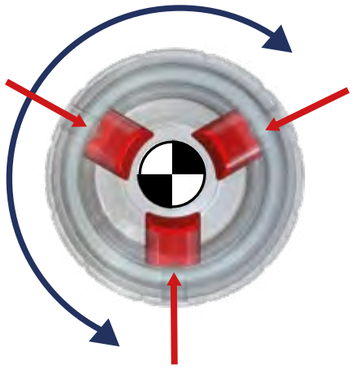




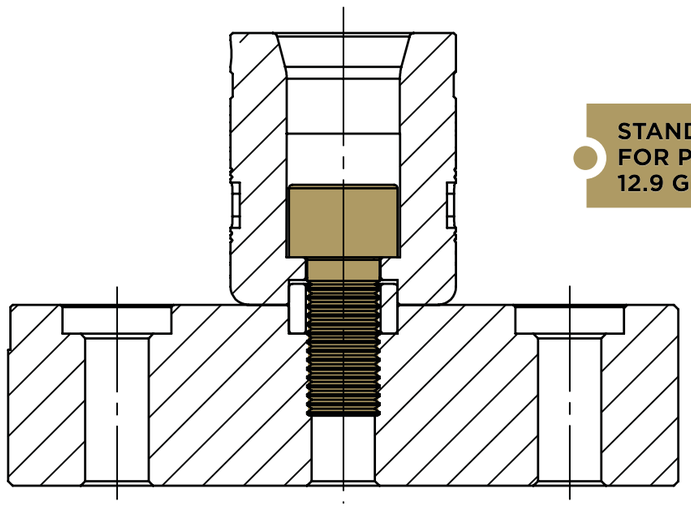
MAIN FEATURES

360° POSITIONING / NO NEED TO ORIENT THE SYSTEM

- STAINLESS STEEL
- HARDENED BODY
- 70Nm LOCKING



- ULTRA PRECISE ZERO POINT
- AUTO-CENTERING SYSTEM



- STANDARD SCREW FOR PLATE FIXING 12.9 GRADE

MAIN FEATURES

360° POSITIONING / NO NEED TO ORIENT THE SYSTEM

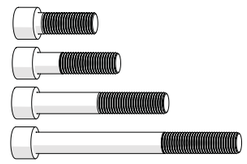
- STRONG SOLID BODY DESIGN - HARDENED STEEL

- STANDARD SET SCREW (12.9 GRADE) FOR WORKPIECE FIXING
- QUICK AND LOW COST CHANGEOVER FOR DIFFERENT HEIGHT SETTINGS BY CHANGING THE SCREW LENGTH

- WITHSTANDS SHOCK WITHOUT COMPROMISING FUNCTIONALITY
- ALLOW THE WORKPIECE TO REST ON THE FLOOR

TECHNICAL TIPS

The whole range of FASTMILL® modules use standard 12.9 (DIN912) screws from M6 to M10 or higher of different heights for the connection of the pieces, to the pallets and to the spacers.



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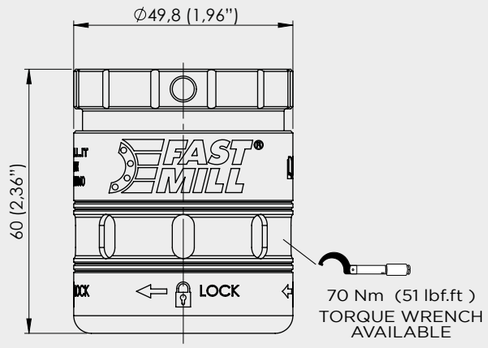
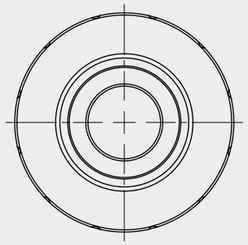
PATENTED

SINGLE MODULE Ø49

Patented by FastMill, this module allows the user to combine extreme ease of use with high focus on to medium machining, all while maintaining maximum positioning precision. Also perfect for EDM applications and in aggressive environments thanks to stainless material.

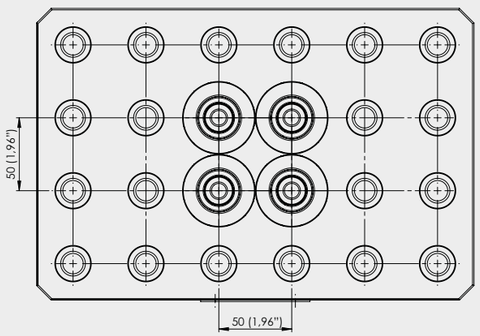
CODE	DESCRIPTION	HEIGHT	Ø	FIXING SCREW
FMMSSS0049060	Single module Ø49	60 (2,36")	49,8 (1,96")	M16





Related pins and bushes.

SINGLE MODULES Ø49 SETUP EXAMPLE



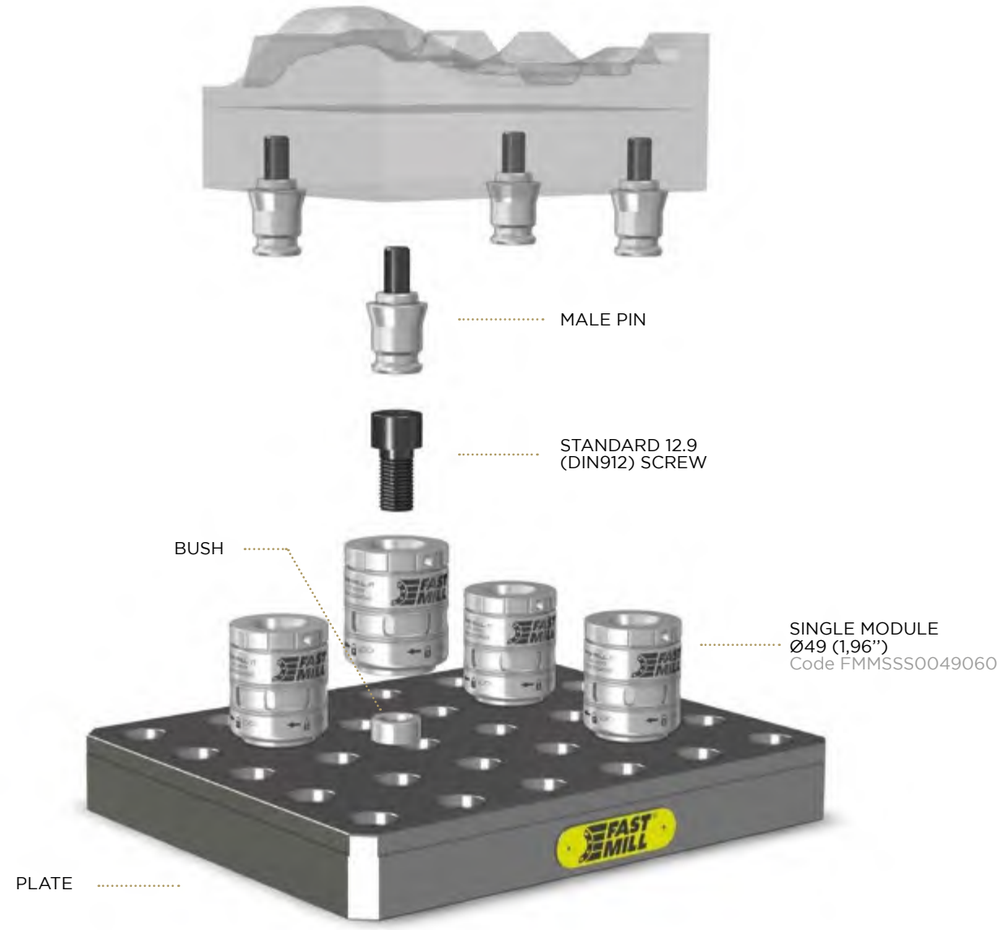
TORQUE WRENCH

Torque wrench with fixed setting is necessary for the correct tightening of module D49.

CODE	DESCRIPTION	TORQUE
FMMSSS0049TWK	Torque wrench	70 Nm
FMMSSS0049TWI	Torque wrench insert	

PATENTED

SINGLE MODULES Ø49 COMBINATION EXAMPLE



SINGLE MODULES Ø49 COMBINATION EXAMPLE

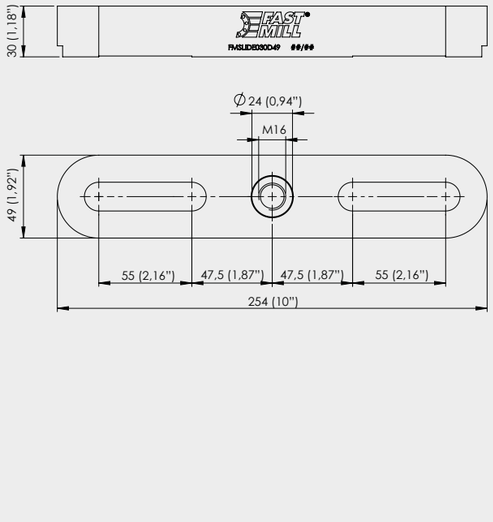
SLIDE PLATE AND CLOCK PLATE FOR Ø49 MODULE

(FOR CLAMP ON ANY POSITION)

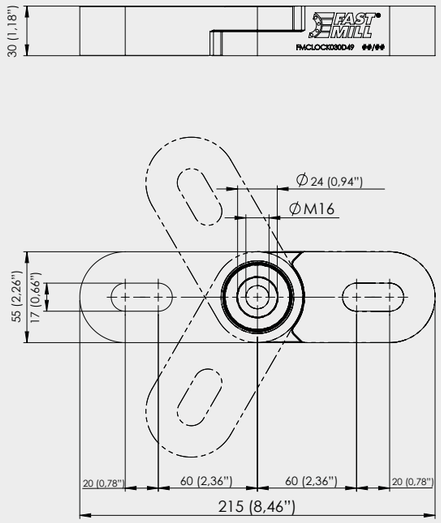
The FastMill slide and clock solutions for D49 module allow the fixing on the plate grid of a component on which it is not possible to maintain a drilling and counterbore at 50mm pitch: Maximum clamping flexibility and possibility of using existing holes on the workpiece.

CODE	DESCRIPTION	DIMENSION	HEIGHT	WEIGHT
FMSLIDE030D49	Slide plate for Ø49 module	254x49 (10"x1,92")	30 (1,18")	2,0 (4,40 lbs)
FMCLOCK030D49	Clock plate for Ø49 module	215x55 (8,46"x2,16")	30 (1,18")	2,2 (4,85 lbs)

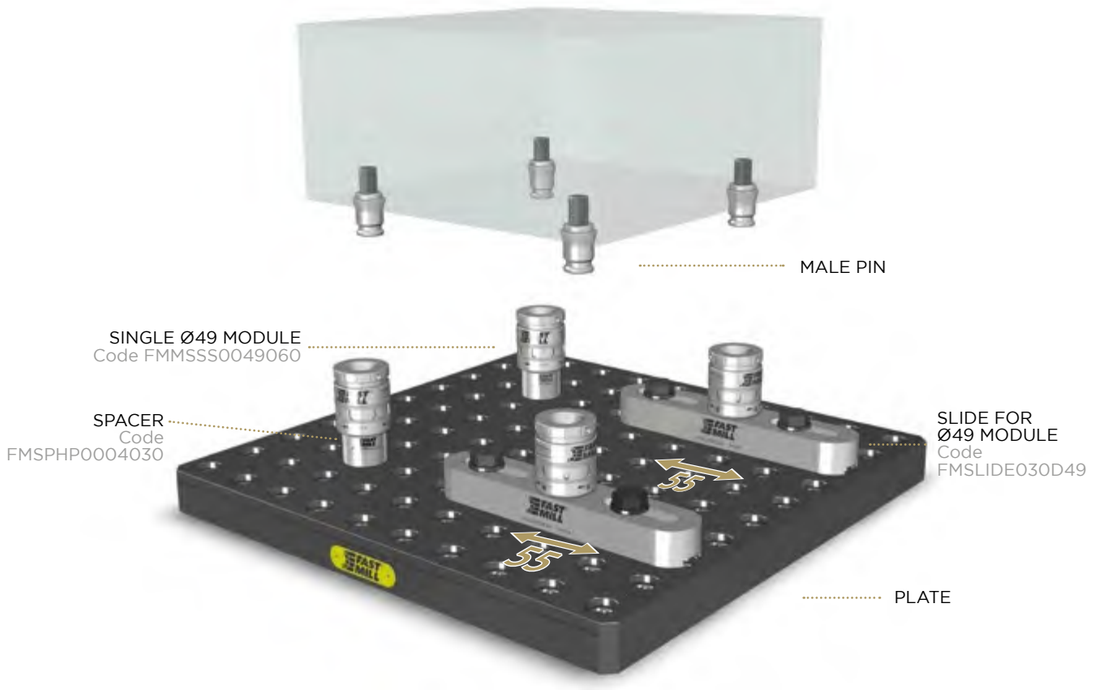
SLIDE PLATE FOR Ø49 MODULE
FMSLIDE030D49



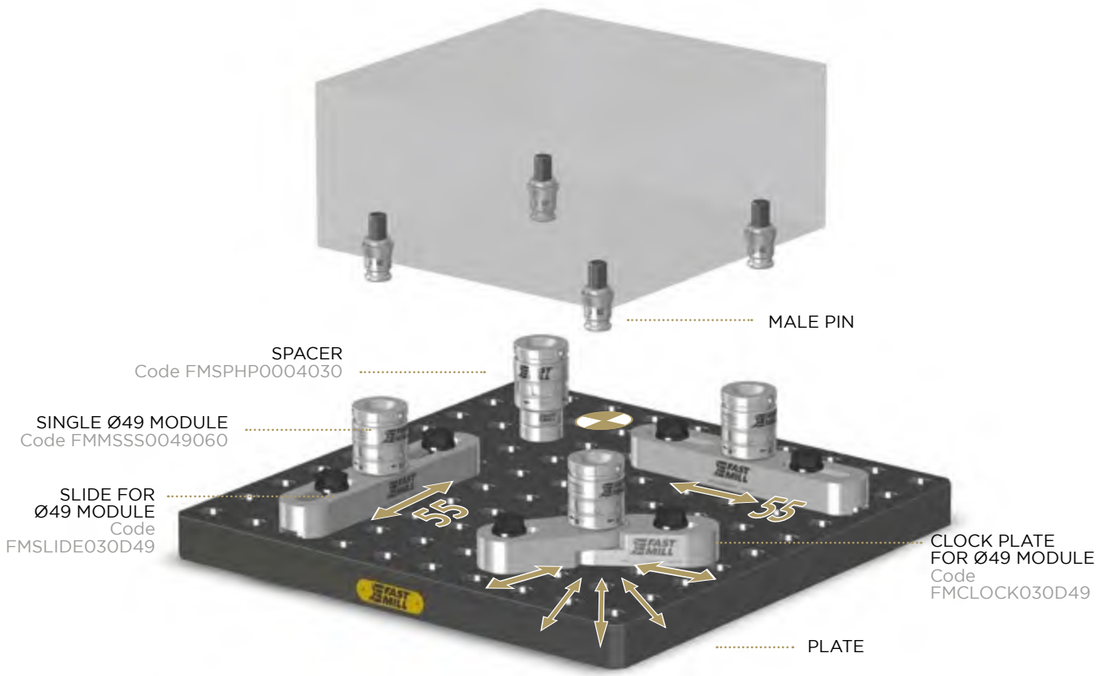
CLOCK PLATE FOR Ø49 MODULE
FMCLOCK030D49



SETUP 2 ZERO POINTS / 2 SLIDE POINTS



SETUP 1 ZERO POINT / 3 FREE POINTS



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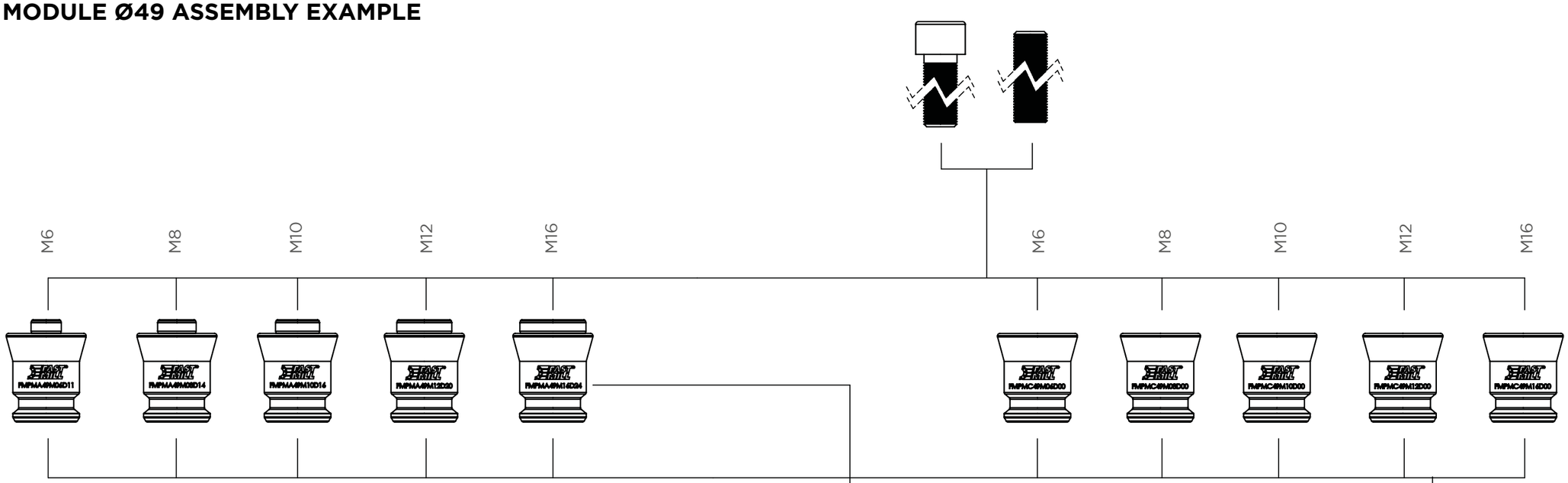
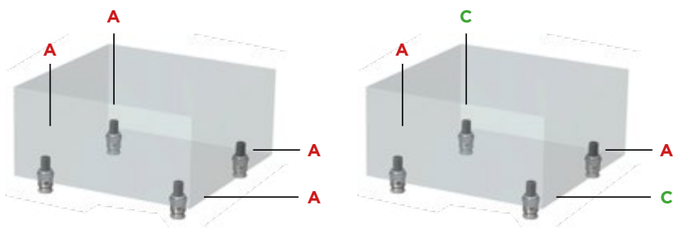
SINGLE MODULE Ø49 ASSEMBLY EXAMPLE



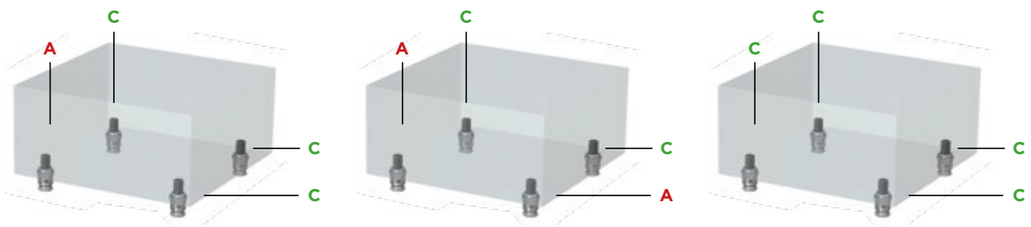
TECHNICAL INFORMATION

A	C	
CENTERING PIN	**CLAMPING PIN**	Clamping and positioning of fixture and/or workpiece are achieved through the clamping pins. Type A is used for centering and clamping, type C only for clamping.

SMALL PARTS



BIG PARTS



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PIN FOR SINGLE MODULE Ø49

Pins for D49 modules are made of hardened stainless steel, in sizes from M6 to M16 with counterbore from D10 to D24. They use class 12.9 screw sets, easy to replace and change the length in order to adapt to any clamping setup. Available type A for clamping and positioning and type C for clamping with a slight freedom in positioning.

A = CENTERING AND CLAMPING **C = CLAMPING**

M6 PIN FOR SINGLE MODULE Ø49

CODE	DESCRIPTION	M	Ø	TYPE
FMPMA49M06D10	Pin	M6	10 (0,39")	A
FMPMC49M06D10	Pin	M6	10 (0,39")	C
FMPMA49M06D11	Pin	M6	11 (0,43")	A
FMPMC49M06D11	Pin	M6	11 (0,43")	C
FMPMC49M06D00	Pin	M6	-	C

M8 PIN FOR SINGLE MODULE Ø49

CODE	DESCRIPTION	M	Ø	TYPE
FMPMA49M08D12	Pin	M8	12 (0,47")	A
FMPMC49M08D12	Pin	M8	12 (0,47")	C
FMPMA49M08D14	Pin	M8	14 (0,55")	A
FMPMC49M08D14	Pin	M8	14 (0,55")	C
FMPMC49M08D00	Pin	M8	-	C

M10 PIN FOR SINGLE MODULE Ø49

CODE	DESCRIPTION	M	Ø	TYPE
FMPMA49M10D14	Pin	M10	14 (0,55")	A
FMPMC49M10D14	Pin	M10	14 (0,55")	C
FMPMA49M10D16	Pin	M10	16 (0,62")	A
FMPMC49M10D16	Pin	M10	16 (0,62")	C
FMPMC49M10D00	Pin	M10	-	C

M12 PIN FOR SINGLE MODULE Ø49

CODE	DESCRIPTION	M	Ø	TYPE
FMPMA49M12D18	Pin	M12	18 (0,70")	A
FMPMC49M12D18	Pin	M12	18 (0,70")	C
FMPMA49M12D20	Pin	M12	20 (0,78")	A
FMPMC49M12D20	Pin	M12	20 (0,78")	C
FMPMC49M12D00	Pin	M12	-	C

M16 PIN FOR SINGLE MODULE Ø49

CODE	DESCRIPTION	M	Ø	TYPE
FMPMA49M16D22	Pin	M16	22 (0,86")	A
FMPMC49M16D22	Pin	M16	22 (0,86")	C
FMPMA49M16D24	Pin	M16	24 (0,94")	A
FMPMC49M16D24	Pin	M16	24 (0,94")	C
FMPMC49M16D00	Pin	M16	-	C

STANDARD 12.9 - SCREW DIN912 OR DIN913

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SPACERS

PLATES AND BUSHES
MODULES AND PINS D90
MODULES AND PINS D49
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MINI RANGE
FASTMILL ZERO
CLAMPS

SPACER Ø40 HIGH PRECISION
REDUCTION Ø90 - 40 HIGH PRECISION
SPACER Ø90 HIGH PRECISION

HARDENED - GROUND

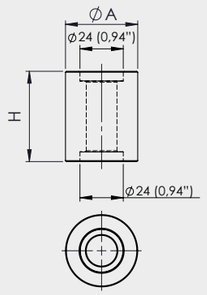
Spacer range allows the customer to customize the Z height of the workpiece allowing distance from the table. Furthermore, thanks to the counterbore and the use of FastMill bushings, the alignment of the component with respect to the module is always guaranteed. Various sizes and diameters are available for all needs.

CODE	DESCRIPTION	Ø A	Ø B	HEIGHT
FMSPHP0004010	Spacer High Precision	40 (1,57")	-	10 (0,39")
FMSPHP0004015	Spacer High Precision	40 (1,57")	-	15 (0,59")
FMSPHP0004020	Spacer High Precision	40 (1,57")	-	20 (0,78")
FMSPHP0004025	Spacer High Precision	40 (1,57")	-	25 (0,98")
FMSPHP0004030	Spacer High Precision	40 (1,57")	-	30 (1,18")
FMSPHP0004040	Spacer High Precision	40 (1,57")	-	40 (1,57")
FMSPHP0004050	Spacer High Precision	40 (1,57")	-	50 (1,96")

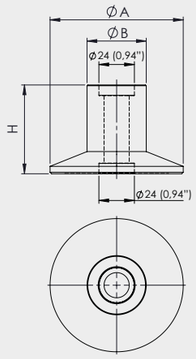
CODE	DESCRIPTION	Ø A	Ø B	HEIGHT
FM46191801	Reduction High Precision	90 (3,54")	40 (1,57")	10 (0,39")
FM46191802	Reduction High Precision	90 (3,54")	40 (1,57")	20 (0,78")
FM46191803	Reduction High Precision	90 (3,54")	40 (1,57")	30 (1,18")
FM46191804	Reduction High Precision	90 (3,54")	40 (1,57")	40 (1,57")
FM46191805	Reduction High Precision	90 (3,54")	40 (1,57")	50 (1,96")
FM46191806	Reduction High Precision	90 (3,54")	40 (1,57")	60 (2,36")

CODE	DESCRIPTION	Ø A	Ø B	HEIGHT
FMSPHP0009005*	Spacer High Precision	90 (3,54")	-	5 (0,19")
FMSPHP0009010	Spacer High Precision	90 (3,54")	-	10 (0,39")
FMSPHP0009020	Spacer High Precision	90 (3,54")	-	20 (0,78")
FMSPHP0009030	Spacer High Precision	90 (3,54")	-	30 (1,18")
FMSPHP0009040	Spacer High Precision	90 (3,54")	-	40 (1,57")

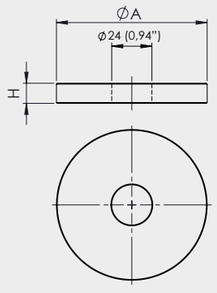
SPACER Ø40 HIGH PRECISION



REDUCTION Ø90 - 40 HIGH PRECISION



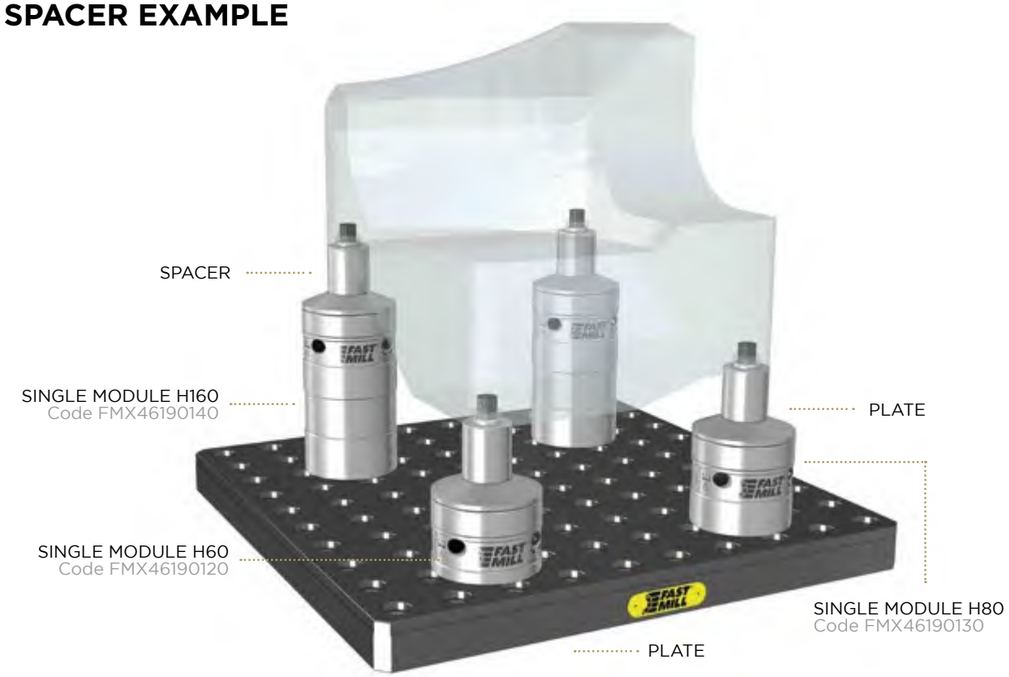
SPACER Ø90 HIGH PRECISION



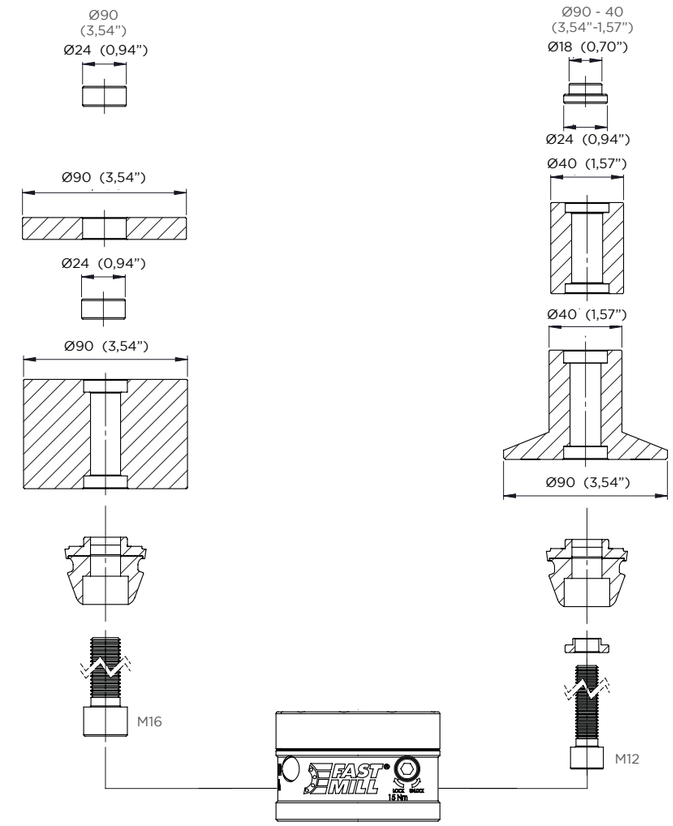
*Bushes Ø24 h16 Code FM93000042

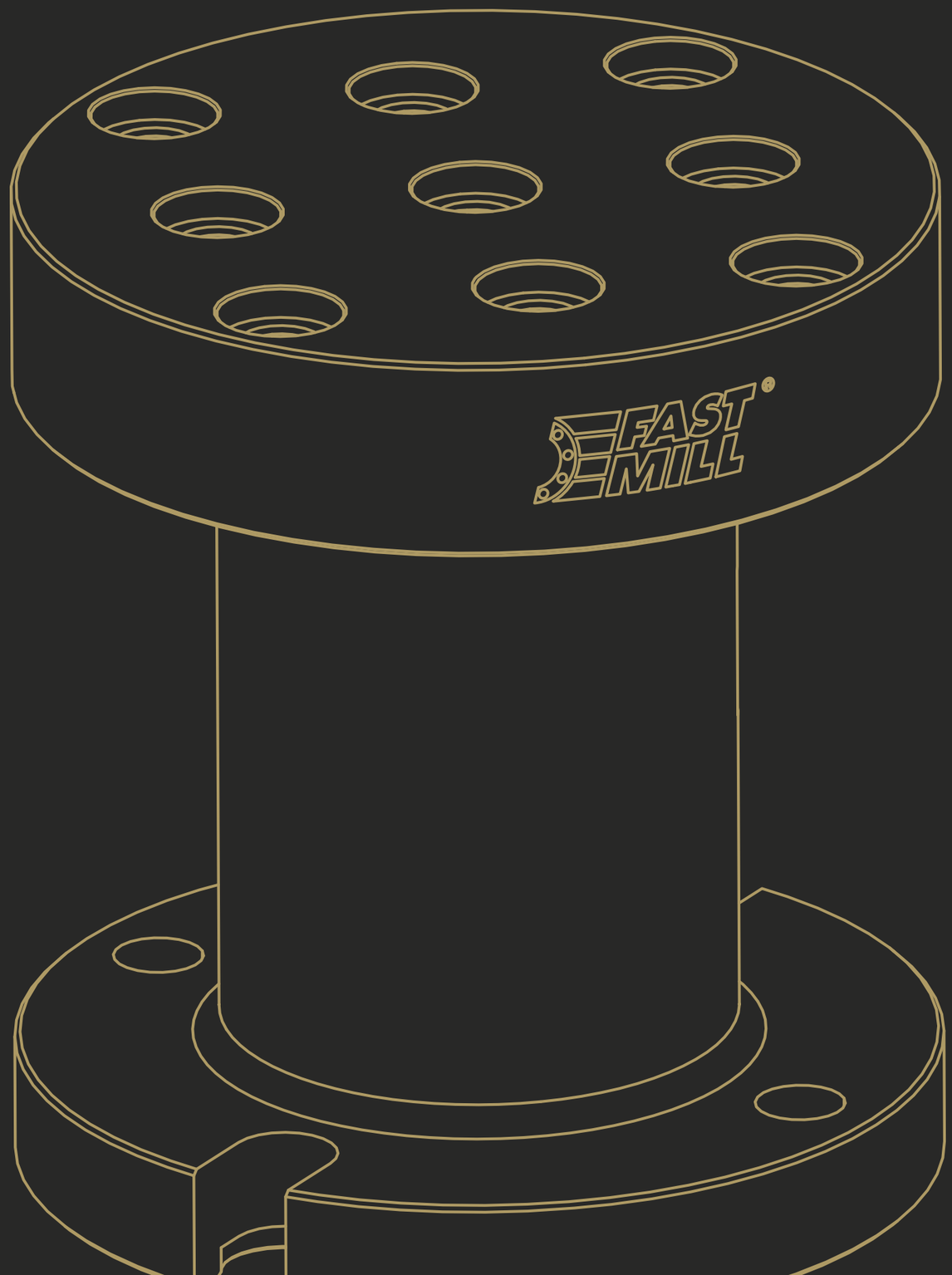
Related bushes.

SPACER EXAMPLE



SPACERS ASSEMBLY EXAMPLE





RISERS

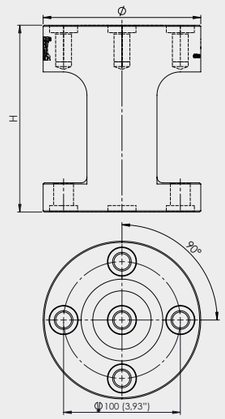
PLATES AND BUSHES
MODULES AND PINS D90
MODULES AND PINS D49
SPACERS
RISERS
THIRD POINT
MAGNETIC
VERTICAL CLAMPING
MINI RANGE
FASTMILL ZERO
CLAMPS

RISER Ø135 - Ø175

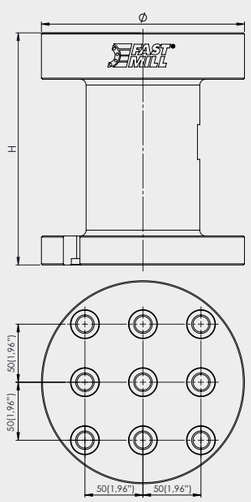
The FastMill riser range is used to raise the entire clamping set up in the Z direction while maintaining a solid support surface. Thanks to the precise centering, the position of the counterbore corresponds to that of the FastMill plate on which the riser is mounted. Available in two sizes and diameters to cover all needs.

CODE	DESCRIPTION	Ø	HEIGHT	WEIGHT
FM46192060	Riser	135 (5,31")	160 (6,29")	13 (28,66 lbs)
FM46192050	Riser	175 (6,88")	200 (7,87")	20 (44,09 lbs)

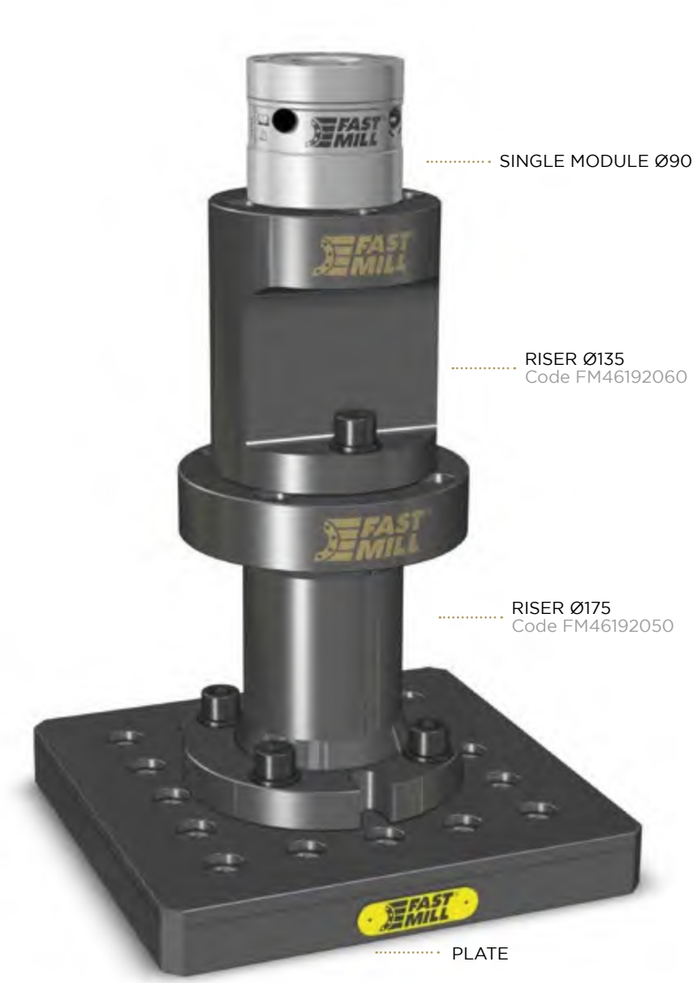
RISER Ø135



RISER Ø175



RISER ASSEMBLY EXAMPLE

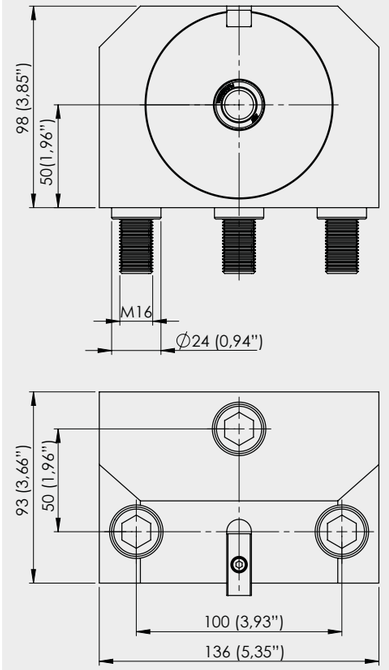


90° INDEX RISER SET

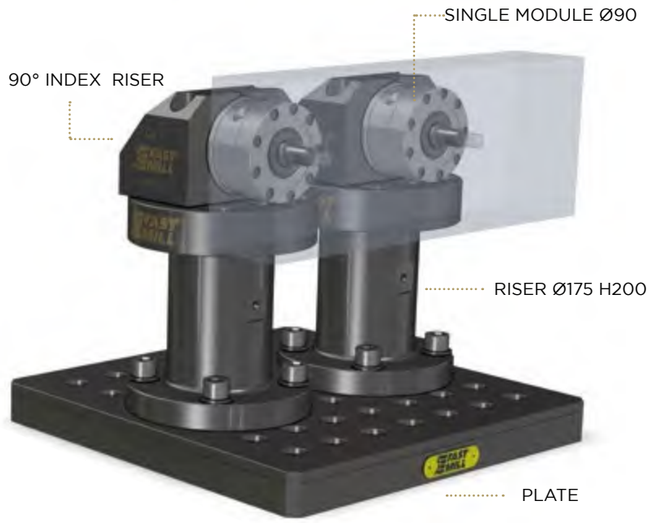
90° Index riser set is an accessory able to quickly mount a module in a vertical position, thus expanding the possibility of machining on 3-axis machines or for any particular needs and also comes with a removable key for use with standard modules and indexed modules.

CODE	DESCRIPTION
FM90IR0016024	90° Index riser set

SET CONFIGURATION	N°
Feather key 12H6X8X30 for index	1 piece
Bush Ø24-24 mm	5 pieces
TCEI M4X10 mm UNI 5931 inox screw	1 piece
TCEI M16X60 mm UNI 5931-12,9 screw	3 pieces



SETUP EXAMPLE



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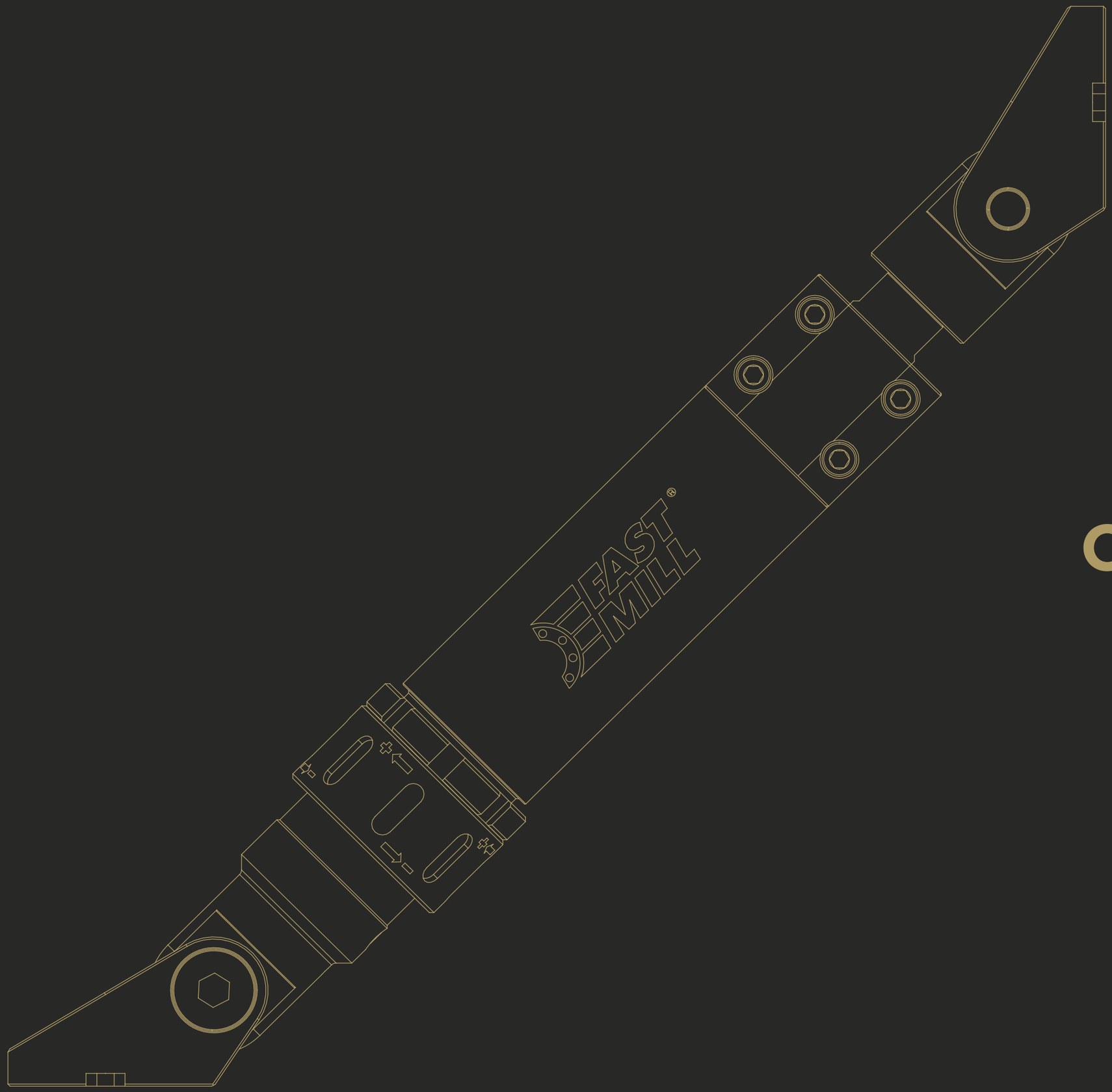

THIRD CLAMPING POINT

PLATES AND BUSHES
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CLAMPS

THIRD CLAMPING POINT SET

A third clamping point for roughing, finishing and drilling operations of pieces fixed in a vertical position. Thanks to its rigid telescopic system and its additional modular extensions, the third clamping point supports workpieces and opposes vibrations and flexures caused by machining operations, thus avoiding the use of expensive, heavy and bulky fastening brackets. The third clamping point can be fixed directly on plates or workpieces by means of standard TCEI screws or FASTMILL® coordinate modules/risers. Alternatively, it can be fixed on the machine's T-slots. In addition to fixing, thanks to its efficient fine adjustment system, it can be adjusted for the purposes of thrust or traction to ensure verticality of workpieces before their machining.

CODE	DESCRIPTION	DIMENSION
FM46191600	Third clamping point set	630/820 (24,80"/32,28")

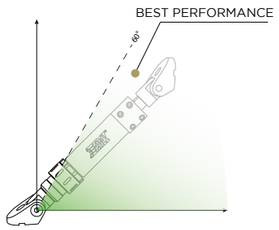
SET CONFIGURATION	N°
Third clamping point	1 piece
C-hook spanner 92-95	1 piece
Bush Ø24-24 mm	2 pieces
Cylindrical head hexagon socket screw 12.9 (DIN912)	2 pieces

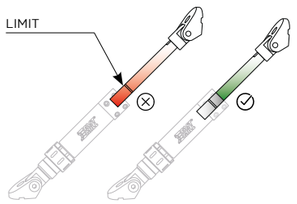
ACCESSORIES

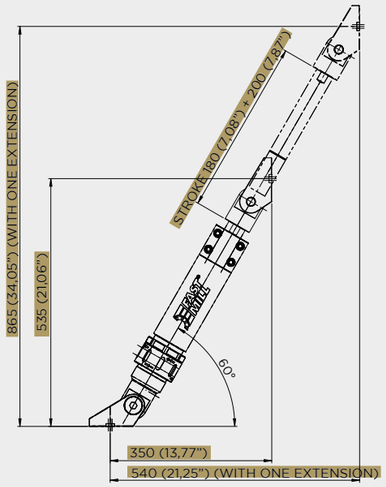
CODE	DESCRIPTION	DIMENSION
FM46191650	Extension	+ 200 (7,87")
FM93000019	Hook wrench	

⚠ Not included in the set.

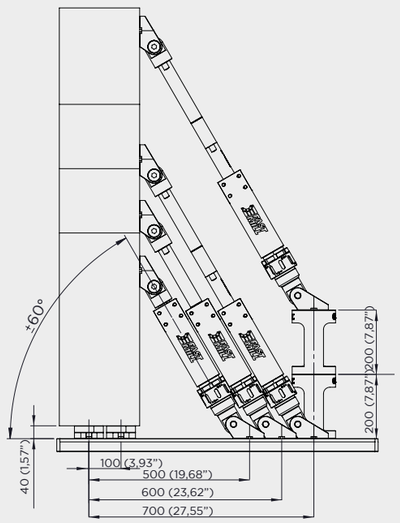
C-HOOK SPANNER 92-95 APPLICATION







WEIGHT: 24,8 KG



THIRD CLAMPING POINT SET

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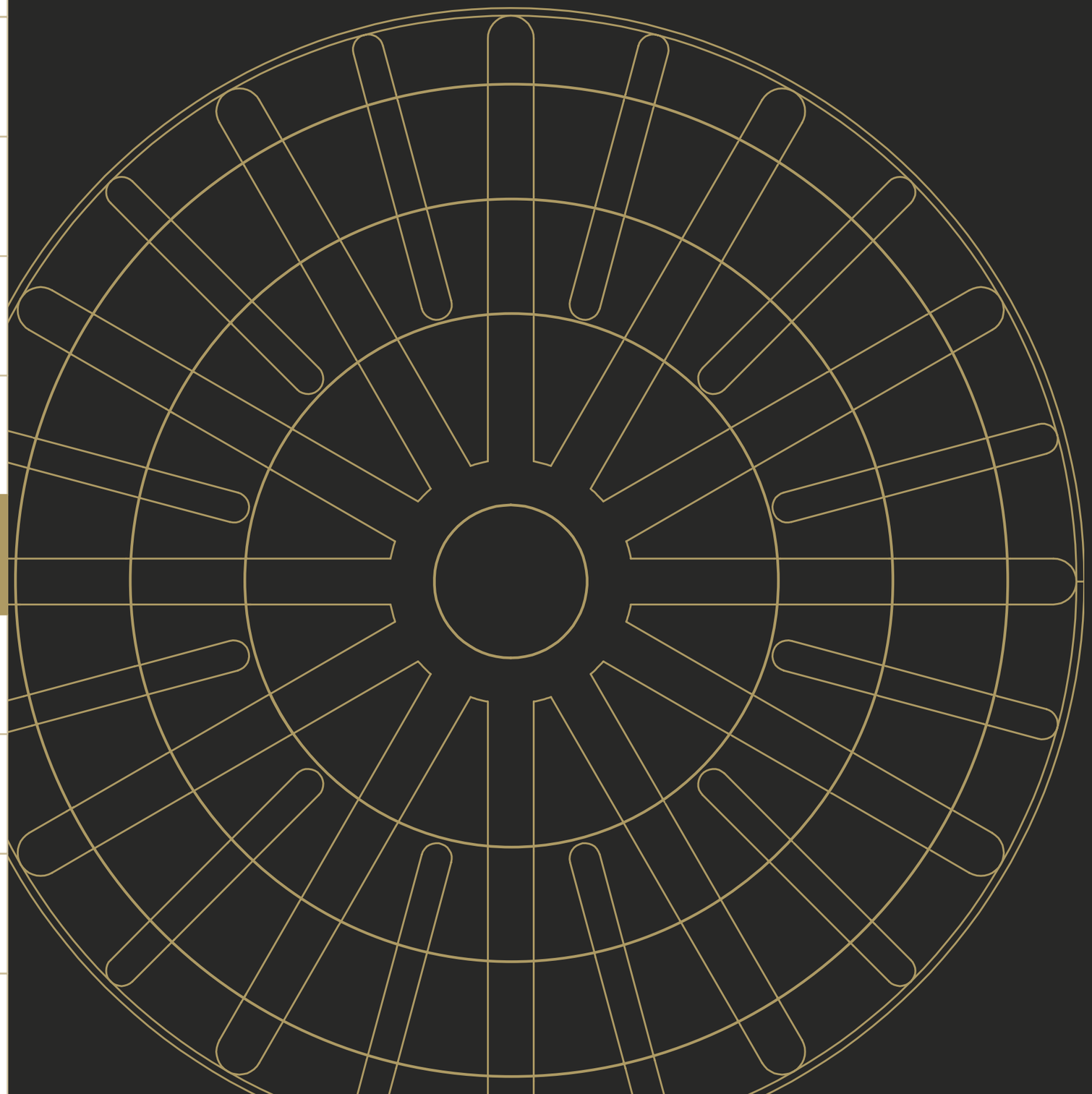

MAGNETIC

PLATES AND BUSHES
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MODULES AND PINS D49
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THIRD POINT
MAGNETIC
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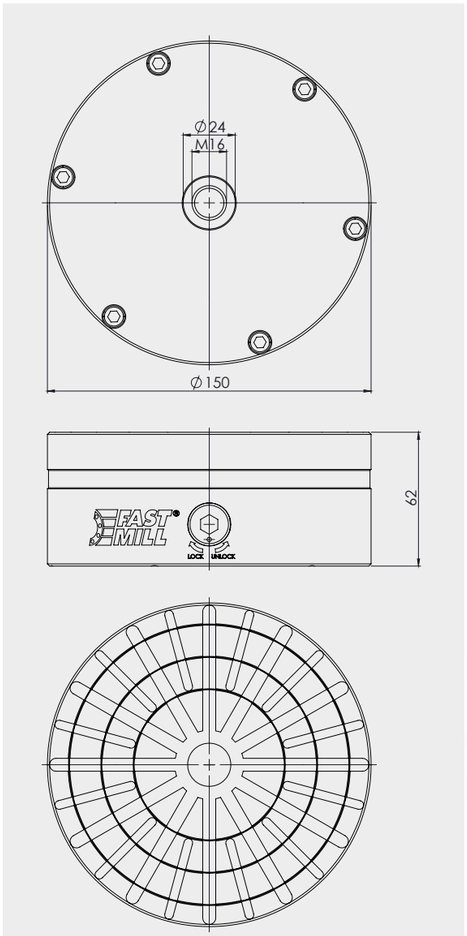
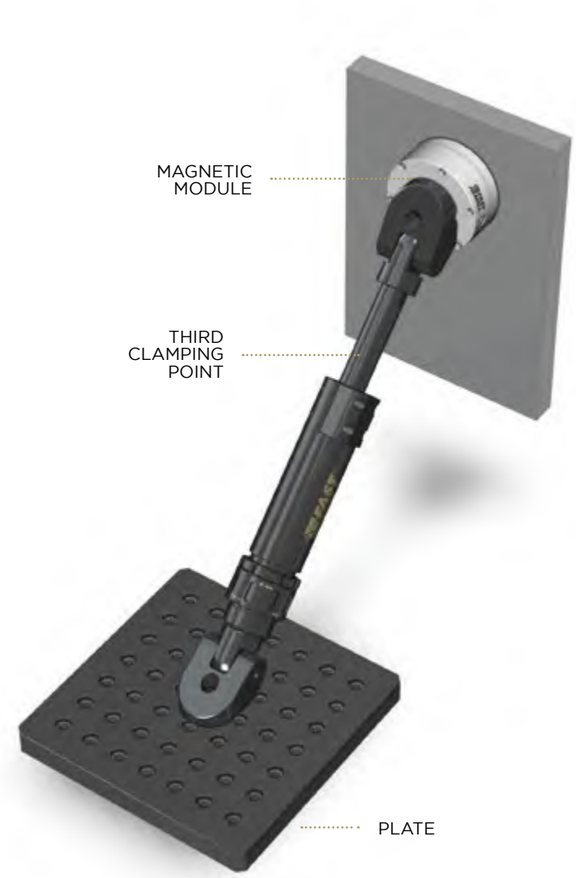
CLAMPS

MAGNETIC MODULE

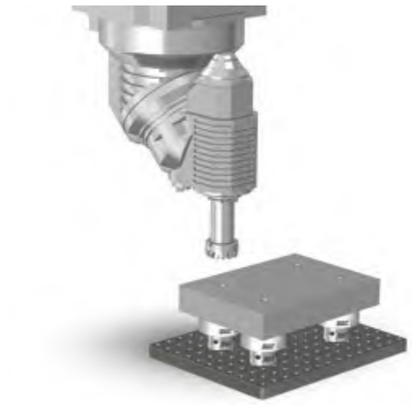
Magnetic module is an extremely versatile element made with manually operated permanent magnets. Thanks to the Fastmill interface on the back face, it can be used on top of a module or connected to a third point.
Some of the applications are for example:
- create a magnetic chuck for the pre-process phase directly on FastMill modules
- fastening of welded structures
- fastening thin walls, where normally it is not possible to make a threaded hole
- fixing or absorbing working vibrations on strategic points of the structure when connected to a third point.

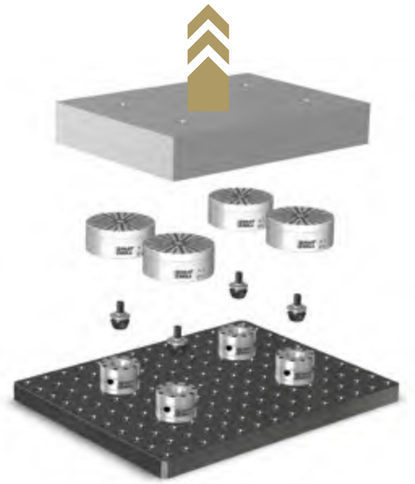
CODE	DESCRIPTION	Ø
FM46191660	MAGNETIC MODULE	150 (5,90")

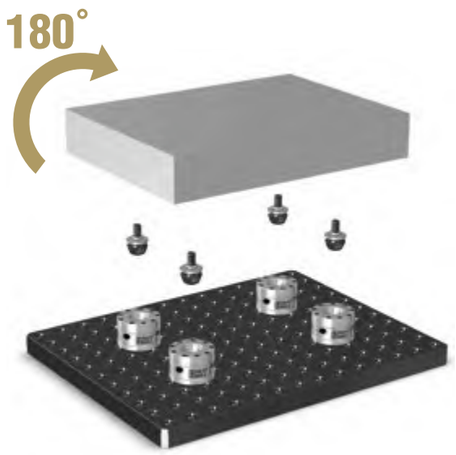


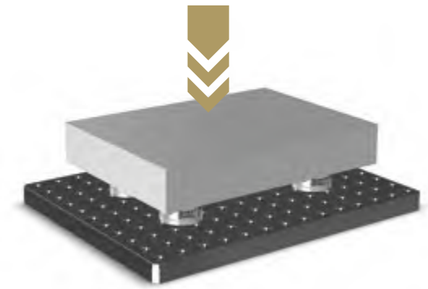


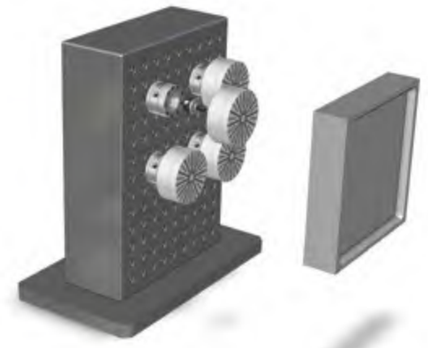
MAGNETIC MODULE - PRE-PROCESS MACHINING EXAMPLE











VERTICAL MOUNTING ON CUBE

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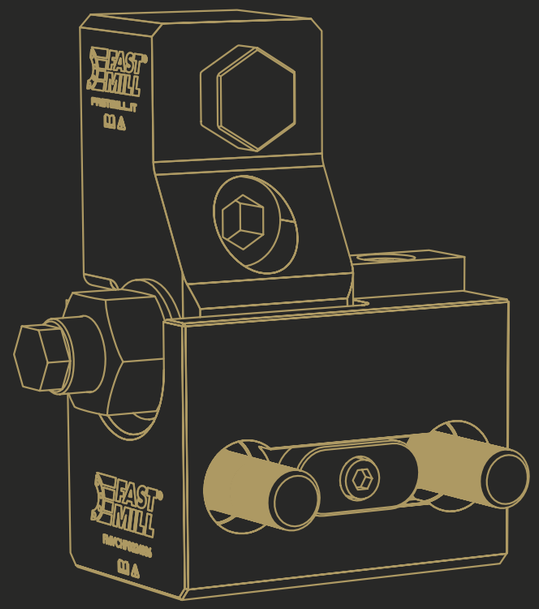
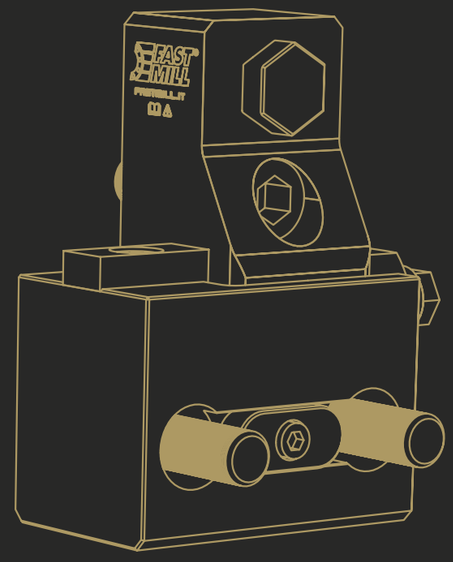
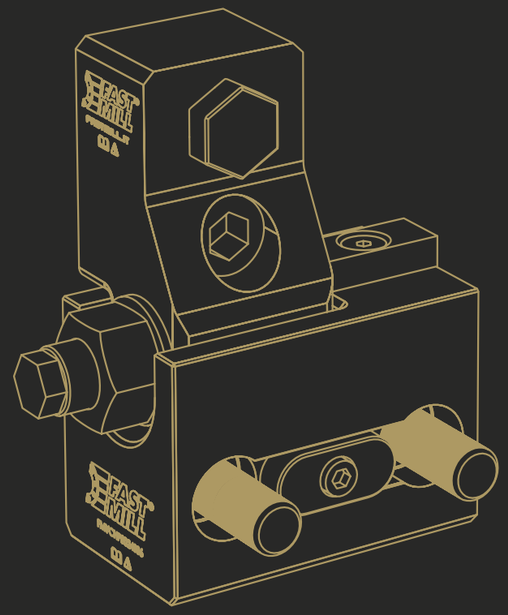
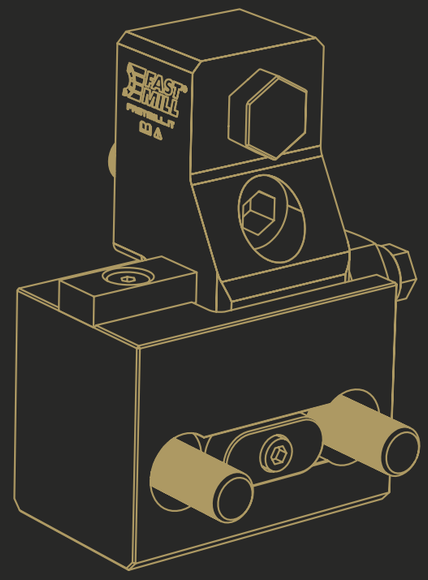








VERTICAL CLAMPING

VERTICAL CLAMPING FOR HEAVY PARTS SET

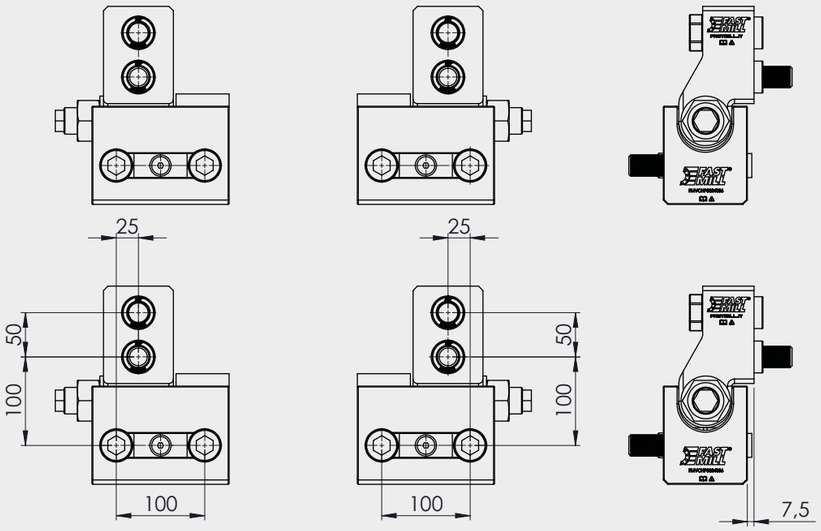
FastMill vertical clamping system is used for clamping heavy workpieces in vertical positions. It is a robust element allowing ease of use. It also allows the management of a workpiece of considerable size safe handling. A single operator can set up at a safe distance from the initial handling to the start of machining.

CODE	
FMVCHP0024036	Vertical clamping for heavy parts set

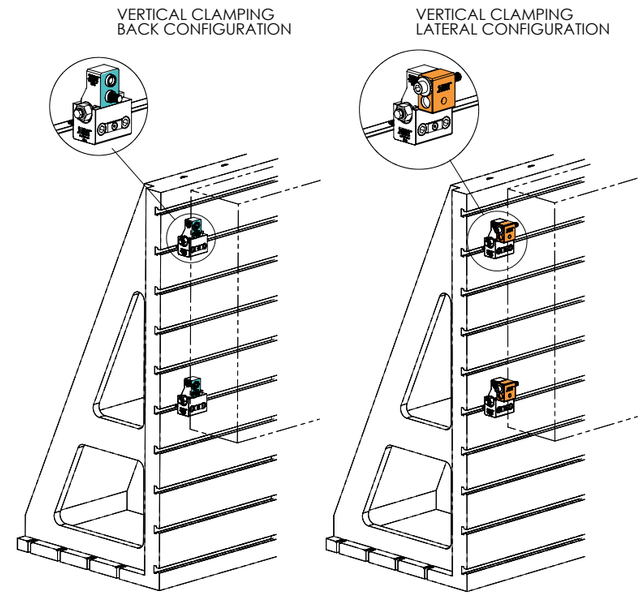
SET CONFIGURATION	N°
Special bush Ø36-36 mm h 20 mm	8 pieces
TE M24X60 UNI 5739-8,8	4 pieces
31X56 UNI 6592-69 washer	4 pieces
Feather key 28X16X60 DIN6885 C	4 pieces
M30 NUT UNI 5589 -8G	4 pieces
TCEI M24X80 UNI 5931-12,9 screw	4 pieces
TCEI M10X20 UNI 5931-12,9 screw	4 pieces

90° LATERAL CLAMPING ACCESSORIES

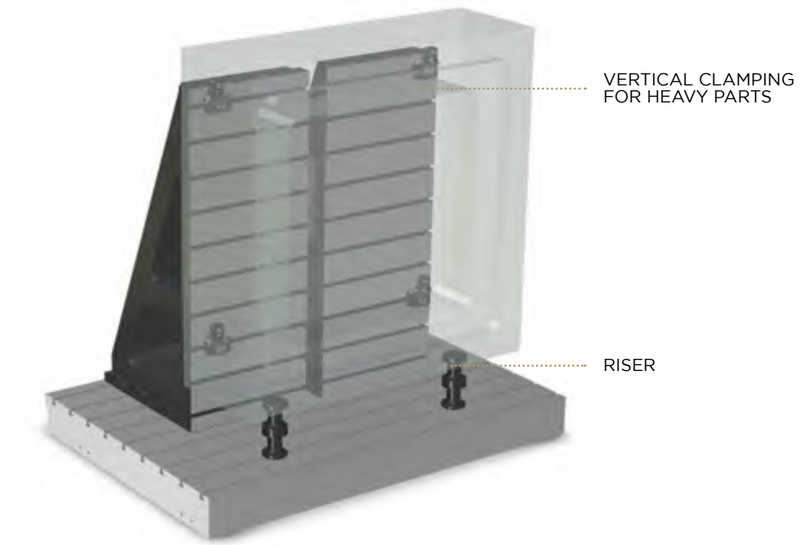
CODE	DESCRIPTION	DIMENSION	HEIGHT	WEIGHT
FMVCHPLATERAL	90° Lateral clamping accessories	98x60 (3,85"x2,36")	110 (4,33")	2,7 (5,95 lbs)



SETUP EXAMPLE



SETUP EXAMPLE



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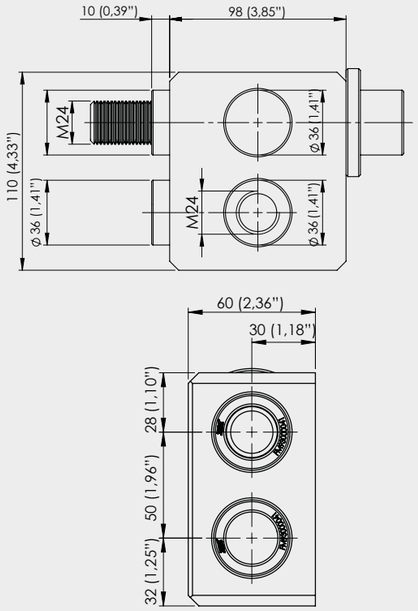
VERTICAL CLAMPING AND POSITIONING SET

Vertical clamping and positioning system allows a vertical type of fixing on medium-sized components, while ensuring a known position of the piece with respect to space. The system works using our standard Fastmill modules to which appropriate accessories are applied for vertical assembly. a lateral fixing accessory is also available in cases with no possibility of fixing on the back of the workpiece.

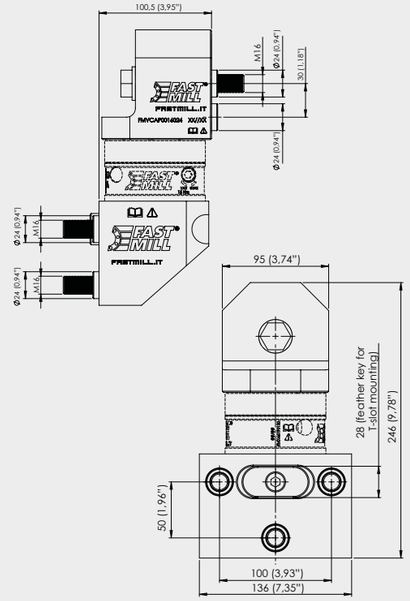
CODE	
FMVCAP0016024	Vertical clamping and positioning set

SET CONFIGURATION	N°
Bush Ø24-24 mm	6 pieces
TCEI M16X60 mm UNI 5931-12,9 screw	3 pieces
TCEI M16X40 mm UNI 5931-12,9 screw	1 pieces
TCEI M16X20 mm UNI 5931-12,9 screw	1 pieces
TE M16X100 mm UNI 5739-12,9 screw	1 pieces
Feather key 28X16X60 DIN6885 C	1 pieces
17x30 UNI 6592-69 washer	1 pieces

90° LATERAL CLAMPING ACCESSORIES

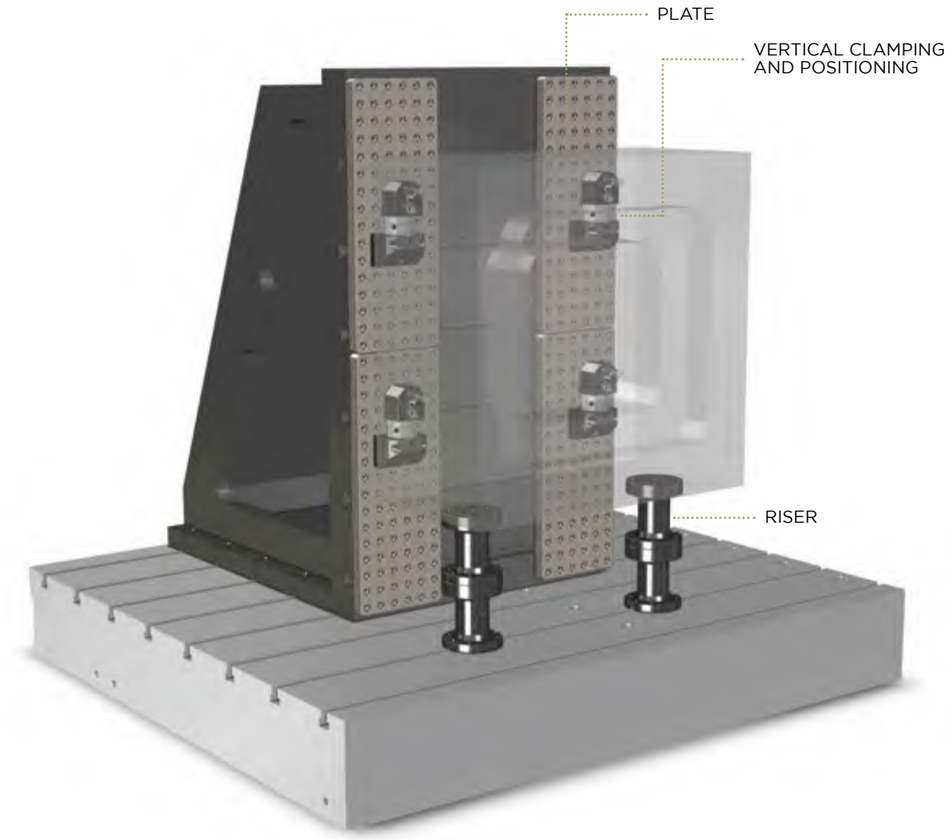


VERTICAL CLAMPING AND POSITIONING SET



Module and pin not included.

SETUP EXAMPLE



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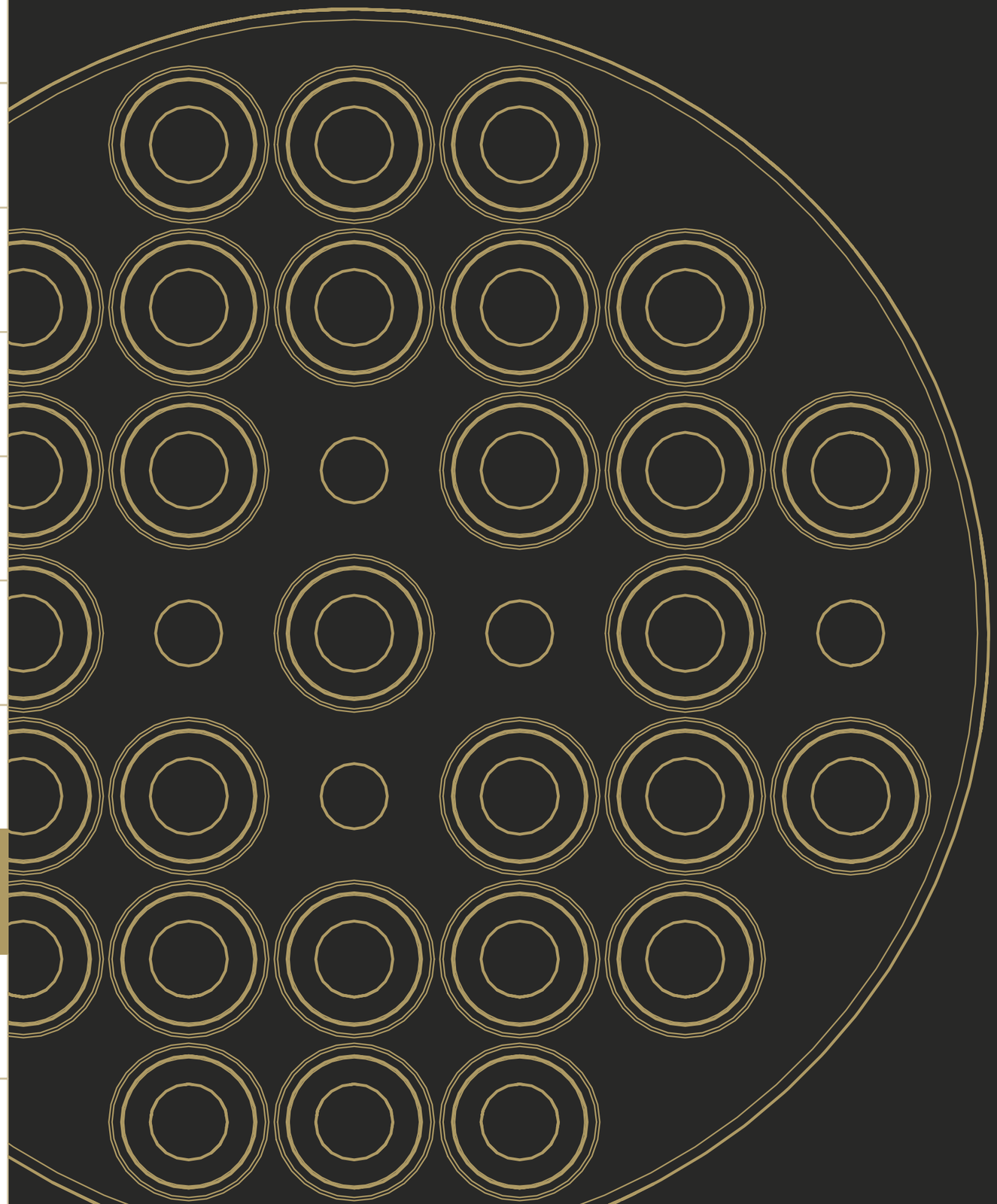


MINI RANGE

PLATES AND BUSHES
MODULES AND PINS D90
MODULES AND PINS D49
SPACERS
RISERS
THIRD POINT
MAGNETIC
VERTICAL CLAMPING
MINI RANGE
FASTMILL ZERO
CLAMPS

PALLET

FastMill pallets allow to hold small and medium-sized components.
Made of pre-treated stainless steel, they offer great rigidity which allowing to obtain finishes with very low roughness.
Prepared for precision clamping, they allow the machining of the components, on 5 free faces, optimizing work cycle and minimizing machine stops.

M6 WORKPIECE FIXING SCREW

CODE	XxY	H	PxP	X1xY1	N° MODULES REQUIRED
FM46195020	196x196 (7,71"x7,71")	36 (1,41")	15 (0,59")	100x0 (3,93"x0)	2 *
FM46195021	246x246 (9,68"x9,68")	36 (1,41")	15 (0,59")	100x100 (3,93"x 3,93")	4
FM46195022	296x296 (11,65"x11,65")	36 (1,41")	15 (0,59")	200x200 (7,87"x 7,87")	4

Required for assembly:
* No. 2 Male pin M12 Ø20
No. 4 Male pin M12 Ø20

M8 WORKPIECE FIXING SCREW

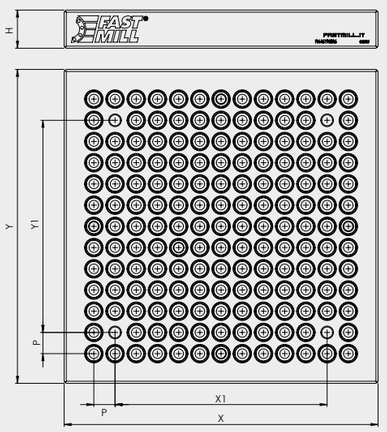
CODE	XxY	H	PxP	X1xY1	N° MODULES REQUIRED
FM46195025	246x246 (9,68"x9,68")	36 (1,41")	20 (0,78")	100x100 (3,93"x 3,93")	4
FM46195026	296x296 (11,65"x11,65")	36 (1,41")	20 (0,78")	200x200 (7,87"x 7,87")	4

Required for assembly:
No. 4 Male pin M12 Ø20

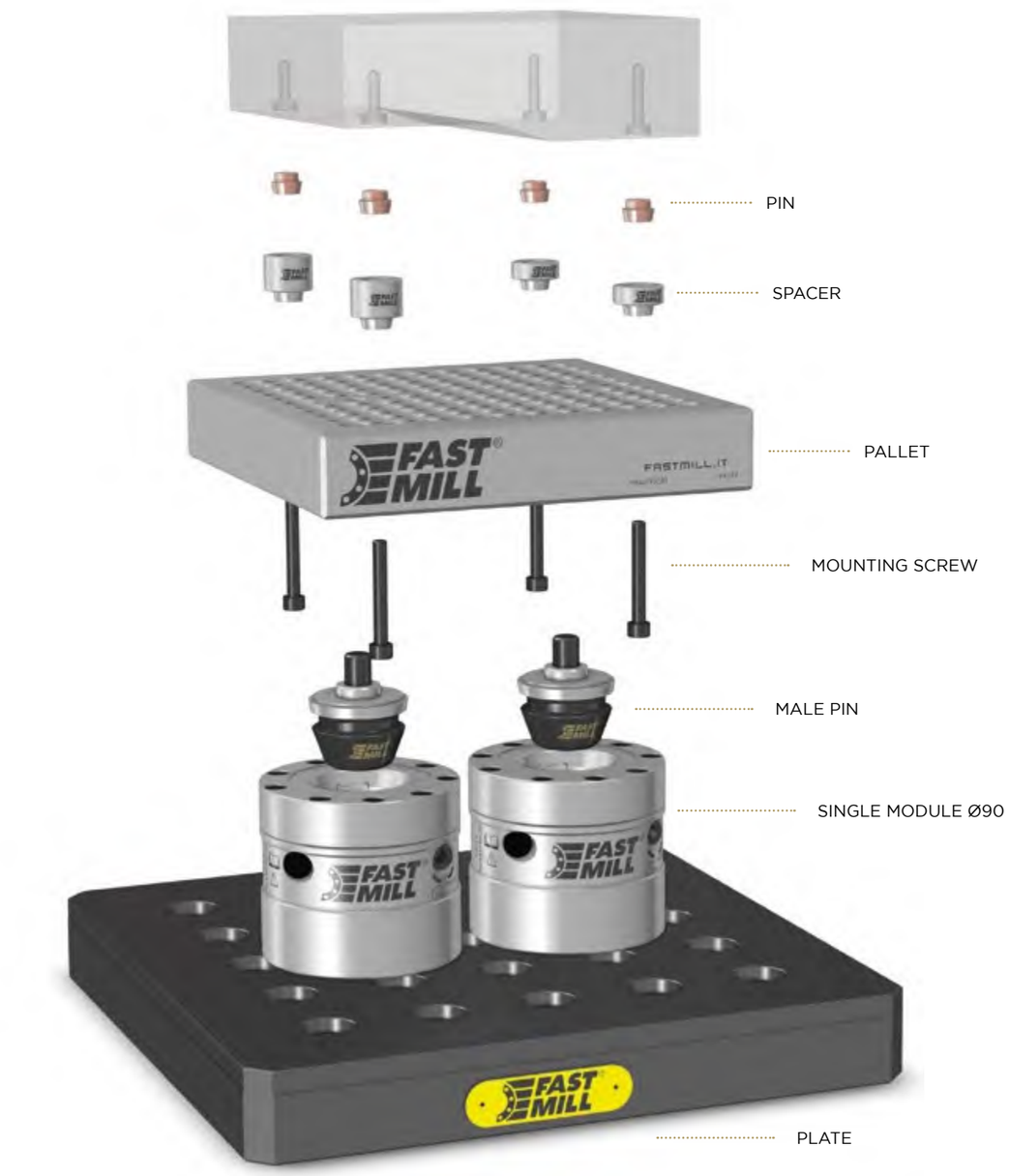
M10 WORKPIECE FIXING SCREW

CODE	XxY	H	PxP	X1xY1	N° MODULES REQUIRED
FM46195029	246x246 (9,68"x9,68")	46 (1,81")	25 (0,98")	150x150 (5,90"x 3,93")	4
FM46195030	296x296 (11,65"x11,65")	46 (1,81")	25 (0,98")	200x200 (7,87"x 7,87")	4

Required for assembly:
No. 4 Male pin M16 Ø24



PALLET ASSEMBLY EXAMPLE



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COATED PIN SPACER

FastMill coated pins are used to ensure precise alignment between the pallet and the workpieces.
Assembled with FastMill Spacers, they offer the ability to raise the workpiece allowing the CNC to reach all the work areas freely.

Related extractor adapter.

M6 COATED PIN AND SPACER

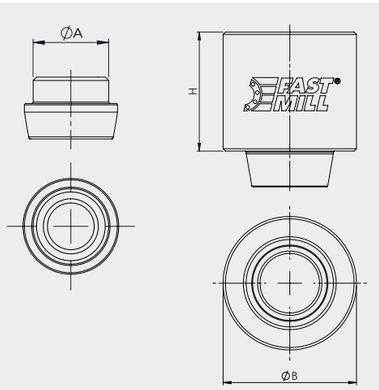
CODE	DESCRIPTION	SCREW	ØA	ØB	HEIGHT
FM46194115	Coated Pin	M6	10 (0,39")	-	
FM46194110	Coated Pin	M6	11 (0,43")	-	
FM46194011	Spacer	M6	-	22 (0,86")	8 (0,31")
FM46194012	Spacer	M6	-	22 (0,86")	12 (0,47")
FM46194013	Spacer	M6	-	22 (0,86")	16 (0,62")

M8 COATED PIN AND SPACER

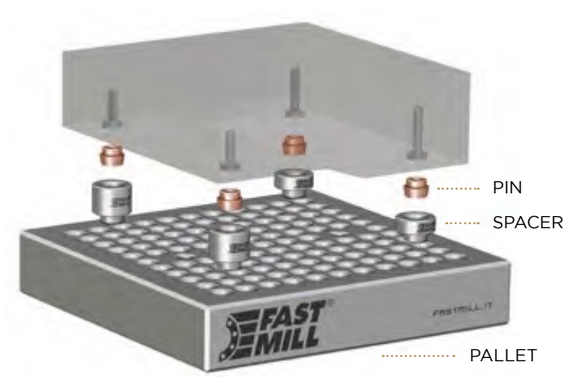
CODE	DESCRIPTION	SCREW	ØA	ØB	HEIGHT
FM46194125	Coated Pin	M8	12 (0,47")	-	
FM46194120	Coated Pin	M8	14 (0,55")	-	
FM46194021	Spacer	M8	-	25 (0,98")	10 (0,39")
FM46194022	Spacer	M8	-	25 (0,98")	15 (0,59")
FM46194023	Spacer	M8	-	25 (0,98")	20 (0,78")

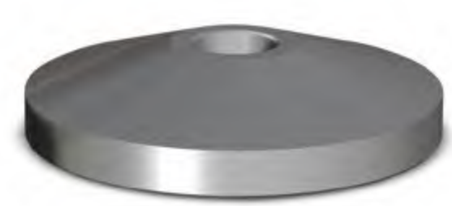
M10 COATED PIN AND SPACER

CODE	DESCRIPTION	SCREW	ØA	ØB	HEIGHT
FM46194135	Coated Pin	M10	14 (0,55")	-	
FM46194130	Coated Pin	M10	16 (0,62")	-	
FM46194031	Spacer	M10	-	28 (1,10")	15 (0,59")
FM46194032	Spacer	M10	-	28 (1,10")	25 (0,98")
FM46194033	Spacer	M10	-	28 (1,10")	35 (1,37")



COATED PIN AND SPACER EXAMPLE





ADAPTER FOR MODULE

Adapter for module offers the possibility to fix small workpieces directly on the modules by using mini range pins and spacers. It guarantees a fast and flexible workpiece change.

CODE	DESCRIPTION	SCREW	Ø	HEIGHT
FM46194000	Adapter for module	M6	90 (3,54")	20 (0,78")
FM46194003	Adapter for module	M8	90 (3,54")	20 (0,78")
FM46194006	Adapter for module	M10	90 (3,54")	20 (0,78")

ADAPTER FOR MODULE ASSEMBLY EXAMPLE

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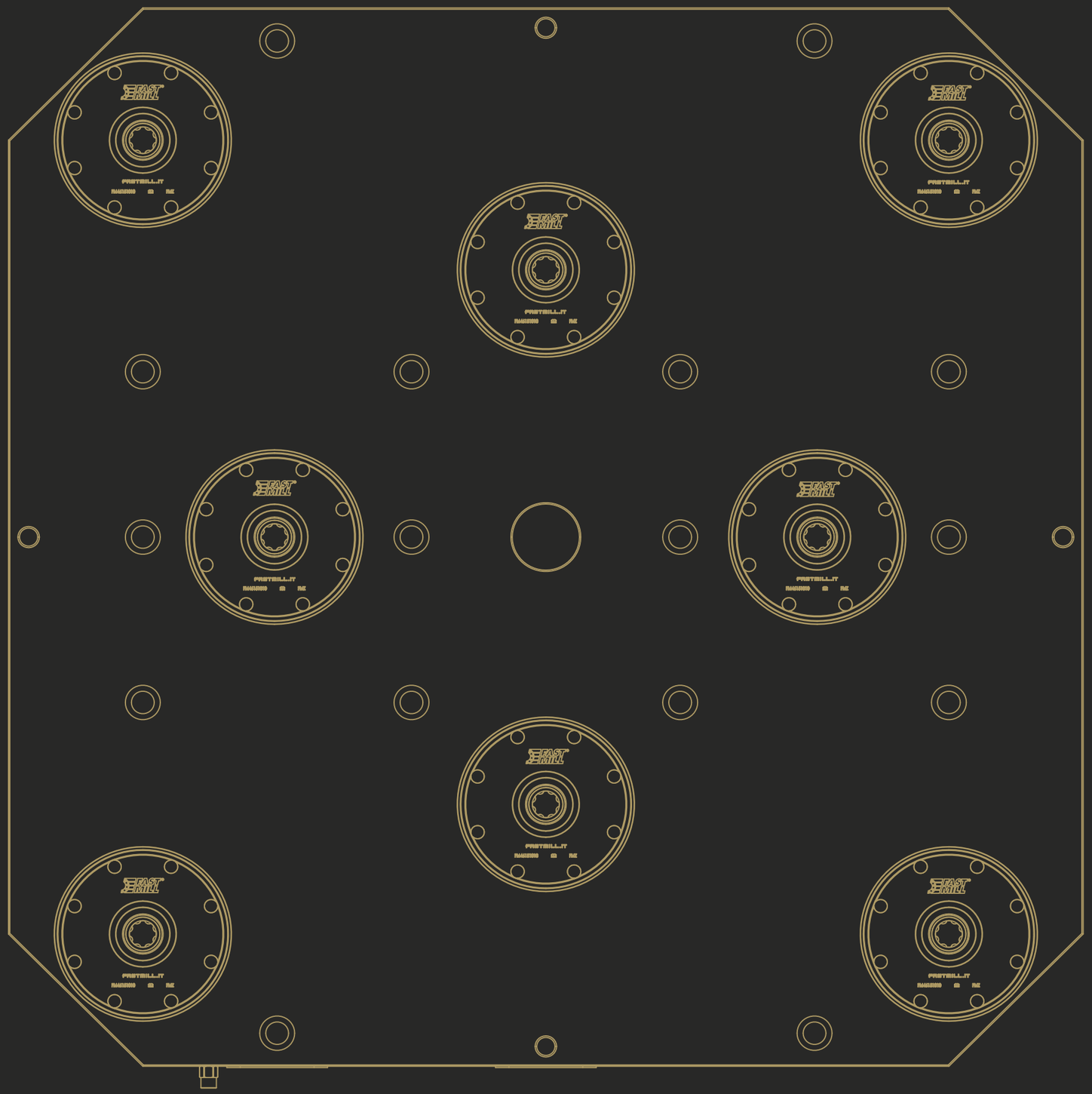


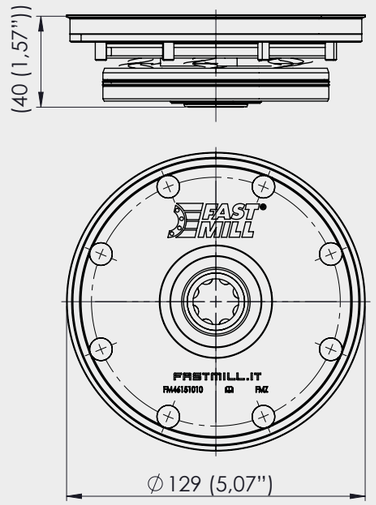
FASTMILL ZERO

FASTMILL ZERO PNEUMATIC MODULE

FastMill Zero pneumatic modules are designed to maximize the idea of automation.
They guarantee very high precision and repeatability, combined with a clamping force capable of avoiding vibrations during machining.
Able to verify the complete tightening of each module, it meets the maximum safety requirements.

CODE	DESCRIPTION	Ø	HEIGHT	WEIGHT
FM46151010	FMZ pneumatic module	129 (5,07")	40 (1,57")	2 (4,40 lbs)

TECHNICAL INFORMATION	
Clamping force (by springs)	12500 N (2,800 lbs)
Repetitive accuracy	≤ 0,005 mm (0,00019")
Pneumatic pressure for opening	6 bar (87 psi)
Max. axial load	1000 kg (2,200 lbs)



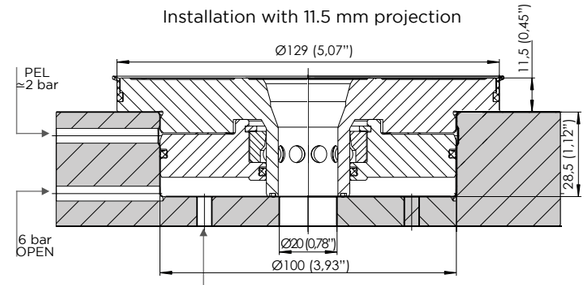
CALIBRATION RING FOR VERTICAL ADJUSTMENT

Calibration ring allows the assembly of the FastMill Zero pneumatic module aligned to the work table.
This configuration allows you to optimize the space on the work table while maintaining maximum flexibility.

CODE	DESCRIPTION	Ø	HEIGHT	
FM46152010	Calibration ring for vertical adjustment	128 (5,03")	2 (0,07")	

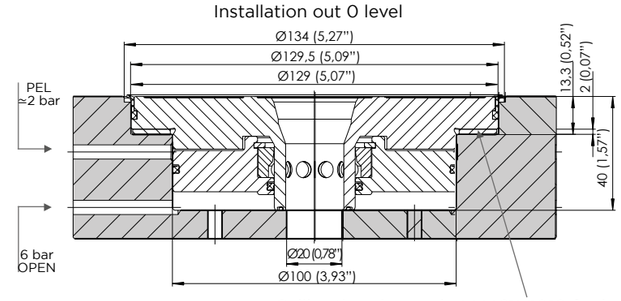
PIN M12 AND M16 FOR FMZ EXAMPLE

Installation with 11.5 mm projection



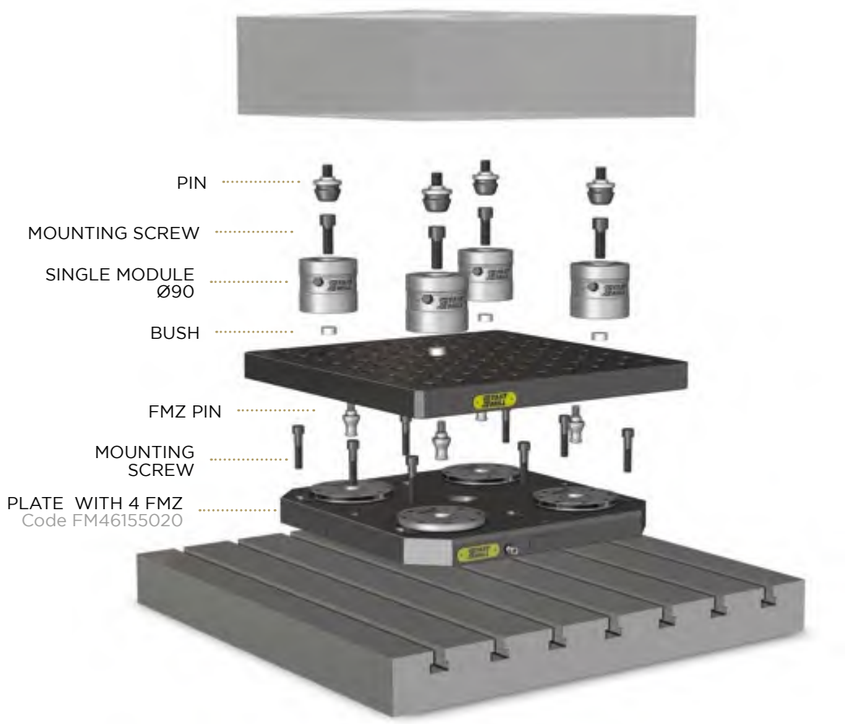
Detailed installation diagram upon request.

Installation out 0 level



Calibration ring code FM46152010 for height adjustment

PLATE WITH 4 FMZ MODULES ASSEMBLY EXAMPLE



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PIN M12 AND M16 FOR FASTMILL ZERO

The screwing of the centering, compensating and clamping pin of the FMZ series can be done both, from above (with M12 screw) or from below (with M12 stud screw).

Centering pin (**FM46153010 - FM46153070**)
Clamping and centering pin (X-, Y-positioning), required for set-up. Includes one M12x30 DIN912 screw (strength class 10.9) and one M12x25 DIN939 stud screw (strength class 10.9).

Compensating pin (two-parts) (**FM46153020**)
Clamping and locating pin used for radial alignment when two or more clampers are used for the same fixture. Required for multiple clamper fixture. Includes one M12x30 DIN912 screw (strength class 10.9) and one M12x25 DIN939 stud screw (strength class 10.9).

Clamping pin (**FM46153030**)
Clamping pin without alignment. Used for clamping when three or more clampers are used for the same fixture. Required with three or more clampers. Includes one M12x30 screw (strength class 10.9) and one M12x25 (DIN938) stud screw (strength class 10.9)

Integral Pin M16 type C (**FM46153060**)
Clamping and locating pin used for clamping when three or more clampers are used for one fixture.

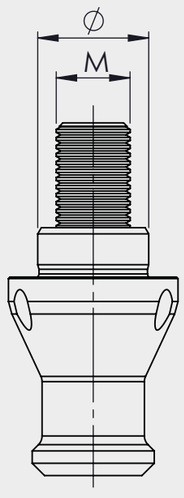
M12 PIN FOR FMZ

CODE	DESCRIPTION	M	Ø	TYPE
FM46153010	Pin M12 for FMZ	M12	18 (0,70")	A
FM46153020	Pin M12 for FMZ	M12	18 (0,70")	B
FM46153030	Pin M12 for FMZ	M12	-	C
FM46153070	Pin M12 for FMZ	M12	20 (0,78")	A

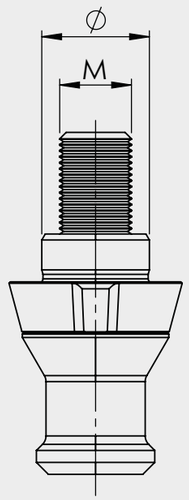
M16 PIN FOR FMZ

CODE	DESCRIPTION	M	Ø	TYPE
FM46153060	Pin M16 for FMZ	M16	-	C

TYPE A



TYPE B



TYPE C

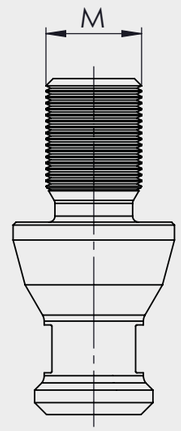


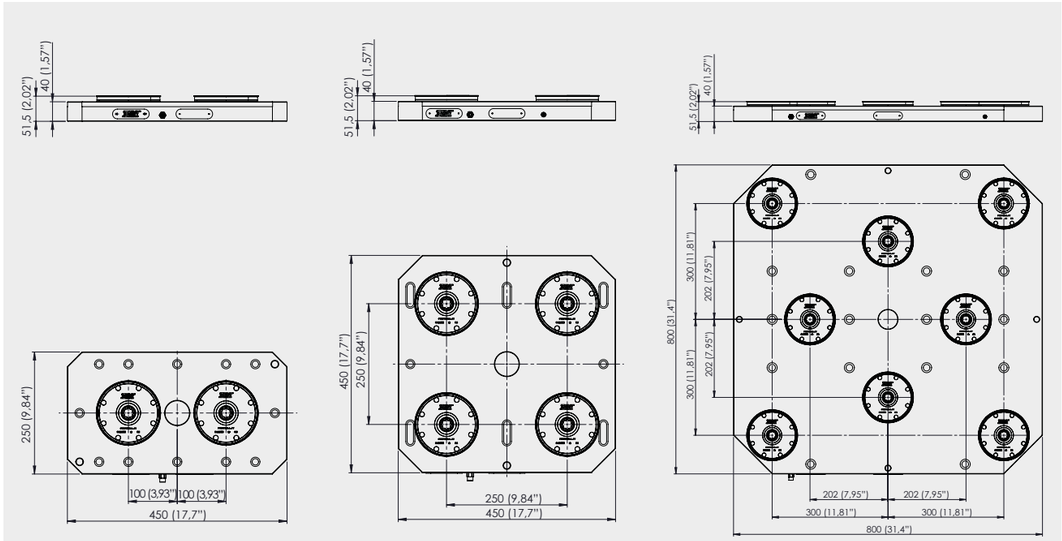
PLATE WITH PNEUMATIC FASTMILL ZERO

FastMill Zero plates offer the possibility to automate the quick change of the workpieces.
Simple to install, they are designed to cover all work areas, reducing downtime and maximizing production.

Cover for FastMill Zero are aluminum plugs, which protect the clamping seat of they when the modules are not used.

CODE	DESCRIPTION	# FMZ	DIMENSION	HEIGHT	WEIGHT
FM46155010	Plate with pneumatic FMZ	2	450X250 (17,71"X9,84")	40 (1,57")	33,9 (74,7 lbs)
FM46155020	Plate with pneumatic FMZ	4	450X450 (17,71"X17X71")	40 (1,57")	60,8 (134 lbs)
FM46155030	Plate with pneumatic FMZ	6	800X400 (31,4"X15,74")	40 (1,57")	92,8 (204,5 lbs)
FM46155040	Plate with pneumatic FMZ	8	800X800 (31,4"X31,4")	40 (1,57")	194,0 (427,6 lbs)
-	Custom Plate	-	-	40 (1,57")	-

CODE	DESCRIPTION	Ø	HEIGHT
FM46154020	Cover for FMZ	30 (1,18")	32 (1,25")



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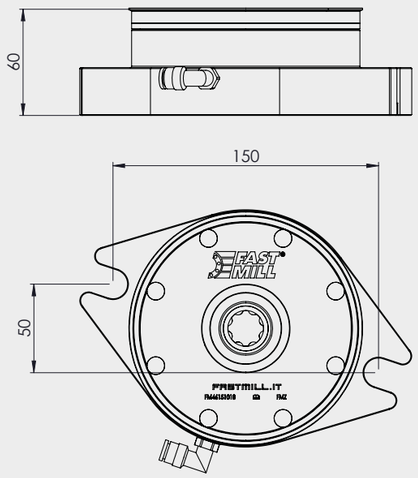
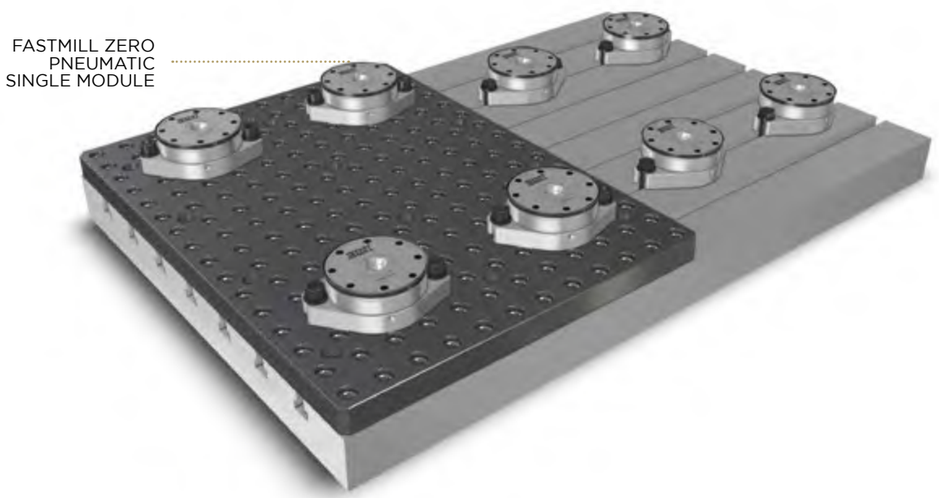
FASTMILL ZERO PNEUMATIC SINGLE MODULE FOR ASSEMBLY ON PLATE

The FastMill Zero single module offers the possibility of clamping workpieces using a pneumatic system, this module allows for different placements on the table. Ideal for fixing pieces with highly variable geometries or for positioning in hard-to-reach areas.

CODE	DESCRIPTION	Ø	HEIGHT	WEIGHT
FM46156010	FMZ pneumatic single module	129 (5,07")	60 (2,36")	7,3 (16 lbs)



FASTMILL ZERO PNEUMATIC SINGLE MODULE FOR ASSEMBLY ON PLATE EXAMPLE



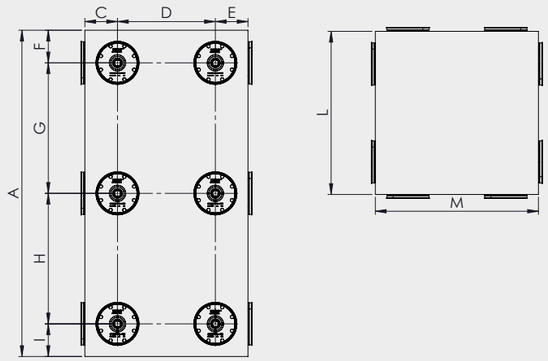
FASTMILL ZERO PNEUMATIC CUBE

FastMill Zero pneumatic cubes are made to customer specifications and can have one to four faces with inserted pneumatic modules. The base can be fixed on T-slots or by modules.

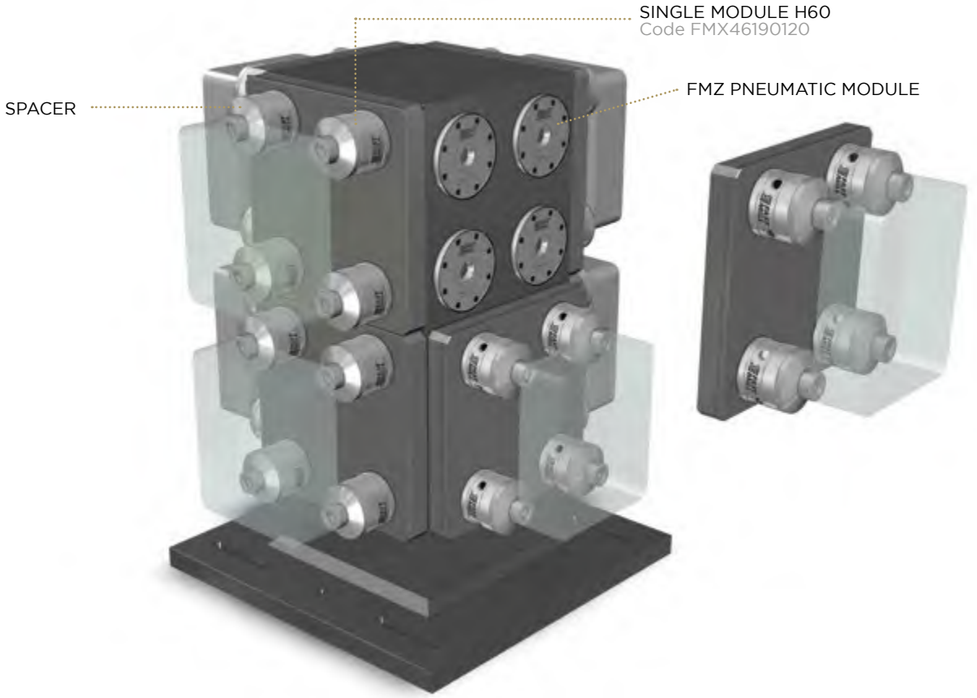
ON DEMAND

Alternative dimensions or custom solutions on demand.

FMZ PNEUMATIC CUBE



SETUP EXAMPLE



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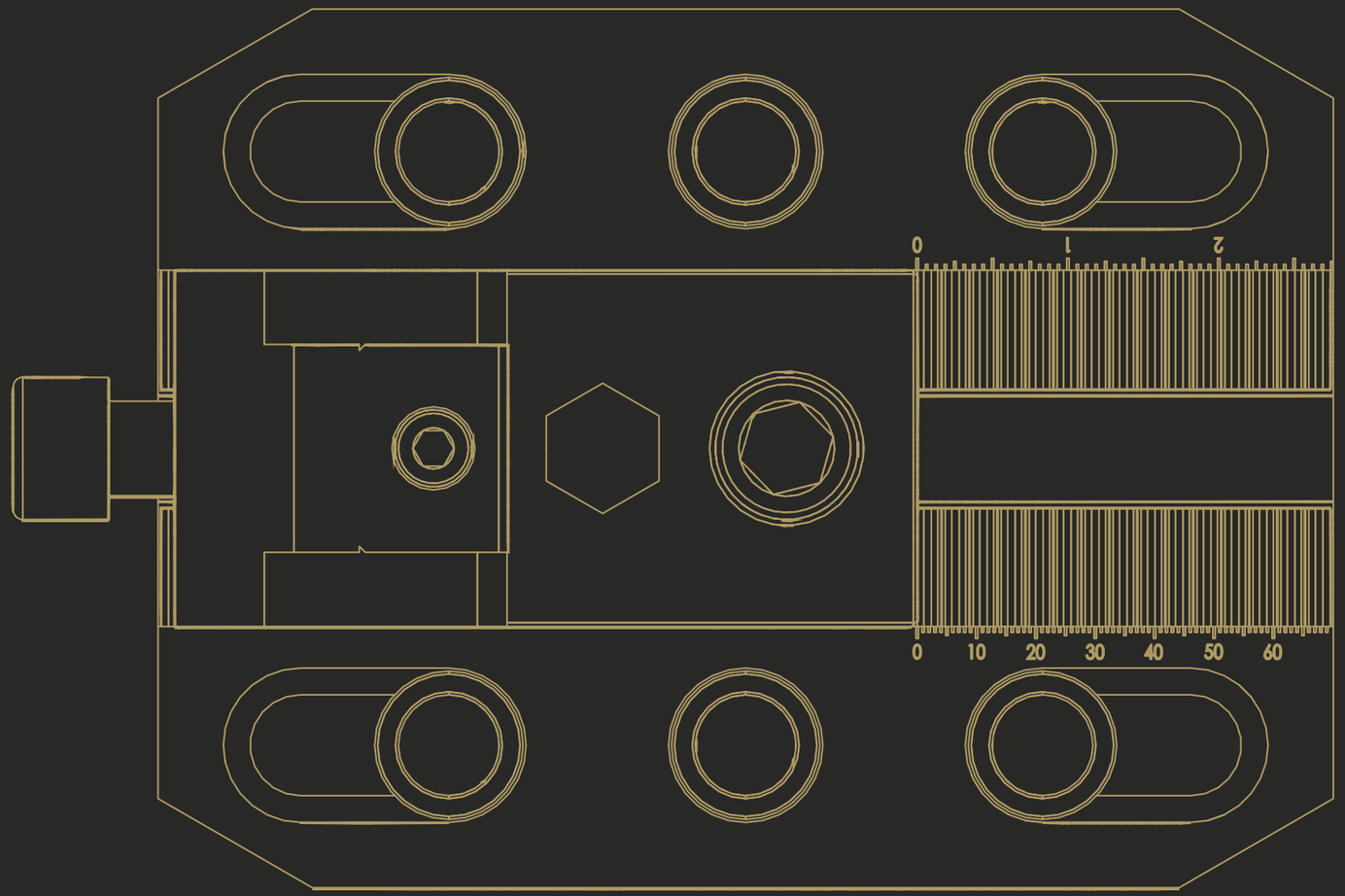
CLAMPS



MODULAR CLAMP

Useful for pre-process operations, the FastMill Modular Clamp allows you to fix pieces of various sizes with maximum rigidity and practicality.
Simple to install and to handle with just a few operations, the FastMill modular clamp allows the operator to start machining on the workpiece.

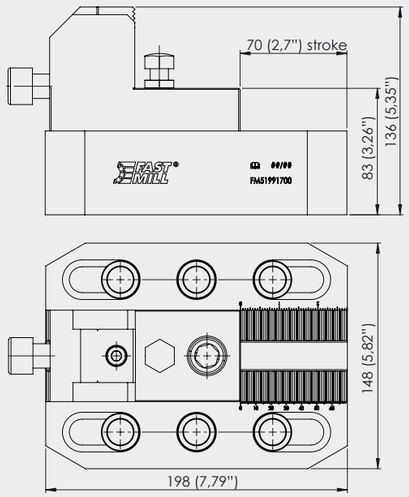
CODE	DESCRIPTION	DIMENSION	HEIGHT	WEIGHT
FM51991700	Modular clamp	198x148 (7,79"x5,82")	136 (5,35")	11,8 (26 lbs)

FIXED CLAMP

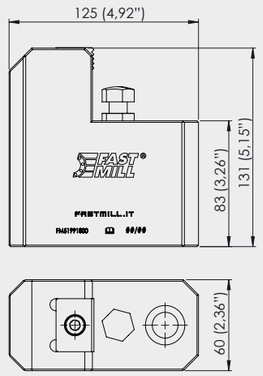
FastMill Fixed Clamp are used in tandem with our Modular Clamp to support workpiece clamping.
Versatile and functional, they can also act as reference points when the operator needs to position several workpieces at the same X-Y coordinates.

CODE	DESCRIPTION	DIMENSION	HEIGHT	WEIGHT
FM51991800	Fixed clamp	60x125 (2,36"x4,92")	131 (5,15")	5,8 (12,7 lbs)

MODULAR CLAMP

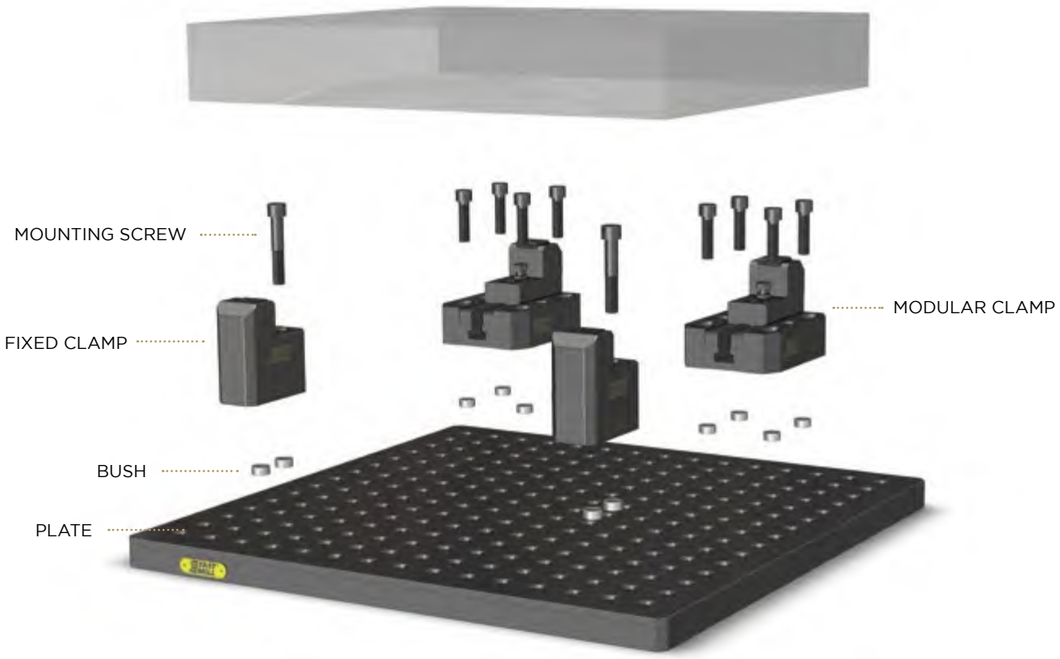


FIXED CLAMP

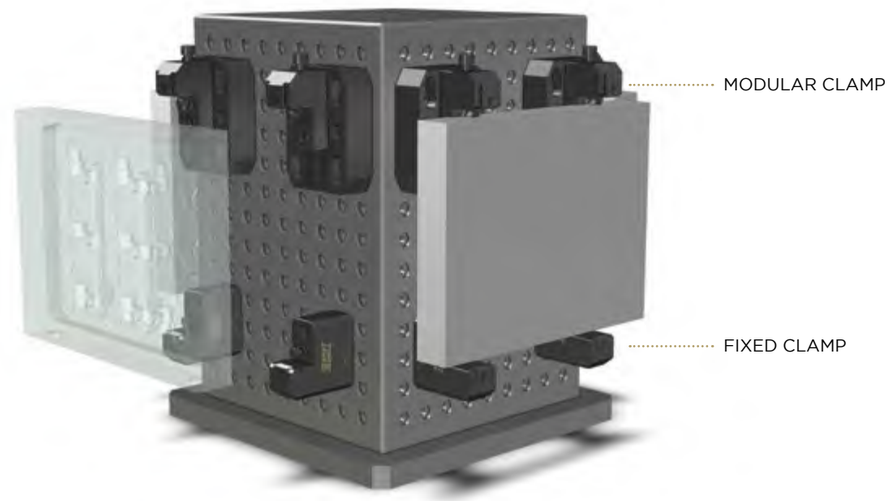


Related bushes.

CLAMPS ASSEMBLY EXAMPLE



CLAMPS ASSEMBLY EXAMPLE



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