# ALLMATIC T-REX – MIND THE JAWS!

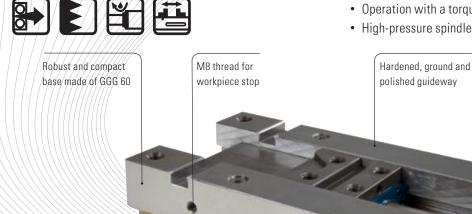
This compact vice sinks the sharp "teeth" of its gripper into your workpiece. The ALLMATIC T-REX is indispensable for clamping unmachined parts for 5-sided machining.



# **ALLMATIC GRIPP – MECHANICAL T-REX VERSION**

#### Scope of application:

- Horizontal installation suitable for vertical CNC-controlled milling machines
- · Ideal for use on 5-axis machining centres
- · Reliable and fast clamping of unmachined parts, flame-cut and sawn materials with gripper jaws
- Clamping of parallel pre-machined workpieces with optional step jaws
- · Gripper studs suitable for materials with a strength of up to approx. 1000N/mm<sup>2</sup>



LIMATIC / .

#### **Product features:**

- Optimum accessibility for 5-sided machining thanks to the combination of compact base and large clamping width
- Stamping and clamping in a single process, in the working area itself, without any additional accessories
- The movable/pivot support jaw allows different workpiece contours to be clamped
- Gripper studs can be changed without tools and are easy to adjust by hand
- Operation with a torque wrench max. 30 Nm
- · High-pressure spindle with power intensification

Holes in the clamping shoulder for fastening to the machine table itself

Optional mounting holes

in the bottom surface for zero-point clamping systems are possible

Precision aligning slots (longitudinal/transverse) and a positioning hole in the bottom surface for optimal alignment on the machine table

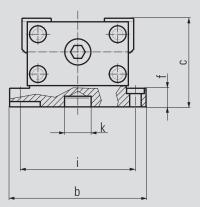
Outlet for coolant and chips

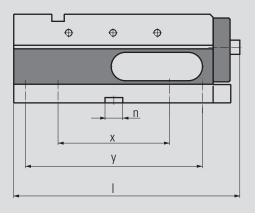
#### Order no. jaw width 125: 6921888000155

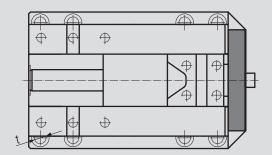
#### Scope of supply:

- 1 high-pressure vice without jaws
- 4 fastening bolts M12 x 35 mm
- 3 socket screw wrenches (Please order clamping jaws separately)

An overview of the clamping jaws and other accessories is given on the following pages.





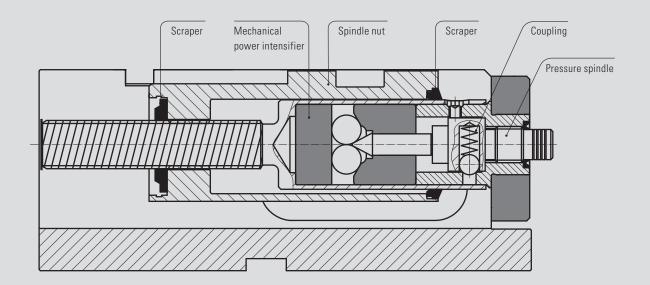


#### **Technical data**

Jaw width		125
Dimensions / tolerances in mm	b	154
	С	100
	f	21
	i	130
	k	Ø 30 H8
	I.	256
	n	20 H7
	t	Ø 13
	х	127
	у	200

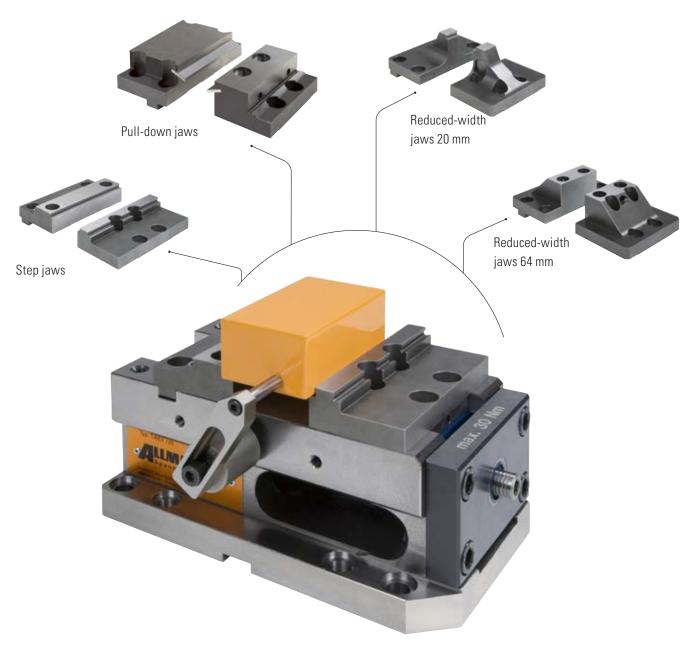
Jaw width	125
Max. torque in Nm	30
Max. clamping force in kN	40
Weight in kg	18

### Spindle cross-section



T-RFX

## ALLMATIC GRIPP – MECHANICAL/T-REX



### For conventional clamping of workpieces

On the following pages you will find a wide range of jaws suitable for clamping pre-machined workpieces.



#### For clamping complex unmachined parts

Varying types of unmachined parts can be clamped quickly and securely using the support jaws and the reduced-width jaws. Jaws for gripper clamping can be found on the following pages.

#### **Gripper clamping:**

- Support jaws are used to mount different gripper studs (threaded gripper studs or universal gripper set)
- Gripper studs can be screwed onto grid plates in variable positions to securely clamp a wide variety of workpiece geometries
- Additional pivot function of the movable clamping jaw compensates for non-parallel clamping surfaces and is necessary for clamping uneven workpieces

## CLAMPING RANGES – T-REX

#### Support jaws with gripper studs



min. clamping range	26 mm
min. clamping width	73 mm



min. clamping range

Ø 80 mm

#### Support jaws with universal gripper set



min. clamping range	0 mm
min. clamping width	88 mm



min. clamping range

Ø 100 mm

You can find the clamping ranges of the other T-REX jaws for conventional clamping on the following pages of accessories







max. clamping range max. clamping width

152 mm at least 165 mm or larger



max. clamping range

Ø 160 mm

### APPLICATION EXAMPLES – T-REX

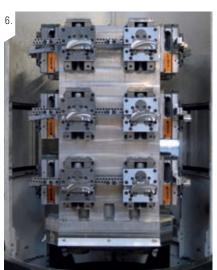


1.









#### **Application examples**

- 1. The T-REX support jaws and the universal gripper set permit clamping and machining of very complex unmachined parts.
- 2. The T-REX vice with console and support jaws for gripper studs permits extremely adaptable clamping possibilities.
- 3. Perfect clamping solutions for use in mould making.
- 4. The T-REX vice guarantees secure clamping in difficult situations and for horizontal machining.
- 5. Efficient clamping of unmachined parts with the T-REX vice on horizontal machining centres opens up new possibilities.
- 6. Fully integrated into the machines working area, the T-REX is an absolutely reliable clamping device for unmachined and pre-machined workpieces.

Support jaws for gripper studs



For mounting various studs (pointed/smooth)Front surface can be used as clamping surface

• To compensate for non-parallel clamping surfaces

Material: hardened steel

Pivot jaw:

(hardened, ground and polished)

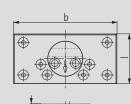
• For clamping uneven workpieces

be found at www.allmatic.de

• Studs (pointed/smooth) not included

6921884005042

Order no. fixed:



Order no. movable, pivot:

6921884072042



Jaw width		125
Dimensions in mm	а	14
	b	165
	С	20
	h	16
		59

Jaw width	125	
Dimensions	а	12
in mm	b	165
	С	43.5
	h	16
	I	79



Please order gripper studs separately.

### Support jaws for universal gripper set

Dimensions of the individual items of the gripper set can

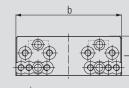


- Material: hardened steel
- For mounting various studs (pointed/smooth
- Front surface can be used as clamping surface (hardened, ground and polished)

Pivot jaw:

- For clamping uneven workpieces
- To compensate for non-parallel clamping surfaces
- Gripper set **not** included

Dimensions of the individual items of the gripper set can be found at www.allmatic.de



Order no. fixed:

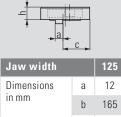
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Dimensions in mm
4
b
165
c
20
h
20
l
61

125



Order no. movable, pivot:

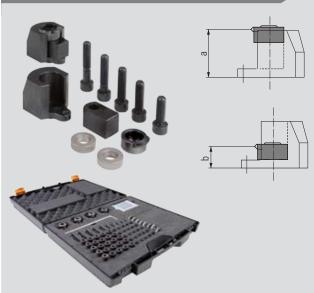
6921884072242





Please order universal gripper set separately.

#### Universal gripper set



#### Order no. 6921884027031

Jaw width		125
Dimensions in mm	а	40
	b	18

- For clamping complex unmachined parts
- The individual elements of the universal gripper set can be reworked in order to vary both gripper height and support height of the workpiece
- Comprising:
- 4 x gripper studs 6921884026000
- 4 x gripper stud mounts 6921884072000
- 4 x supports 6921884028000
- 8 x shims
- Support bolts
- M10 fastening bolts in various lengths
- M6 theaded pins in various lengths
- Socket screw wrench
- Storage case

#### Gripper stud



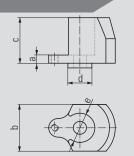
#### Order no. 6921884026000

Dimensions in mm	h	11

• Gripper stud for universal gripper set

#### **Gripper stud mount**





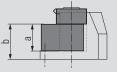
#### Order no. 6921884072000

Dimensions in mm	а	7
	b	40
	С	39
	d	Ø 20
	е	Ø 25

• Mount for gripper stud 2306/001

#### Support

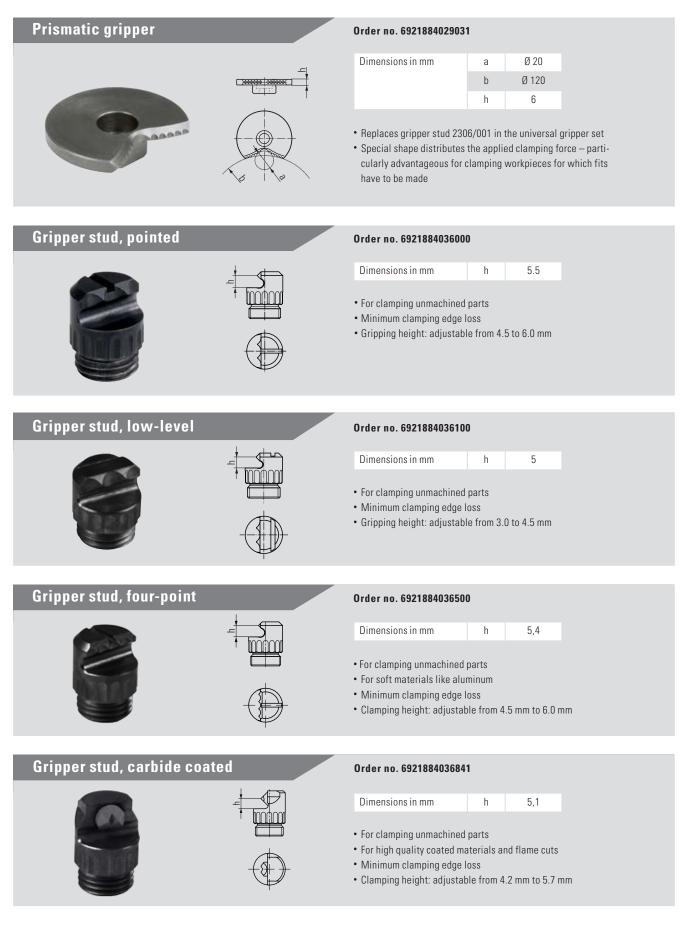




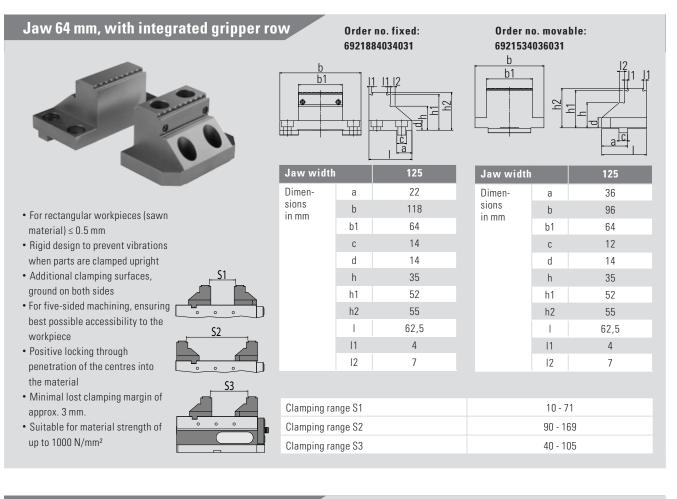
#### Order no. 6921884028000

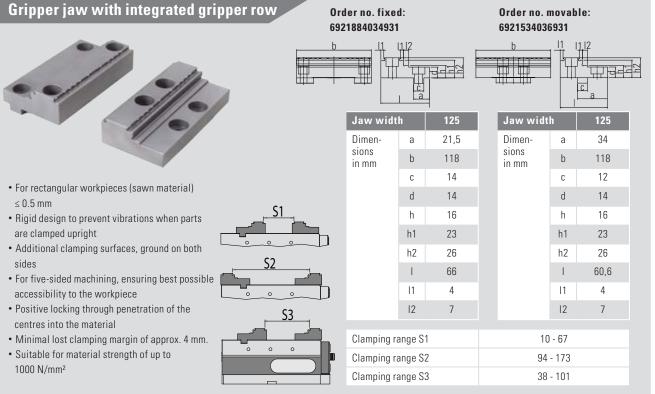
Dimensions in mm	а	22
	b	29

• Support for universal gripper set

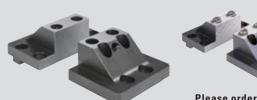


Clamping insert, smooth	Order no. 692188403700	0		
	Dimensions in mm • With carbide coating for or pre-machined or hardene		7 ces	
Gripper stud, round	Order no. 692188403800	0		



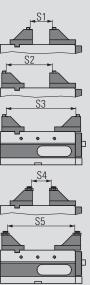


#### Reduced-width jaws, 64 mm

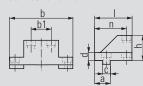


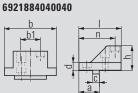
Please order gripper studs separately.

- Material: hardened steel
- Allows unhindered access to the workpiece, even with short tools
- For clamping small to mediumsized workpieces
- The clamping of unmachined parts (incl. round material) is supported via 2 adjustable gripper studs in each case (gripper studs not supplied with the jaws)
- Jaws with Click system for parallels
- Front surface can be used as clamping surface (hardened, ground and polished)
- Studs (pointed/smooth) **not** included



0	rder	no.	fixe	d
69	9218	8404	1014	0





37.5

96

37

12

14

45

79

67

Order no. movable:

	Jaw widt	h	125	Jaw widt	h
	Dimen-	а	28	Dimen-	а
1	sions in mm	b	116	sions in mm	b
		b1	37		b1
1		С	14		С
		d	14		d
		h	45		h
þ		1	67		I
]		n	56		n
	Clamping ra	inge S	1	21	- 68
	Clamping ra	inge S2	2	66	- 138
1	Clamping ra	inge S3	3	131	- 209
	Clamping ra	inge S4	4	21	- 68
F 1	Clamping ra	inge St	5	131	- 209

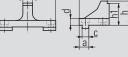
#### Reduced-width jaws, 20 mm

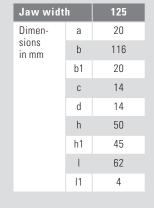


- Material: Hardened steel
- For clamping parallel pre-machined small workpieces
- Further enhanced accessibility to the workpiece thanks to slim, tall shape - also optimal for short tools
- Front surface (step) additionally carbide-coated to ensure secure clamping - holding force increased by at least a factor of 2 compared to smooth clamping surfaces

Order no. fixed:

6921884041141





Clamping range S1



Order no. movable:



Jaw widt	125					
Dimen- sions in mm	а	39				
	b	96				
	b1	20				
	С	12				
	d	14				
	h	50				
	h1	45				
	Ι	62				
	11	4				
9						

Universal pull-down jaws



- Material: hardened steel
- Reduced-width jaws 90 mm
- Ground and polished clamping surfaces
- Pull-down with ground and polished spring leaves for machined and unmachined clamping surfaces
- 1-Click spring leaves
- High clamping accuracy for parallel and accurate angle machining

S4
S3
S2

Order no. fixed: 6921884106031 Order no. movable: 6921884102031

Ja۱

	Jaw widt	h	125
Dimen-	а	14	
	sions in mm	b	90
	С	19	
	d	59	
	g	8,8	
		h	34

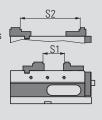
Jaw widt	h	125
Dimen- sions in mm	а	12
	b	90
	С	34
	d	61
	е	16
	f	21
	g	8,8
	h	34

Clamping range S1	0-82
Clamping range S2	18-100
Clamping range S3	44-126
Clamping range S4	0-65
Clamping range S5	23-88

#### Step jaws HM - coated



- Material: hardened steel
- For clamping parallel pre-machined workpieces
- Clamping surfaces (step) additionally carbide - coated to ensure secure clamping - this increases the holding force by a factor of at least 2 compared to smooth clamping surface



b	- <u></u>			
Jaw widt	h	125	Jaw wid	th
Abmes-	а	19	Abmes-	
sungen in mm	b	124,4	sungen in mm	
	С	14		
	d	14		
	h	26		
	h1	21		
	Ι	64		
	11	33		
	m	27		
Clamping ra	ange S	1	g	- 6
Clamping ra	ange S	2	10	) —

#### Order no. fixed: 6921884006041 Order no. movable: 6921884002041

b	

а

b

С

d

h

h1

I

11

m

9 - 67100-183

125 32,5

124,4

12

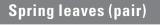
14

26

21

60,5

43,5 13

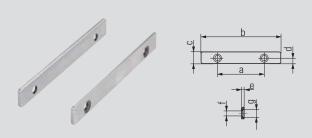




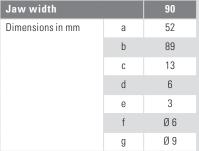
#### Order no. 6921884103031

- Hardened spring leaves
- Spring leaves (spare) for the pull-down jaws (see left)

#### Parallels (pair)



Order no. 6921475013031



- Suittable only for the universal pull-down jaws
- For parallel raising of workpieces
- Hardened, ground and polished parallels

#### **Click parallels (pair)**



- For parallel raising of workpieces
- Hardened, ground and polished parallels

#### **Click parallels (pair)**



- For parallel raising of workpieces
- Hardened, ground and polished parallels

#### Order no. 6921175029042

• Bolt-on parallels

• For the high side of the jaws

Jaw width		90
Dimensions in mm	а	48
	b	90
	С	29
	d	8.75
	е	3

- Parallels with Click system
- For the high side of the jaws

#### Order no. 6921175016042

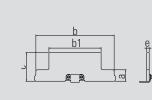
Jaw width		90
Dimensions in mm	а	48
	b	90
	С	16
	d	8.75
	е	3

• Parallels with Click system

• For the high side of the jaws

### Click parallels (pair)





- For parallel raising of workpieces
- Hardened, ground and polished parallels

#### Workpiece stop



#### Order no. 6921535035042

Jaw width		90
Dimensions in mm	а	14
	b	96
	b1	64
	С	35
	е	3

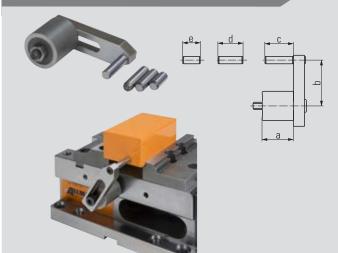
- Parallels with Click system
- For the high side of jaw

Order no. 6921285650144

Dimensions in mm	а	67
	b	15
	С	33 - 92
	d	12 - 63,5
	е	53,5 - 113,5

- Can be mounted on either side of the vice in the designated positions
  M8 fastening thread
- Position of the third workpiece axis can be preset and clamped
- Workpiece stop can be swivelled away once the workpiece has been clamped
- This allows the stop side of the workpiece to also be machined (repeating accuracy:  $\pm$  0.01)

#### Workpiece stop



#### Order no. 6921685670042

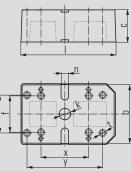
Dimensions in mm	а	34
	b	27 – 59
	С	31
	d	27
	е	19

• Can be mounted on either side of the vice in the designated positions

- M8 fastening thread
- Can be pre-mounted with various fixed dimensions
- Position of the third workpiece axis can be preset

#### Console







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			X Y Y	+**		*
	-					

#### Order no. 6921885009042

Jaw width         125           Dimensions in mm         b         154           c         85         85           e         100         16           f         96         1         250           n         20 H7         k         Ø 30 H7           t         13         x         125 5			
c       85         e       100         f       96         I       250         n       20 H7         k       Ø 30 H7         t       13	Jaw width		125
e       100         f       96         I       250         n       20 H7         k       Ø 30 H7         t       13	Dimensions in mm	b	154
f     96       I     250       n     20 H7       k     Ø 30 H7       t     13		С	85
I     250       n     20 H7       k     Ø 30 H7       t     13		е	100
n 20 H7 k Ø 30 H7 t 13		f	96
k Ø 30 H7 t 13		I	250
t 13		n	20 H7
		k	Ø 30 H7
x 125.5		t	13
X 120.0		х	125.5
у 200		у	200

- Material: GG30
- For raising the T-REX 125 vice
- Improvement of accessibility for five-sided machining
- The mounting hole pattern of T-REX and console are not in alignment

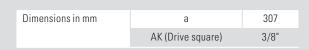
Scope of supply:

- Console incl. fixing bolt
- 2 socket screw wrenches
- 4 bolts

Torque wrench



#### Order no. 0651114113188



- Can be preset to 10 60 Nm
- For use on the high-pressure gripper spindles T-REX, TITAN and DUO Plus 125

#### Aligning and fixing set



#### Order no. – see table

T-slot/ thread	Order no.
12/M10	6921285600031
14/M12	6921285601031
16/M14	6921285602031
18/M16	6921285603031
20/M16	6921285606031
22/M16	6921285607031

• For aligning (positioning) and fastening the vice on pallet and machine table

• Size according to T-slot or thread in the machine table