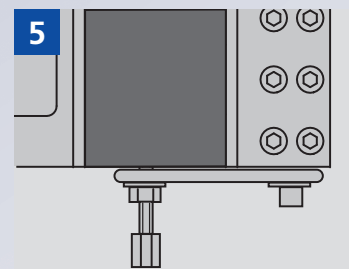
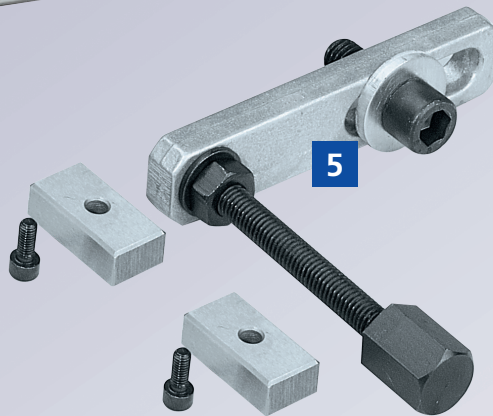
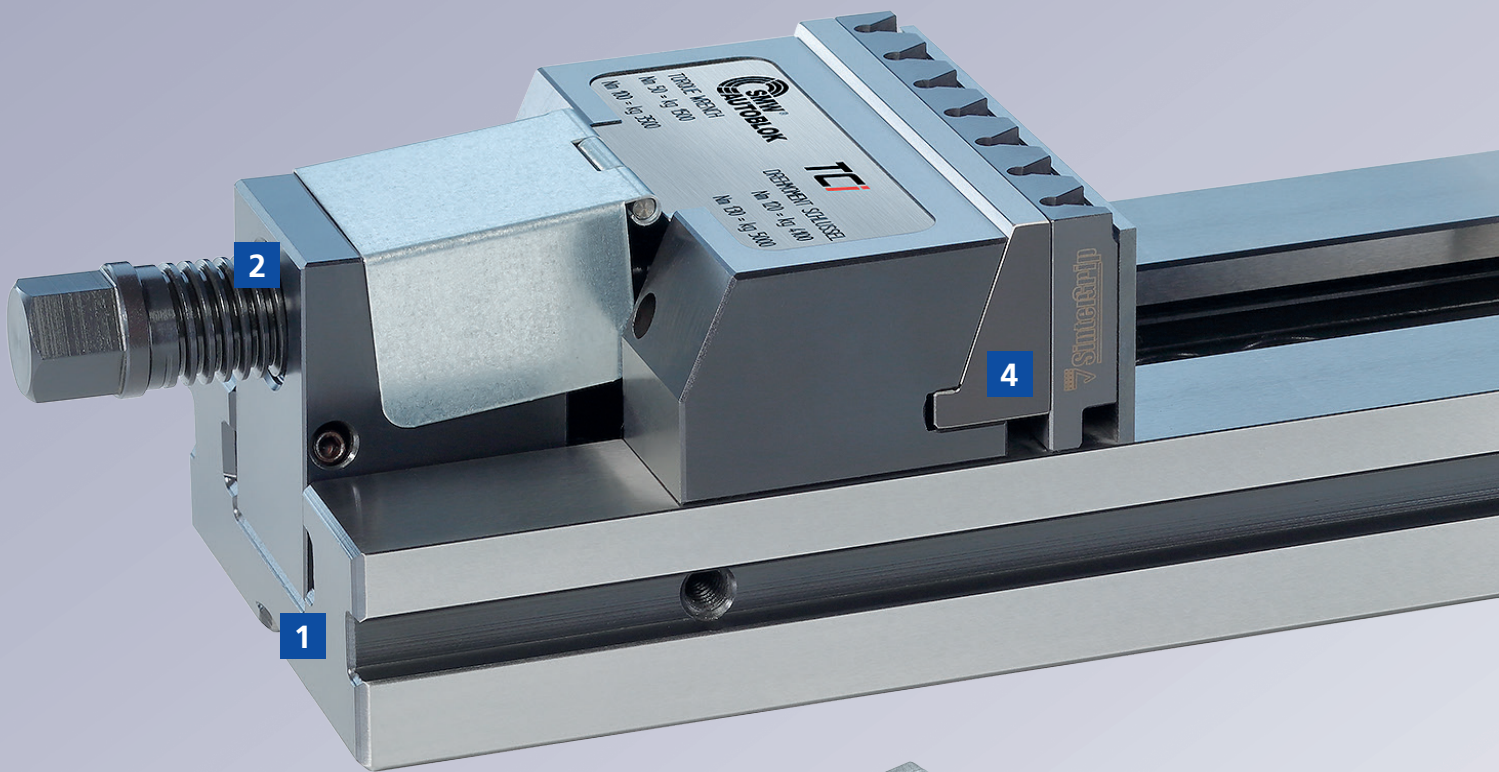
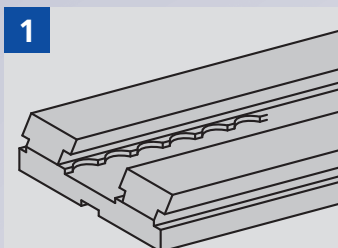


TCi

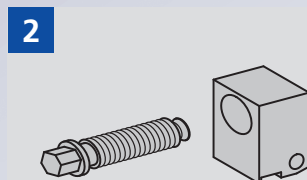
Precision bench vise



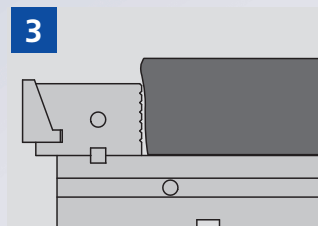
Workpiece stop



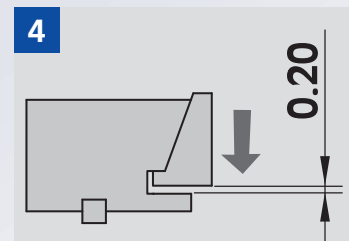
Quick positioning
of the movable jaw



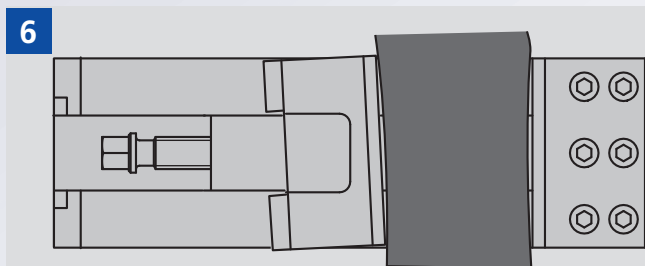
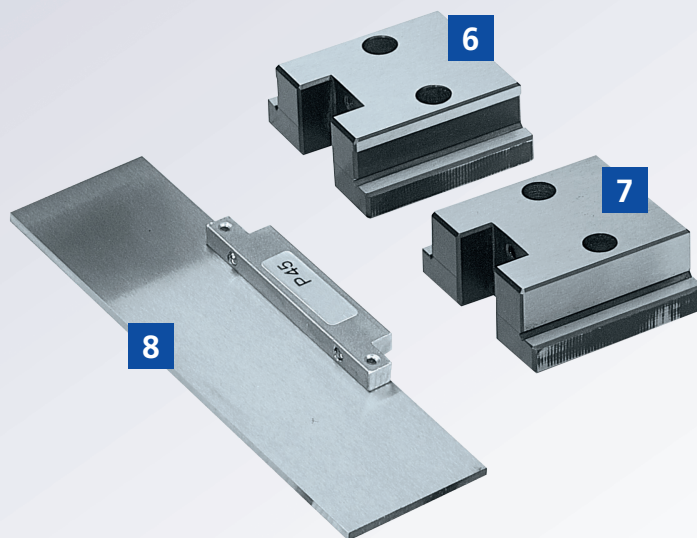
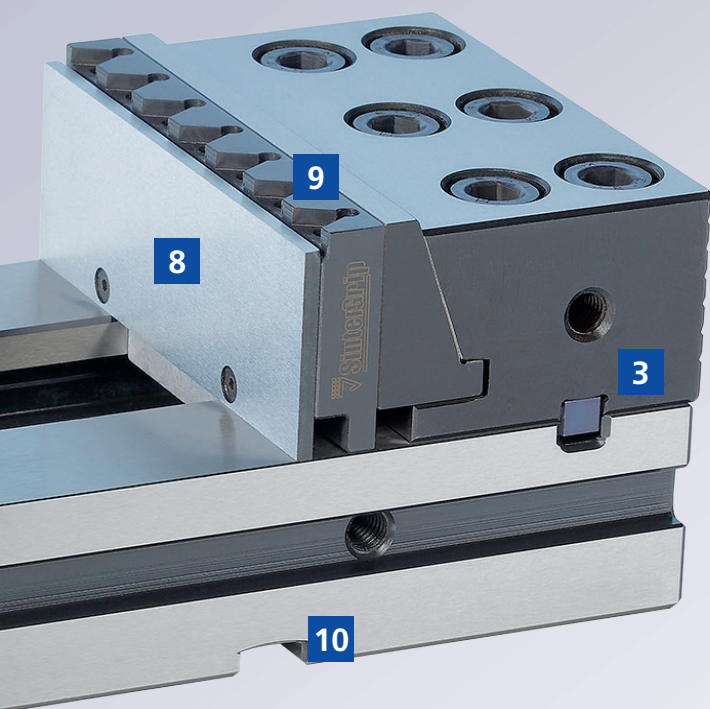
Block for clamping screw



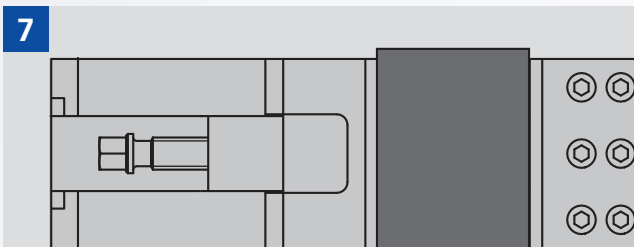
Fixed support turned of 180°
(grooved part)



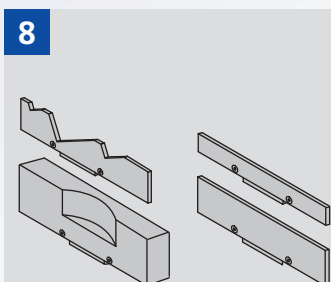
Pull-down jaws
(Pull-down lockable)



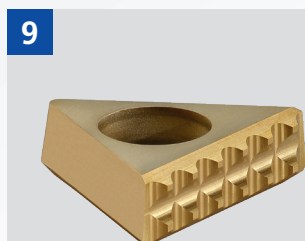
Floating slide-way raw workpieces



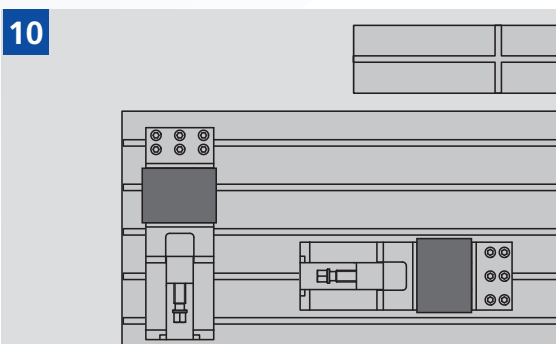
Rigid slide-way for finished workpieces



CLAK Quick change system for parallels



Jaws for SinterGrip clamping inserts



Precise T-slots for the assembling on the machine table by using positioning keys

- Quick positioning for the jaw
- Pull-down jaws with SinterGrip

Application/customer benefits

- High precision bench vise
- Quick positioning for the movable jaw
- Pull-down jaws including the possibility to use them without pull down effect for OP 10 operations
- Easy and quick cleaning possible
- Maximum flexibility due to the wide range of accessories
- Tolerances according to JIS standards

Technical features

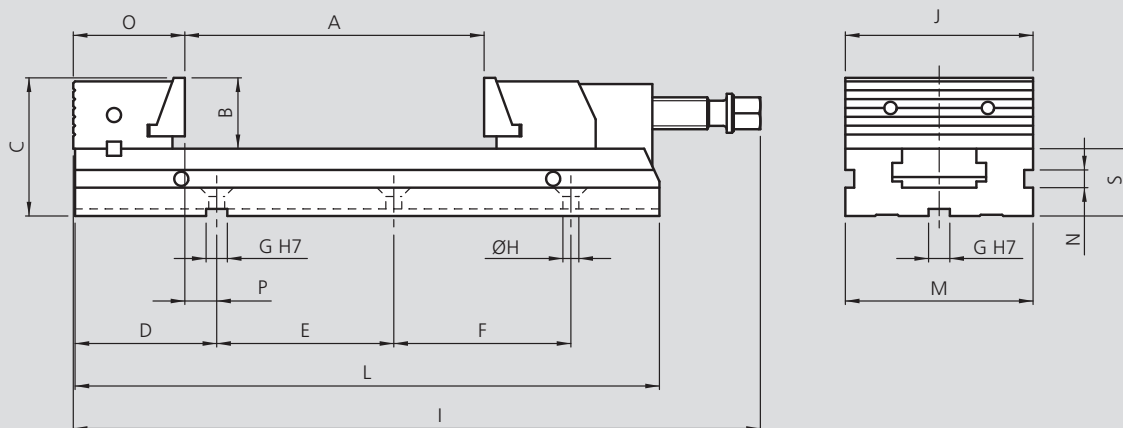
- 3 different jaw sizes
- Pull-down jaws (0.2 mm), 180° turned with serrated clamping side for OP 10
- Parallel stripes with quick change „CLAK-System“ see page 295
- Optional: Interface for zero point clamping systems APS / WPS / ZeroAct (on request)

Standard equipment

TCi precision bench vise with clamping wrench, pull-down jaws, jaws for SinterGrip clamping inserts, workstop, protection cover for spindle, parallels with quick change „CLAK-System“, floating slide-ways, 1 pair positioning keys, transport box



Page 116



Subject to technical changes.

Order review

Type	Id. No.	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	I [mm]	J [mm]	L [mm]	M [mm]	N [mm]	O [mm]	P [mm]	S [mm]	Weight [kg]
TCi 110 x 100	77580101	100	40	78	80	150	-	12	9	338	110	280	110	10	63	18	38	11.5
TCi 110 x 150	77580102	150	40	78	80	100	100	12	9	388	110	330	110	10	63	18	38	12.5
TCi 150 x 200	77580201	200	50	98	114	200	-	18	12.5	481	150	413	150	13	85	30	48	27
TCi 150 x 250	77580202	250	50	98	114	100	150	18	12.5	531	150	463	150	13	85	30	48	29
TCi 150 x 300	77580203	300	50	98	114	100	100	18	12.5	588	150	520	150	13	85	30	48	31.5
TCi 200 x 300	77580302	300	70	138	149	200	200	18	12.5	697	200	610	200	15.5	123	27	68	78
TCi 200 x 400	77580303	400	70	138	149	150	150	18	12.5	797	200	710	200	15.5	123	27	68	86

Special sizes on request.

- Quick positioning for the jaw
- Extra long clamping range



Application/customer benefits

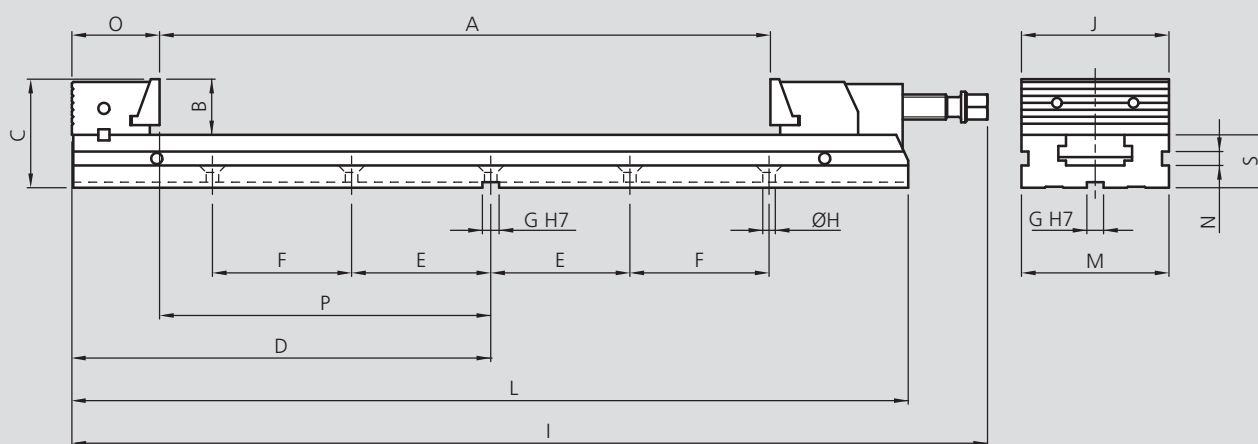
- High precision bench vise in extra long version
- Quick positioning for the movable jaw
- Pull-down jaws including the possibility to use them without pull down effect for OP 10 operations
- Easy and quick cleaning possible
- Maximum flexibility due to the wide range of accessories

Technical features

- 2 different jaw sizes
- Pull-down jaws (0.2 mm), 180° turned with serrated clamping side for OP 10
- Parallel stripes with quick change „CLAK-System“ see page 295
- Optional: interface for zero point clamping systems APS / WPS / ZeroAct (on request)

Standard equipment

TCi-XL precision bench vise with clamping wrench, pull-down jaws, workstop, protection cover for spindle, parallels with quick change „CLAK-System“, floating slide-ways, 1 pair positioning keys, transport box



Subject to technical changes.

Order review

Type	Id. No.	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	I [mm]	J [mm]	L [mm]	M [mm]	N [mm]	O [mm]	P [mm]	S [mm]	Weight [kg]
TCi-XL 110 x 425	77580104	425	40	78	300	100	100	12	9	658	110	600	110	10	63	238	38	18.2
TCi-XL 150 x 545	77580204	545	50	98	379	100	150	18	12.5	825	150	758	150	13	85	298	48	40.0
TCi-XL 150 x 665	77580205	665	50	98	439	100	200	18	12.5	946	150	878	150	13	85	355	48	44.7

- Quick positioning for the jaw
- Double clamping system

Application/customer benefits

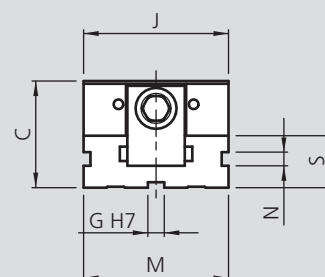
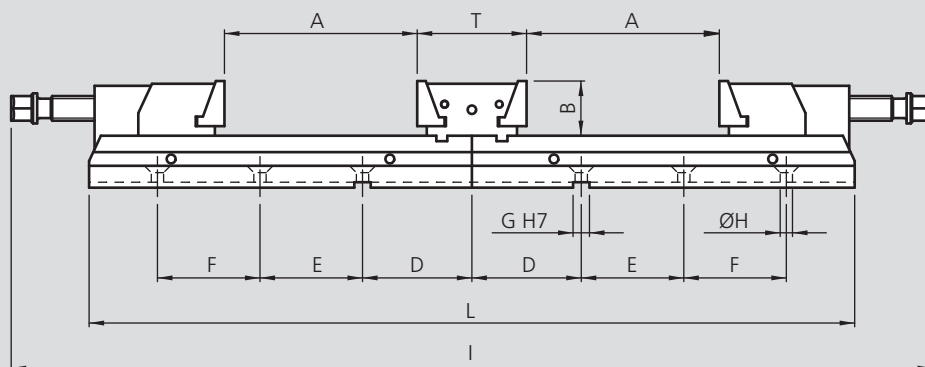
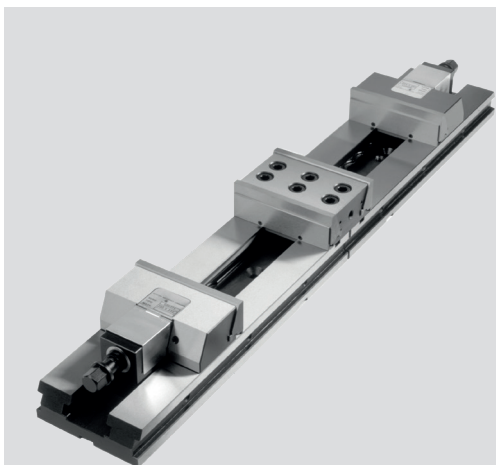
- High precision bench vise with double clamping system
- Quick positioning for the movable jaw
- Pull-down jaws including the possibility to use them without pull down effect for OP 10 operations
- Easy and quick cleaning possible
- Maximum flexibility due to the wide range of accessories

Technical features

- 3 different jaw sizes
- Pull-down jaws (0.2 mm), 180° turned with serrated clamping side for OP 10
- Parallel stripes with quick change „CLAK-System“ see page 295
- Optional: interface for zero point clamping systems APS / WPS / ZeroAct (on request)

Standard equipment

TCi-DC precision bench vise with clamping wrench, pull-down jaws, workstop, protection cover for spindle, parallels with quick change „CLAK-System“, floating slide-ways, 1 pair positioning keys, transport box



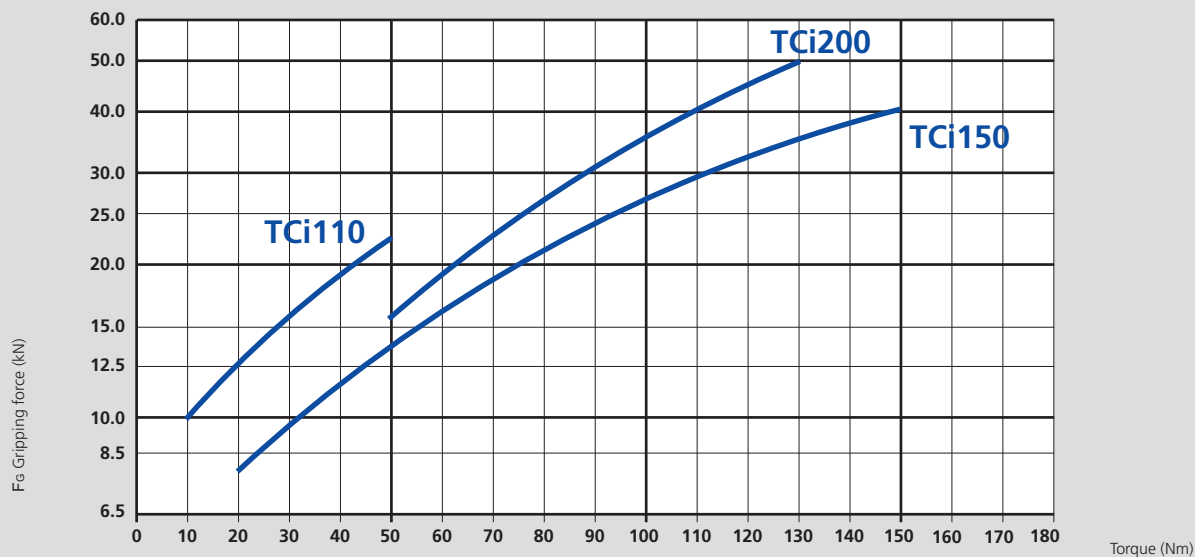
Subject to technical changes.

Order review

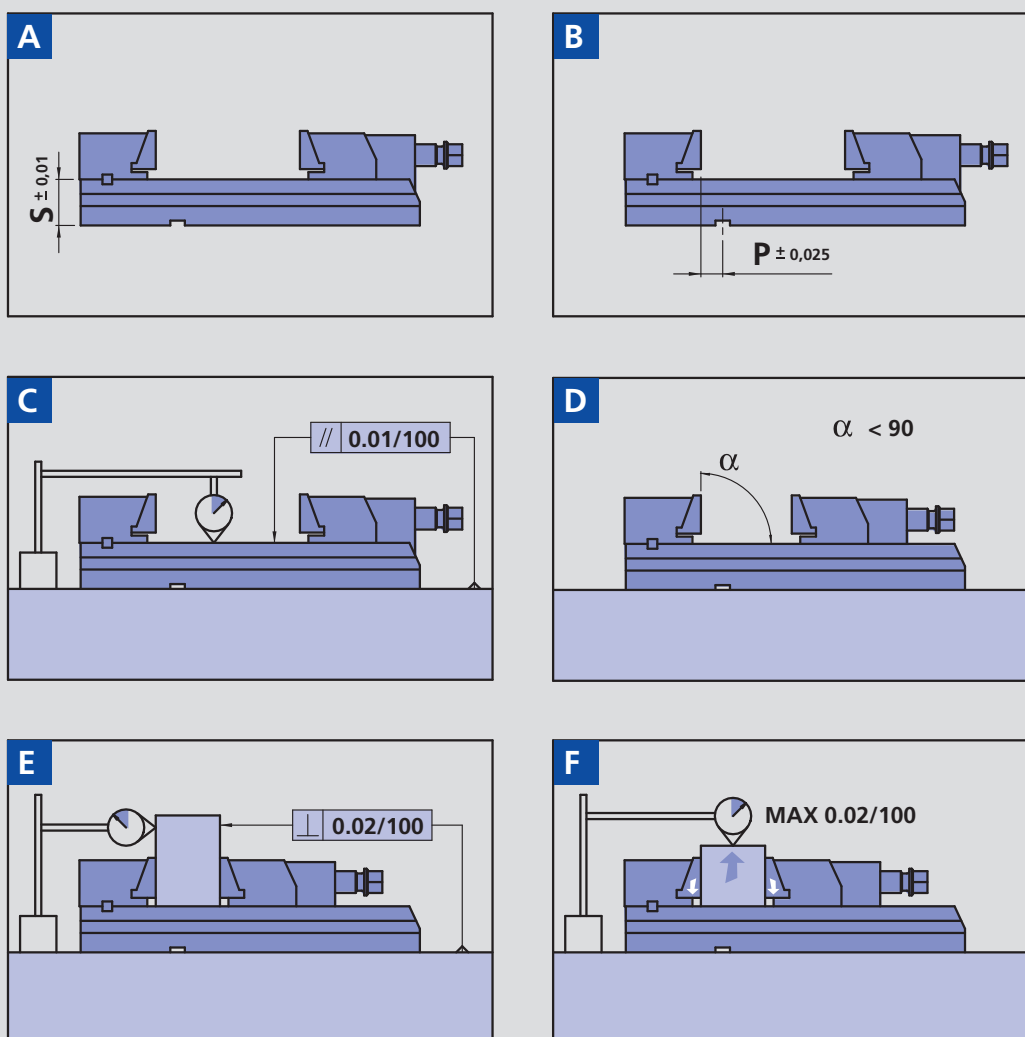
Type	Id. No.	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	I [mm]	J [mm]	L [mm]	M [mm]	N [mm]	S [mm]	T [mm]	Weight [kg]
TCi-DC 110 x 130	77581101	130	40	78	80	150	-	12	9	676	110	56	110	10	38	80	22
TCi-DC 110 x 180	77581102	180	40	78	80	100	100	12	9	776	110	660	110	38	80	24	24
TCi-DC 150 x 230	77581201	230	50	98	116	200	-	18	12.5	966	150	830	150	13	48	108	52
TCi-DC 150 x 280	77581202	280	50	98	116	100	150	18	12.5	1066	150	930	150	13	48	108	56
TCi-DC 200 x 330	77581302	330	70	138	150	200	200	18	12.5	1394	200	1222	200	15.5	68	194	144

- Clamping force diagram
- Tolerances

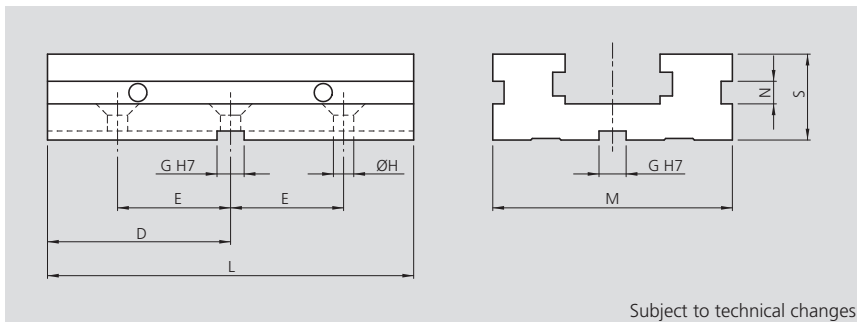
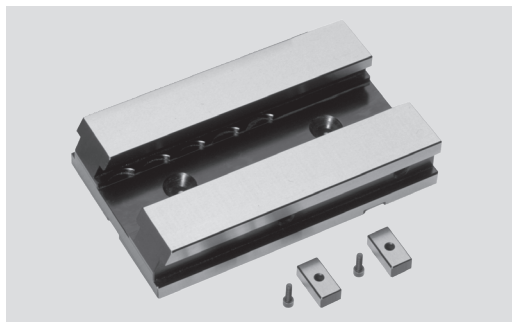
Clamping force diagram



Form, position and dimensional tolerances for all clamping vises TCi

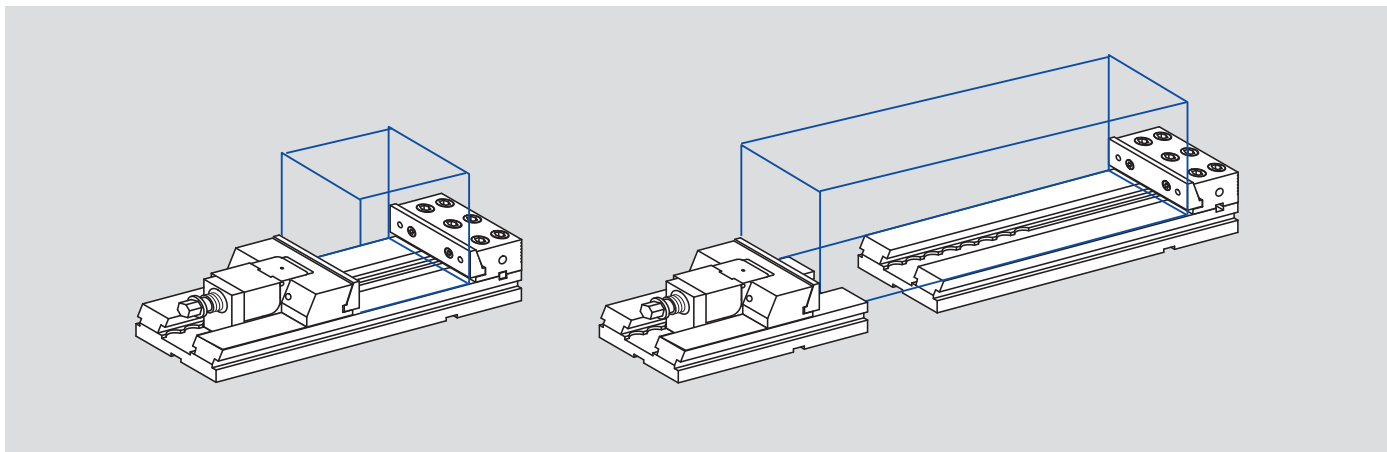


TCi extension element with pair of positioning keys



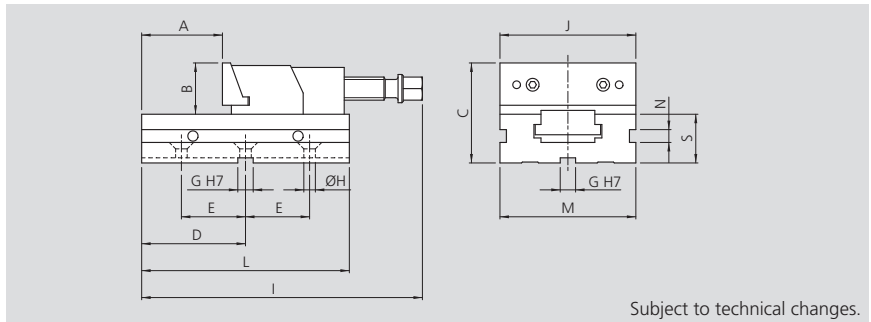
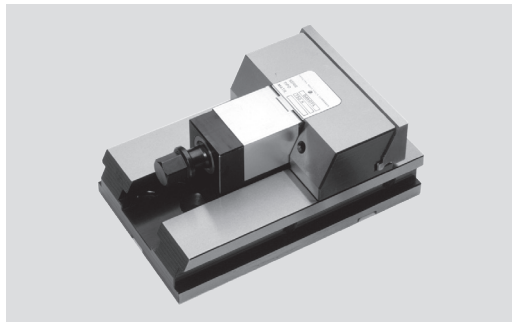
Type	Id. No.	D [mm]	E [mm]	G [mm]	H [mm]	L [mm]	M [mm]	N [mm]	S [mm]	Weight [kg]
TCi-110	58011700	81	50	12	9	162	110	10	38	3.5
TCi-150	58021700	114	75	18	12.5	228	150	13	48	9
TCi-200	58031700	150	100	18	12.5	300	200	15.5	68	22

Application examples



- Clamping unit, fix jaw and double jaw single unit
- Flexible application

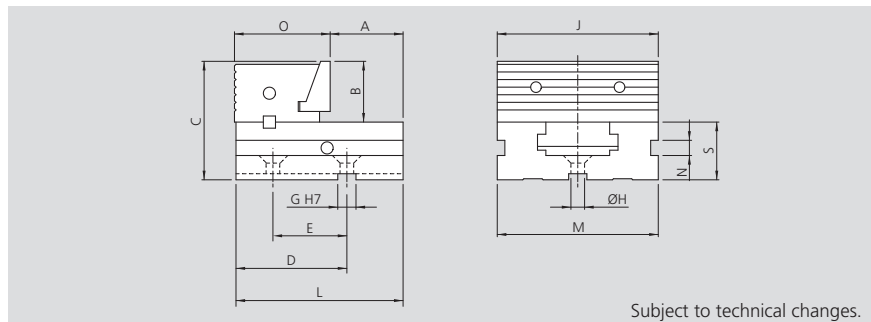
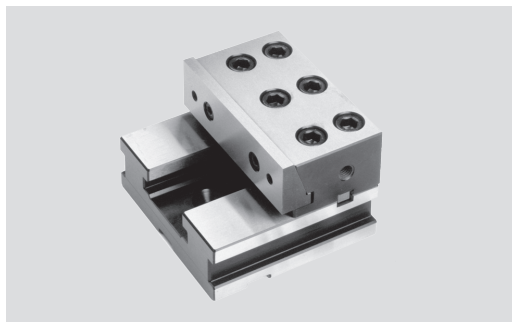
TCi Clamping unit for flexible application



Subject to technical changes.

Type	Id. No.	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	G [mm]	H [mm]	I [mm]	J [mm]	L [mm]	M [mm]	N [mm]	S [mm]	Weight [kg]
TCi-110	58017110	60	40	78	81	50	12	9	220	110	162	110	10	38	6.2
TCi-150	58027110	100	50	98	114	75	18	12.5	295	150	228	150	13	48	15.1
TCi-200	58037110	120	70	138	150	100	18	12.5	390	200	300	200	15.5	68	39.2

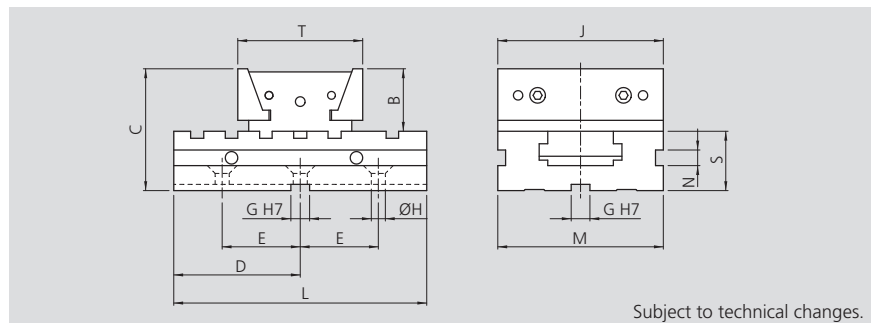
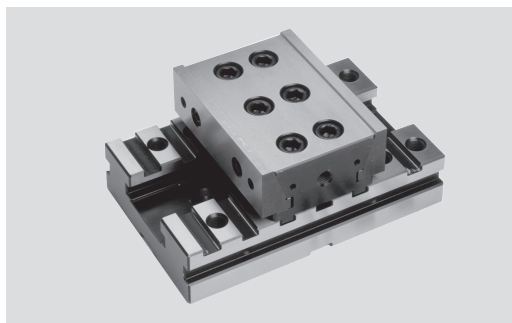
TCi fix jaw unit for flexible application



Subject to technical changes.

Type	Id. No.	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	G [mm]	H [mm]	J [mm]	L [mm]	M [mm]	N [mm]	O [mm]	S [mm]	Weight [kg]
TCi-110	58017010	58	40	78	80	50	12	9	110	120	110	10	63	38	4
TCi-150	58027010	81	50	98	114	75	18	12.5	150	165	150	13	85	48	9
TCi-200	58037010	82	70	138	149	100	18	12.5	200	205	200	15.5	123	68	28

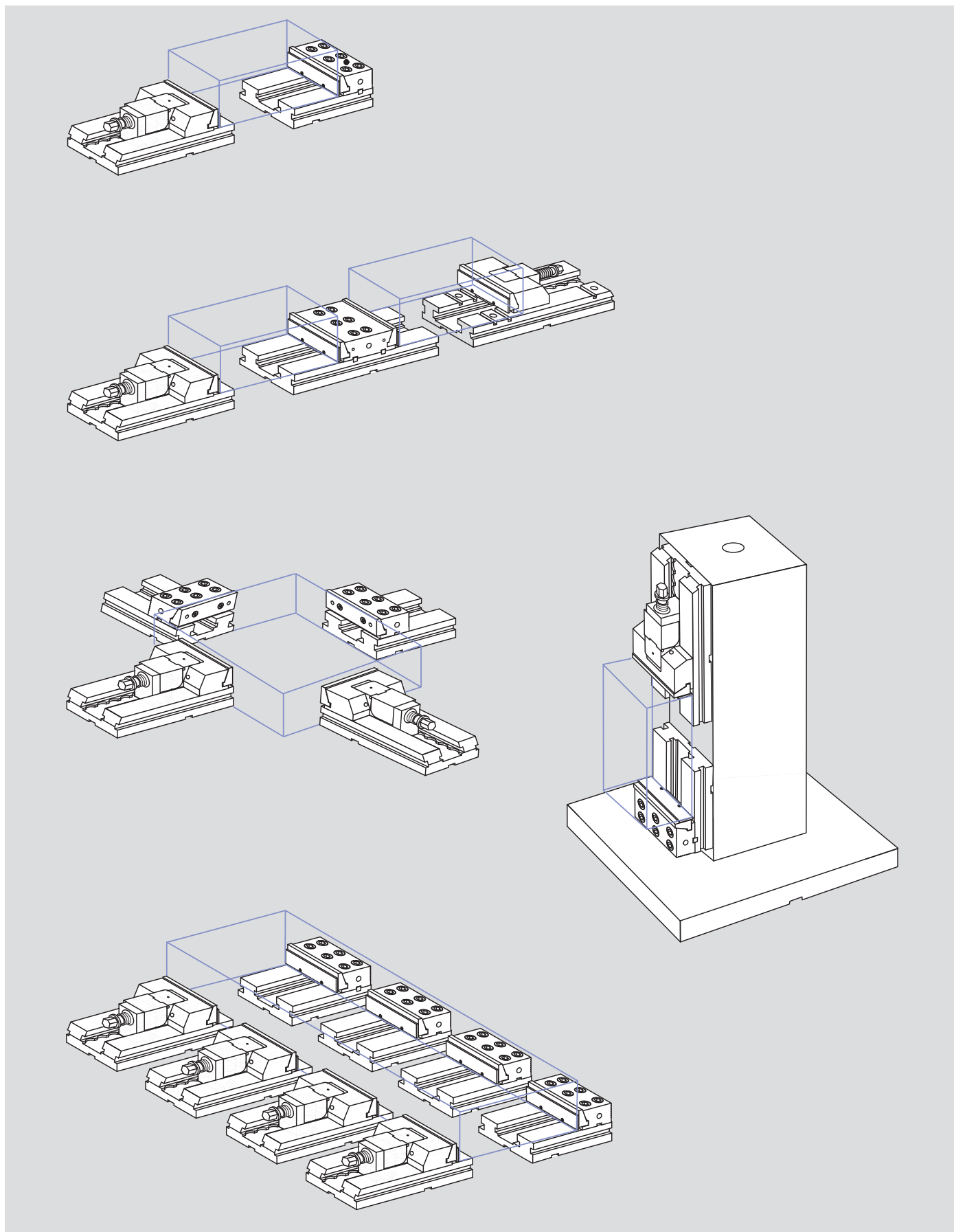
TCi double jaw unit for flexible application



Subject to technical changes.

Type	Id. No.	B [mm]	C [mm]	D [mm]	E [mm]	G [mm]	H [mm]	J [mm]	L [mm]	M [mm]	N [mm]	S [mm]	T [mm]	Weight [kg]
TCi-110	58117010	40	78	81	50	12	9	110	162	110	10	38	80	5.6
TCi-150	58127010	50	98	114	75	18	12.5	150	228	150	13	48	108	13.5
TCi-200	58137010	70	138	150	100	18	12.5	200	300	200	15.5	68	194	34.7

TCi clamping units for flexible applications



- Accessories
- Jaws

TCi jaws for SinterGrip clamping inserts

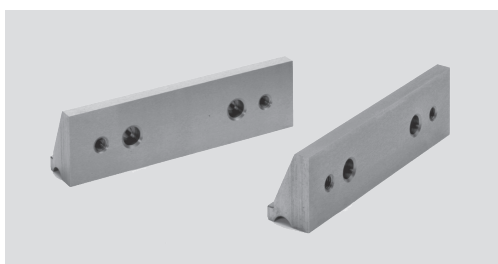


Type	Id. No.
TCi 110	58451159
TCi 150	58451219
TCi 200	58451419

Consisting of:
2 pieces jaws
without SinterGrip Inserts



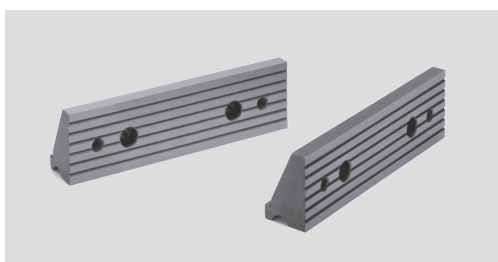
TCi pull-down jaws smooth



Type	Id. No.
TCi 110	58010409
TCi 150	58020409
TCi 200	58030409

Consisting of:
2 pieces jaws

TCi pull-down jaws serrated



Type	Id. No.
TCi 110	58014409
TCi 150	58024409
TCi 200	58034409

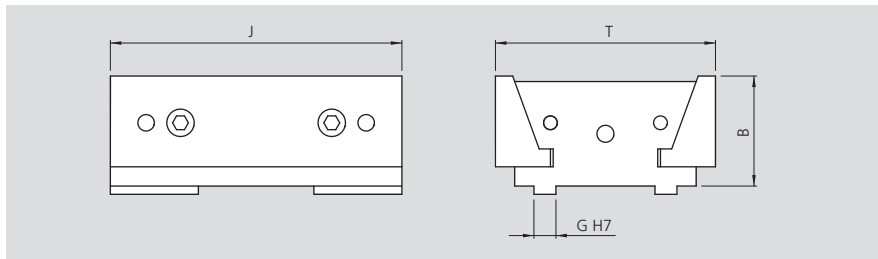
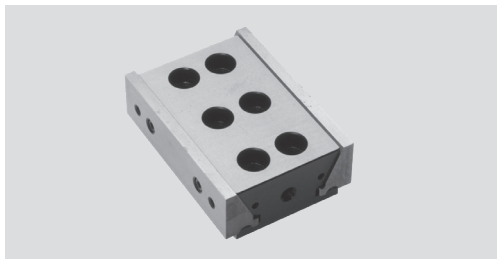
Consisting of:
2 pieces jaws

TCi torque wrench



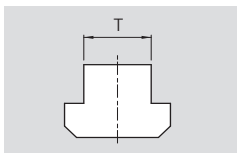
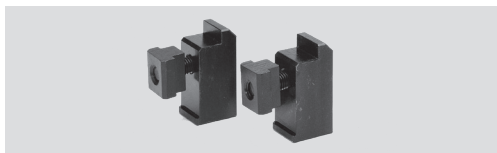
Type	Id. No.
TCi 110	51501001
TCi 150	51501002
TCi 200	51501003

TCi fixed jaw carrier for double clamping (extension)



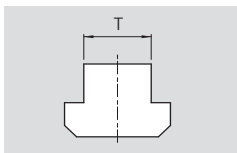
Type	Id. No	B [mm]	G [mm]	J [mm]	T [mm]	Weight [kg]
TCi 110	58117210	40	8	110	80	2.2
TCi 150	58127210	50	12	150	108	5
TCi 200	58137210	70	14	200	194	11.6

Clamps (1 pair) incl. screw and T-nut



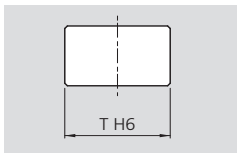
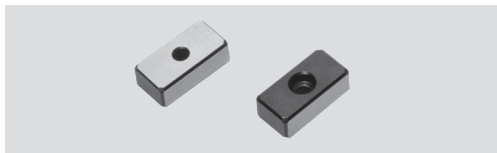
Type	12 mm	14 mm	Id. No. / groove width			
			16 mm	18 mm	20 mm	22 mm
TCi 110	58012792	58012793	58012794	58012795	58012796	58012797
TCi 150	58022792	58022793	58022794	58022795	58022796	58022797
TCi 200	58032792	58032793	58032794	58032795	58032796	58032797

T-nuts (1 pair) incl. screw



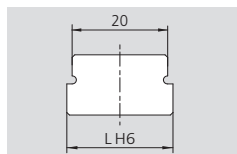
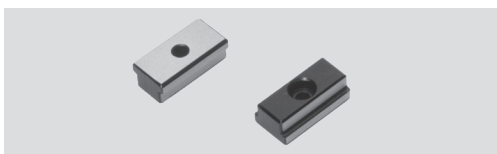
Type	12 mm	14 mm	Id. No. / groove width			
			16 mm	18 mm	20 mm	22 mm
TCi 110	58012592	58012593	58012594	58012595	58012596	58012597
TCi 150	58022592	58022593	58022594	58022595	58022596	58022597
TCi 200	58032592	58032593	58032594	58032595	58032596	58032597

Key way with standard dimensions (1 pair)



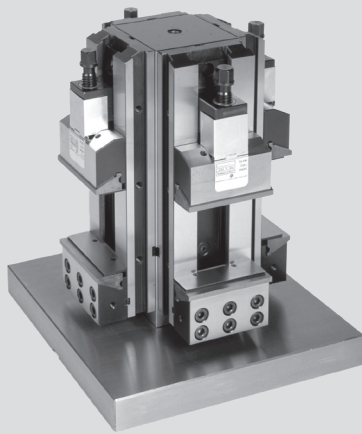
Type	Id. No. / groove width 12h6 mm
TCi 110	58011392
TCi 150	58021395
TCi 200	58021395

Key way with special dimensions (1 pair)



Type	12h6 mm	14h6 mm	Id. No. / groove width			
			16h6 mm	18h6 mm	20h6 mm	22h6 mm
TCi 110	58011392	58011393	58011394	58011395	58011396	58011397
TCi 150	58021392	58021393	58021394	58021395	58021396	58021397
TCi 200	58021392	58021393	58021394	58021395	58021396	58021397

- Quick positioning for the jaw
- Maximum flexibility



Application/customer benefits

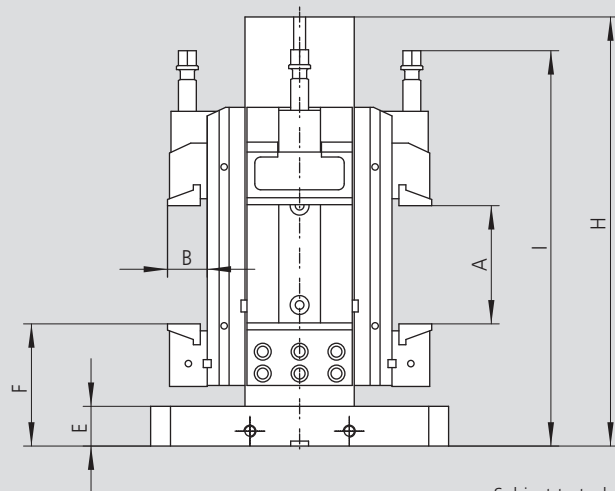
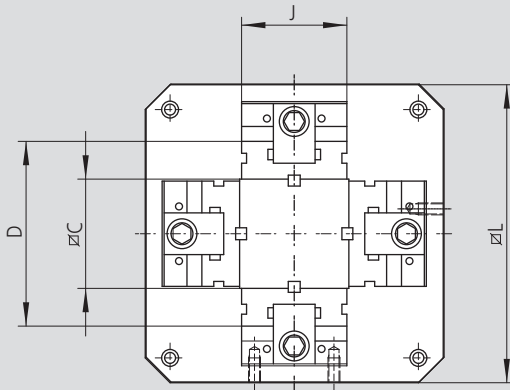
- Steel tombstone ready to use on horizontal machining centres, including 4 TCi vices
- Quick positioning for the movable jaw
- Maximum flexibility due to the wide range of accessories

Technical features

- 2 different jaw sizes
- Pull-down jaws (0.2 mm)
- Parallel stripes with quick change „CLAK-System“ see page 295
- Interface for JIS pallets and for zero point clamping systems APS / WPS / ZeroAct (on request)

Standard equipment

Vertical clamping system complete with: 4 clamping equipment TCi, 1 column, 1 base for vertical system TCi, 4 pairs of SinterGrip jaws, 4 pairs of CLAK parallels, 4 covers for protection of the screws 4 rigid slide-ways, 4 floating slide-ways (for raw workpieces), 4 workstops, 4 wrenches, eye bolt for lifting, transport box



Subject to technical changes.

Order review

Type	Id. No.	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	H [mm]	I [mm]	J [mm]	L [mm]	Weight [kg]
MVS-TCi 110x100	77582111	100	40	110	186	40	123	391	400	110	300	108
MVS-TCi 110x150	77582112	150	40	110	186	40	123	391	450	110	300	112
MVS-TCi 150x200	77582221	200	50	150	246	40	151	580	550	150	400	255
MVS-TCi 150x250	77582222	250	50	150	246	40	151	580	600	150	400	263
MVS-TCi 150x300	77582223	300	50	150	246	40	151	580	655	150	400	273
MVS-TCi 150x200	77582231	200	50	150	246	40	151	580	550	150	500	282
MVS-TCi 150x250	77582232	250	50	150	246	40	151	580	600	150	500	290
MVS-TCi 150x300	77582233	300	50	150	246	40	151	580	655	150	500	300
MVS-TCi 200x300	77582332	300	70	200	336	40	173	661	750	200	500	580

■ Steel tombstone

Application/customer benefits

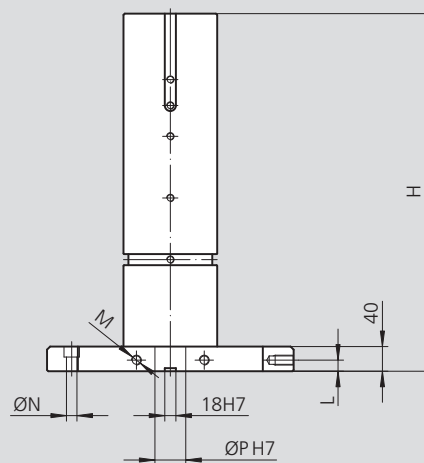
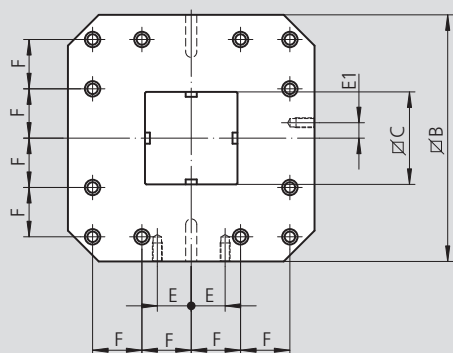
- Steel tombstone ready to use on horizontal machining centres

Technical features

- Interface for JIS pallets and for zero point clamping systems APS / WPS / ZeroAct

Standard equipment

Tombstone



Subject to technical changes.

Order review

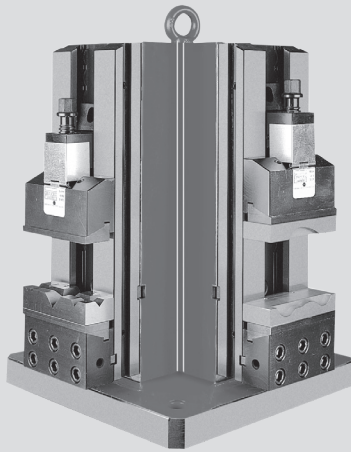
Type	Id. No.	B [mm]	C [mm]	E [mm]	E1 [mm]	F [mm]	H [mm]	L [mm]	M [mm]	N [mm]	P [mm]	Weight [kg]
MVS-TCi 110	58218010	300	110	40	0	125	391	15	12	13	25	57
MVS-TCi 150	58228020	400	150	55	25	80	580	18	16	17	50	142
MVS-TCi 150	58228030	500	150	75	25	100	580	18	16	17	50	169
MVS-TCi 200	58238030	500	200	75	25	100	661	18	16	17	50	266

Insert for vertical use



Type	Id. No.
MVS-TCi 110	58213300
MVS-TCi 150	58223300
MVS-TCi 200	58233300

- Quick positioning for the jaw
- Maximum flexibility



Application/customer benefits

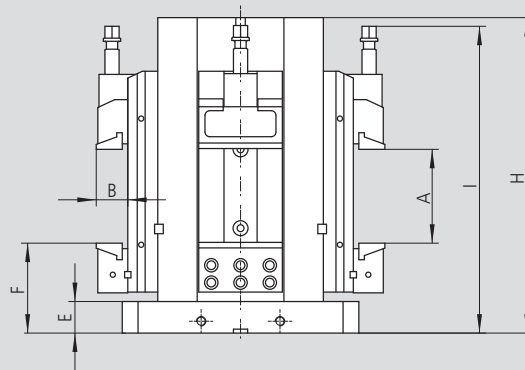
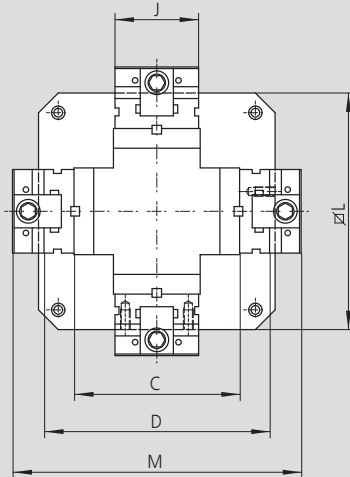
- Steel cross tombstone ready to use on horizontal machining centres, including 4 TCi vises
- Quick positioning for the movable jaw
- Maximum flexibility due to the wide range of accessories

Technical features

- 2 different jaw sizes
- Pull-down jaws (0.2 mm)
- Parallel stripes with quick change „CLAK-System“ see page 295
- Interface for JIS pallets and for zero point clamping systems APS / WPS / ZeroAct (on request)

Standard equipment

Vertical clamping system complete with: 4 clamping equipment TCi, 1 cross tombstone, 4 pairs of SinterGrip jaws, 4 pairs of CLAK parallels, 4 covers for protection of the screws, 4 rigid slide-ways, 4 floating slide-ways (for raw workpieces), 4 workstops, 4 wrenches, eye bolt for lifting, transport box

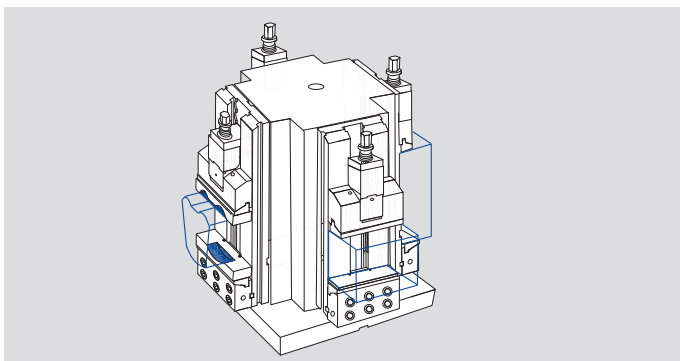


Subject to technical changes.

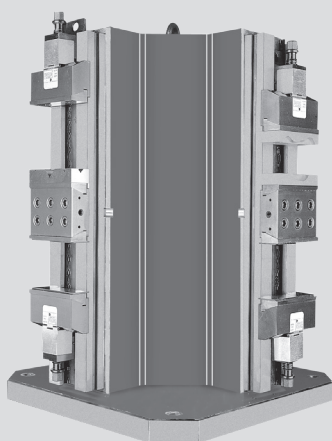
Order review

Type	Id. No.	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	H [mm]	I [mm]	J [mm]	L [mm]	M [mm]	Weight [kg]
VCS-TCi 110x100	77585111	100	40	210	286	40	114	382	390	110	300	366	121
VCS-TCi 110x150	77585112	150	40	210	286	40	114	382	440	110	300	366	125
VCS-TCi 150x200	77585221	200	50	300	396	40	145	580	545	150	400	496	320
VCS-TCi 150x250	77585222	250	50	300	396	40	145	580	595	150	400	496	328
VCS-TCi 150x300	77585223	300	50	300	396	40	145	580	652	150	400	496	338
VCS-TCi 150x200	77585231	200	50	300	396	40	145	580	545	150	500	496	348
VCS-TCi 150x250	77585232	250	50	300	396	40	145	580	595	150	500	496	356
VCS-TCi 150x300	77585233	300	50	300	396	40	145	580	652	150	500	496	366
VCS-TCi 200x300	77585342	300	70	350	486	45	182	670	760	200	630	626	675

Application examples



- Quick positioning for the jaw
- Maximum flexibility



Application/customer benefits

- Steel cross tombstone ready to use on horizontal machining centres, including 4 TCi vises
- Extra long clamping range
- Quick positioning for the movable jaw
- Maximum flexibility due to the wide range of accessories

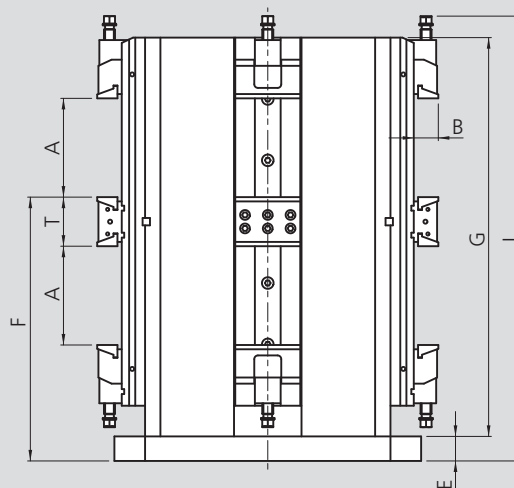
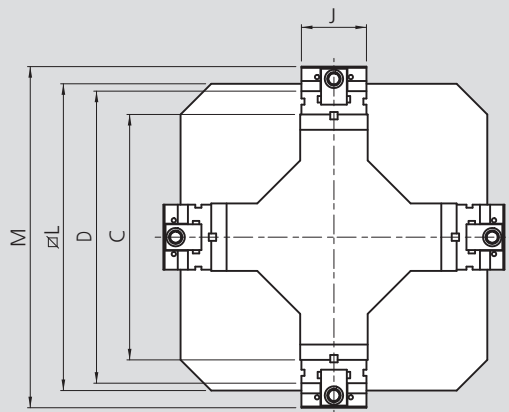
Technical features

- 3 different jaw sizes
- Pull-down jaws (0.2 mm), 180° turned with serrated clamping side for OP 10
- Parallel stripes with quick change „CLAK-System“ see page 295
- Interface for JIS pallets and for zero point clamping systems APS / WPS / ZeroAct (on request)

Standard equipment

Vertical clamping system complete with: 4 clamping equipment TCi-DC, 1 cross tombstone, 8 pairs of CLAK parallels, 8 covers for protection of the screws, 8 rigid slide-ways, 8 floating slide-ways (for raw workpieces), 8 workstops, 8 wrenches, eye bolt for lifting, transport box

Subject to technical changes.



Order review

Type	Id. No.	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	I [mm]	J [mm]	L [mm]	M [mm]	T [mm]	Weight [kg]
DVCS-TCi 110x155	77586101	155	40	400	476	40	430	650	725	110	500	556	80	352
DVCS-TCi 150x195	77586201	195	50	550	646	45	515	795	890	150	630	746	108	647