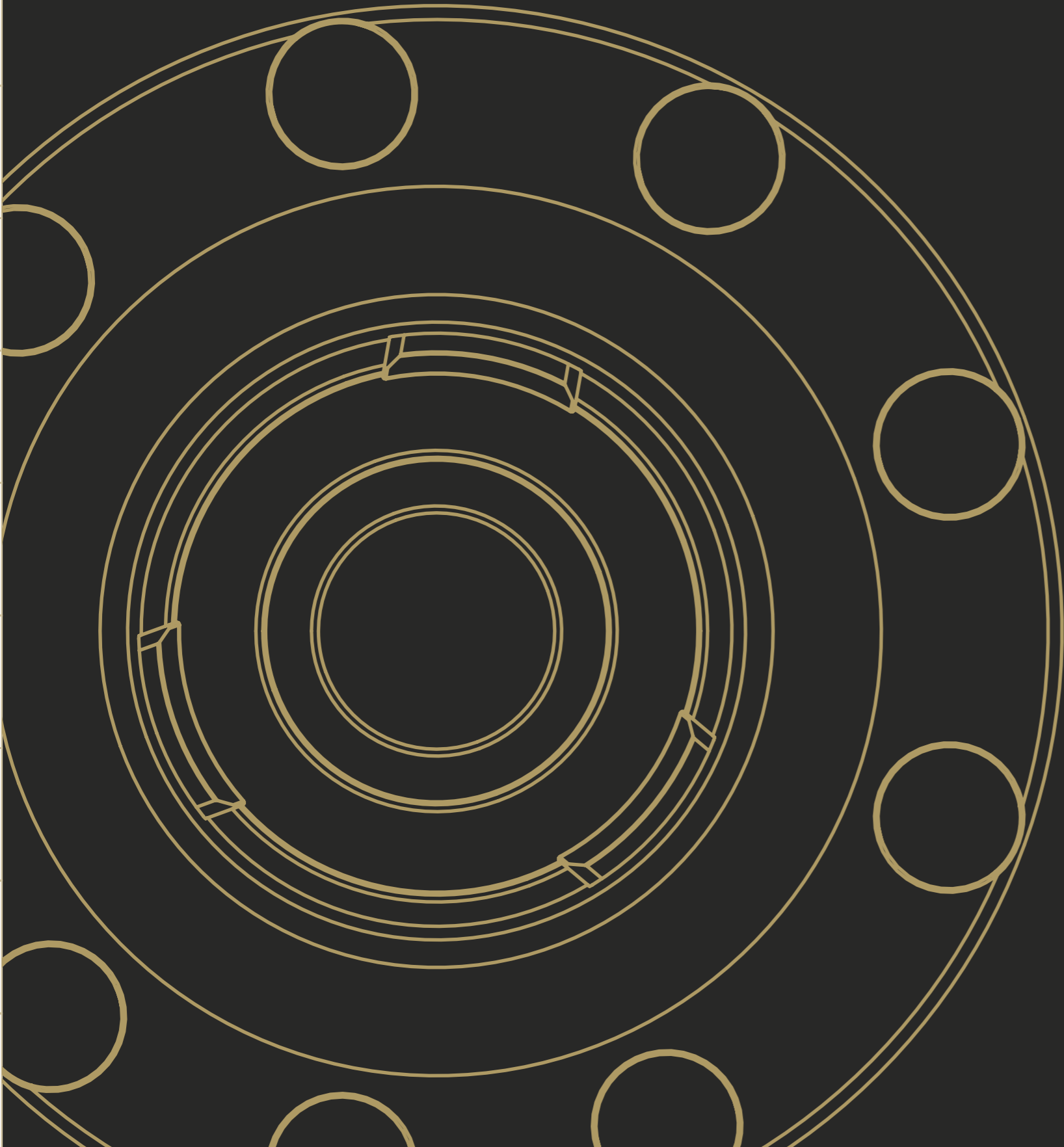
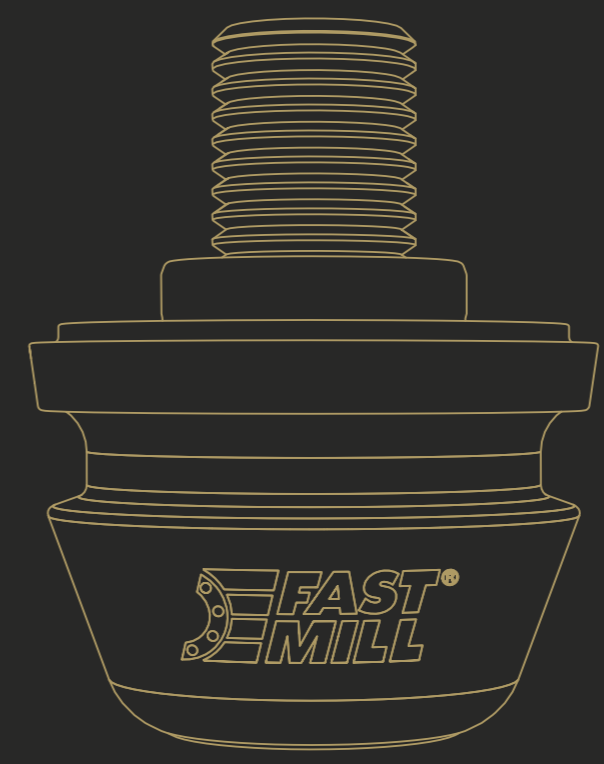


- CLAMPS
- FASTMILL ZERO
- MINI RANGE
- VERTICAL CLAMPING
- MAGNETIC
- THIRD POINT
- RISERS
- SPACERS
- MODULES AND PINS D49
- MODULES AND PINS D90
- PLATES AND BUSHES




# MODULES AND PINS D90



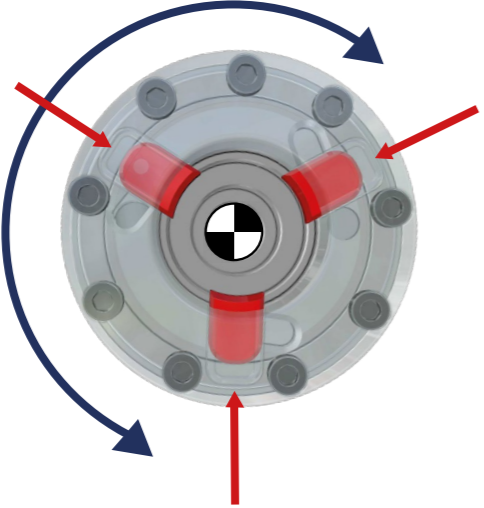
- CLAMPS
- FASTMILL ZERO
- MINI RANGE
- VERTICAL CLAMPING
- MAGNETIC
- THIRD POINT
- RISERS
- SPACERS
- MODULES AND PINS D49
- MODULES AND PINS D90
- PLATES AND BUSHES

MAIN FEATURES

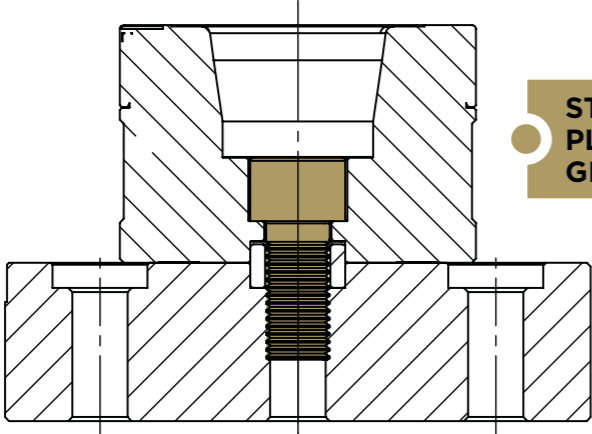
360° POSITIONING / NO NEED TO ORIENT THE SYSTEM



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



- ULTRA PRECISE ZERO POINT
- AUTO-CENTERING SYSTEM



- STANDARD SCREW FOR PLATE FIXING M16 12.9 GRADE

MAIN FEATURES

360° POSITIONING / NO NEED TO ORIENT THE SYSTEM



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



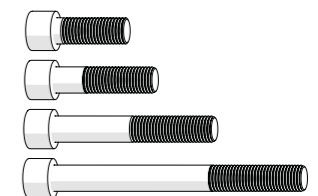
- PRE-CENTERING BODY
- WITHSTANDS SHOCK WITHOUT COMPROMISING FUNCTIONALITY
- ALLOWS WORKPIECE TO REST ON THE FLOOR



- 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.



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

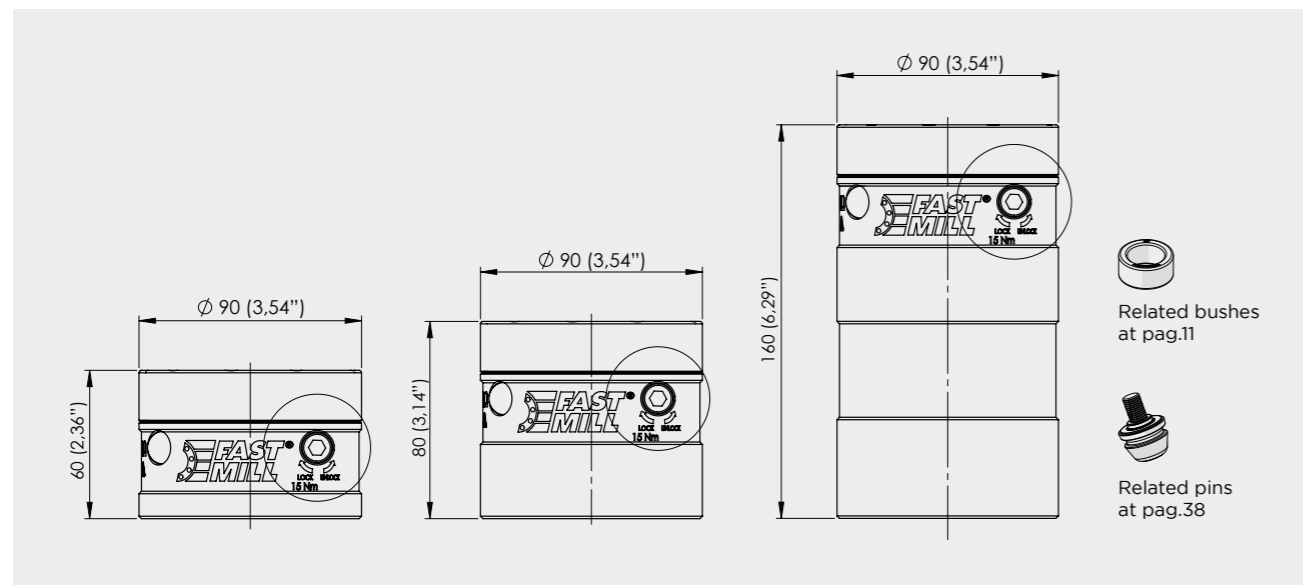
PLATES AND BUSHES  
MODULES AND PINS D90  
MODULES AND PINS D49  
SPACERS  
RISERS  
THIRD POINT  
MAGNETIC  
VERTICAL CLAMPING  
MINI RANGE  
FASTMILL ZERO  
CLAMPS



**SINGLE MODULE Ø90**

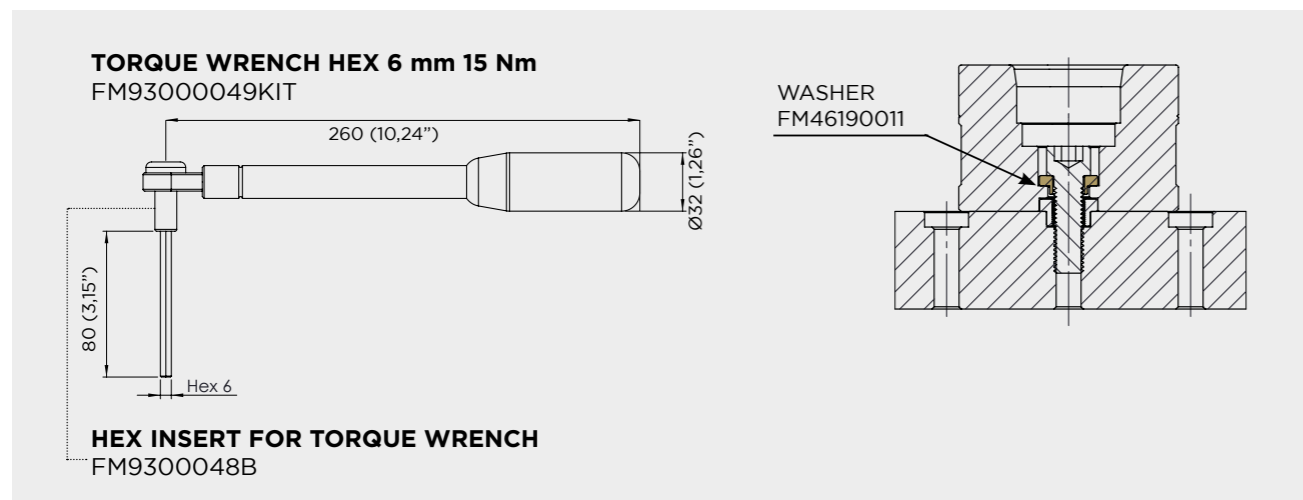
The FastMill module is the heart of the system. Developed over the years based from extensive R&D, this module is the connection point between the workpiece and the FastMill plate. Extreme resistance and precision at the highest levels. The workpiece becomes a single body with the machine table. Set 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 (4,41 lbs)
FMX46190130	Single module H80	80 (2,36")	90 (3,54")	M16 - M12 *	3 (6,61 lbs)
FMX46190140	Single module H160	160 (2,36")	90 (3,54")	M16 - M12 *	7 (15,43 lbs)

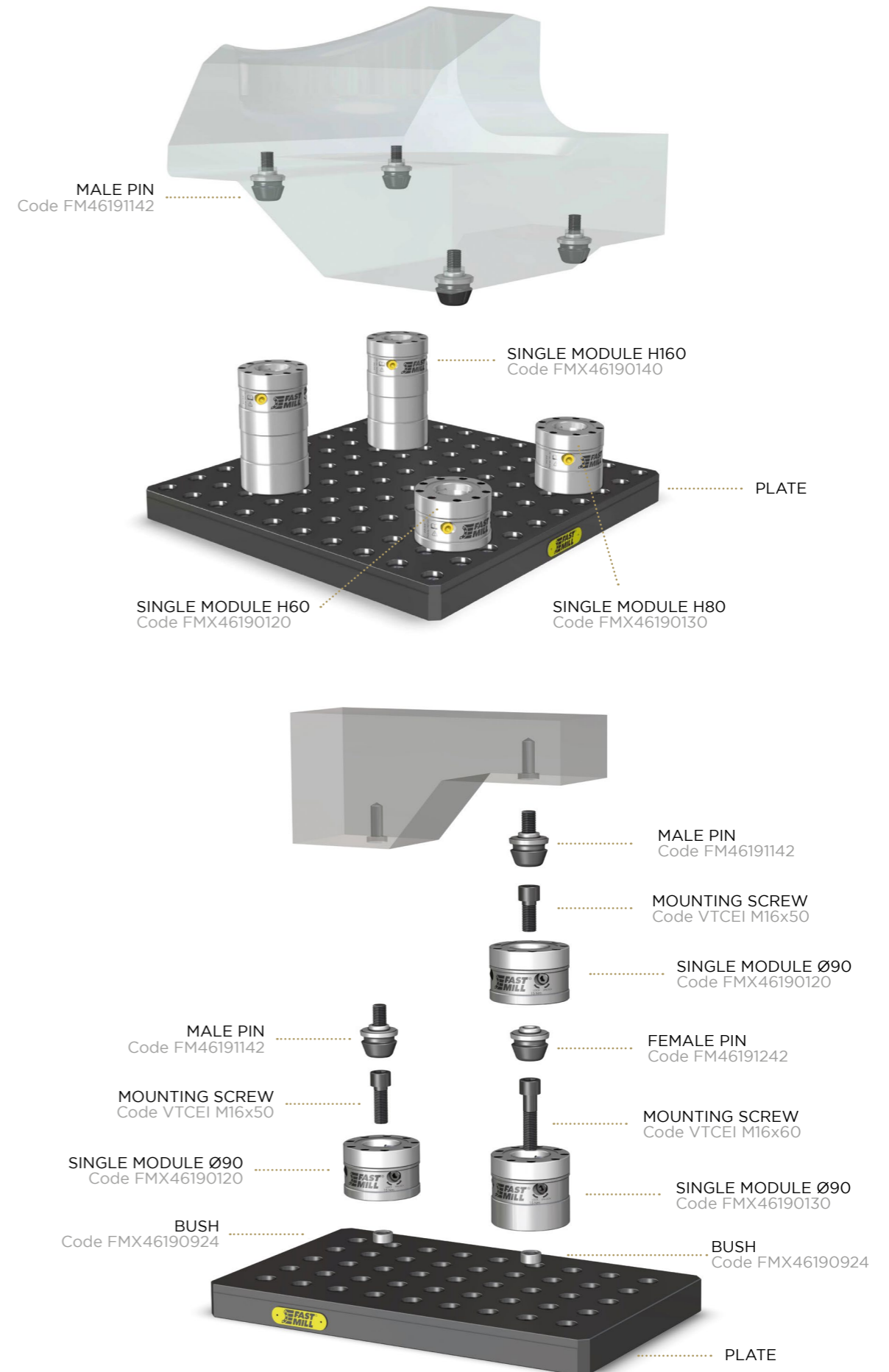


CODE	DESCRIPTION	DIMENSION	TORQUE	WEIGHT
FM93000049KIT	Preset torque wrench hex 6 mm 15 Nm	260 (10,23")	15 Nm	0,5 (11 lbs)
FM9300048B	Hex insert for torque wrench			

CODE	DESCRIPTION	Ø	M
FM46190011	Reducer washer for pin	M16	M10-M12

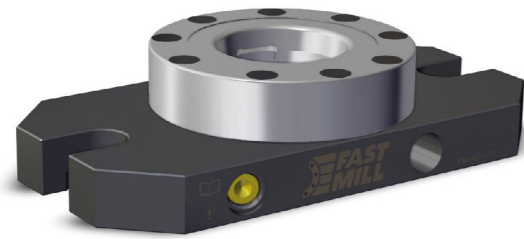


**SINGLE MODULES COMBINATION EXAMPLE**



PLATES AND BUSHES  
 MODULES AND PINS D90  
 MODULES AND PINS D49  
 SPACERS  
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 THIRD POINT  
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 VERTICAL CLAMPING  
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 FASTMILL ZERO  
 CLAMPS

PLATES AND BUSHES  
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 SPACERS  
 RISERS  
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 VERTICAL CLAMPING  
 MINI RANGE  
 FASTMILL ZERO  
 CLAMPS

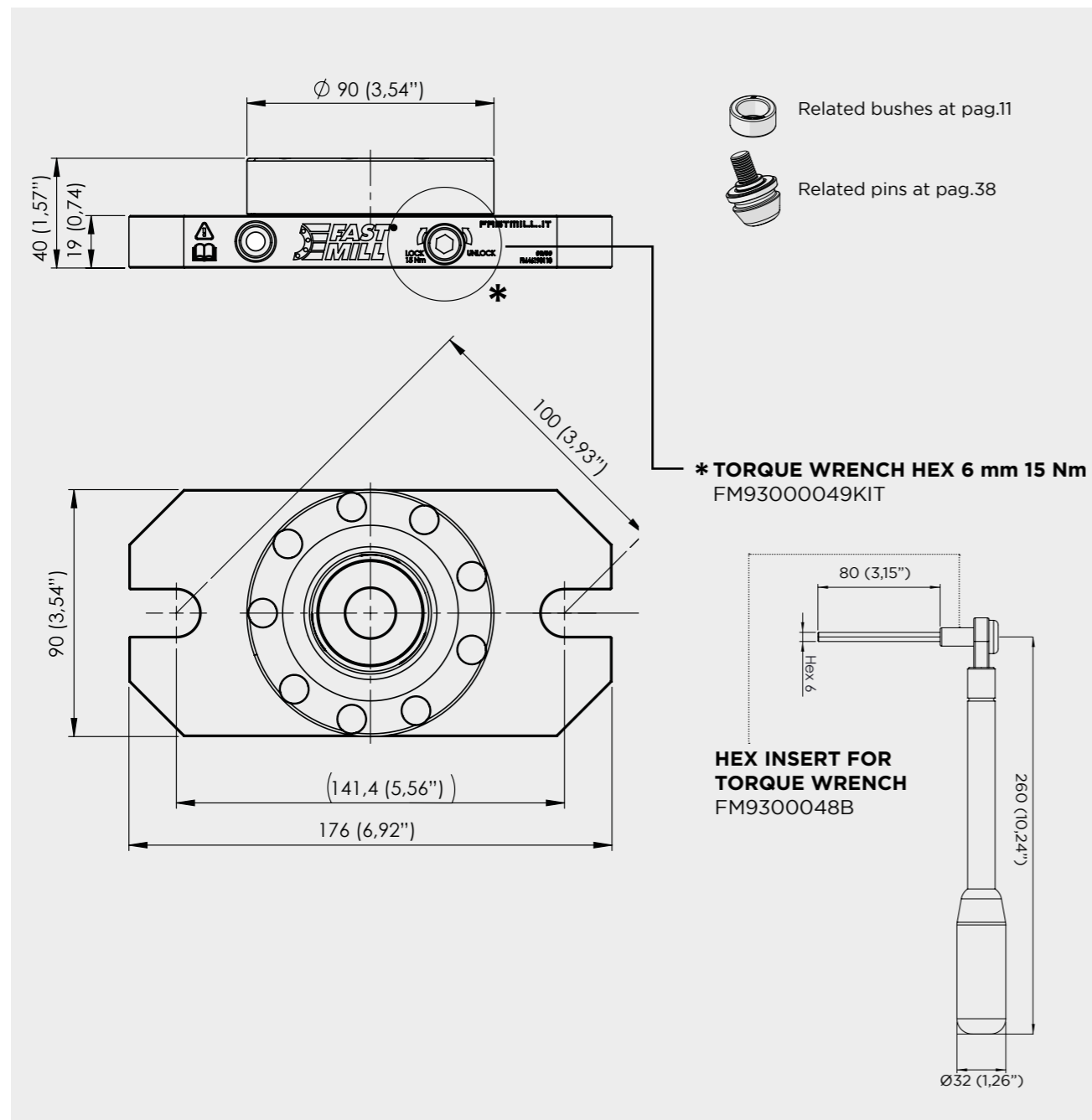


### SINGLE MODULE H40

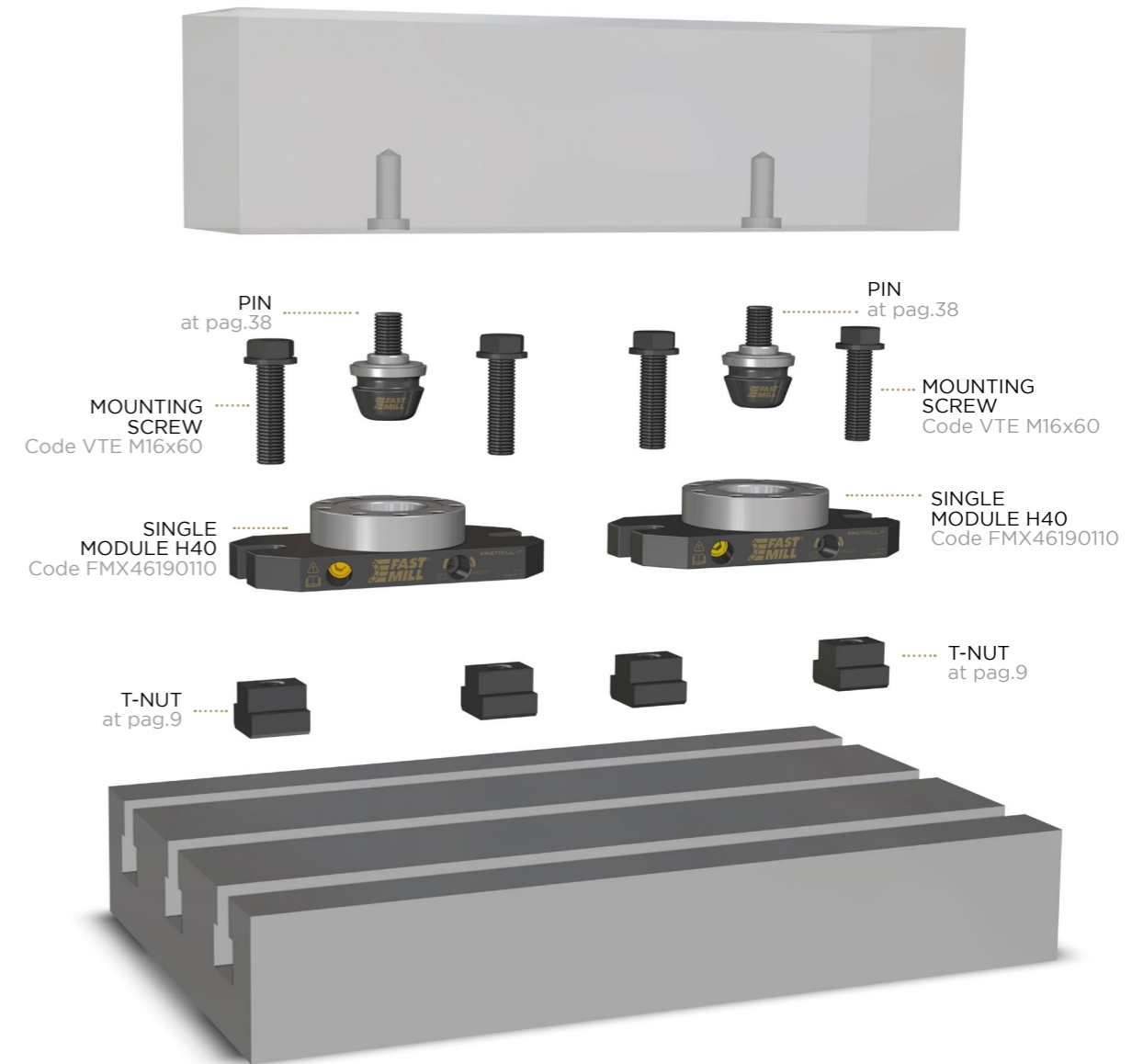
The FastMill H40 module is designed for mixed use in a T-slot as a clamping system or on a plate as a clamping and positioning system. The H40 allows customers to utilize the FastMill system with or without plate.

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

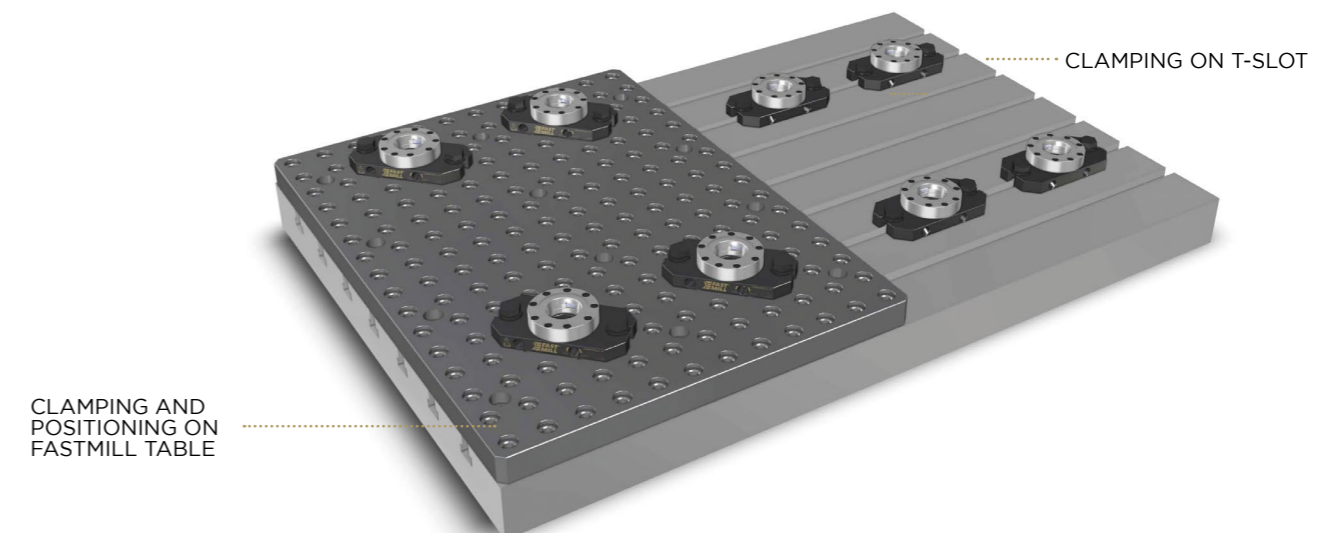
CODE	DESCRIPTION	DIMENSION	TORQUE	WEIGHT
FM93000049KIT	Preset torque wrench hex 6 mm 15 Nm	260 (10,23")	15 Nm	0,5 (11 lbs)
FM9300048B	Hex insert for torque wrench			



### SINGLE MODULES H40 COMBINATION EXAMPLE



### SINGLE MODULES H40 COMBINATION EXAMPLE



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

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



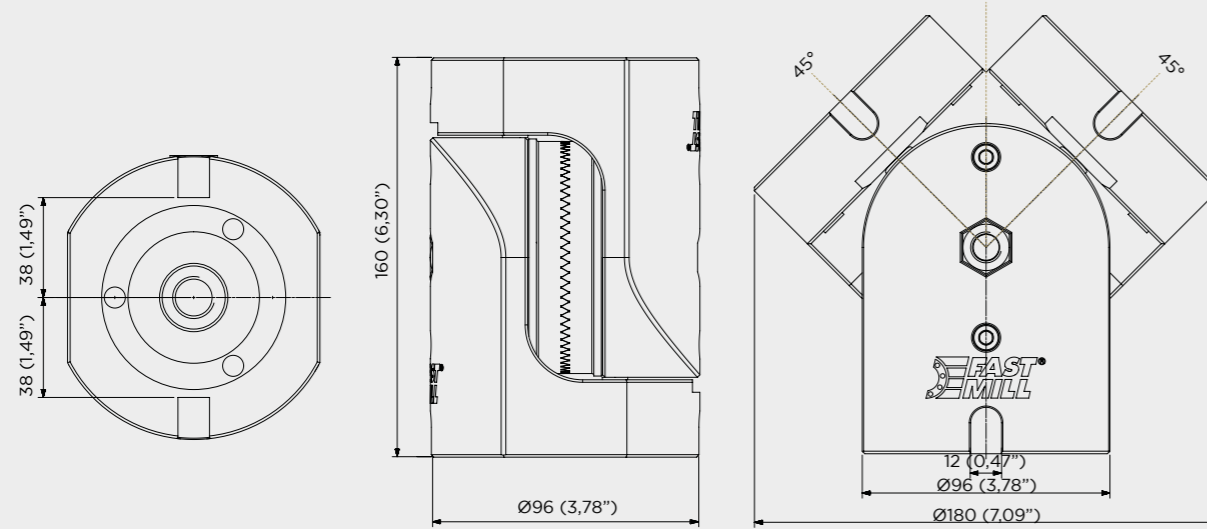
**TILTING MODULE WITH 5° HIRTH**  
**TILTING MODULE WITH 10° HIRTH**

The tilting module with incremental 5° or 10° pitch hirth 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.

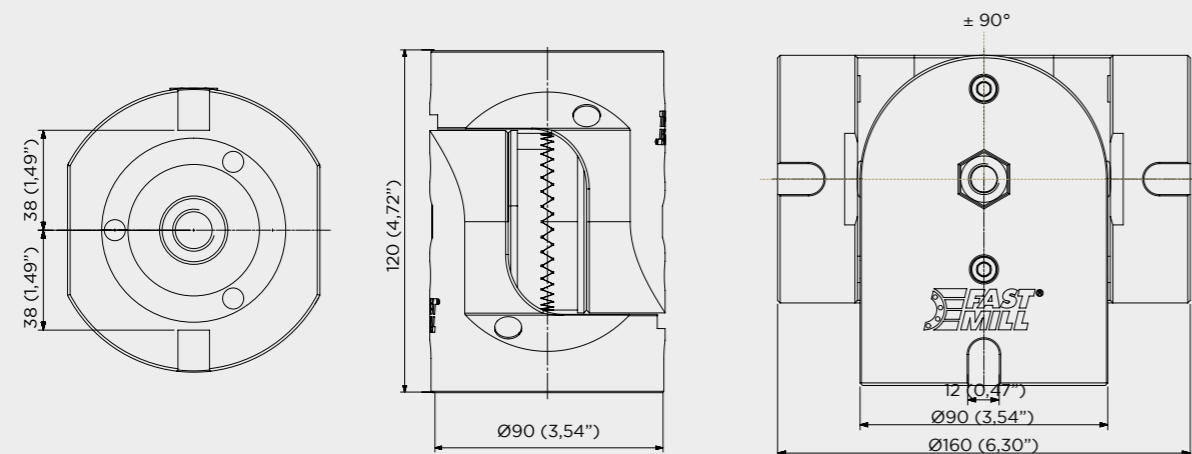
CODE	DESCRIPTION	HEIGHT	Ø	ANGLE	WEIGHT
FMTMSS0590160	Tilting module with 5° hirth	160 (6,29")	96 (3,77")	5°	9,5 kg
FMTMSS1090120	Tilting module with 10° hirth	120 (4,72")	90 (3,54")	10°	4,8 (10,58 lbs)

CODE	DESCRIPTION	DIMENSION	HEIGHT	WEIGHT	PAG.
FMSLIDE030D90	Slide plate for Ø90 module	300x90 (11,81"x3,54")	30 (1,18")	5,1 (11,24 lbs)	44

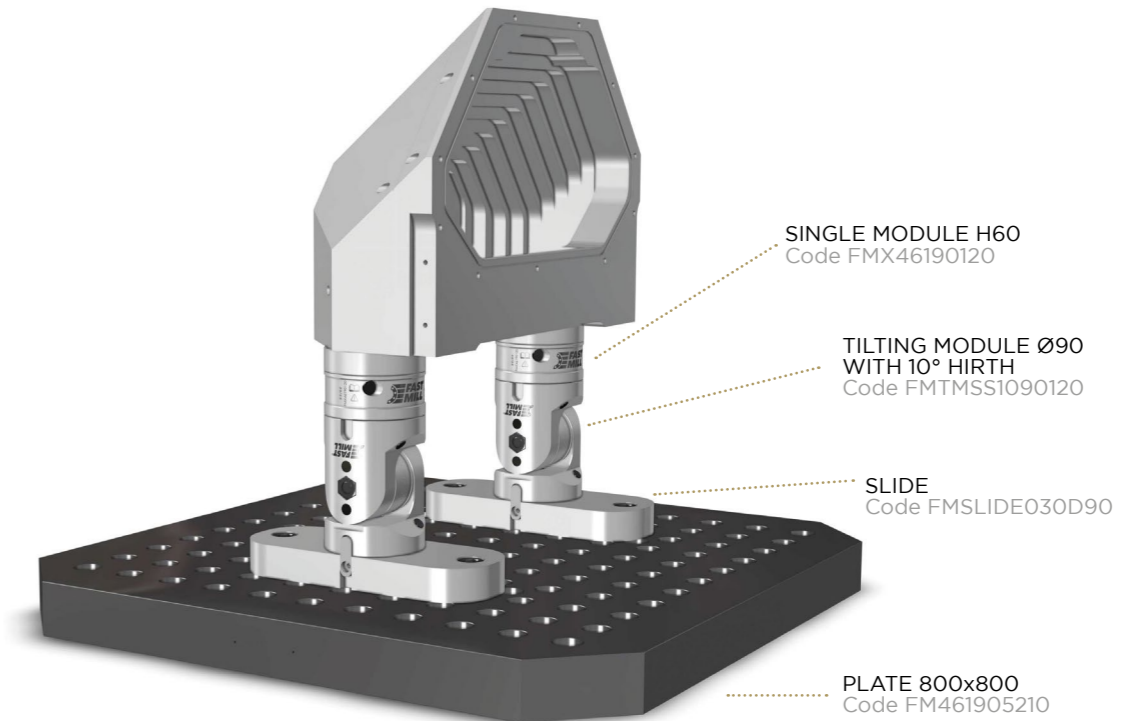
**TILTING MODULE WITH 5° HIRTH**



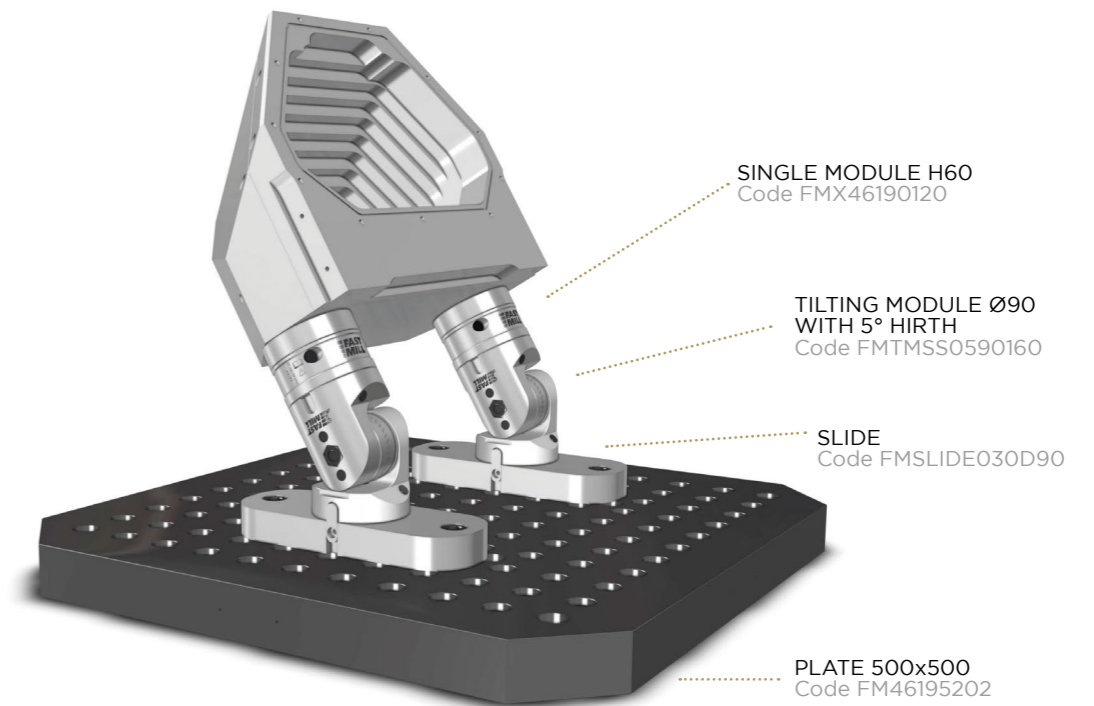
**TILTING MODULE WITH 10° HIRTH**



**SETUP EXAMPLE 0°**



**SETUP EXAMPLE 30°**



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

PLATES AND BUSHES  
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 CLAMPS



**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.



**SELF ADJUSTABLE MODULE Ø90**

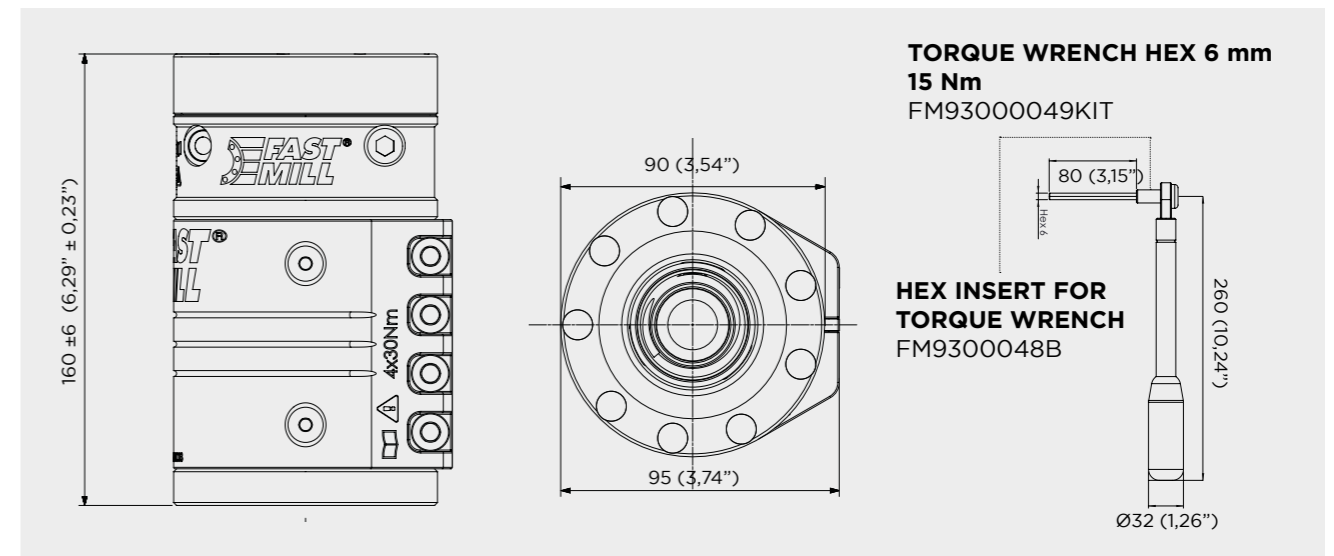
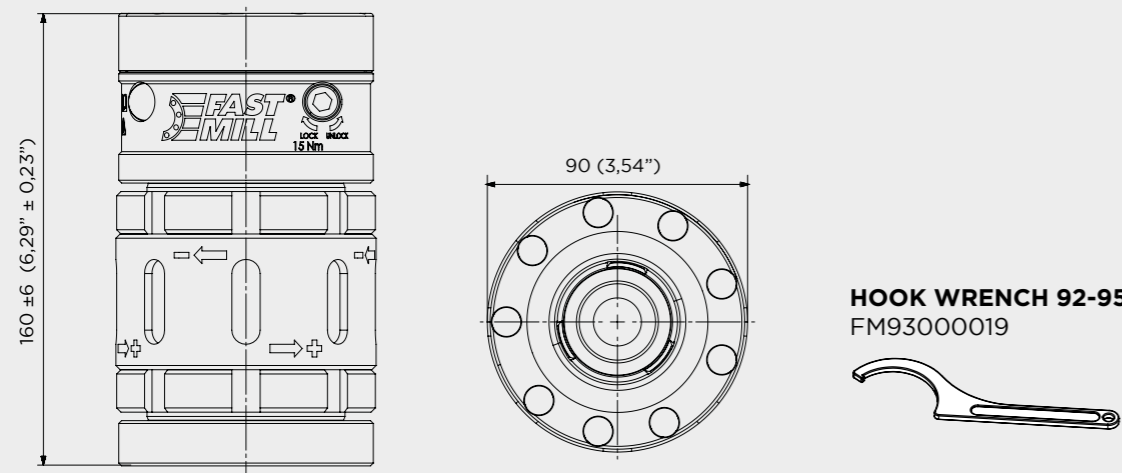
The FastMill self adjustable module allows a vertical support of +/-6 mm, without generating any tension on the piece. In combination with the adjustable module it can follow the deformations of the piece by working the roughing and finishing in the same work operation.

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

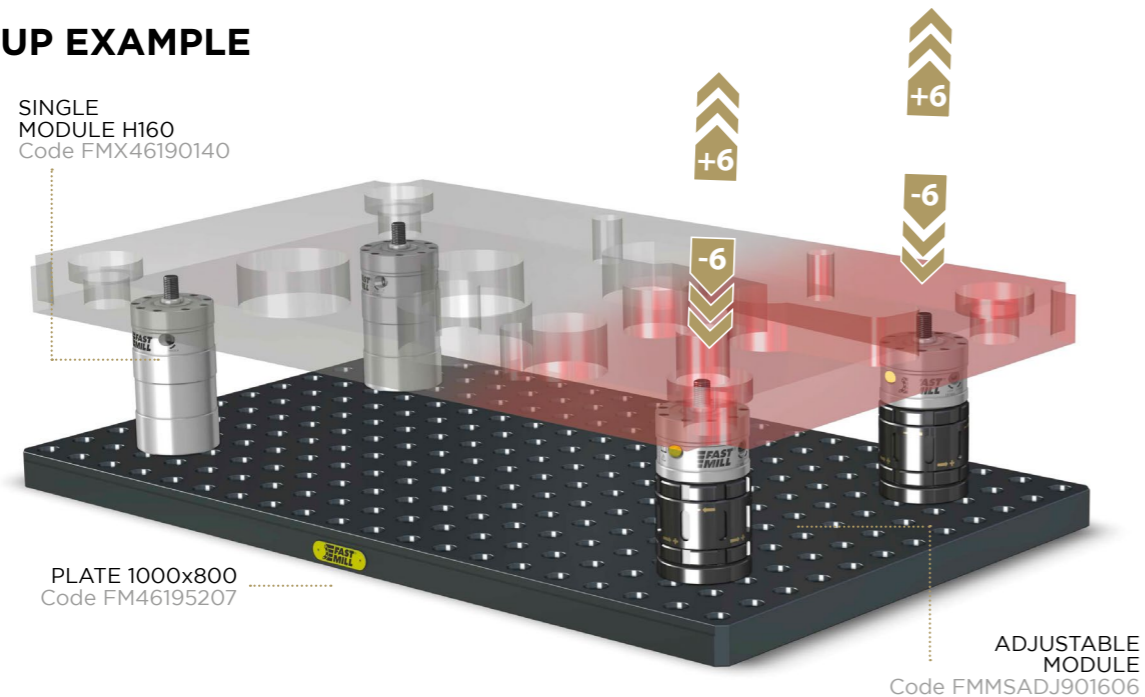
CODE	DESCRIPTION	HEIGHT	Ø	WEIGHT
FMMSSPR901606	Self adjustable module Ø90	160 ± 6 (6,29" ± 0,23")	90 (3,54")	5,1 (11,24 lbs)

CODE	DESCRIPTION	DIMENSION	TORQUE	WEIGHT
FM93000049KIT	Preset torque wrench hex 6 mm 15 Nm	260 (10,23")	15 Nm	0,5 (11 lbs)
FM93000048B	Hex insert for torque wrench			

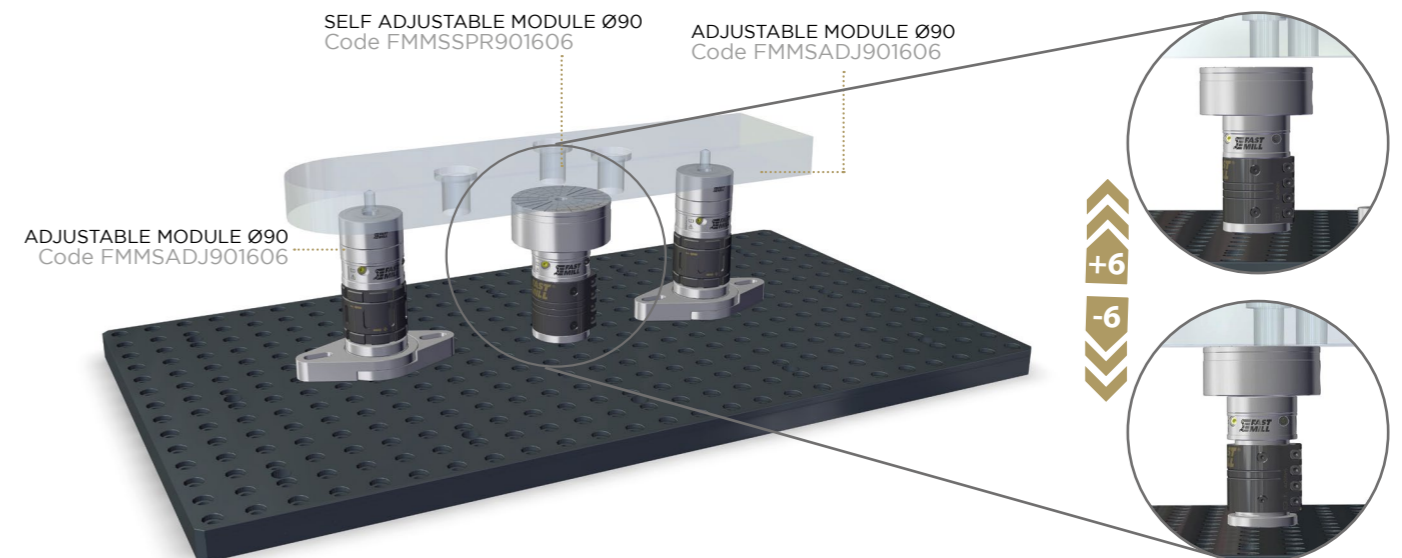
**EXTRA FINE PITCH 1° = 5µm**



**SETUP EXAMPLE**



**SETUP EXAMPLE**



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

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CLAMPS

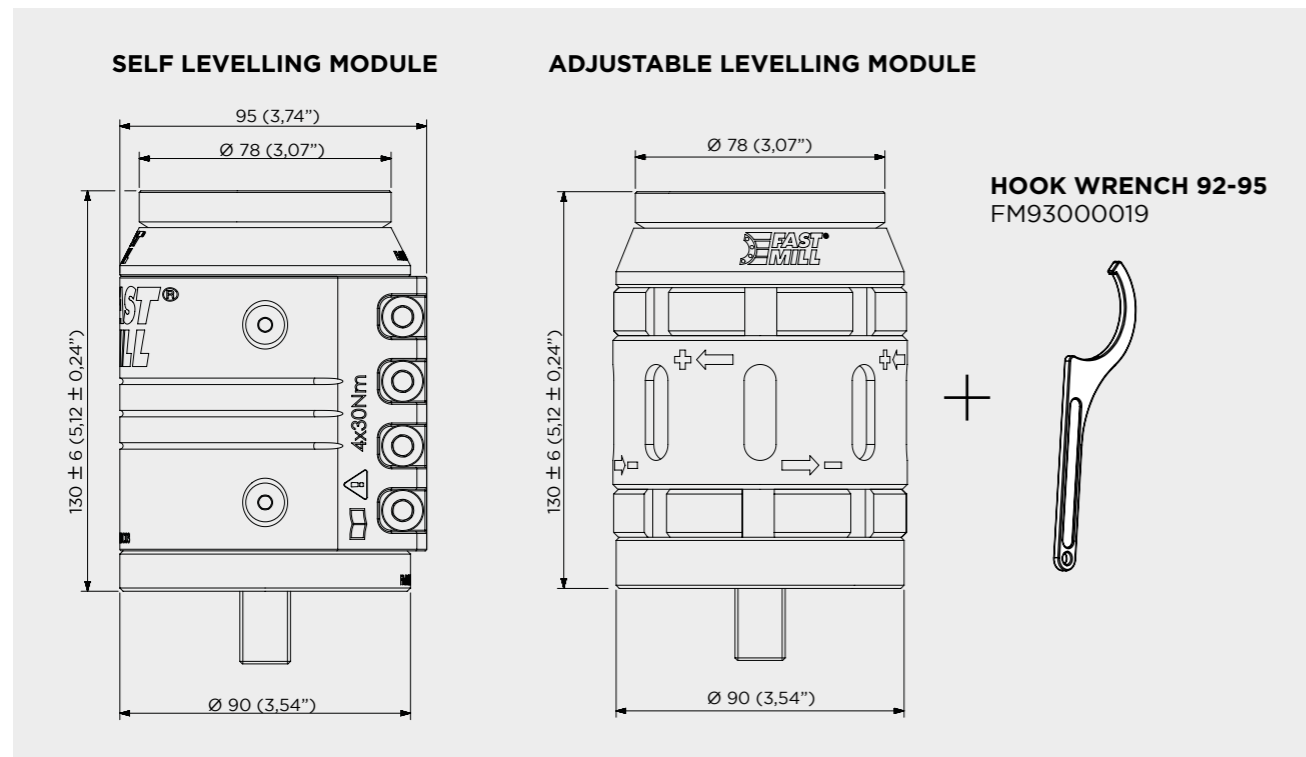


**LEVELLING SYSTEM**

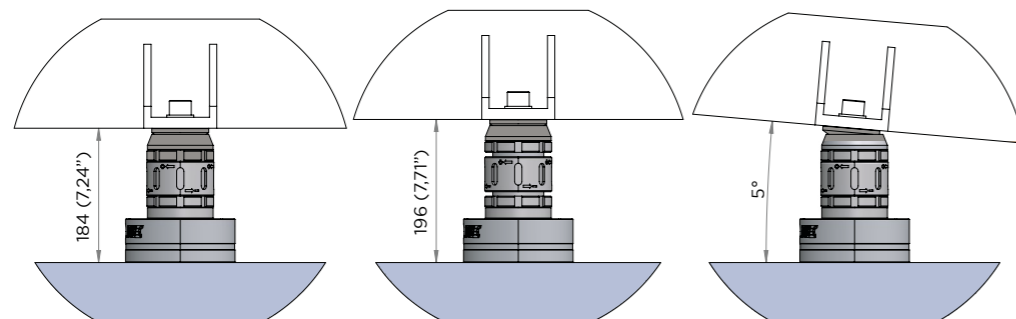
Introducing the new levelling and quick-fixing system, specifically designed for efficient work on structures and benches. This advanced system simplifies setup and adjustments, providing precise leveling and secure fastening.

CODE	DESCRIPTION	HEIGHT	Ø	WEIGHT
FMMLADJ903606	Adjustable levelling module	124 (4,88")	90 (3,54")	4,8 kg (10,58 lbs)
FMMLSPR903606	Self levelling module	124 (4,88")	90 (3,54")	4,8 kg (10,58 lbs)

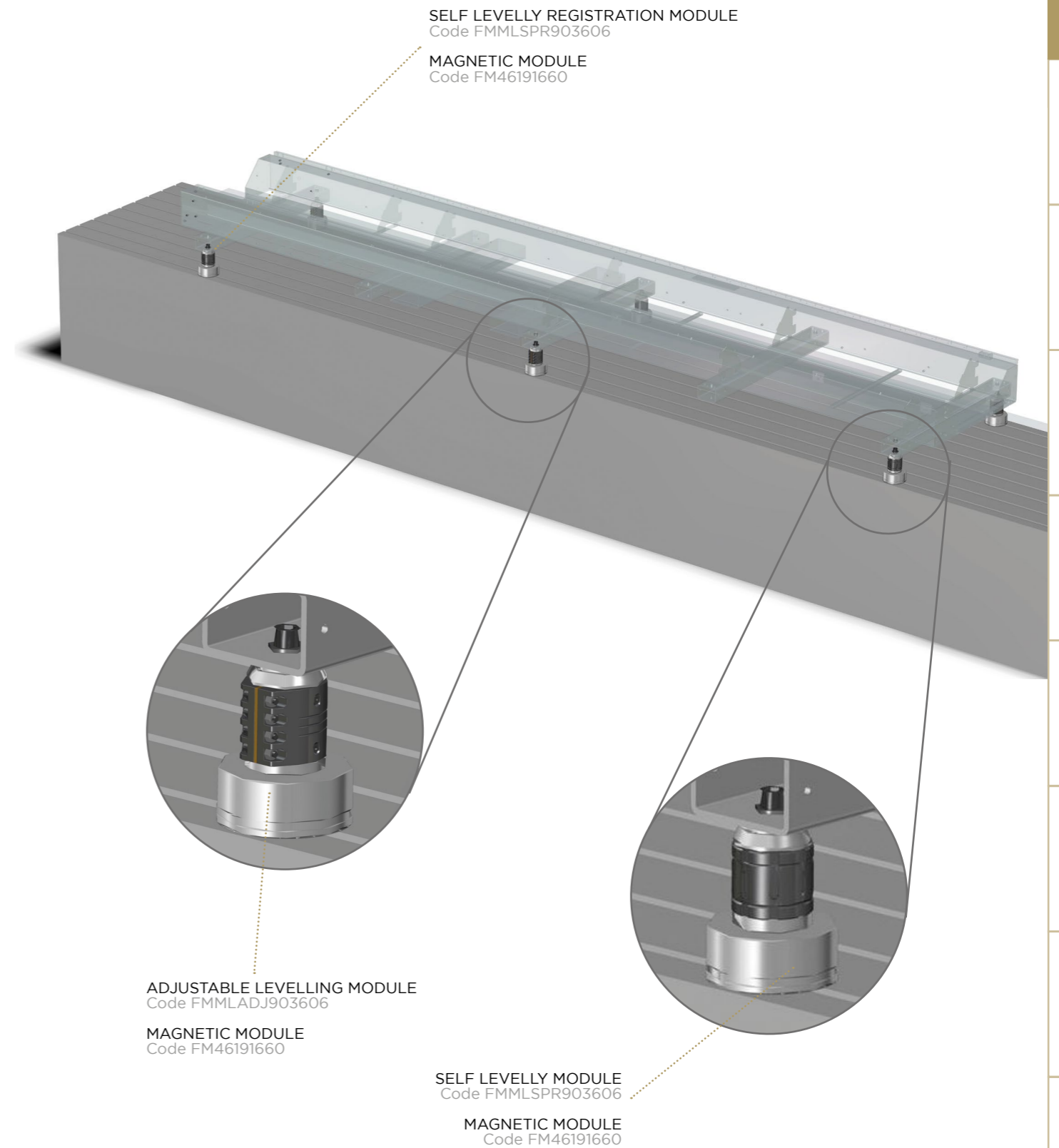
CODE	DESCRIPTION	DIMENSION	TORQUE	WEIGHT
FM93000019	Hook wrench 92-95			
FM93000049KIT	Torque wrench	260 (10,23")	15 Nm	0,5 (11 lbs)



**SETUP EXAMPLE**



**SETUP EXAMPLE**



PLATES AND BUSHES  
 MODULES AND PINS D90  
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 SPACERS  
 RISERS  
 THIRD POINT  
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 CLAMPS

PATENTED

PATENTED



### FLOATING ACCESSORY

The new PATENTED FastMill floating accessory allows the orientation of the module up to 2° in each direction. This particular accessory allows the clamping of non-planar workpieces and is also very useful for carpentry structures. Its locking system allows you to maintain the position during machining and, if necessary, by loosening the lower screw it is possible to release the tension of the component and then continue machining. It mounts as an accessory to existing FastMill modules.

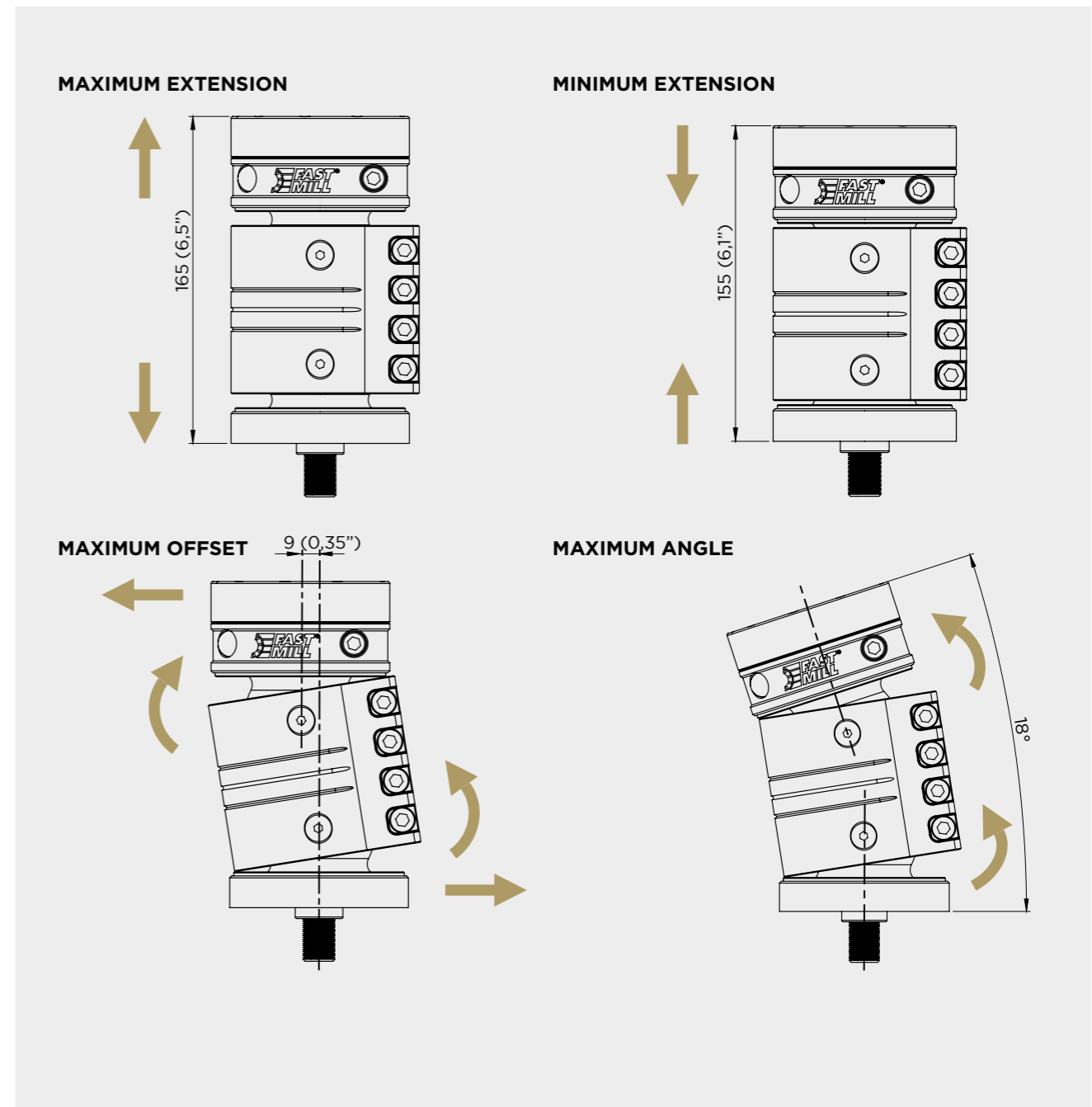
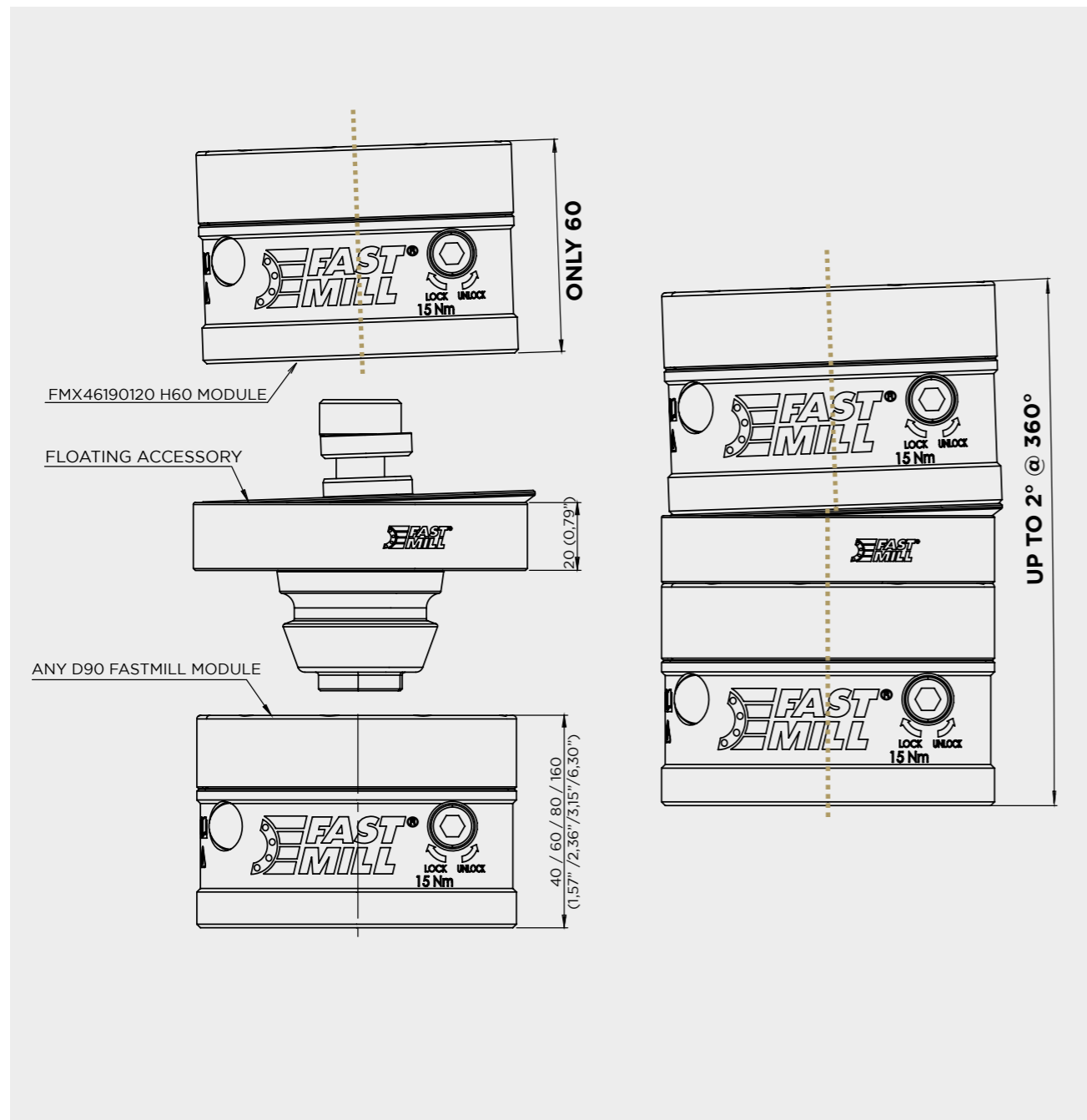
CODE	DESCRIPTION	HEIGHT	Ø	ANGLE	WEIGHT
FM46191900	Floating accessory	20 (0,78")	90 (3,54")	Up to 2°	0,5 kg (1,10 lbs)



### DOUBLE FLOATING MODULE

The new PATENTED floating module is designed and created based on specific production needs. Its allows you to lock any component, even non-planar or deformed ones, without applying any external force to it, thus guaranteeing its free orientation in space and then allowing it to be solidly locked in the resulting position. It is also possible to accommodate deformations developed during the manufacturing process due to internal tensions of the component or its thermal expansion.

CODE	DESCRIPTION	HEIGHT	Ø	ANGLE	WEIGHT
FMMSDFS903605	Double floating module	165/155 (6,5"/6,1")	90 (3,54")	up to 18°	7,1 Kg (15,65 lbs)

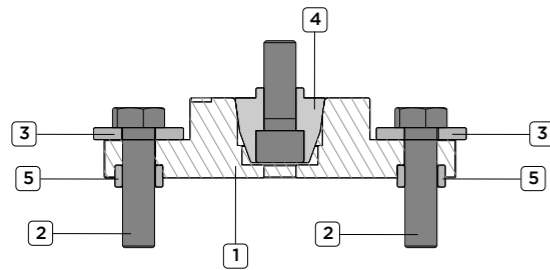


PLATES AND BUSHES  
MODULES AND PINS D90  
MODULES AND PINS D49  
SPACERS  
RISERS  
THIRD POINT  
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VERTICAL CLAMPING  
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FASTMILL ZERO  
CLAMPS

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

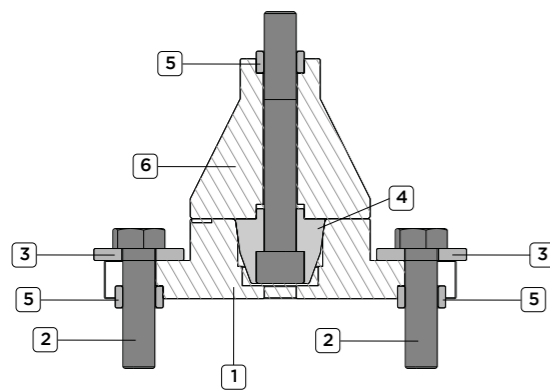
## SINGLE MODULE H40 MM FMX46190110 SET UP EXAMPLE

### TECHNICAL INFORMATION



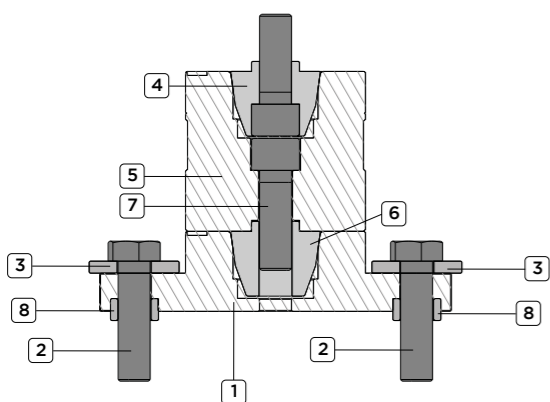
#### SINGLE MODULE H40 MM ON PLATE OR T-SLOT

- 1 Single module Opt. T-slots - Code FMX46190110
- 2 Hexagon head screw M16x60
- 3 Reducer washer for M16 strengthen screw DIN 6340 AND UNI 6602 A
- 4 Male pin type A M16 Ø24 mm with M16x45 screw - Code FM46191142
- 5 Single centering bush M16 Ø24-24 mm - Code FM46190924



#### SINGLE MODULE h40 mm ON PLATE OR T-SLOT WITH SPACER

- 1 Single module Opt. T-slots - Code FMX46190110
- 2 Hexagon head screw M16x60
- 3 Reducer washer for M16 strengthen screw DIN 6340 AND UNI 6602 A
- 4 Male pin type A M16 Ø24 mm with M16x45 screw - Code FM46191142
- 5 Single centering bush M16 Ø24-24 mm - Code FM46190924
- 6 Reduction spacer Ø90-40 mm h 60 mm - Code FM46191806

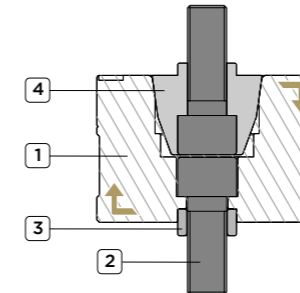


#### SINGLE MODULE h40 mm ON PLATE OR T-SLOT WITH MODULE h80 mm FMX46190130

- 1 Single module Opt. T-slots - Code FMX46190110
- 2 Hexagon head screw M16x60
- 3 Reducer washer for M16 strengthen screw DIN 6340 AND UNI 6602 A
- 4 Male pin type A M16 Ø24 mm with M16x45 screw - Code FM46191142
- 5 Single module Ø90 mm h 80 mm - Code FMX46190130
- 6 Female pin type A M16 Ø24 mm - Code FM46191242
- 7 Cylindrical head hexagon socket screw 12.9 (DIN912) M16x50
- 8 Single centering bush M16 Ø24-24 mm - Code FM46190924

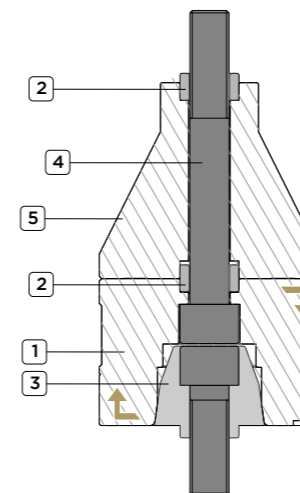
## SINGLE MODULE H60 MM FMX46190120 SET UP EXAMPLE

### TECHNICAL INFORMATION



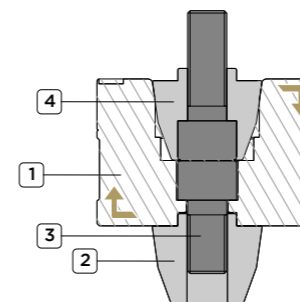
#### SINGLE MODULE h60 mm ON PLATE OR T-SLOT

- 1 Single module Ø90 mm h60 mm - Code FMX46190120
- 2 Cylindrical head hexagon socket screw 12.9 (DIN912) M16x40
- 3 Single centering bush M16 Ø24-24 mm - Code FM46190924
- 4 Male pin type A M16 Ø24 mm with M16x45 screw - Code FM46191142



#### SINGLE MODULE h60 mm ON PLATE OR T-SLOT WITH SPACER

- 1 Single module Ø90 mm h60 mm - Code FMX46190120
- 2 Single centering bush M16 Ø24-24 mm - Code FM46190924
- 3 Male pin type A M16 Ø24 mm with M16x45 screw - Code FM46191142
- 4 Cylindrical head hexagon socket screw 12.9 (DIN912) M16x120
- 5 Reduction spacer Ø90-40 mm h 60 mm - Code FM46191806



#### SINGLE MODULE h60 mm ON PLATE OR T-SLOT WITH FEMALE PIN FM46191242

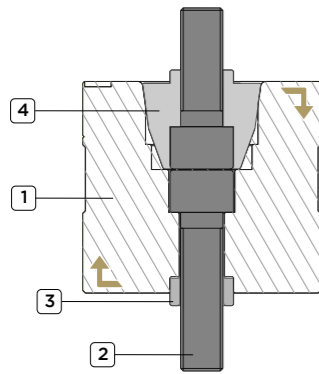
- 1 Single module Ø90 mm h60 mm - Code FMX46190120
- 2 Female pin type A M16 Ø24 mm - Code FM46191242
- 3 Cylindrical head hexagon socket screw 12.9 (DIN912) M16x30
- 4 Male pin type A M16 Ø24 mm with M16x45 screw - Code FM46191142

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

PLATES AND BUSHES  
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 SPACERS  
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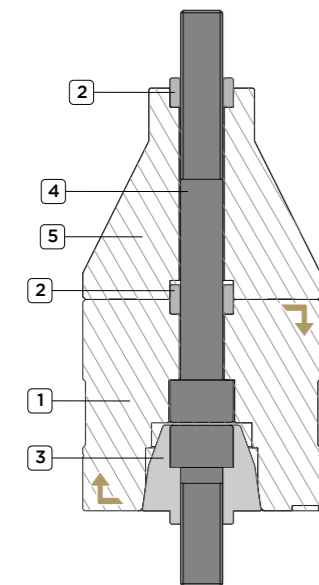
**SINGLE MODULE H80 MM FMX46190130  
SET UP EXAMPLE**

TECHNICAL INFORMATION



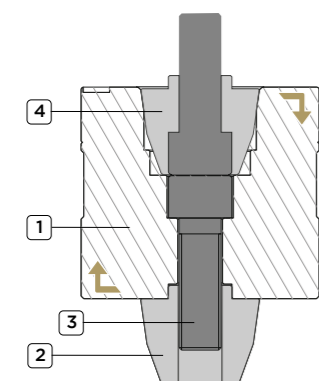
**SINGLE MODULE H80 MM ON PLATE OR T-SLOT**

- 1 Single module Ø90 mm h80 mm - Code FMx46190130
- 2 Cylindrical head hexagon socket screw 12.9 (DIN912) M16x60
- 3 Single centering bush M16 Ø24-24 mm - Code FM46190924
- 4 Male pin type A M16 Ø24 mm with M16x45 screw - Code FM46191142



**SINGLE MODULE H80 MM ON PLATE OR T-SLOT WITH SPACER**

- 1 Single module Ø90 mm h80 mm - Code FMx46190130
- 2 Single centering bush M16 Ø24-24 mm - Code FM46190924
- 3 Male pin type A M16 Ø24 mm with M16x45 screw - Code FM46191142
- 4 Cylindrical head hexagon socket screw 12.9 (DIN912) M16x140
- 5 Reduction spacer Ø90-40 mm h 60 mm - Code FM46191806

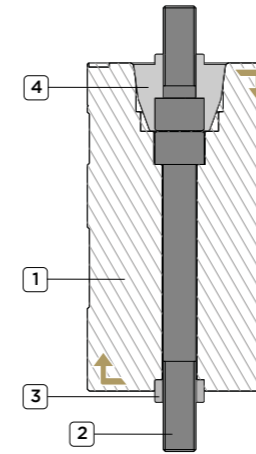


**SINGLE MODULE H80 MM ON PLATE OR T-SLOT WITH FEMALE PIN FM46191242**

- 1 Single module Ø90 mm h80 mm - Code FMx46190130
- 2 Female pin type A M16 Ø24 mm - Code FM46191242
- 3 Cylindrical head hexagon socket screw 12.9 (DIN912) M16x50
- 4 Male pin type A M16 Ø24 mm with M16x45 screw - Code FM46191142

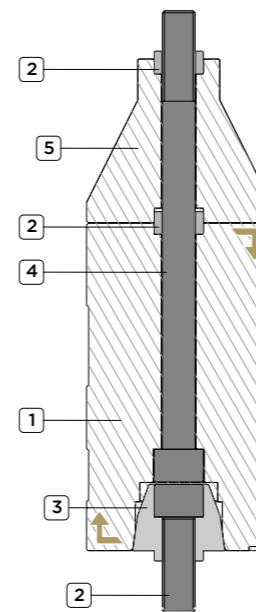
**SINGLE MODULE H160 MM FMX46190140  
SET UP EXAMPLE**

TECHNICAL INFORMATION



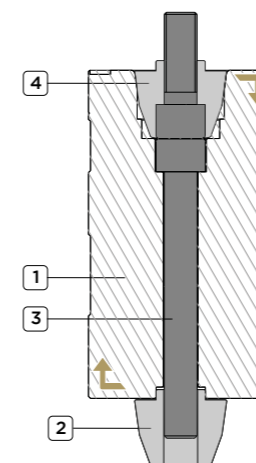
**SINGLE MODULE H160 MM ON PLATE OR T-SLOT**

- 1 Single module Ø90 mm h160 mm - Code FMX46190140
- 2 Cylindrical head hexagon socket screw 12.9 (DIN912) M16x140
- 3 Single centering bush M16 Ø24-24 mm - Code FM46190924
- 4 Male pin type A M16 Ø24 mm with M16x45 screw - Code FM46191142



**SINGLE MODULE H160 MM ON PLATE OR T-SLOT WITH SPACER**

- 1 Single module Ø90 mm h160 mm - Code FMX46190140
- 2 Single centering bush M16 Ø24-24 mm - Code FM46190924
- 3 Male pin type A M16 Ø24 mm with M16x45 screw - Code FM46191142
- 4 Cylindrical head hexagon socket screw 12.9 (DIN912) M16x220
- 5 Reduction spacer Ø90-40 mm h 50 mm - Code FM46191806



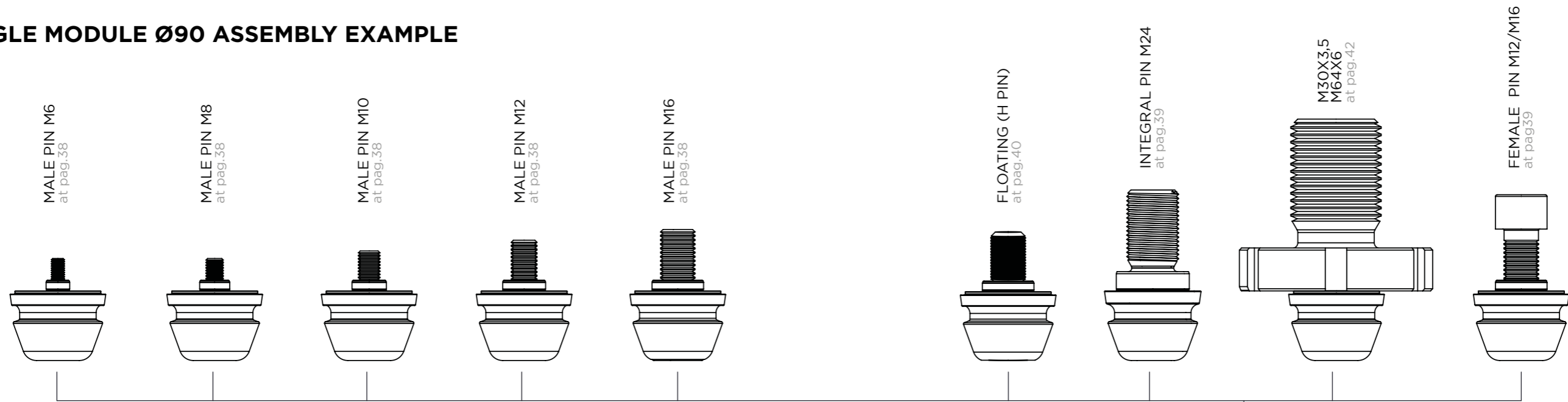
**SINGLE MODULE H160 MM ON PLATE OR T-SLOT WITH FEMALE PIN FM46191242**

- 1 Single module Ø90 mm h160 mm - Code FMX46190140
- 2 Female pin type A M16 Ø24 mm - Code FM46191242
- 3 Cylindrical head hexagon socket screw 12.9 (DIN912) M16x130
- 4 Male pin type A M16 Ø24 mm with M16x45 screw - Code FM46191142

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

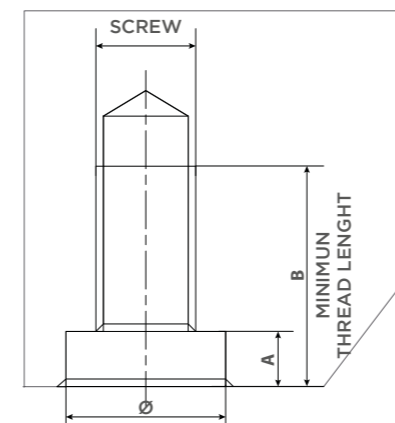
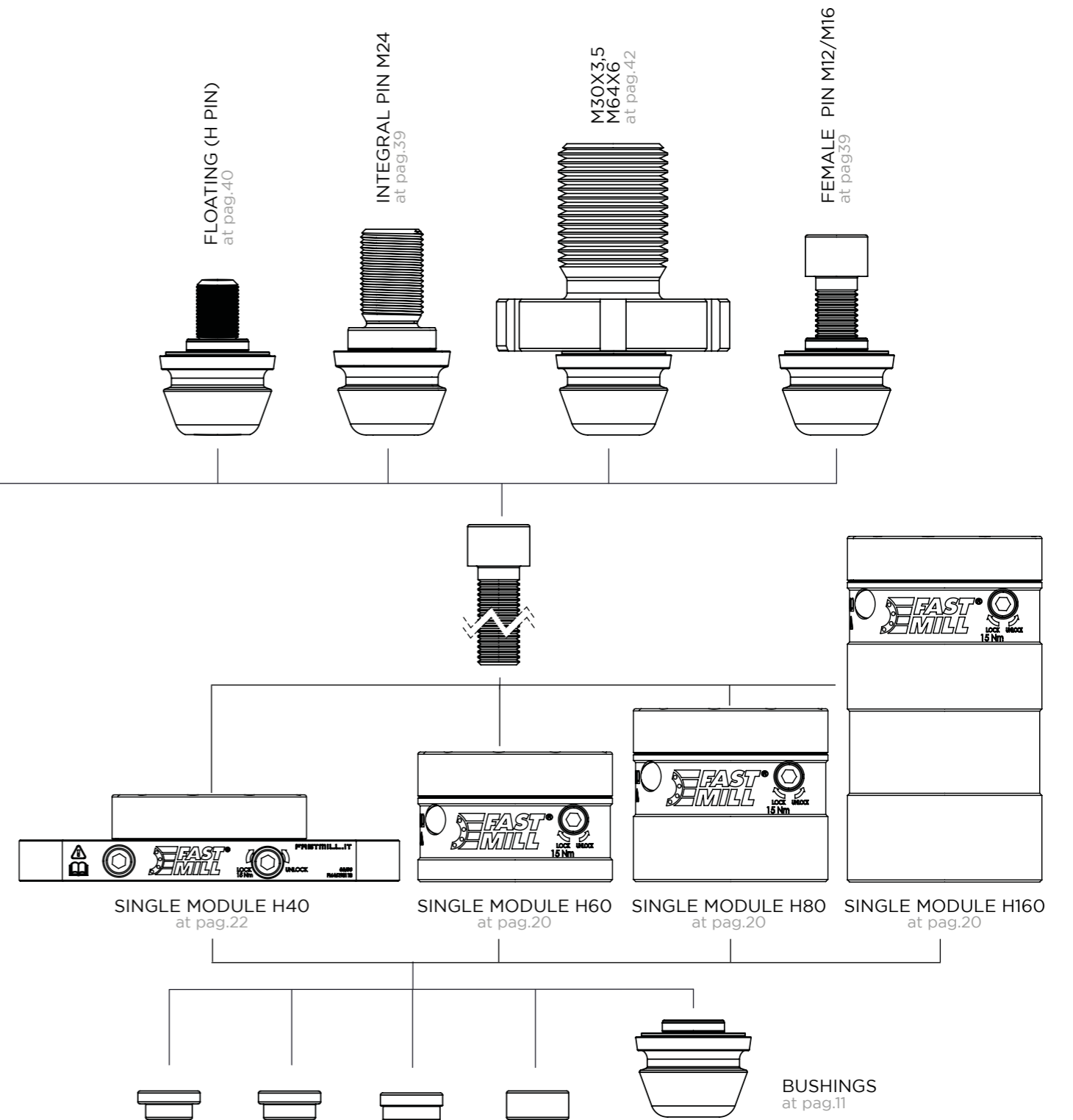
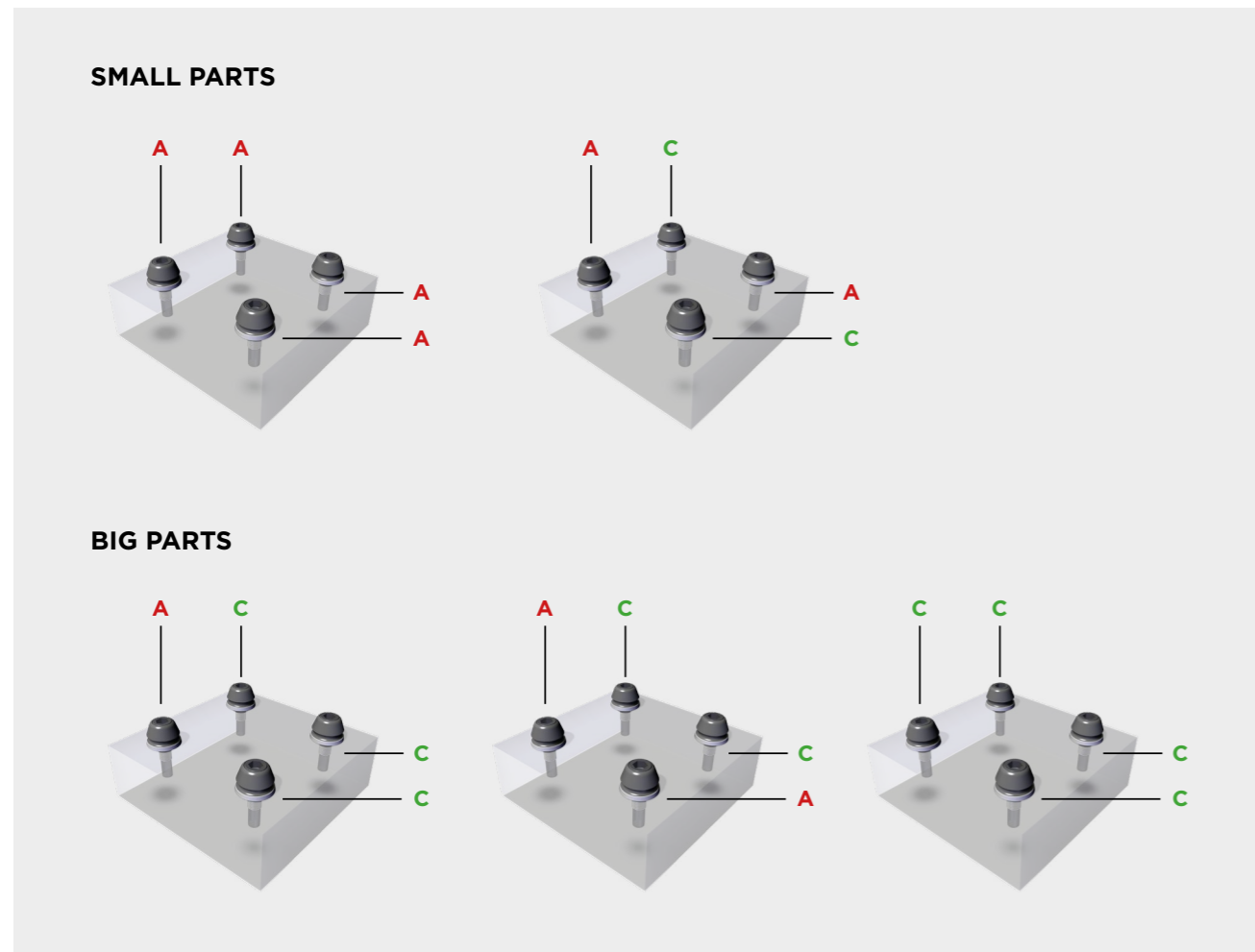
PLATES AND BUSHES  
 MODULES AND PINS D90  
 MODULES AND PINS D49  
 SPACERS  
 RISERS  
 THIRD POINT  
 MAGNETIC  
 VERTICAL CLAMPING  
 MINI RANGE  
 FASTMILL ZERO  
 CLAMPS

SINGLE MODULE Ø90 ASSEMBLY EXAMPLE



TECHNICAL INFORMATION

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.



STANDARD AND MINI RANGE WORKPIECE PREPARATION

SCREW	Ø	A	B (STEEL)	B (CAST IRON/ALLOY)
M6	10-11 mm H6	7 mm	16 mm	20 mm
M8	12-14 mm H6	7 mm	20 mm	27 mm
M10	14-16 mm H6	7 mm	22 mm	29 mm
M12	18-20 mm H6	7 mm	26 mm	32 mm
M12 *	18-20 mm H6	9,5 mm	26 mm	32 mm
M16	22-24 mm H6	7 mm	32 mm	40 mm
M24	34-36 mm H6	10 mm	48 mm	60 mm

\* For FMZ pin.

PLATES AND BUSHES

MODULES AND PINS D90

MODULES AND PINS D49

SPACERS

RISERS

THIRD POINT

MAGNETIC

VERTICAL CLAMPING

MINI RANGE

FASTMILL ZERO

CLAMPS

PLATES AND BUSHES

MODULES AND PINS D90

MODULES AND PINS D49

SPACERS

RISERS

THIRD POINT

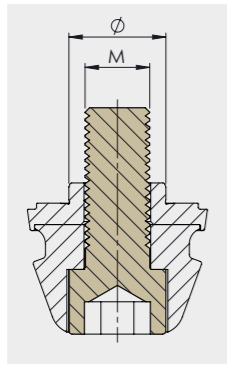
MAGNETIC

VERTICAL CLAMPING

MINI RANGE

FASTMILL ZERO

CLAMPS



**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")	<b>A</b>
FM46193105	Male pin	M6	10 (0,39")	<b>C</b>
FM46191106	Male pin	M6	11 (0,43")	<b>A</b>
FM46193106	Male pin	M6	11 (0,43")	<b>C</b>

**M8 MALE PIN FOR SINGLE MODULE Ø90**

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

**M10 MALE PIN FOR SINGLE MODULE Ø90**

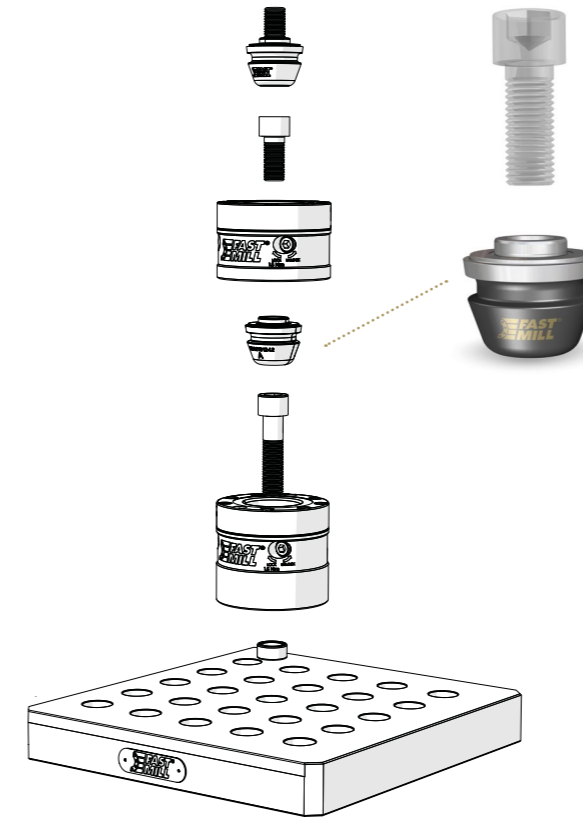
CODE	DESCRIPTION	M	Ø	TYPE
FM46191109	Male pin	M10	14 (0,55")	<b>A</b>
FM46193109	Male pin	M10	14 (0,55")	<b>C</b>
FM46191110	Male pin	M10	16 (0,62")	<b>A</b>
FM46193110	Male pin	M10	16 (0,62")	<b>C</b>

**M12 MALE PIN FOR SINGLE MODULE Ø90**

CODE	DESCRIPTION	M	Ø	TYPE
FM46191111	Male pin	M12	18 (0,70")	<b>A</b>
FM46193111	Male pin	M12	18 (0,70")	<b>C</b>
FM46191121	Male pin	M12	20 (0,78")	<b>A</b>
FM46193121	Male pin	M12	20 (0,78")	<b>C</b>
FM46191131	Male pin	M12	24 (0,94")	<b>A</b>
FM46193131	Male pin	M12	24 (0,94")	<b>C</b>
FM46191141	Male pin	M12	25 (0,98")	<b>A</b>
FM46193141	Male pin	M12	25 (0,98")	<b>C</b>

**M16 MALE PIN FOR SINGLE MODULE Ø90**


CODE	DESCRIPTION	M	Ø	TYPE
FM46191132	Male pin	M16	22 (0,86")	<b>A</b>
FM46193132	Male pin	M16	22 (0,86")	<b>C</b>
FM46191142	Male pin	M16	24 (0,94")	<b>A</b>
FM46193142	Male pin	M16	24 (0,94")	<b>C</b>
FM46191143	Male pin	M16	25 (0,98")	<b>A</b>
FM46193143	Male pin	M16	25 (0,98")	<b>C</b>

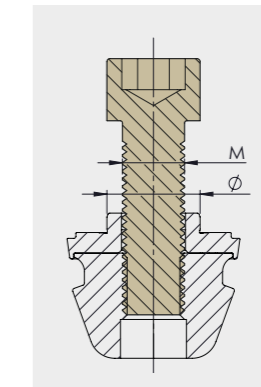


**FEMALE PIN FOR SINGLE MODULE Ø90**

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.

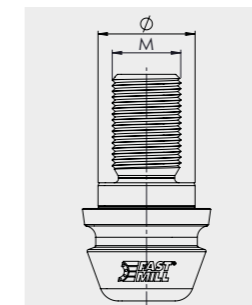


**M12 FEMALE PIN FOR SINGLE MODULE Ø90**

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

**M16 FEMALE PIN FOR SINGLE MODULE Ø90**

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



**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")	<b>A</b>
FM46191164	Integral Pin	M24	34 (1,33")	<b>C</b>
FM46191163	Integral Pin	M24	36 (1,33")	<b>A</b>
FM46191165	Integral Pin	M24	36 (1,33")	<b>C</b>

PLATES AND BUSHES  
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VERTICAL CLAMPING  
MINI RANGE  
FASTMILL ZERO  
CLAMPS

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CLAMPS

PATENTED

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.

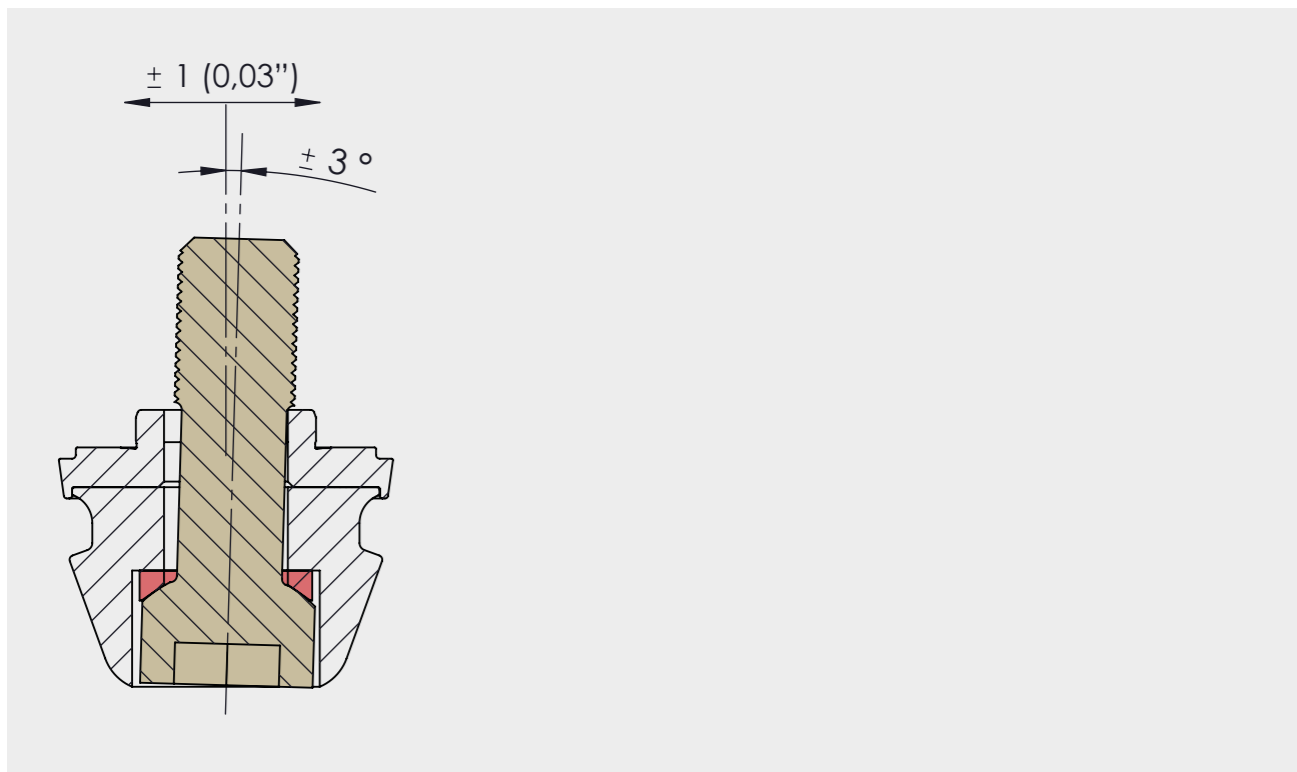
**A = CENTERING AND CLAMPING**    **C = CLAMPING**

#### M12 FLOATING PIN

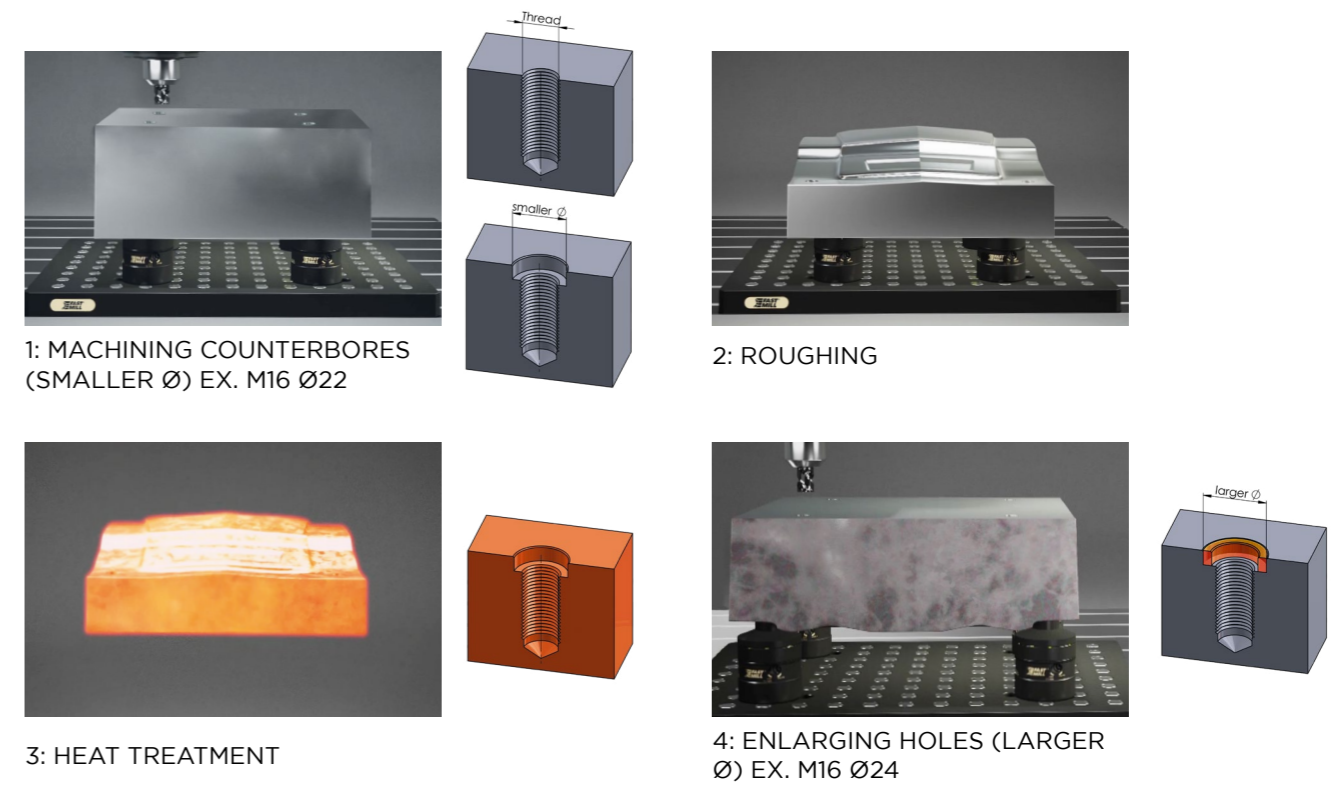
CODE	DESCRIPTION	M	Ø	TYPE
FM46191411	Floating Pin	M12	18 (0,70")	A
FM46193411	Floating Pin	M12	18 (0,70")	C
FM46191421	Floating Pin	M12	20 (0,78")	A
FM46193421	Floating Pin	M12	20 (0,78")	C

#### M16 FLOATING PIN

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

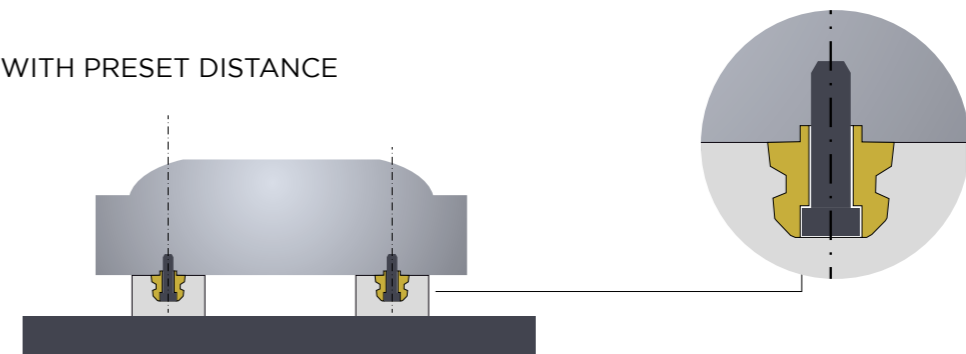


### RE-MACHINING PROCESS OF THE COUNTERBORES TO COMPENSATE FOR DISTORTION OF THE PART.

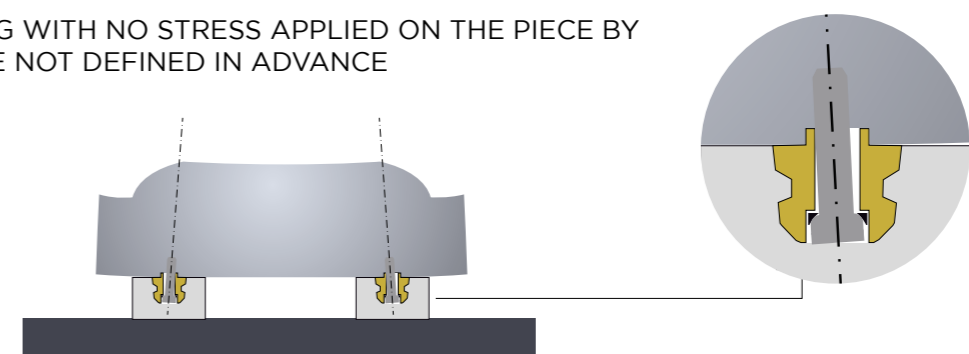


### FLOATING PIN (H PIN): INNOVATIVE SOLUTION FOR WORKPIECE RE-POSITIONING WITH NO STRESS APPLIED ON THE PIECE.

CLAMPING WITH PRESET DISTANCE



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



PLATES AND BUSHES  
MODULES AND PINS D90  
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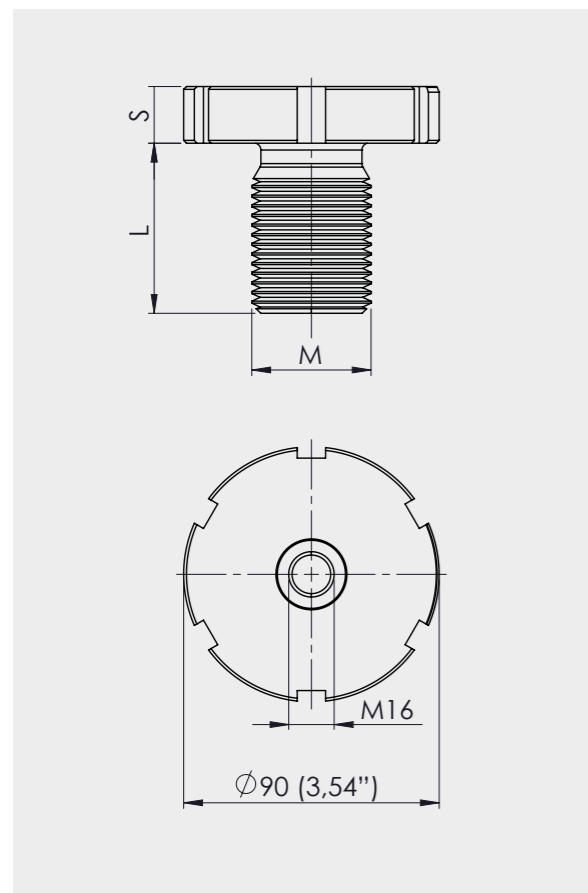
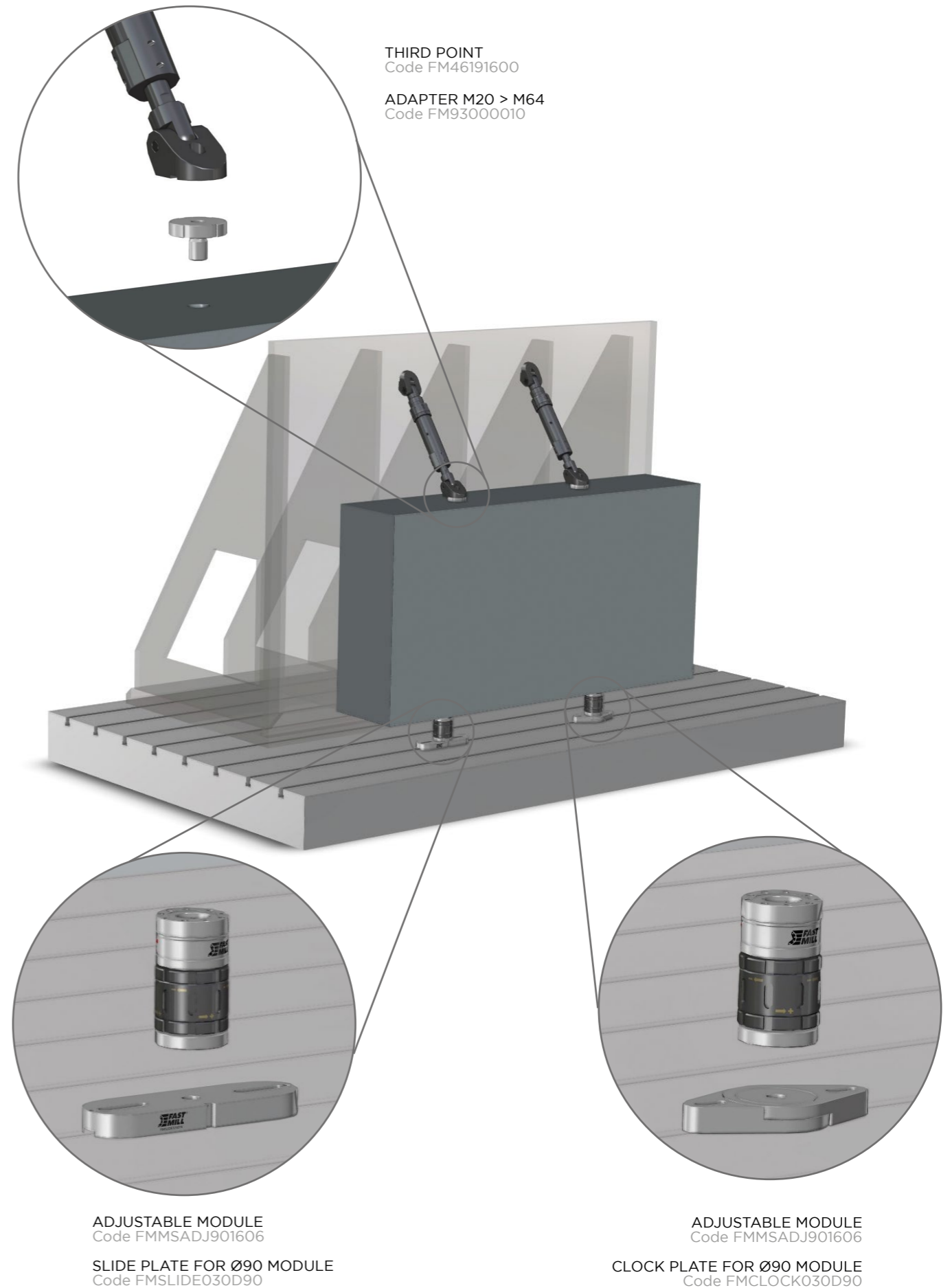


### ADAPTER M20 > M64 FOR CLAMPING ON EXISTING LIFTING HOLES

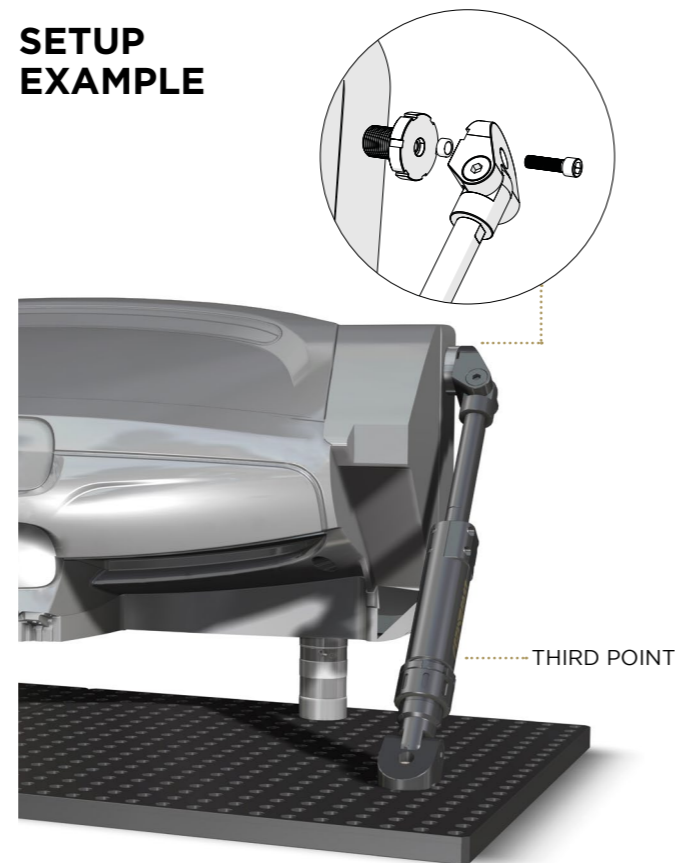
FastMill adapter is used directly on the workpiece lifting holes for fixing our clamping systems where it is not possible to perform any type of machining to house the pins. The available threads cover the main lifting eye range. On the face opposite the thread there is a standard FastMill interface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

CODE	DESCRIPTION	M	S	L	WEIGHT
FM93000043	Adapter	M20x2,5	45	30 (1,18")	2,14 (4,72 lbs)
FM93000028	Adapter	M24x3	45	35 (1,37")	2,19 (4,83 lbs)
FM93000010	Adapter	M30x3,5	20	40 (1,57")	1,10 (2,43 lbs)
FM93000023	Adapter	M36x3	20	50 (1,96")	1,27 (2,80 lbs)
FM93000011	Adapter	M36x4	20	50 (1,96")	1,27 (2,80 lbs)
FM93000024	Adapter	M42x3	20	60 (2,36")	1,53 (3,37 lbs)
FM93000012	Adapter	M42x4,5	20	60 (2,36")	1,50 (3,31 lbs)
FM93000025	Adapter	M48x3	20	70 (2,75")	1,87 (4,12 lbs)
FM93000013	Adapter	M48x5	20	70 (2,75")	1,84 (4,06 lbs)
FM93000014	Adapter	M56x5,5	20	80 (3,14")	2,36 (5,20 lbs)
FM93000015	Adapter	M64x6	20	90 (3,54")	3,06 (6,75 lbs)

### SETUP EXAMPLE



### SETUP EXAMPLE



PLATES AND BUSHES  
 MODULES AND PINS D90  
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 SPACERS  
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 THIRD POINT  
 MAGNETIC  
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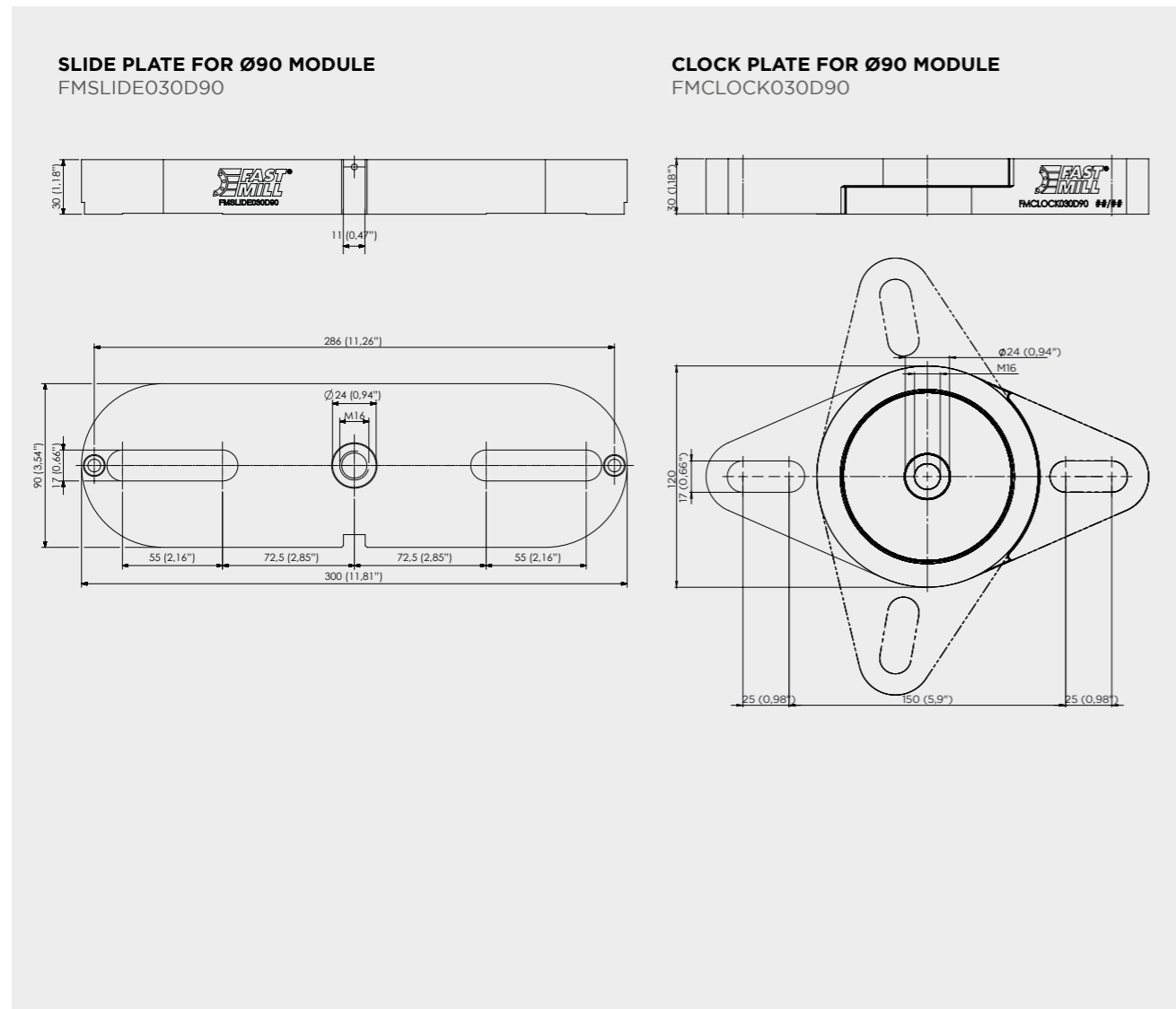
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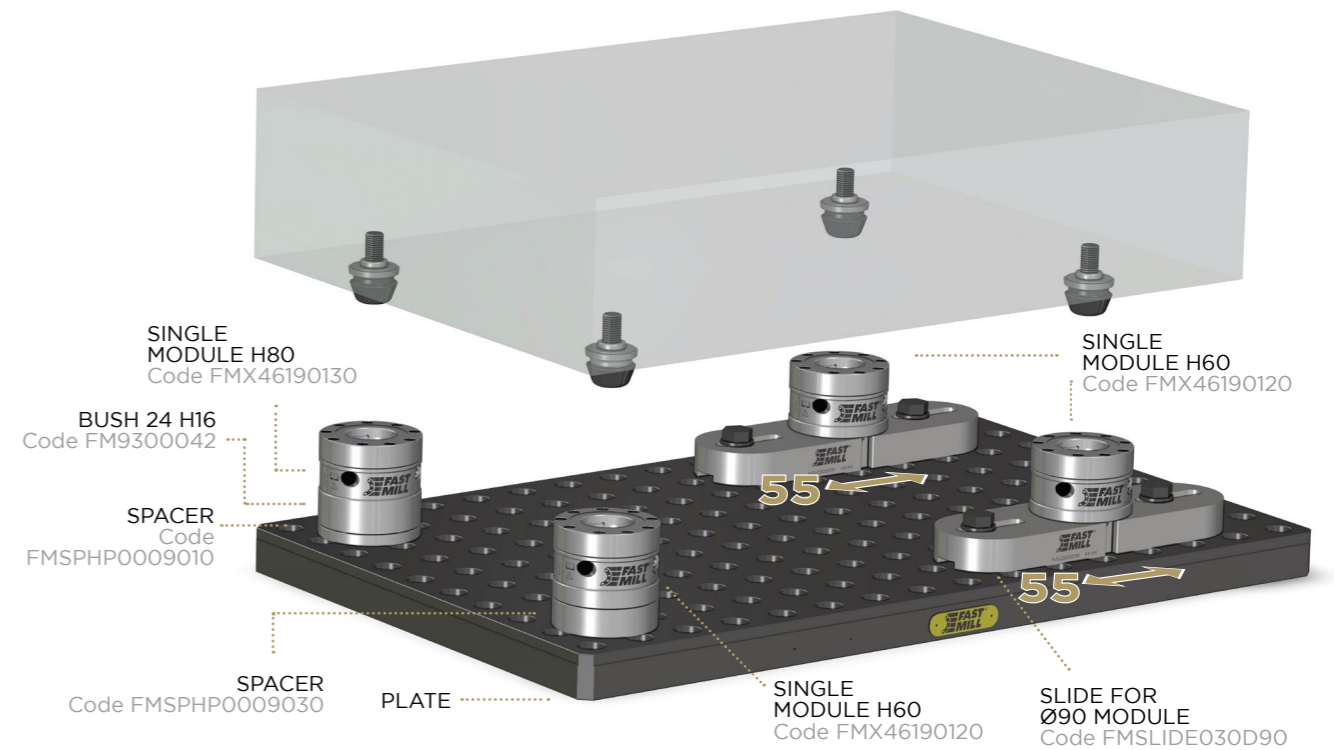
### SLIDE PLATE FOR Ø90 MODULE CLOCK PLATE FOR Ø90 MODULE

The FastMill slide and clock solutions for D90 module allow the fixing 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.

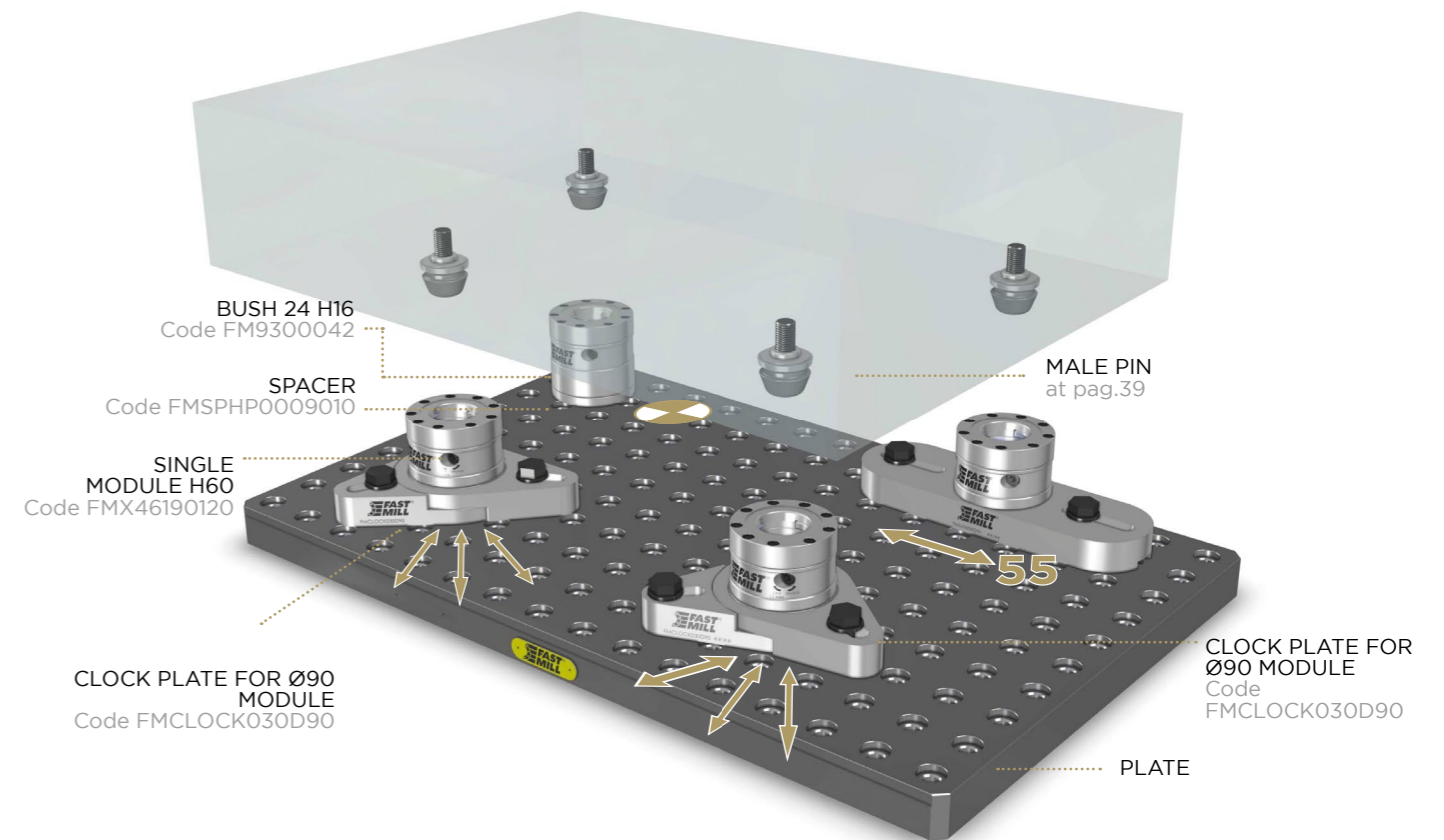
CODE	DESCRIPTION	DIMENSION	HEIGHT	WEIGHT
FMSLIDE030D90	Slide plate for Ø90 module	300x90 (11,81"x3,54")	30 (1,18")	5,1 (11,24 lbs)
FMCLOCK030D90	Clock plate for Ø90 module	240x120 (9,44"x4,72")	30 (1,18")	2,2 (4,85 lbs)



### SETUP 2 ZERO POINTS / 2 SLIDE POINTS



### SETUP 1 ZERO POINT / 3 FREE POINTS



PLATES AND BUSHES  
MODULES AND PINS D90  
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