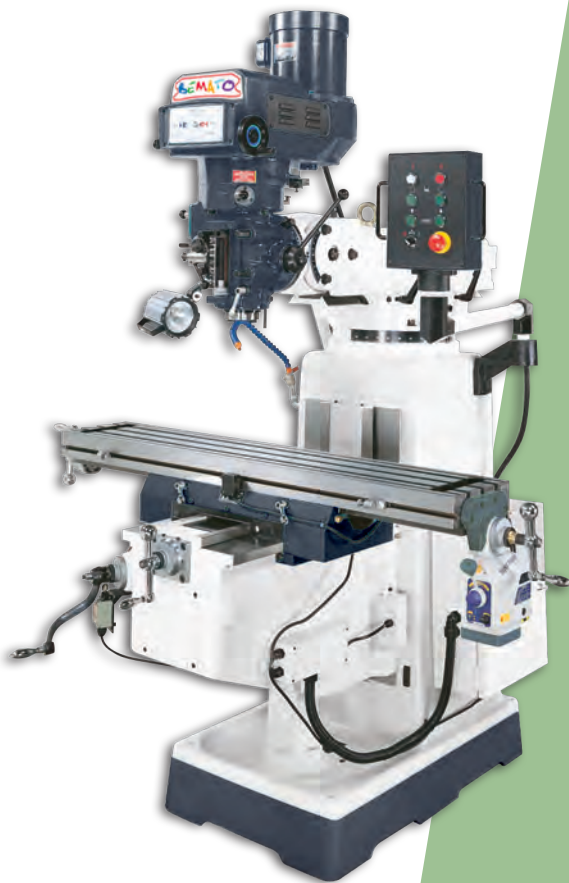


B

TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



B1 - COLLETS & COLLET CHUCKS (B01-B38)



B2 - TAPPING CHUCKS (B39-B56)



B3 - HOLDERS, SHANKS, CHUCKS,
ADAPTERS, ARBORS (B57-B92)



B4 - VISES, TABLES, BLOCKS (B93-B166)



B5 - POWER FEEDS, ANGLE HEADS (B167-B183)



B6 - SLOTTING HEAD, AIR/ELE.
POWER DRAWBARS (B184-B186)



B7 - CLAMPING KITS (B187-B197)



B8 - BORING HEAD SETS (B198-B228)



B9 - DIVIDING HEADS, H/V ROTARY
TABLES (B229-B230)



B10 - ROTARY INDEXING SPACERS,
TILTING TABLES (B231-B237)



B11 - CNC ROTARY TABLES (B238-B275)



B12 - ELECTRO-PERMANENT MAGNETIC CHUCK /
INDEX TABLE (B276-B297)

B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



DIN 6499 ER SPRING COLLET SYSTEM



V ER8

UNIT:mm

ITEM NO.	øD	CLAMPING RANGE
52100101	1.0	1.0~0.5
52100102	1.5	1.5~1.0
52100103	2.0	2.0~1.5
52100104	2.5	2.5~2.0
52100105	3.0	3.0~2.5
52100106	3.5	3.5~3.0
52100107	4.0	4.0~3.5
52100108	4.5	4.5~4.0
52100109	5.0	5.0~4.5

V ER11

UNIT:mm

ITEM NO.	øD	CLAMPING RANGE
52100110	1.0	1.0~0.5
52100111	1.5	1.5~1.0
52100112	2.0	2.0~1.5
52100113	2.5	2.5~2.0
52100114	3.0	3.0~2.5
52100115	3.5	3.5~3.0
52100116	4.0	4.0~3.5
52100117	4.5	4.5~4.0
52100118	5.0	5.0~4.5
52100119	5.5	5.5~5.0
52100120	6.0	6.0~5.5
52100121	6.5	6.5~6.0
52100122	7.0	7.0~6.5

V ER16

UNIT:mm

ITEM NO.	øD	CLAMPING RANGE
52100123	1.0	1.0~0.5
52100133	1.5	1.5~1.0
52100124	2.0	2.0~1.5
52100134	2.5	2.5~2.0
52100125	3.0	3.0~2.5
52100135	3.5	3.5~3.0
52100126	4.0	4.0~3.5
52100136	4.5	4.5~4.0
52100127	5.0	5.0~4.5
52100137	5.5	5.5~5.0
52100128	6.0	6.0~5.5
52100138	6.5	6.5~6.0
52100129	7.0	7.0~6.5
52100139	7.5	7.5~7.0
52100130	8.0	8.0~7.5
52100140	8.5	8.5~8.0
52100131	9.0	9.0~8.5
52100141	9.5	9.5~9.0
52100132	10.0	10.0~9.5

V DIN6499

TYPE	EUROPE REF. NO.
ER11	4008E
ER16	426E
ER20	428E
ER25	430E
ER32	470E
ER40	472E

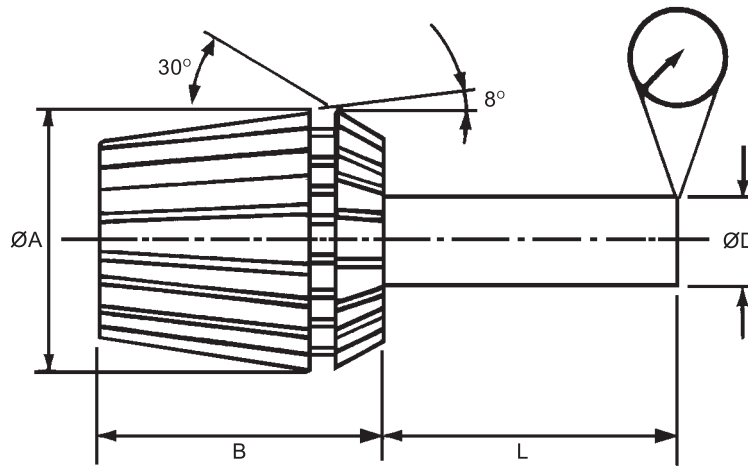
V ER20

UNIT:mm

ITEM NO.	øD	CLAMPING RANGE
52101125	1.0	1.0~0.5
52100154	1.5	1.5~1.0
52100142	2.0	2.0~1.5
52100155	2.5	2.5~2.0
52100143	3.0	3.0~2.5
52100156	3.5	3.5~3.0
52100144	4.0	4.0~3.5
52100157	4.5	4.5~4.0
52100145	5.0	5.0~4.5
52100158	5.5	5.5~5.0
52100146	6.0	6.0~5.5
52100159	6.5	6.5~6.0
52100147	7.0	7.0~6.5
52100160	7.5	7.5~7.0
52100148	8.0	8.0~7.5
52100161	8.5	8.5~8.0
52100149	9.0	9.0~8.5
52100162	9.5	9.5~9.0
52100150	10.0	10.0~9.5
52100163	10.5	10.5~10.0
52100151	11.0	11.0~10.5
52100164	11.5	11.5~11.0
52100152	12.0	12.0~11.5
52100165	12.5	12.5~12.0
52100153	13.0	13.0~12.5



DIN 6499 ER SPRING COLLET SYSTEM



✓ ER25

UNIT: mm

ITEM NO.	ØD	CLAMPING RANGE
52100167	2	2.0~1.0
52100168	3	3.0~2.0
52100169	4	4.0~3.0
52100170	5	5.0~4.0
52100171	6	6.0~5.0
52100172	7	7.0~6.0
52100173	8	8.0~7.0
52100174	9	9.0~8.0
52100175	10	10.0~9.0
52100176	11	11.0~10.0
52100177	12	12.0~11.0
52100178	13	13.0~12.0
52100179	14	14.0~13.0
52100180	15	15.0~14.0
52100181	16	16.0~15.0

✓ ER32

UNIT: mm

ITEM NO.	ØD	CLAMPING RANGE
52101127	2	2.0~1.0
52100182	3	3.0~2.0
52100183	4	4.0~3.0
52100184	5	5.0~4.0
52100185	6	6.0~5.0
52100186	7	7.0~6.0
52100187	8	8.0~7.0
52100188	9	9.0~8.0
52100189	10	10.0~9.0
52100190	11	11.0~10.0
52100191	12	12.0~11.0
52100192	13	13.0~12.0
52100193	14	14.0~13.0
52100194	15	15.0~14.0
52100195	16	16.0~15.0
52100196	17	17.0~16.0
52100197	18	18.0~17.0
52100198	19	19.0~18.0
52100199	20	20.0~19.0

✓ ER40

UNIT: mm

ITEM NO.	ØD	CLAMPING RANGE
52101128	3	3.0~2.0
52100200	4	4.0~3.0
55210201	5	5.0~4.0
52100202	6	6.0~5.0
52100203	7	7.0~6.0
52100204	8	8.0~7.0
52100205	9	9.0~8.0
52100206	10	10.0~9.0
52100207	11	11.0~10.0
52100208	12	12.0~11.0
52100209	13	13.0~12.0
52100210	14	14.0~13.0
52100211	15	15.0~14.0
52100212	16	16.0~15.0
52100213	17	17.0~16.0
52100214	18	18.0~17.0
52100215	19	19.0~18.0
52100216	20	20.0~19.0
52100217	21	21.0~20.0
52100218	22	22.0~21.0
52100219	23	23.0~22.0
52100220	24	24.0~23.0
52100221	25	25.0~24.0
52100222	26	26.0~25.0

✓ ER50

UNIT: mm

ITEM NO.	ØD	CLAMPING RANGE
52100223	12	12~10
52100224	14	14~12
52100225	16	16~14
52100226	17	18~16
52100227	20	20~18
52100228	22	22~20
52100229	24	24~22
52100230	26	26~24
52100231	28	28~26
52100232	30	30~28
52100233	32	32~30
52100234	34	34~32

											UNIT:mm	
ITYPE	A	B	L	D	STANDARD PRECISION	TYPE	A	B	L	D	STANDARD PRECISION	
ER08	8.5	13.5	6	1.0~1.4	0.015	ER25	26	35	40	10.0~17.9	0.02	
ER11	11.5	18	10	1.5~2.9	0.015	ER32	33	40	50	18.0~26.9	0.02	
ER16	17	27	16	3.0~5.9	0.015	ER40	41	46	60	27.0~34.9	0.02	
ER20	21	31	25	6.0~9.9	0.02	ER50	52	60				



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



DIN 6499 ER SPRING COLLET SYSTEM— “ULTRA PRECISION 0.01 mm” (A CLASS)



✓ ER8A

UNIT:mm

ITEM NO.	øD	CLAMPING RANGE
52101129	1.0	1.0~0.5
52101130	1.5	1.5~1.0
52101131	2.0	2.0~1.5
52101132	2.5	2.5~2.0
52101133	3.0	3.0~2.5
52101134	3.5	3.5~3.0
52101135	4.0	4.0~3.5
52101136	4.5	4.5~4.0
52101137	5.0	5.0~4.5

✓ ER11A

UNIT:mm

ITEM NO.	øD	CLAMPING RANGE
52101138	1.0	1.0~0.5
52101139	1.5	1.5~1.0
52101140	2.0	2.0~1.5
52101141	2.5	2.5~2.0
52101142	3.0	3.0~2.5
52101143	3.5	3.5~3.0
52101144	4.0	4.0~3.5
52101145	4.5	4.5~4.0
52101146	5.0	5.0~4.5
52101147	5.5	5.5~5.0
52101148	6.0	6.0~5.5
52101149	6.5	6.5~6.0
52101150	7.0	7.0~6.5

✓ ER16A

UNIT:mm

ITEM NO.	øD	CLAMPING RANGE
52101151	1.0	1.0~0.5
52101152	1.5	1.5~1.0
52101153	2.0	2.0~1.5
52101154	2.5	2.5~2.0
52101155	3.0	3.0~2.5
52101156	3.5	3.5~3.0
52101157	4.0	4.0~3.5
52101158	4.5	4.5~4.0
52101159	5.0	5.0~4.5
52101160	5.5	5.5~5.0
52101161	6.0	6.0~5.5
52101162	6.5	6.5~6.0
52101163	7.0	7.0~6.5
52101164	7.5	7.5~7.0
52101165	8.0	8.0~7.5
52101166	8.5	8.5~8.0
52101167	9.0	9.0~8.5
52101168	9.5	9.5~9.0
52101169	10.0	10.0~9.5

✓ ER20A

UNIT:mm

ITEM NO.	øD	CLAMPING RANGE
52101936	1.0	1.0~0.5
52101937	1.5	1.5~1.0
52101938	2.0	2.0~1.5
52101939	2.5	2.5~2.0
52101170	3.0	3.0~2.5
52101171	3.5	3.5~3.0
52101172	4.0	4.0~3.5
52101173	4.5	4.5~4.0
52101174	5.0	5.0~4.5
52101175	5.5	5.5~5.0
52101176	6.0	6.0~5.5
52101177	6.5	6.5~6.0
52101178	7.0	7.0~6.5
52101179	7.5	7.5~7.0
52101180	8.0	8.0~7.5
52101181	8.5	8.5~8.0
52101182	9.0	9.0~8.5
52101183	9.5	9.5~9.0
52101184	10.0	10.0~9.5
52101185	10.5	10.5~10.0
52101186	11.0	11.0~10.5
52101187	11.5	11.5~11.0
52101188	12.0	12.0~11.5
52101189	12.5	12.5~12.0
52101190	13.0	13.0~12.5



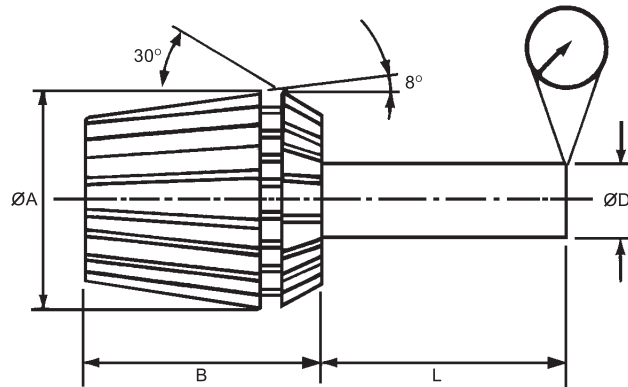
DIN 6499 ER SPRING COLLET SYSTEM- “ULTRA PRECISION 0.01 mm” (A CLASS)



✓ ER25A

UNIT: mm

ITEM NO.	ØD	CLAMPING RANGE
52101192	2	2.0~1.0
52101193	3	3.0~2.0
52101194	4	4.0~3.0
52101195	5	5.0~4.0
52101196	6	6.0~5.0
52101197	7	7.0~6.0
52101198	8	8.0~7.0
52101199	9	9.0~8.0
52101200	10	10.0~9.0
52101201	11	11.0~10.0
52101202	12	12.0~11.0
52101203	13	13.0~12.0
52101204	14	14.0~13.0
52101205	15	15.0~14.0
52101206	16	16.0~15.0



✓ ER32A

UNIT: mm

ITEM NO.	ØD	CLAMPING RANGE
52101207	2	2.0~1.0
52101208	3	3.0~2.0
52101209	4	4.0~3.0
52101210	5	5.0~4.0
52101211	6	6.0~5.0
52101212	7	7.0~6.0
52101213	8	8.0~7.0
52101214	9	9.0~8.0
52101215	10	10.0~9.0
52101216	11	11.0~10.0
52101217	12	12.0~11.0
52101218	13	13.0~12.0
52101219	14	14.0~13.0
52101220	15	15.0~14.0
52101221	16	16.0~15.0
52101222	17	17.0~16.0
52101223	18	18.0~17.0
52101224	19	19.0~18.0
52101225	20	20.0~19.0

✓ ER40A

UNIT: mm

ITEM NO.	ØD	CLAMPING RANGE
52101226	3	3.0~2.0
52101227	4	4.0~3.0
52101228	5	5.0~4.0
52101229	6	6.0~5.0
52101230	7	7.0~6.0
52101231	8	8.0~7.0
52101232	9	9.0~8.0
52101233	10	10.0~9.0
52101234	11	11.0~10.0
52101235	12	12.0~11.0
52101236	13	13.0~12.0
52101237	14	14.0~13.0
52101238	15	15.0~14.0
52101239	16	16.0~15.0
52101240	17	17.0~16.0
52101241	18	18.0~17.0
52101242	19	19.0~18.0
52101243	20	20.0~19.0
52101244	21	21.0~20.0
52101245	22	22.0~21.0
52101246	23	23.0~22.0
52101247	24	24.0~23.0
52101248	25	25.0~24.0
52101249	26	26.0~25.0

✓ ER50A

UNIT: mm

ITEM NO.	ØD	CLAMPING RANGE
52101250	12	12~10
52101251	14	14~12
52101252	16	16~14
52101253	17	18~16
52101254	20	20~18
52101255	22	22~20
52101256	24	24~22
52101257	26	26~24
52101258	28	28~26
52101259	30	30~28
52101260	32	32~30
52101261	34	34~32

											UNIT:mm
TYPE	A	B	L	D	STANDARD PRECISION	TYPE	A	B	L	D	STANDARD PRECISION
ER08A	8.5	13.5	6	1.0~1.4	0.01	ER25A	26	35	40	10.0~17.9	0.01
ER11A	11.5	18	10	1.5~2.9	0.01	ER32A	33	40	50	18.0~26.9	0.01
ER16A	17	27	16	3.0~5.9	0.01	ER40A	41	46	60	27.0~34.9	0.01
ER20A	21	31	25	6.0~9.9	0.01	ER50A	52	60			

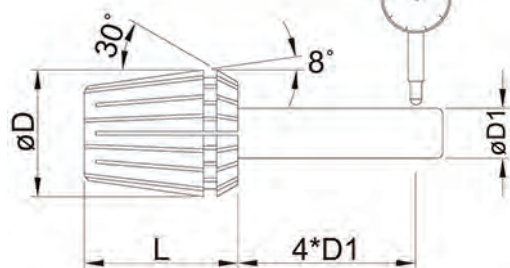
B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



DIN 6499 ER SPRING COLLET SYSTEM (AA CLASS)



Precision ER Collet
within 5 micron (HRC:47°)



✓ ER11 AA

UNIT:mm

ITEM NO.	ORDER NO.	øD1
52172702	ER11020AA	2
52172703	ER11025AA	2.5
52172704	ER11030AA	3
52172705	ER11035AA	3.5
52172706	ER11040AA	4
52172707	ER11045AA	4.5
52172708	ER11050AA	5
52172709	ER11055AA	5.5
52172710	ER11060AA	6
52172711	ER11065AA	6.5
52172712	ER11070AA	7

✓ ER16 AA

UNIT:mm

ITEM NO.	ORDER NO.	øD1
52172713	ER16020AA	2
52172714	ER16030AA	3
52172715	ER16040AA	4
52172716	ER16050AA	5
52172717	ER16060AA	6
52172718	ER16070AA	7
52172719	ER16080AA	8
52172720	ER16090AA	9
52172721	ER16100AA	10

✓ ER20 AA

UNIT:mm

ITEM NO.	ORDER NO.	øD1
52172722	ER20020AA	2
52172723	ER20030AA	3
52172724	ER20040AA	4
52172725	ER20050AA	5
52172726	ER20060AA	6
52172727	ER20070AA	7
52172728	ER20080AA	8
52172729	ER20090AA	9
52172730	ER20100AA	10
52172731	ER20110AA	11
52172732	ER20120AA	12
52172733	ER20130AA	13

✓ ER25 AA

UNIT:mm

ITEM NO.	ORDER NO.	øD1
52172734	ER25020AA	2
52172735	ER25030AA	3
52172736	ER25040AA	4
52172737	ER25050AA	5
52172738	ER25060AA	6
52172739	ER25070AA	7
52172740	ER25080AA	8
52172741	ER25090AA	9
52172742	ER25100AA	10
52172743	ER25110AA	11
52172744	ER25120AA	12
52172745	ER25130AA	13
52172746	ER25140AA	14
52172747	ER25150AA	15
52172748	ER25160AA	16

✓ ER32 AA

UNIT:mm

ITEM NO.	ORDER NO.	øD1
52172749	ER32030AA	3
52172750	ER32040AA	4
52172751	ER32050AA	5
52172752	ER32060AA	6
52172753	ER32070AA	7
52172754	ER32080AA	8
52172755	ER32090AA	9
52172756	ER32100AA	10
52172757	ER32110AA	11
52172758	ER32120AA	12
52172759	ER32130AA	13
52172760	ER32140AA	14
52172761	ER32150AA	15
52172762	ER32160AA	16
52172763	ER32170AA	17
52172764	ER32180AA	18
52172765	ER32190AA	19
52172766	ER32200AA	20

✓ ER40 AA

UNIT:mm

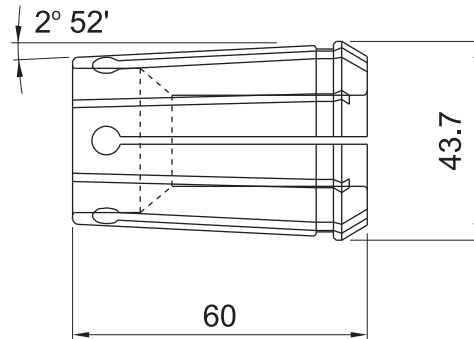
ITEM NO.	ORDER NO.	øD1
52172767	ER40040AA	4
52172768	ER40050AA	5
52172769	ER40060AA	6
52172770	ER40070AA	7
52172771	ER40080AA	8
52172772	ER40090AA	9
52172773	ER40100AA	10
52172774	ER40110AA	11
52172775	ER40120AA	12
52172776	ER40130AA	13
52172777	ER40140AA	14
52172778	ER40150AA	15
52172779	ER40160AA	16
52172780	ER40170AA	17
52172781	ER40180AA	18
52172782	ER40190AA	19
52172783	ER40200AA	20
52172784	ER40210AA	21
52172785	ER40220AA	22
52172786	ER40230AA	23
52172787	ER40240AA	24
52172788	ER40250AA	25
52172789	ER40260AA	26



DIN 6388 OZ32 COLLET SYSTEM



◀ FORM B
(467E)



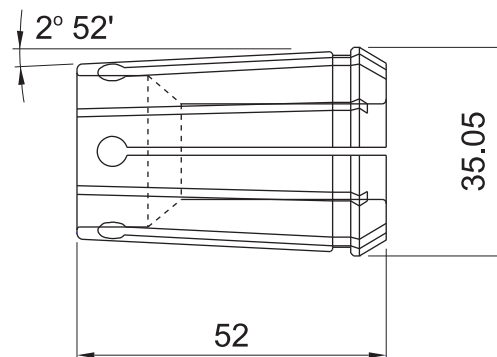
UNIT:mm		UNIT:mm		UNIT:mm		UNIT:mm		UNIT:inch		UNIT:inch	
ITEM NO.	SIZE	ITEM NO.	SIZE	ITEM NO.	SIZE	ITEM NO.	SIZE	ITEM NO.	SIZE	ITEM NO.	SIZE
52101852	ø6	52101859	ø13	52101866	ø20	52101873	ø27	52100300	ø1/4"	52100307	ø11/16"
52101853	ø7	52101860	ø14	52101867	ø21	52101874	ø28	52100301	ø5/16"	52100308	ø3/4"
52101854	ø8	52101861	ø15	52101868	ø22	52101875	ø29	52100302	ø3/8"	52100309	ø13/16"
52101855	ø9	52101862	ø16	52101869	ø23	52101876	ø30	52100303	ø7/16"	52100310	ø7/8"
52101856	ø10	52101863	ø17	52101870	ø24	52101877	ø31	52100304	ø1/2"	52100311	ø15/16"
52101857	ø11	52101864	ø18	52101871	ø25	52101878	ø32	52100305	ø9/16"	52100312	ø1"
52101858	ø12	52101865	ø19	52101872	ø26			52100306	ø5/8"	52100313	ø1-1/8"
										52100314	ø1-1/4"



DIN 6388 OZ25 COLLET SYSTEM



◀ FORM A
(444E)



UNIT:mm		UNIT:mm		UNIT:mm		UNIT:mm		UNIT:inch		UNIT:inch	
ITEM NO.	SIZE	ITEM NO.	SIZE	ITEM NO.	SIZE	ITEM NO.	SIZE	ITEM NO.	SIZE	ITEM NO.	SIZE
52101412	ø3	52101418	ø9	52101424	ø15	52101430	ø21	52100258	ø1/8"	52100266	ø5/8"
52101413	ø4	52101419	ø10	52101425	ø16	52101431	ø22	52100259	ø3/16"	52100267	ø11/16"
52101414	ø5	52101420	ø11	52101426	ø17	52101432	ø23	52100260	ø1/4"	52100268	ø3/4"
52101415	ø6	52101421	ø12	52101427	ø18	52101433	ø24	52100261	ø5/16"	52100269	ø13/16"
52101416	ø7	52101422	ø13	52101428	ø19	52101434	ø25	52100262	ø3/8"	52100270	ø7/8"
52101417	ø8	52101423	ø14	52101429	ø20			52100263	ø7/16"	52100271	ø15/16"
								52100264	ø1/2"	52100272	ø1"
								52100265	ø9/16"		

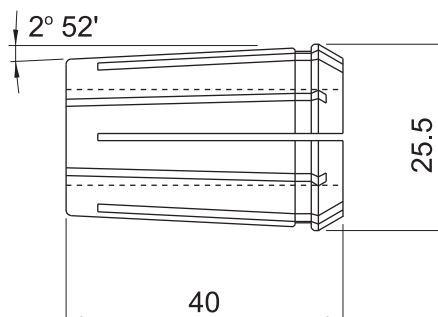
B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



DIN 6388 OZ16 COLLET SYSTEM



◀ FORM B

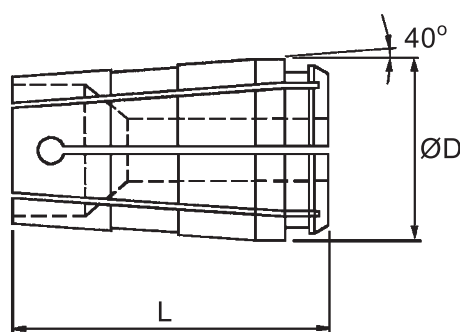


UNIT: mm		UNIT: mm		UNIT: mm		UNIT: mm	
ITEM NO.	SIZE	ITEM NO.	SIZE	ITEM NO.	SIZE	ITEM NO.	SIZE
52101823	ø2	52101831	ø6	52101838	ø9.5	52101845	ø13
52101824	ø2.5	52101832	ø6.5	52101839	ø10	52101846	ø13.5
52101825	ø3	52101833	ø7	52101840	ø10.5	52101847	ø14
52101826	ø3.5	52101834	ø7.5	52101841	ø11	52101848	ø14.5
52101827	ø4	52101835	ø8	52101842	ø11.5	52101849	ø15
52101828	ø4.5	52101836	ø8.5	52101843	ø12	52101850	ø15.5
52101829	ø5	52101837	ø9	52101844	ø12.5	52101851	ø16
52101830	ø5.5						



DIN 464E TG100 COLLET SYSTEM

- D: 35 mm
- Range size: 1/8"-1"
- L: 61 mm
- Weight: 0.2 kg
- Taper: 4



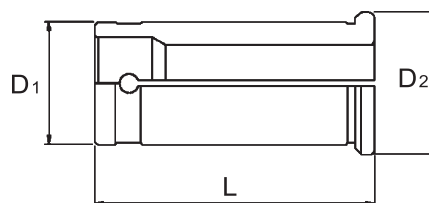
UNIT: inch		UNIT: inch		UNIT: inch		UNIT: inch		UNIT: inch	
ITEM NO.	SIZE	ITEM NO.	SIZE	ITEM NO.	SIZE	ITEM NO.	SIZE	ITEM NO.	SIZE
52100315	1/8"	52100322	9/16"	52100329	1"	52100336	17/32"	52100344	9/64"
52100316	3/16"	52100323	5/8"	52100330	5/32"	52100337	19/32"	52100345	11/64"
52100317	1/4"	52100324	11/16"	52100331	7/32"	52100338	21/32"	52100346	13/64"
52100318	5/16"	52100325	3/4"	52100332	9/32"	52100339	23/32"	52100347	15/64"
52100319	3/8"	52100326	13/16"	52100333	11/32"	52100340	25/32"	52100348	17/64"
52100320	7/16"	52100327	7/8"	52100334	13/32"	52100341	27/32"	52100349	19/64"
52100321	1/2"	52100328	15/16"	52100335	15/32"	52100342	29/32"	52100350	21/64"
						52100343	31/32"	52100351	23/64"
								52100352	25/64"
								52100353	27/64"
								52100354	29/64"
								52100355	31/64"
								52100356	33/64"
								52100357	35/64"
								52100358	37/64"
								52100359	39/64"
								52100360	41/64"
								52100361	43/64"
								52100362	45/64"
								52100363	47/64"
								52100364	49/64"
								52100365	51/64"
								52100366	53/64"
								52100367	55/64"
								52100368	57/64"
								52100369	59/64"
								52100370	61/64"
								52100371	63/64"



ST20, 25, 32, 42 COLLETS

FEATURES:

- End mill, straight body.
- Super-lock, for type BMC 32 & 42



V ST20

- D1: 20 mm / D2: 25 mm / L: 52 mm / Weight: 0.1 kg

UNIT: mm		UNIT: inch	
ITEM NO.	SIZE	ITEM NO.	SIZE
52100372	6	52170535	3/16"
52100373	8	52170536	1/4"
52100374	10	52170537	5/16"
52100375	12	52170538	3/8"
52100376	14	52170539	1/2"
52100377	15	52170540	5/8"
52100378	16		

V ST25

- D1: 25 mm / D2: 31 mm / L: 60 mm / Weight: 0.18 kg

UNIT: mm		UNIT: inch	
ITEM NO.	SIZE	ITEM NO.	SIZE
52170542	4	52170544	3/16"
52170543	5	52170545	1/4"
52100379	6	52170546	5/16"
52100380	8	52170547	3/8"
52100381	10	52170548	1/2"
52100382	12	52170549	5/8"
52100383	14	52170550	3/4"
52100384	16		
52100385	18		
52100386	20		

V ST32

- D1: 32 mm / D2: 37 mm / L: 73 mm / Weight: 0.22 kg

UNIT: mm		UNIT: inch	
ITEM NO.	SIZE	ITEM NO.	SIZE
52170551	4	52100397	1/4"
52170552	5	52100398	5/16"
52100387	6	52100399	3/8"
52100388	8	52100400	1/2"
52100389	10	52100401	5/8"
52100390	12	52100402	3/4"
52100391	14	52100403	7/8"
52100392	16	52100404	1"
52100393	18		
52100394	20		
52100395	22		
52100396	25		

V ST42

- D1: 42 mm / D2: 48 mm / L: 80 mm / Weight: 0.35 kg

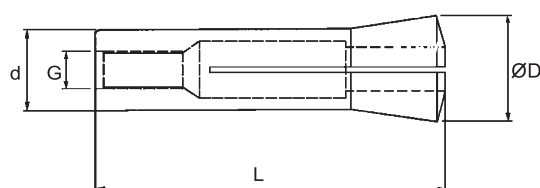
UNIT: mm		UNIT: inch	
ITEM NO.	SIZE	ITEM NO.	SIZE
52100405	6	52100416	1/4"
52100406	8	52100417	5/16"
52100407	10	52100418	3/8"
52100408	12	52100419	1/2"
52100409	14	52100420	5/8"
52100410	16	52100421	3/4"
52100411	18	52100422	7/8"
52100412	20	52100423	1"
52100413	22	52100424	1-1/2"
52100414	25		
52100415	32		



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



R8 COLLET SYSTEM



- L: 105 mm
- D: 31.75 mm
- d: 24.1 mm
- α : 8° 30'
- G: 7/16"~20UNF
- Weight: 0.23 kg

MM SIZE PACKAGE SET

ITEM NO.	PCS/ SET	COLLET KIT	WEIGHT (kgs)
52100454	6 PCS	6, 8, 10, 12, 16, 20	1.4
52100455	7 PCS	6, 8, 10, 12, 14, 16, 20	1.6

INCH SIZE PACKAGE SET

ITEM NO.	PCS/ SET	COLLET KIT	WEIGHT (kgs)
52100456	5 PCS	1/4", 3/8", 1/2", 5/8", 3/4"	1.1
52100457	6 PCS	1/4", 5/16", 3/8", 1/2", 5/8", 3/4"	1.6
52100458	7 PCS	3/16", 1/4", 5/16", 3/8", 1/2", 5/8", 3/4"	1.6

UNIT: inch

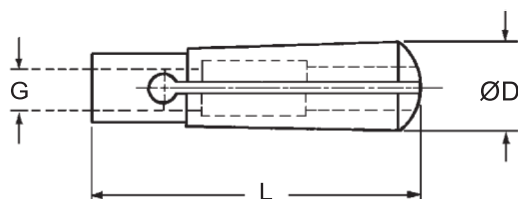
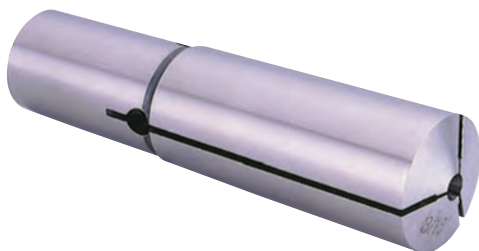
ITEM NO.	SIZE
52100443	1/8"
52100444	3/16"
52100445	1/4"
52100446	5/16"
52100447	3/8"
52100448	7/16"
52100449	1/2"
52100450	9/16"
52100451	5/8"
52100452	11/16"
52100453	3/4"
52101941	7/8"

UNIT: mm

ITEM NO.	SIZE
52100425	3.0
52100426	4.0
52100427	5.0
52100428	6.0
52100429	7.0
52100430	8.0
52100431	9.0
52100432	10.0
52100433	11.0
52100434	12.0
52100435	13.0
52100436	14.0
52100437	15.0
52100438	16.0
52100439	17.0
52100440	18.0
52100441	19.0
52100442	20.0



MT2/MT3 COLLET SYSTEM



MT2

- L: 72 mm
- D: 18 mm
- G: 3/8"-16
- Weight: 0.12 kg

UNIT: mm

ITEM NO.	SIZE
52100513	4
52100514	6
52100515	8
52100516	10
52100517	12

MT3

- L: 87 mm
- D: 24.1 mm
- Weight: 0.18 kg

UNIT: mm

DRAWBAR SIZE:

- G1: M12 x 1.75P
- G2: M10 x 1.5P
- G3: 1/2"-12
- G4: 3/8"-16

ITEM NO.	SIZE	DRAWBAR
52100500	4	
52100501	6	G1
52100502	8	G2
52100503	10	G3
52100504	12	G4
52100505	16	
52100506	20	



5C COLLET SYSTEM



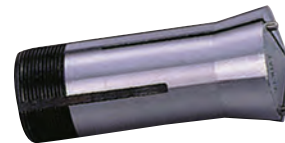
< 5C STEEL



< 5C EMERGENCY
• Material: NYLON



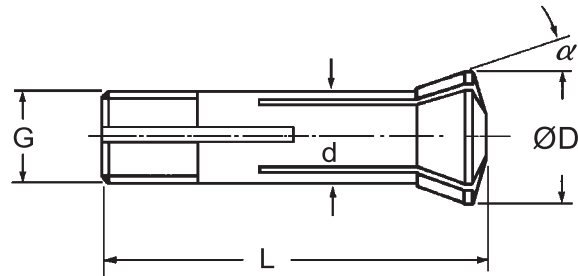
< 5C EMERGENCY
• Material: BRASS



< 5C EMERGENCY
• Material: STEEL

UNIT: mm	
ITEM NO.	SIZE
52100459	3
52100460	4
52100461	5
52100462	6
52100463	7
52100464	8
52100465	9
52100466	10
52100467	11
52100468	12
52100469	13
52100470	14
52100471	15
52100472	16
52100473	17
52100474	18
52100475	19
52100476	20
52100477	21
52100478	22
52100479	23
52100480	24
52100481	25

UNIT: inch	
ITEM NO.	SIZE
52100482	1/8"
52100483	3/16"
52100484	1/4"
52100485	5/16"
52100486	3/8"
52100487	7/16"
52100488	1/2"
52100489	9/16"
52100490	5/8"
52100491	11/16"
52100492	3/4"
52101493	13/16"
52101494	7/8"
52101495	15/16"
52101496	1"



EMERGENCY TYPE COLLET

ITEM NO.	MATERIAL
52100497	STEEL
52100498	BRASS
52100499	NYLON

- L: 87 mm
- D: 37.5 mm
- d: 31.75 mm
- α : 10°
- G: 1.240"-20RH
- Weight: 0.21 kg

MM SIZE PACKAGE SET

ITEM NO.	PCS/ SET	COLLET KIT	PACKAGE	WEIGHT (kgs)
52101881	7 PCS	6, 8, 10, 12, 16, 20, 25	CARTON	1.5
52101882			WOODEN BOX	2

INCH SIZE PACKAGE SET

ITEM NO.	PCS/ SET	COLLET KIT	PACKAGE	WEIGHT (kgs)
52101883	7 PCS	1/4", 5/16", 3/8", 1/2" 5/8", 3/4", 1"	CARTON	1.5
52101884			WOODEN BOX	2



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



U2 COLLET SYSTEM

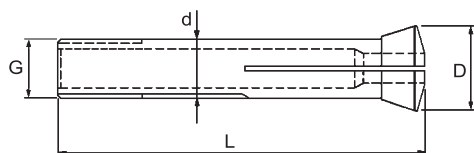
V NO.1 U2 COLLET

- Range size: 3~16 mm



V NO.2 U2 COLLET

- Range size: 18~25 mm

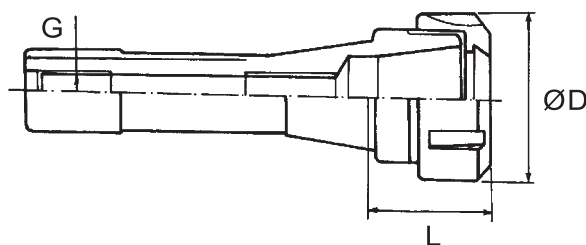


- D: 28 mm
- L: 120 mm
- d: 20 mm
- G: M20-2.0

UNIT: mm		UNIT: mm		UNIT: mm		UNIT: inch	
ITEM NO.	SIZE	ITEM NO.	SIZE	ITEM NO.	SIZE	ITEM NO.	SIZE
52101062	1	52100527	7	52100534	14	52100540	1/8"
52101885	1.5	52100528	8	52100535	15	52100541	3/16"
52101063	2	52100529	9	52100536	16	52100542	1/4"
52100523	3	52100530	10	52100537	18	52100543	5/16"
52100524	4	52100531	11	52100538	20	52100544	3/8"
52100525	5	52100532	12	52100539	25	52100545	1/2"
52100526	6	52100533	13			52100546	5/8"



R8/ ER COLLET CHUCK SYSTEM



UNIT: mm						
ITEM NO.	TYPE	L	ØD	COLLET	WEIGHT	DRAWBAR G
52100564	R8-ER16-38	38	28	ER16	0.3 kg	7/16"-20UNF
52100565	R8-ER32-40	40	50	ER32	0.6 kg	
52100566	R8-ER40-70	70	63	ER40	1 kg	

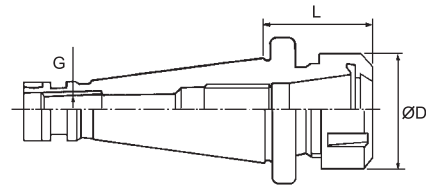


NT/ER & MT/ER COLLET CHUCK SYSTEM

NT/ER TYPE



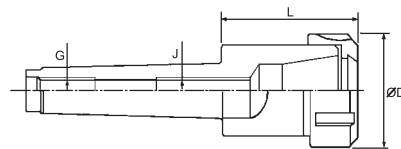
NT40 with MAHO GROOVE



UNIT: mm

ITEM NO.	TYPE	L	ØD	COLLET	WEIGHT (kgs)	DRAWBAR G
52100557	NT30-ER16-76	76	28	ER16	0.6	1. M12 x 1.75P 2. 1/2"-12 3. 1/2"-13UNC
52101306	NT30-ER20-76	76	34	ER20	0.6	
52100547	NT30-ER25-55	55	42	ER25	0.55	
52100548	NT30-ER32-55	55	50	ER32	0.6	
52100549	NT30-ER40-70	70	63	ER40	1	1. M16 x 2.0P 2. 5/8" x 11
52100558	NT40-ER16-76	76	28	ER16	1	
52100559	NT40-ER16-100	100	28	ER16	1.2	
52100560	NT40-ER20-76	76	34	ER20	1	
52100561	NT40-ER20-100	100	34	ER20	1.2	
52100550	NT40-ER25-50	50	42	ER25	1	
52100551	NT40-ER32-50	50	50	ER32	1	
52100552	NT40-ER40-60	60	63	ER40	1.3	
52100553	NT40-ER50-80	80	78	ER50	1.9	1. M24 x 3.0P 2. 1"-8
52100554	NT50-ER32-60	60	50	ER32	2.6	
52100555	NT50-ER40-65	65	63	ER40	3.2	
52101307	NT50-ER50-65	65	78	ER50	3.5	

MT/ER TYPE



UNIT: mm

ITEM NO.	TYPE	L	ØD	COLLET	WEIGHT (kgs)	DRAWBAR G
52100567	MTB2-ER16-40	40	28	ER16	0.2	1. M10 x 1.5P 2. 3/8"-16
52100568	MTB2-ER20-43	43	34	ER20	0.2	
52100569	MTB2-ER25-47	47	42	ER25	0.3	1. M12 x 1.75P 2. M10 x 1.5P 3. 1/2"-12 4. 3/8"-16
52100570	MTB3-ER16-40	40	28	ER16	0.3	
52100571	MTB3-ER20-43	43	34	ER20	0.3	
52100572	MTB3-ER25-47	47	42	ER25	0.4	
52100573	MTB3-ER32-70	70	50	ER32	0.55	1. M16 x 2.0P 2. 5/8"-11
52100574	MTB3-ER40-80	80	63	ER40	0.85	
52100575	MTB4-ER32-60	60	50	ER32	0.6	1. M24 x 3.0P 2. 1"-8
52100576	MTB4-ER40-82	82	63	ER40	1	
52100577	MTB5-ER40-82	82	63	ER40	1.8	
52100578	MTB5-ER50-85	85	78	ER50	2.5	

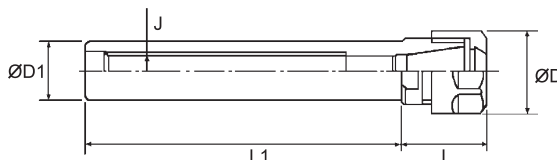


B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



ST / ER STRAIGHT SHANK COLLET CHUCK SYSTEM

V METRIC



UNIT: mm

ITEM NO.	TYPE (ØD1-ER-L1)	L	L1	ØD	COLLET	WEIGHT (kgs)
52100579	ST16-ER11-50	21	50	19	ER11	0.15
52100580	ST16-ER11-100	21	100	19	ER11	0.2
52101308	ST16-ER11-150	21	150	19	ER11	0.25
52101309	ST16-ER16-100	21	100	28	ER16	0.22
52100581	ST20-ER16-50	30	50	28	ER16	0.18
52100582	ST20-ER16-100	30	100	28	ER16	0.25
52100583	ST20-ER16-150	30	150	28	ER16	0.35
52100584	ST25-ER16-50	30	50	28	ER16	0.25
52100585	ST25-ER16-100	30	100	28	ER16	0.35
52100586	ST25-ER16-150	30	150	28	ER16	0.45
52101310	ST25-ER16-200	30	200	28	ER16	0.5
52100587	ST20-ER20-50	36	50	34	ER20	0.18
52100588	ST20-ER20-100	36	100	34	ER20	0.25
52100589	ST20-ER20-150	36	150	34	ER20	0.35

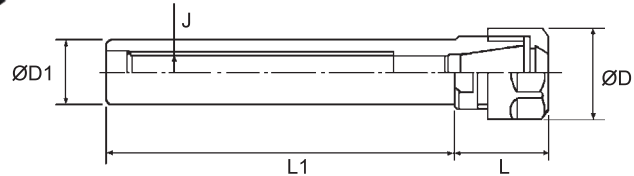
UNIT: mm

ITEM NO.	TYPE (ØD1-ER-L1)	L	L1	ØD	COLLET	WEIGHT (kgs)
52100590	ST25-ER20-50	36	50	34	ER20	0.25
52100591	ST25-ER20-100	36	100	34	ER20	0.35
52100592	ST25-ER20-150	36	150	34	ER20	0.45
52100593	ST20-ER25-50	46	50	42	ER25	0.35
52100594	ST20-ER25-100	46	100	42	ER25	0.4
52100595	ST20-ER25-150	46	150	42	ER25	0.5
52100596	ST25-ER25-100	46	100	42	ER25	0.5
52100597	ST25-ER25-150	46	150	42	ER25	0.6
52100598	ST32-ER25-60	46	60	42	ER25	0.5
52100599	ST25-ER32-80	54	80	50	ER32	0.5
52100600	ST32-ER32-100	54	100	50	ER32	0.6
52100601	ST32-ER32-150	54	150	50	ER32	0.85
52100602	ST40-ER32-100	54	100	50	ER32	0.6
52100603	ST32-ER40-100	55	100	63	ER40	1
52100604	ST40-ER40-100	55	100	63	ER40	1.3



ST / ER STRAIGHT SHANK COLLET CHUCK SYSTEM

V IMPERIAL



UNIT: mm

ITEM NO.	TYPE (Ø D1-ER-L1)	L	L1	ØD	COLLET	WEIGHT (kgs)
52101311	ST1/2"-ER11-4"	21	4"	19	ER11	0.15
52101312	ST1/2"-ER11-6"	21	6"	19	ER11	0.2
52101313	ST5/8"-ER11-4"	21	4"	19	ER11	0.2
52101314	ST5/8"-ER11-6"	21	6"	19	ER11	0.25
52101315	ST5/8"-ER16-4"	30	4"	28	ER16	0.2
52101316	ST3/4"-ER16-2.5"	30	2.5"	28	ER16	0.18
52101317	ST3/4"-ER16-4"	30	4"	28	ER16	0.24
52101318	ST3/4"-ER16-6"	30	6"	28	ER16	0.32
52101319	ST1"-ER16-2.5"	30	2.5"	28	ER16	0.26
52101320	ST1"-ER16-4"	30	4"	28	ER16	0.35
52101321	ST1" ER16 6"	30	6"	28	ER16	0.45

UNIT: mm

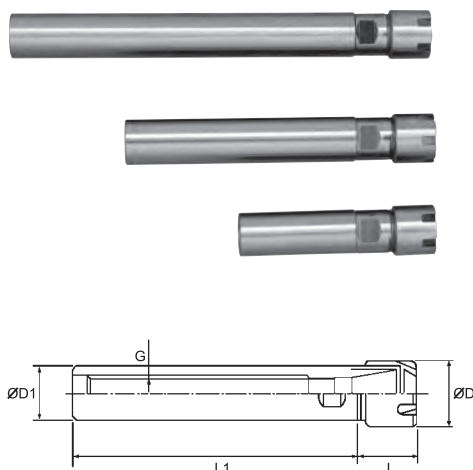
ITEM NO.	TYPE (Ø D1-ER-L1)	L	L1	ØD	COLLET	WEIGHT (kgs)
52101322	ST3/4"-ER20-2.5"	36	2.5"	34	ER20	0.19
52101323	ST3/4"-ER20-4"	36	4"	34	ER20	0.25
52101324	ST3/4"-ER20-6"	36	6"	34	ER20	0.33
52101325	ST1"-ER20-2.5"	36	2.5"	34	ER20	0.27
52101326	ST1"-ER20-4"	36	4"	34	ER20	0.36
52101327	ST1"-ER20-6"	36	6"	34	ER20	0.46
52101328	ST1"-ER25-2.5"	46	2.5"	42	ER25	0.4
52101329	ST1"-ER25-4"	46	4"	42	ER25	0.5
52101330	ST1"-ER25-6"	46	6"	42	ER25	0.6
52101331	ST1"-ER32-3"	54	3"	50	ER32	0.5
52101332	ST1-1/4"-ER32-4"	54	4"	50	ER32	0.6
52101333	ST1-1/2"-ER32-4"	54	4"	50	ER32	0.7
52101334	ST1-1/4"-ER40-3"	55	3"	63	ER40	1



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



ST / ER MINI STRAIGHT SHANK COLLET CHUCK SYSTEM



UNIT: mm

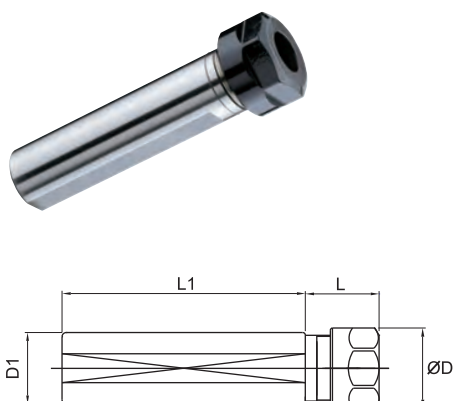
ITEM NO.	TYPE (Ø D1-ER-L1)	L	L1	ØD	COLLET	WEIGHT (kgs)
52100606	ST16-ER11M-50	22	50	16	ER11	0.15
52100607	ST16-ER11M-100	22	100	16	ER11	0.2
52101335	ST16-ER11M-150	22	150	16	ER11	0.25
52100608	ST16-ER16M-100	32	100	22	ER16	0.18
52100609	ST20-ER16M-50	32	50	22	ER16	0.18
52100610	ST20-ER16M-100	32	100	22	ER16	0.25
52100611	ST20-ER16M-150	32	150	22	ER16	0.35
52101336	ST20-ER16M-200	32	200	22	ER16	0.4
52100612	ST25-ER16M-100	32	100	22	ER16	0.35
52100613	ST25-ER16M-150	32	150	22	ER16	0.4
52101337	ST25-ER16M-200	32	200	22	ER16	0.45
52100614	ST20-ER20M-50	35	50	28	ER20	0.2
52100615	ST20-ER20M-100	35	100	28	ER20	0.28
52100616	ST20-ER20M-150	35	150	28	ER20	0.35
52101338	ST20-ER20M-200	35	200	28	ER20	0.4
52100617	ST25-ER20M-100	35	100	28	ER20	0.35
52100618	ST25-ER20M-150	35	150	28	ER20	0.4
52101339	ST25-ER20M-200	35	200	28	ER20	0.45



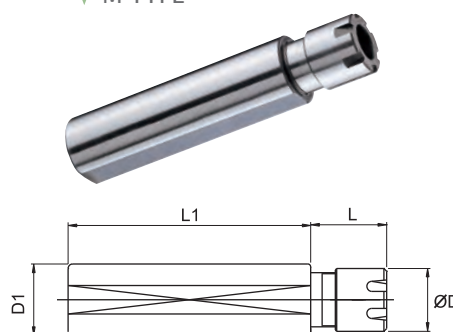
ST / ER STRAIGHT SHANK COLLET CHUCK SYSTEM

WITH SINGLE HEAD

UM TYPE



M TYPE



UNIT: mm

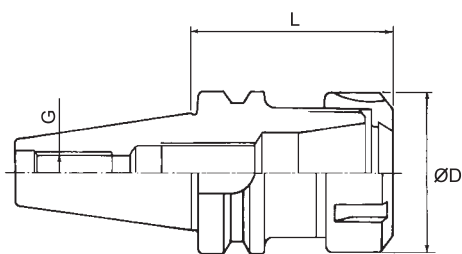
ITEM NO.	TYPE (Ø D1-ER-L1)	L	L1	ØD	COLLET	WEIGHT (kgs)
52101348	ST20-ER16M-70	70	21	22	ER16	0.2
52101349	ST25-ER16M-70	70	21	22	ER16	0.25
52101350	ST3/4"-ER16M-70	70	21	22	ER16	0.2
52101351	ST20-ER16UM-70	70	21	28	ER16	0.2
52101352	ST25-ER16UM-70	70	21	28	ER16	0.25
52101353	ST3/4"-ER16UM-70	70	21	28	ER16	0.2
52101354	ST22-ER20UM-70	70	23	34	ER20	0.25
52101355	ST25-ER20UM-70	70	23	34	ER20	0.3



ER COLLET CHUCK SYSTEM

V MAS403

• BT30 / 40 / 50 SHANK



UNIT:mm

ITEM NO.	TYPE	L	ØD	COLLET	WEIGHT (kgs)
52101262	BT30-ER11-60	60	19	ER11	0.5
52101263	BT30-ER11-100	100	19	ER11	0.55
52100626	BT30-ER16-60	60	28	ER16	0.5
52101264	BT30-ER16-100	100	28	ER16	0.7
52100627	BT30-ER20-60	60	34	ER20	0.55
52101265	BT30-ER20-100	100	34	ER20	0.8
52101266	BT30-ER25-60	60	42	ER25	0.6
52100619	BT30-ER32-60	60	50	ER32	0.65
52101267	BT30-ER40-70	70	63	ER40	0.9
52101268	BT40-ER11-70	70	19	ER11	1
52101269	BT40-ER11-100	100	19	ER11	1.1
52100628	BT40-ER16-70	70	28	ER16	1.1
52100629	BT40-ER16-100	100	28	ER16	1.2
52101270	BT40-ER16-150	150	28	ER16	1
52100630	BT40-ER20-70	70	34	ER20	1.2
52100631	BT40-ER20-100	100	34	ER20	1.4
52101271	BT40-ER20-135	135	34	ER20	1.6
52101272	BT40-ER20-150	150	34	ER20	1.7
52101273	BT40-ER25-70	70	42	ER25	1.2
52101274	BT40-ER25-100	100	42	ER25	1.45
52101275	BT40-ER25-150	150	42	ER25	1.9
52100620	BT40-ER32-70	70	50	ER32	1.3

UNIT:mm

ITEM NO.	TYPE	L	ØD	COLLET	WEIGHT (kgs)
52100621	BT40-ER32-100	100	50	ER32	1.5
52101276	BT40-ER32-150	150	50	ER32	2
52100622	BT40-ER40-80	80	63	ER40	1.55
52101277	BT40-ER50-90	90	78	ER50	1.8
52100632	BT50-ER16-100	100	28	ER16	3.8
52100633	BT50-ER16-150	150	28	ER16	4
52101278	BT50-ER16-200	200	28	ER16	4.3
52100634	BT50-ER20-100	100	34	ER20	3.9
52100635	BT50-ER20-150	150	34	ER20	4.2
52101279	BT50-ER20-200	200	34	ER20	4.5
52101280	BT50-ER25-100	100	42	ER25	4
52101281	BT50-ER25-150	150	42	ER25	4.5
52101282	BT50-ER25-200	200	42	ER25	4.9
52101283	BT50-ER32-100	100	50	ER32	4.3
52101284	BT50-ER32-150	150	50	ER32	5.3
52101285	BT50-ER32-200	200	50	ER32	6
52100623	BT50-ER40-100	100	63	ER40	4.4
52100624	BT50-ER40-150	150	63	ER40	5.5
52101286	BT50-ER40-200	200	63	ER40	6.2
52100625	BT50-ER50-100	100	78	ER50	4.9
52101287	BT50-ER50-150	150	78	ER50	6



B1 - COLLETS & COLLET CHUCKS

TOOLS OF WORKHOLDING&PRECISION TOOLS FOR MILLS&VMCS

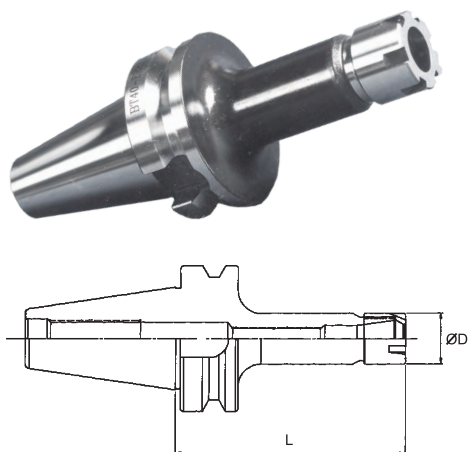
B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



ER COLLET CHUCK SYSTEM

V NAS403

- BT30 / 40 / 50 SHANK
with TYPE M NUT

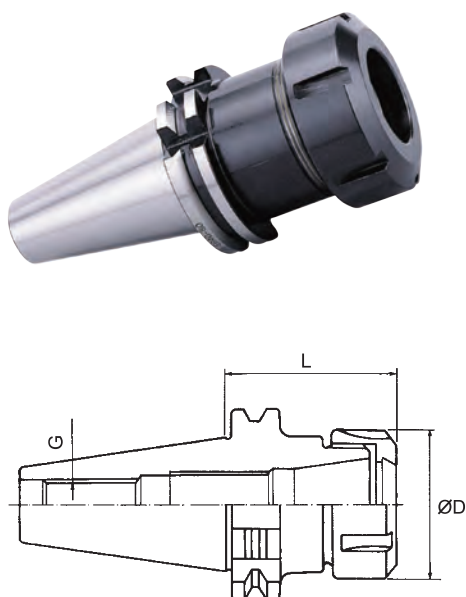


UNIT: mm

ITEM NO.	TYPE	L	ØD	COLLET	WEIGHT (kgs)
52101288	BT30-ER11M-100	100	16	ER11	0.5
52101289	BT30-ER16M-100	100	22	ER16	0.55
52101290	BT30-ER20M-100	100	28	ER20	0.65
52101291	BT40-ER11M-100	100	16	ER11	1.05
52101292	BT40-ER11M-150	150	16	ER11	1.3
52101293	BT40-ER16M-100	100	22	ER16	1.1
52101294	BT40-ER16M-150	150	22	ER16	1.4
52101295	BT40-ER20M-100	100	28	ER20	1.2
52101296	BT40-ER20M-150	150	28	ER20	1.5



DIN69871A-SK / ER COLLET CHUCK SYSTEM

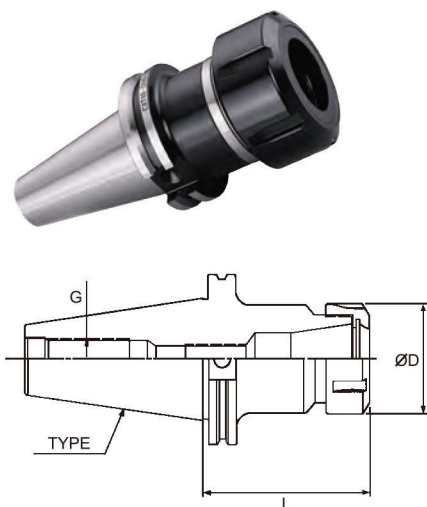


UNIT: mm

ITEM NO.	TYPE	L	ØD	COLLET	WEIGHT (kgs)
52101297	SK30-ER16-60	60	28	ER16	0.45
52101298	SK30-ER20-60	60	34	ER20	0.5
52101299	SK30-ER25-60	60	42	ER25	0.55
52101300	SK30-ER32-60	60	50	ER32	0.6
52100636	SK40-ER16-70	70	28	ER16	1
52101301	SK40-ER16-100	100	28	ER16	1.15
52100637	SK40-ER20-70	70	34	ER20	1.1
52101302	SK40-ER20-100	100	34	ER20	1.3
52100640	SK40-ER25-70	70	42	ER25	1.2
52100641	SK40-ER32-70	70	50	ER32	1.2
52100642	SK40-ER40-80	80	63	ER40	1.4
52101303	SK50-ER16-100	100	28	ER16	3.5
52100638	SK50-ER16-150	150	28	ER16	4
52101304	SK50-ER20-100	100	34	ER20	3.5
52100639	SK50-ER20-150	150	34	ER20	4
52101305	SK50-ER25-100	100	42	ER25	3.7
52100643	SK50-ER32-100	100	50	ER32	3.7
52100644	SK50-ER40-100	100	63	ER40	4.3



CAT / ER COLLET CHUCK SYSTEM



UNIT:mm

ITEM NO.	COLLET	SHANK	D	L	G	WEIGHT (kgs)
52100645	ER16	CAT30	28	2"	1/2"-13	0.8
52100646	ER16	CAT40	28	3"	5/8"-11	1.2
52100647	ER20	CAT40	34	3"	5/8"-11	1.3
52100648	ER25	CAT40	42	2-1/2"	5/8"-11	1.3
52100649	ER32	CAT40	50	2-1/2"	5/8"-11	1.4
52100650	ER40	CAT40	63	3"	5/8"-11	1.9
52100651	ER40	CAT50	63	3-1/2"	1"-8	4



DIN6499 ER CLAMPING NUT SYSTEM



▲ ER40KM

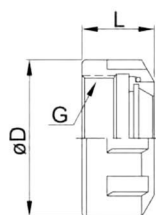
▲ ER40UM

▲ ER16UM

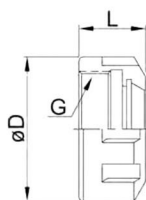
▲ ER20M

▲ ER16M

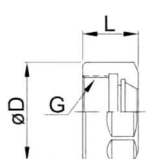
▲ ER11MS



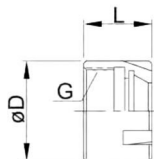
• ER40 / 50KM



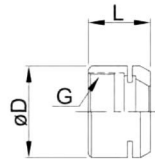
• ER25 / 32 / 40 / 50UM



• ER11 / 16 / 20UM



• ER08 / 11 / 16M
ER20 / 25M



• ER11 / 16 / 20MS

UNIT:mm

ITEM NO.	TYPE (ØD1-ER-L1)	D	L	G	WEIGHT (kgs)
52100653	ER11UM	19	11.5	M14 x 0.75P	0.04
52100655	ER16UM	28	17	M22 x 1.5P	0.05
52100657	ER20UM	34	19	M25 x 1.5P	0.09
52100659	ER25UM	42	20	M32 x 1.5P	0.13
52100660	ER32UM	50	23	M40 x 1.5P	0.14
52100661	ER40UM	63	25	M50 x 1.5P	0.25
52100663	ER50UM	78	35	M64 x 2.0P	0.5
52100652	ER11MS	16	12	M13 x 0.75P	0.008
52100652-1	ER16MS	22	18	M19 x 1.0P	0.02
52100652-2	ER20MS	28	19	M24 x 1.0P	0.035
52101402	ER08M	12	10.8	M10 x 0.75P	0.005
52100654	ER11M	16	12	M13 x 0.75P	0.02
52100656	ER16M	22	18	M19 x 1.0P	0.03
52100658	ER20M	28	19	M24 x 1.0P	0.045
52101403	ER25M	35	20	M30 x 1.0P	0.05
52100662	ER40KM	63	29	M50 x 1.5P	0.3
52100664	ER50KM	78	40	M64 x 2.0P	0.58



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



CAT / ER SPRING COLLET CHUCK SYSTEM

SET OF COLLETS AND CAT30 / 40 / 50 SHANK

FEATURES:

- ER16, ER20, ER25 packed in wooden box.
- ER32, ER40, packed in plastic box.
- Package including: chuck, collet, wrench, box.



▲ CAT40-ER40-3" / 23PCS



▲ CAT40-ER25-2 $\frac{1}{2}$ " / 15PCS

UNIT: mm

ITEM NO.	COLLET TYPE	SET RANGE	COLLET	WEIGHT (kgs)
52100665	CAT30-ER16-2" / 10PCS	1-10	ER16 10PCS	1.7
52100666	CAT40-ER16-3" / 10PCS	1-10	ER16 10PCS	2.3
52100667	CAT40-ER20-3" / 12PCS	2-13	ER20 12PCS	2.5
52100668	CAT40-ER25-2 1/2" / 15PCS	2-16	ER25 15PCS	3
52100670	CAT40-ER32-2 1/2" / 18PCS	3-20	ER32 18PCS	5.2
52100673	CAT40-ER40-3" / 23PCS	4-26	ER40 23PCS	8.9
52100674	CAT40-ER40-3" / 15PCS	4-26	ER40 15PCS	7
52100676	CAT50-ER40-3 1/2" / 23PCS	4-26	ER40 23PCS	11.2
52100677	CAT50-ER40-3 1/2" / 15PCS	4-26	ER40 15PCS	9.8



SK / ER SPRING COLLET CHUCK SYSTEM

SET OF COLLETS AND DIN69871A SK SHANK

FEATURES:

- ER16, ER20, ER25 packed in wooden box.
- ER32, ER40, packed in plastic box.
- Package including: chuck, collet, wrench, box.



▲ SK40-ER40-80 / 23PCS



▲ SK40-ER25-70 / 15PCS

UNIT: mm

ITEM NO.	COLLET TYPE	SET RANGE	COLLET	WEIGHT (kgs)
52101367	SK30-ER16-60 / 10PCS	1-10	ER16 10PCS	1.8
52101368	SK30-ER20-60 / 12PCS	2-13	ER20 12PCS	2.4
52101369	SK30-ER25-60 / 15PCS	2-16	ER25 15PCS	2.7
52101370	SK30-ER32-60 / 18PCS	3-20	ER32 18PCS	4.2
52100679	SK40-ER16-70 / 10PCS	1-10	ER16 10PCS	2.2
52100680	SK40-ER20-70 / 12PCS	2-13	ER20 12PCS	2.7
52100681	SK40-ER25-70 / 15PCS	2-16	ER25 15PCS	3.1
52100683	SK40-ER32-70 / 18PCS	3-20	ER32 18PCS	5.2
52100686	SK40-ER40-80 / 23PCS	4-26	ER40 23PCS	8.9
52100687	SK40-ER40-80 / 15PCS	4-26	ER40 15PCS	7
52100689	SK50-ER32-100 / 18PCS	3-20	ER32 18PCS	7
52100693	SK50-ER40-100 / 15PCS	4-26	ER40 15PCS	9.5
52100692	SK50-ER40-100 / 23PCS	4-26	ER50 23PCS	11.3



MAS-BT/ER SPRING COLLET CHUCK SYSTEM

SET OF COLLETS AND MAS403 BT30 / 40 / 50 SHANK

FEATURES:

- ER16, ER20, ER25 packed in wooden box.
- ER32, ER40, ER50, packed in plastic box.
- Package including: chuck, collet, wrench, box.



▲ BT40-ER40-80/ 23PCS

▲ BT40-ER20-100/ 12PCS

UNIT: mm

ITEM NO.	COLLET TYPE	SET RANGE	COLLET	WEIGHT (kgs)
52100695	BT30-ER16-60/ 10PCS	1-10	ER16 10PCS	1.9
52101358	BT30-ER16-100/ 10PCS	1-10	ER16 10PCS	2
52100698	BT30-ER20-60/ 12PCS	2-13	ER20 12PCS	2.5
52101359	BT30-ER20-100/ 12PCS	2-13	ER20 12PCS	2.6
52101360	BT30-ER25-60/ 15PCS	2-16	ER25 15PCS	2.5
52101361	BT30-ER25-60/ 7PCS	4-16	ER25 7PCS	2.8
52100700	BT30-ER32-60/ 18PCS	3-20	ER32 18PCS	4.4
52100701	BT30-ER32-60/ 11PCS	4-20	ER32 11PCS	3.8
52100702	BT30-ER32-60/ 6PCS	6-20	ER32 6PCS	3.4
52100696	BT40-ER16-70/ 10PCS	1-10	ER16 10PCS	2.3
52100697	BT40-ER16-100/ 10PCS	1-10	ER16 10PCS	2.7
52101362	BT40-ER20-70/ 12PCS	2-13	ER20 12PCS	2.8
52100699	BT40-ER20-100/ 12PCS	2-13	ER20 12PCS	3
52101363	BT40-ER25-70/ 15PCS	2-16	ER25 15PCS	3.2
52101364	BT40-ER25-100/ 7PCS	4-16	ER25 7PCS	3
52100703	BT40-ER32-70/ 18PCS	3-20	ER32 18PCS	5.2
52100704	BT40-ER32-70/ 11PCS	4-20	ER32 11PCS	4.2
52100705	BT40-ER32-70/ 6PCS	6-20	ER32 6PCS	3.8
52100709	BT40-ER40-80/ 23PCS	4-26	ER40 23PCS	8.9
52100710	BT40-ER40-80/ 15PCS	4-26	ER40 15PCS	7.6
52100711	BT40-ER40-80/ 7PCS	6-25	ER40 7PCS	4.5
52101365	BT40-ER50-90/ 12PCS	12-34	ER50 12PCS	9
52101366	BT50-ER32-100/ 18PCS	3-20	ER32 18PCS	7.5
52100712	BT50-ER40-100/ 23PCS	4-26	ER40 23PCS	11.3
52100713	BT50-ER40-100/ 15PCS	4-26	ER40 15PCS	10
52100715	BT50-ER50-100/ 12PCS	12-34	ER50 12PCS	12



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



ST / ER SPRING COLLET CHUCK SYSTEM

SET OF COLLETS AND STRAIGHT SHANK COLLET CHUCK-METRIC

FEATURES:

- ER11, ER16, ER20, ER25 packed in wooden box.
- ER32, ER40, packed in plastic box.
- Package including: chuck, collet, wrench, box.



▲ ER25-ST20 x 150L/15PCS

▲ ER20-ST20 x 100L/12PCS

UNIT: mm				
ITEM NO.	COLLET TYPE	SET RANGE	COLLET	WEIGHT (kgs)
52100716	ST16-ER11-50/ 13PCS	1-7	ER11 13PCS	0.6
52100717	ST16-ER11-50/ 7PCS	1-7	ER11 7PCS	0.5
52100718	ST16-ER11-100/ 13PCS	1-7	ER11 13PCS	0.7
52100719	ST16-ER11-100/ 7PCS	1-7	ER11 7PCS	0.6
52101375	ST16-ER16-100/ 10PCS	1-10	ER16 10PCS	1
52101376	ST16-ER16-100/ 8PCS	3-10	ER16 8PCS	1
52100720	ST20-ER16-50/ 10PCS	1-10	ER16 10PCS	1.05
52100721	ST20-ER16-50/ 8PCS	3-10	ER16 8PCS	1
52100722	ST20-ER16-100/ 10PCS	1-10	ER16 10PCS	1.1
52100723	ST20-ER16-100/ 8PCS	3-10	ER16 8PCS	1.05
52100724	ST20-ER16-150/ 10PCS	1-10	ER16 10PCS	1.2
52100725	ST20-ER16-150/ 8PCS	3-10	ER16 8PCS	1.15
52100726	ST25-ER16-50/ 10PCS	1-10	ER16 10PCS	1.1
52100727	ST25-ER16-50/ 8PCS	3-10	ER16 8PCS	1.05

UNIT: mm				
ITEM NO.	COLLET TYPE	SET RANGE	COLLET	WEIGHT (kgs)
52100728	ST25-ER16-100/ 10PCS	1-10	ER16 10PCS	1.2
52100729	ST25-ER16-100/ 8PCS	3-10	ER16 8PCS	1.15
52100730	ST25-ER16-150/ 10PCS	1-10	ER16 10PCS	1.35
52100731	ST25-ER16-150/ 8PCS	3-10	ER16 8PCS	1.3
52100732	ST20-ER20-50/ 12PCS	2-13	ER20 12PCS	1.2
52100733	ST20-ER20-50/ 10PCS	4-13	ER20 10PCS	1.15
52100734	ST20-ER20-100/ 12PCS	2-13	ER20 12PCS	1.3
52100735	ST20-ER20-100/ 10PCS	4-13	ER20 10PCS	1.25
52100736	ST20-ER20-150/ 12PCS	2-13	ER20 12PCS	1.4
52100737	ST20-ER20-150/ 10PCS	4-13	ER20 10PCS	1.35
52100738	ST25-ER20-50/ 12PCS	2-13	ER20 12PCS	1.3
52100739	ST25-ER20-50/ 10PCS	4-13	ER20 10PCS	1.25
52100740	ST25-ER20-100/ 12PCS	2-13	ER20 12PCS	1.4

UNIT: mm				
ITEM NO.	COLLET TYPE	SET RANGE	COLLET	WEIGHT (kgs)
52100741	ST25-ER20-100/ 10PCS	4-13	ER20 10PCS	1.35
52100742	ST25-ER20-150/ 12PCS	2-13	ER20 12PCS	1.5
52100743	ST25-ER20-150/ 10PCS	4-13	ER20 10PCS	1.45
52100744	ST20-ER25-50/ 15PCS	2-16	ER25 15PCS	2.4
52100745	ST20-ER25-50/ 7PCS	4-16	ER25 7PCS	1.9
52100746	ST20-ER25-100/ 15PCS	2-16	ER25 15PCS	2.4
52100747	ST20-ER25-100/ 7PCS	4-16	ER25 7PCS	1.9
52100748	ST20-ER25-150/ 15PCS	2-16	ER25 15PCS	2.5
52100749	ST20-ER25-150/ 7PCS	4-16	ER25 7PCS	2
52100750	ST25-ER25-100/ 15PCS	2-16	ER25 15PCS	2.5
52100751	ST25-ER25-100/ 7PCS	4-16	ER25 7PCS	2
52100752	ST25-ER25-150/ 15PCS	2-16	ER25 15PCS	2.65
52100753	ST25-ER25-150/ 7PCS	4-16	ER25 7PCS	2.2
52100754	ST32-ER25-60/ 15PCS	2-16	ER25 15PCS	2.5
52100755	ST32-ER25-60/ 7PCS	4-16	ER25 7PCS	2

UNIT: mm				
ITEM NO.	COLLET TYPE	SET RANGE	COLLET	WEIGHT (kgs)
52100777	ST25-ER32-80/ 18PCS	3-20	ER32 18PCS	4.1
52100778	ST25-ER32-80/ 11PCS	4-20	ER32 11PCS	3
52100779	ST25-ER32-80/ 6PCS	6-20	ER32 6PCS	2.7
52100780	ST32-ER32-100/ 18PCS	3-20	ER32 18PCS	4.3
52100781	ST32-ER32-100/ 11PCS	4-20	ER32 11PCS	3.2
52100782	ST32-ER32-100/ 6PCS	6-20	ER32 6PCS	2.9
52101377	ST40-ER32-100/ 18PCS	3-20	ER32 18PCS	4.5
52101378	ST40-ER32-100/ 11PCS	4-20	ER32 11PCS	3.4
52101379	ST40-ER32-100/ 6PCS	6-20	ER32 6PCS	3.1
52100786	ST32-ER40-100/ 23PCS	4-26	ER40 23PCS	7.3
52100787	ST32-ER40-100/ 15PCS	4-26	ER40 15PCS	6.1
52100788	ST32-ER40-100/ 7PCS	6-25	ER40 7PCS	4.6
52100789	ST40-ER40-100/ 23PCS	4-26	ER40 23PCS	7.6
52100790	ST40-ER40-100/ 15PCS	4-26	ER40 15PCS	6.5
52100791	ST40-ER40-100/ 7PCS	6-25	ER40 7PCS	5



ST/ ER SPRING COLLET CHUCK SYSTEM

SET OF COLLETS AND STRAIGHT SHANK COLLET CHUCK-IMPERIAL

FEATURES:

- ER11, ER16, ER20, ER25 packed in wooden box.
- ER32, ER40, ER50, packed in plastic box.
- Package including: chuck, collet, wrench, box.



▲ ST1-1/4"-ER32-4"/ 18 PCS

▲ ST1"-ER25-6"/ 15 PCS

UNIT: mm

ITEM NO.	COLLET TYPE	SET RANGE	COLLET	WEIGHT (kgs)
52101380	ST1/2"-ER11-4"/ 13PCS	1-7	ER11 13PCS	0.6
52101381	ST1/2"-ER11-6"/ 13PCS	1-7	ER11 13PCS	0.7
52101382	ST5/8"-ER11-4"/ 13PCS	1-7	ER11 13PCS	0.7
52101383	ST5/8"-ER11-6"/ 13PCS	1-7	ER11 13PCS	0.75
52101384	ST3/4"-ER16-2.5"/ 10PCS	1-10	ER16 10PCS	1
52101385	ST3/4"-ER16-4"/ 10PCS	1-10	ER16 10PCS	1.1
52101386	ST3/4"-ER16-6"/ 10PCS	1-10	ER16 10PCS	1.2
52101387	ST1"-ER16-2.5"/ 10PCS	1-10	ER16 10PCS	1.1
52101388	ST1"-ER16-4"/ 10PCS	1-10	ER16 10PCS	1.2
52101389	ST1"-ER16-6"/ 10PCS	1-10	ER16 10PCS	1.3
52101390	ST3/4"-ER20-2.5"/ 12PCS	2-13	ER20 12PCS	1.2
52101391	ST3/4"-ER20-4"/ 12PCS	2-13	ER20 12PCS	1.3
52101392	ST3/4"-ER20-6"/ 12PCS	2-13	ER20 12PCS	1.4
52101393	ST1"-ER20-2.5"/ 12PCS	2-13	ER20 12PCS	1.3
52101394	ST1"-ER20-4"/ 12PCS	2-13	ER20 12PCS	1.4
52101395	ST1"-ER20-6"/ 12PCS	2-13	ER20 12PCS	1.5
52101396	ST1"-ER25-2.5"/ 15PCS	2-16	ER25 15PCS	2.3
52101397	ST1"-ER25-4"/ 15PCS	2-16	ER25 15PCS	2.5
52101398	ST1"-ER25-6"/ 15PCS	2-16	ER25 15PCS	2.6
52100783	ST1"-ER32-3"/ 18PCS	3-20	ER32 18PCS	4.1
52100784	ST1"-ER32-3"/ 11PCS	4-20	ER32 11PCS	3
52100785	ST1"-ER32-3"/ 6PCS	6-20	ER32 6PCS	2.7
52101399	ST1-1/4"-ER32-4"/ 18PCS	3-20	ER32 18PCS	4.3
52101400	ST1-1/4"-ER32-4"/ 11PCS	4-20	ER32 11PCS	3.2
52101401	ST1-1/4"-ER32-4"/ 6PCS	6-20	ER32 6PCS	2.9
52100792	ST1-1/4"-ER40-3"/ 23PCS	4-26	ER40 23PCS	7.3
52100793	ST1-1/4"-ER40-3"/ 15PCS	4-26	ER40 15PCS	6.1
52100794	ST1-1/4"-ER40-3"/ 7PCS	6-25	ER40 7PCS	4.6



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



ST/ ER SPRING COLLET CHUCK SYSTEM

SET OF COLLETS AND MINI STRAIGHT SHANK COLLET CHUCK

FEATURES:

- Packed in wooden box.
- Package including: chuck, collet, wrench, box.



➤ ST20-ER16M-150/ 10PCS

UNIT: mm

ITEM NO.	COLLET TYPE	SET RANGE	COLLET	WEIGHT (kgs)
52100756	ST16-ER11M-50/ 13PCS	1-7	ER11 13PCS	0.6
52100757	ST16-ER11M-100/ 13PCS	1-7	ER11 13PCS	0.7
52100758	ST16-ER16M-100/ 10PCS	1-10	ER16 10PCS	1
52100759	ST20-ER16M-50/ 10PCS	1-10	ER16 10PCS	1.05
52100760	ST20-ER16M-100/ 10PCS	1-10	ER16 10PCS	1.1
52100761	ST20-ER16M-150/ 10PCS	1-10	ER16 10PCS	1.2
52100762	ST25-ER16M-100/ 10PCS	1-10	ER16 10PCS	1.2
52100763	ST25-ER16M-150/ 10PCS	1-10	ER16 10PCS	1.35
52100764	ST20-ER20M-50/ 12PCS	2-13	ER20 12PCS	1.2
52100765	ST20-ER20M-100/ 12PCS	2-13	ER20 12PCS	1.3
52100766	ST20-ER20M-150/ 12PCS	2-13	ER20 12PCS	1.4
52100767	ST25-ER20M-100/ 12PCS	2-13	ER20 12PCS	1.4
52100768	ST25-ER20M-150/ 12PCS	2-13	ER20 12PCS	1.5



R8/ ER SPRING COLLET CHUCK SYSTEM

SET OF COLLETS AND R8 COLLET CHUCK

FEATURES:

- ER16, packed in wooden box.
- ER32, ER40, packed in plastic box.
- Package including: chuck, collet, wrench, box.



➤ R8-ER32-40/ 18PCS

UNIT: mm

ITEM NO.	COLLET TYPE	SET RANGE	COLLET	WEIGHT (kgs)
52100769	R8-ER16-38/ 10PCS	1-10	ER16 10PCS	1.5
52100771	R8-ER32-40/ 18PCS	3-20	ER32 18PCS	4.3
52100772	R8-ER32-40/ 11PCS	4-20	ER32 11PCS	3.2
52100773	R8-ER32-40/ 6PCS	6-20	ER32 6PCS	2.9
52100774	R8-ER40-70/ 23PCS	4-26	ER40 23PCS	7.3
52100775	R8-ER40-70/ 15PCS	4-26	ER40 15PCS	6.1
52100776	R8-ER40-70/ 7PCS	6-25	ER40 7PCS	4.6



DIN228 – ER SPRING COLLET CHUCK SYSTEM

SET OF COLLETS AND MT COLLET CHUCK

FEATURES:

- ER16, ER20, ER25 packed in wooden box.
 - ER32, ER40, ER50 packed in plastic box.
- Package including: chuck, collet, wrench, box.

➤ MTB3-ER40-80/ 23PCS



UNIT:mm

ITEM NO.	COLLET TYPE	SET RANGE	COLLET	WEIGHT (kgs)	DRAWBARG
52100795	MTB2-ER16-40/ 10PCS	1-10	ER16 10PCS	1.05	1. M10 x 1.5P 2. 3/8"-16
52100797	MTB2-ER20-43/ 12PCS	2-13	ER20 12PCS	1.3	
52100799	MTB2-ER25-47/ 15PCS	2-16	ER25 15PCS	2.4	
52100800	MTB2-ER25-47/ 7PCS	4-16	ER25 7PCS	2	
52100801	MTB3-ER16-40/ 10PCS	1-10	ER16 10PCS	1.15	1. M12 x 1.75P 2. M10 x 1.5P 3. 1/2"-12 4. 1/2"-13UNC 5. 3/8"-16
52100803	MTB3-ER20-43/ 12PCS	2-13	ER20 12PCS	1.35	
52100805	MTB3-ER25-47/ 15PCS	2-16	ER25 15PCS	2.5	
52100806	MTB3-ER25-47/ 7PCS	4-16	ER25 7PCS	2.1	
52100807	MTB3-ER32-70/ 18PCS	3-20	ER32 18PCS	4.1	
52100808	MTB3-ER32-70/ 11PCS	4-20	ER32 11PCS	3	
52100809	MTB3-ER32-70/ 6PCS	6-20	ER32 6PCS	2.7	
52100810	MTB3-ER40-80/ 23PCS	4-26	ER40 23PCS	7.2	
52100811	MTB3-ER40-80/ 15PCS	4-26	ER40 15PCS	6	1. M16 x 2.0P 2. 5/8"-11
52100812	MTB3-ER40-80/ 7PCS	6-25	ER40 7PCS	4.5	
52100813	MTB4-ER32-60/ 18PCS	3-20	ER32 18PCS	4.3	
52100814	MTB4-ER32-60/ 11PCS	4-20	ER32 11PCS	3.2	
52100815	MTB4-ER32-60/ 6PCS	6-20	ER32 6PCS	2.9	1. M24 x 3.0P 2. 1"-8
52100816	MTB4-ER40-82/ 23PCS	4-26	ER40 23PCS	7.3	
52100817	MTB4-ER40-82/ 15PCS	4-26	ER40 15PCS	6.1	
52100818	MTB4-ER40-82/ 7PCS	6-25	ER40 7PCS	4.6	
52100819	MTB5-ER40-82/ 23PCS	4-26	ER40 23PCS	8.2	
52100820	MTB5-ER40-82/ 15PCS	4-26	ER40 15PCS	6.9	
52100821	MTB5-ER40-82/ 7PCS	6-25	ER40 7PCS	5.4	
52100822	MTB5-ER50-85/ 12PCS	12-34	ER50 12PCS	9.5	



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



DIN2080 – ER SPRING COLLET CHUCK SYSTEM

SET OF COLLETS AND NT COLLET CHUCK

FEATURES:

- ER11, ER16, ER20, ER25 packed in wooden box.
- ER32, ER40 packed in plastic box.
- Package including: chuck, collet, wrench, box.



▲ NT40-ER20-76/ 12PCS

▲ NT40-ER40-60/ 23PCS

UNIT: mm

ITEM NO.	TYPE	SET RANGE	COLLET	WEIGHT (kgs)	DRAWBARG
52101371	NT30-ER16-76/ 10PCS	1-10	ER16 10PCS	1.7	1. M12 x 1.75P 2. 1/2"-12
52101372	NT30-ER20-76/ 12PCS	2-13	ER20 12PCS	1.8	
52100823	NT30-ER25-55/ 15PCS	2-16	ER25 15PCS	2.8	
52100824	NT30-ER25-55/ 7PCS	4-16	ER25 7PCS	2.4	1. M12 x 1.75P 2. 1/2"-12 3. 1/2"-13UNC
52100825	NT30-ER32-55/ 18PCS	3-20	ER32 18PCS	4.2	
52100826	NT30-ER32-55/ 11PCS	4-20	ER32 11PCS	3.2	
52100827	NT30-ER32-55/ 6PCS	6-20	ER32 6PCS	2.8	
52100828	NT30-ER40-70/ 23PCS	4-26	ER40 23PCS	7.3	
52100829	NT30-ER40-70/ 15PCS	4-26	ER40 15PCS	6	
52100830	NT30-ER40-70/ 7PCS	6-25	ER40 7PCS	4.6	1. M16 x 2.0P 2. 5/8"-11
52101373	NT40-ER16-76/ 10PCS	1-10	ER16 10PCS	2.4	
52101374	NT40-ER20-76/ 12PCS	2-13	ER20 12PCS	2.5	
52100831	NT40-ER25-50/ 15PCS	2-16	ER25 15PCS	3.3	
52100832	NT40-ER25-50/ 7PCS	4-16	ER25 7PCS	3	
52100833	NT40-ER32-50/ 18PCS	3-20	ER32 18PCS	4.8	
52100834	NT40-ER32-50/ 11PCS	4-20	ER32 11PCS	3.8	
52100835	NT40-ER32-50/ 6PCS	6-20	ER32 6PCS	3.4	
52100836	NT40-ER40-60/ 23PCS	4-26	ER40 23PCS	8.2	
52100837	NT40-ER40-60/ 15PCS	4-26	ER40 15PCS	6.9	
52100838	NT40-ER40-60/ 7PCS	6-25	ER40 7PCS	5.2	1. M24 x 3.0P 2. 1"-8
52100839	NT40-ER50-80/ 12PCS	12-34	ER50 12PCS	10	
52100840	NT50-ER32-60/ 18PCS	3-20	ER32 18PCS	6.4	
52100841	NT50-ER32-60/ 11PCS	4-20	ER32 11PCS	5.4	
52100842	NT50-ER32-60/ 6PCS	6-20	ER32 6PCS	5	
52100843	NT50-ER40-65/ 23PCS	4-26	ER40 23PCS	9.8	
52100844	NT50-ER40-65/ 15PCS	4-26	ER40 15PCS	8.5	
52100845	NT50-ER40-65/ 7PCS	6-25	ER40 7PCS	7	
52100846	NT50-ER50-65/ 12PCS	12-34	ER50 12PCS	11	



DIN6499 – ER SPRING COLLET KITS



B1 - COLLETS & COLLET CHUCKS



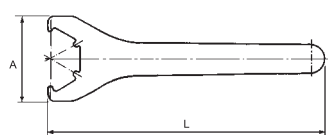
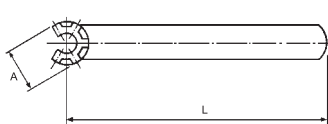
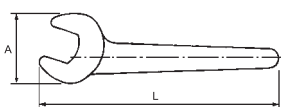
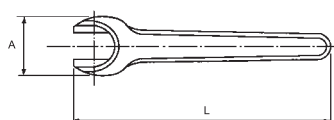
ITEM NO.	COLLET TYPE	SET	RANGE SIZE	PACKING	UNIT: mm	
					WEIGHT (kgs)	
52100847	ER8	9PCS	1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5	Paper Box	0.08	
52100848	ER11	13PCS	1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7	Paper Box	0.3	
52100849	ER11	7PCS	1, 2, 3, 4, 5, 6, 7	Paper Box	0.2	
52100850	ER16	10PCS	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	Paper Box	0.7	
52100851	ER16	8PCS	3, 4, 5, 6, 7, 8, 9, 10	Paper Box	0.6	
52100852	ER20	12PCS	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13	Paper Box	0.9	
52100853	ER20	10PCS	4, 5, 6, 7, 8, 9, 10, 11, 12, 13	Paper Box	0.8	
52100854	ER25	15PCS	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16	Wooden Box	1.3	
52100855	ER25	7PCS	4, 6, 8, 10, 12, 14, 16	Paper Box	0.35	
52100856	ER32	18PCS	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20	Plastic Box	3.3	
52100857	ER32	11PCS	4, 5, 6, 8, 10, 12, 13, 15, 16, 18, 20	Paper Box	2.8	
52100858	ER32	6PCS	6, 8, 10, 12, 16, 20	Paper Box	0.9	
52100859	ER40	23PCS	4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26	Plastic Box	6.5	
52100860	ER40	15PCS	4, 5, 6, 8, 10, 12, 13, 15, 16, 18, 20, 21, 22, 25, 26	Plastic Box	4.2	
52100861	ER40	7PCS	6, 8, 10, 12, 16, 20, 25	Paper Box	2	
52100862	ER50	12PCS	12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34	Wooden Box	6.5	

TOOLS OF WORKHOLDING&PRECISION TOOLS FOR MILLS&VMCS

B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



DIN6499 – ER WRENCHES SYSTEM

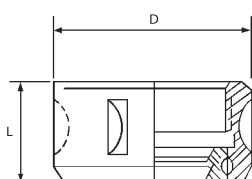
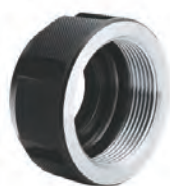


UNIT: mm

ITEM NO.	TYPE	A	L	WEIGHT (kgs)
52101404	ER11UM	35	130	0.07
52100866	ER16UM	44	140	0.08
52100868	ER20UM	53	170	0.1
52101405	ER25UM	65	210	0.2
52101406	ER32UM	75	250	0.4
52101407	ER40UM	90	290	0.5
52101408	ER50UM	110	350	0.9
52101409	ER11MS	22	100	0.05
52101410	ER8M	13	75	0.04
52100864	ER11M	17	95	0.05
52100865	ER16M	22.5	118	0.06
52100867	ER20M	28	130	0.08
52101411	ER25M	36.5	135	0.1



DIN6388 – COLLET CHUCK NUTS (TYPE 16 & 25 & 32)

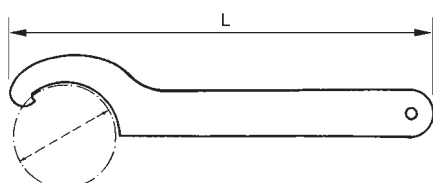


UNIT: mm

ITEM NO.	TYPE	A	L	G
52101880	#16	24	43	M33 x 1.5P
52100873	#25	33	60	M48 x 2.0P
52100874	#32	40	78	M60 x 2.5P



DIN6388 – COLLET CHUCK CHUCK WRENCHES



UNIT: mm

ITEM NO.	TYPE	A	D
52100875	#25	260	60
52100876	#32	270	78



DIN6388 – OZ25 COLLET CHUCK SYSTEM / COLLET CHUCK KITS

FEATURES:

- Package including: chuck, collet, wrench, plastic box.

COLLET CHUCK DRAWBAR SIZE

- NT30: 1. M12 x 1.75P 2. 1/2"-12 3. 1/2"-13UNC
- NT40: 1. M16 x 2.0P 2. 5/8"-11
- NT50: 1. M24 x 3.0P 2. 1"-8
- MTB2: 1. M10 x 1.5P 2. 3/8"-16
- MTB3: 1. M12 x 1.75P 2. M10 x 1.5P 3. 1/2"-12
- 4. 1/2"-13UNC 5. 3/8"-16
- MTB4: 1. M16 x 2.0P 2. 5/8"-11
- MTB5: 1. M24 x 3.0P 2. 1"-8
- R8: 7/16"- 20UNE
- SK40: DIN69871A40 M16 x 2.0P
- SK50: DIN69871A50 M24 x 3.0P
- CAT40: 5/8"-11
- CAT50: 1"-8

METRIC COLLET SYSTEM SET

ITEM NO.	TYPE	SET PCS	WEIGHT (kgs)
52100877	NT30	7	3.7
52100878	NT30	15	5.2
52100879	NT40	7	4
52100880	NT40	15	5.5
52100881	NT50	7	6.5
52100882	NT50	15	8.5
52100883	MTB2	7	3.6
52100884	MTB2	15	5.1
52100885	MTB3	7	3.7
52100886	MTB3	15	5.2
52100887	MTB4	7	3.9
52100888	MTB4	15	5.4
52100889	MTB5	7	4.7
52100890	MTB5	15	6.2
52100891	R8	7	3.7
52100892	R8	15	5.2
52100893	BT40	7	4.4
52100894	BT40	15	5.9
52100895	BT50	7	7.5
52100896	BT50	15	9.5
52100897	SK40	7	4.2
52100898	SK40	15	5.7
52100899	SK50	7	7.3
52100900	SK50	15	9.3

METRIC RANGE SET SIZE (mm)

7PCS: 6, 8, 10, 12, 16, 20, 25
15PCS: 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 16, 18, 20, 25



INCH COLLET SYSTEM SET

ITEM NO.	TYPE	SET PCS	WEIGHT (kgs)
52100901	NT30	7	3.7
52100902	NT30	15	5.2
52100903	NT40	7	4
52100904	NT40	15	5.5
52100905	NT50	7	6.5
52100906	NT50	15	8.6
52100907	MTB2	7	3.6
52100908	MTB2	15	5.1
52100909	MTB3	7	3.7
52100910	MTB3	15	5.2
52100911	MTB4	7	3.9
52100912	MTB4	15	5.4
52100913	MTB5	7	4.7
52100914	MTB5	15	6.2
52100915	R8	7	3.7
52100916	R8	15	5.2
52100917	BT40	7	4.4
52100918	BT40	15	5.9
52100919	BT50	7	7.5
52100920	BT50	15	9.5
52100921	CAT40	7	4.2
52100922	CAT40	15	5.7
52100923	CAT50	7	7.3
52100924	CAT50	15	9.3

INCH RANGE SET SIZE

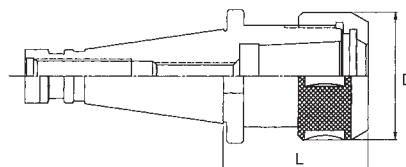
7PCS: 1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 1"
15PCS: 1/8", 3/16", 1/4", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4", 13/16", 7/8", 15/16", 1"



B“ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



DIN6388 – OZ25 & OZ32 COLLET CHUCKS



OZ25

UNIT: mm

ITEM NO.	TYPE	L	øD	COLLET	WEIGHT (kgs)	DRAWBAR G
52100925	NT30-OZ25-70	70	60	OZ25	1	1. M12 x 1.75P 2. 1/2"-12 3. 1/2"-13UNC
52100926	NT40-OZ25-70	70	60	OZ25	1.3	1. M16 x 2.0P 2. 5/8"-11
52100927	NT50-OZ25-73	73	60	OZ25	3.2	1. M24 x 3.0P 2. 1"-8
52100928	MTB2-OZ25-85	85	60	OZ25	1	1. M10 x 1.5P 1. M12 x 1.75P 2. M10 x 1.5P
52100929	MTB3-OZ25-70	70	60	OZ25	1	3. 1/2"-12 4. 1/2"-13UNC 5. 3/8"-16
52100930	MTB4-OZ25-70	70	60	OZ25	1.2	1. M16 x 2.0P 2. 5/8"-11
52100931	MTB5-OZ25-65	65	60	OZ25	2	1. M24 x 3.0P 2. 1"-8
52100932	R8-OZ25-70	70	60	OZ25	1.2	1.7/16"-20UNF
52101940	BT30-OZ25-70	70	60	OZ25	0.9	1. M12 x 1.75P
52100933	BT40-OZ25-80	80	60	OZ25	1.5	1. M16 x 2.0P
52100934	BT50-OZ25-100	100	60	OZ25	4.3	1. M24 x 3.0P
52100935	SK40-OZ25-80	80	60	OZ25	1.9	1. M16 x 2.0P
52100936	SK50-OZ25-100	100	60	OZ25	4.2	1. M24 x 3.0P
52100937	CAT40-OZ25-3"	3"	60	OZ25	1.9	1. 5/8"-11
52100938	CAT50-OZ25-3-1/2"	3-1/2"	60	OZ25	4	1. 1"-8

OZ32

UNIT: mm

ITEM NO.	TYPE	L	øD	COLLET	WEIGHT (kgs)	DRAWBAR G
52100939	NT30-OZ32-100	100	78	OZ32	2	1. M12 x 1.75P 2. 1/2"-12
52100940	NT40-OZ32-85	85	78	OZ32	2.2	1. M16 x 2.0P 2. 5/8"-11
52100941	NT50-OZ32-80	80	78	OZ32	4.8	1. M24 x 3.0P 2. 1"-8
52100942	MTB5-OZ32-100	100	78	OZ32	3	1. M24 x 3.0P 2. 1"-8
52100943	BT40-OZ32-90	90	78	OZ32	2.3	1. M16 x 2.0P
52100944	BT50-OZ32-100	100	78	OZ32	5	1. M24 x 3.0P
52101879	BT50-OZ32-150	150	78	OZ32	6	1. M24 x 3.0P
52100945	SK40-OZ32-80	80	78	OZ32	2.3	1. M16 x 2.0P
52100946	SK50-OZ32-100	100	78	OZ32	5	1. M24 x 3.0P
52100947	CAT40-OZ32-3"	3"	78	OZ32	2.3	1. 5/8"-11
52100948	CAT50-OZ32-3-1/2"	3-1/2"	78	OZ32	5	1. 1"-8



DIN6388 – OZ32 COLLET CHUCK SYSTEM / COLLET CHUCK KITS

FEATURES:

- Package including: chuck, collet, wrench, plastic box.

COLLET CHUCK DRAWBAR SIZE

- NT30: 1. M12 x 1.75P 2. 1/2"-12 3. 1/2"-13UNC
- NT40: 1. M16 x 2.0P 2. 5/8"-11
- NT50: 1. M24 x 3.0P 2. 1"-8
- MTB5: 1. M24 x 3.0P 2. 1"-8
- SK40: DIN69871A40 M16 x 2.0P
- SK50: DIN69871A50 M24 x 3.0P
- CAT40: 5/8"-11
- CAT50: 1"-8



METRIC COLLET SYSTEM SET

ITEM NO.	TYPE	SET PCS	WEIGHT (kgs)
52100949	NT30	8	7
52100950	NT30	15	9
52100951	NT40	8	7.2
52100952	NT40	15	9.2
52100953	NT50	8	9.8
52100954	NT50	15	11.8
52100955	MTB5	8	8
52100956	MTB5	15	10
52100957	BT40	8	7.4
52100958	BT40	15	9.4
52100959	BT50	8	10
52100960	BT50	15	12
52100961	SK40	8	7.2
52100962	SK40	15	9.2
52100963	SK50	8	9.8
52100964	SK50	15	11.8

METRIC RANGE SET SIZE (mm)

8PCS: 6, 8, 10, 12, 16, 20, 25, 32

15PCS: 6, 8, 10, 12, 14, 15, 16, 18, 20, 22, 25, 26, 30, 32

INCH COLLET SYSTEM SET

ITEM NO.	TYPE	SET PCS	WEIGHT (kgs)
52100965	NT30	10	7
52100966	NT30	15	9
52100967	NT40	10	7.2
52100968	NT40	15	9.2
52100969	NT50	10	9.8
52100970	NT50	15	11.8
52100971	MTB5	10	8
52100972	MTB5	15	10
52100973	BT40	10	7.4
52100974	BT40	15	9.4
52100975	BT50	10	10
52100976	BT50	15	12
52100977	CAT40	10	7.4
52100978	CAT40	15	9.2
52100979	CAT50	10	10
52100980	CAT50	15	11.8

INCH RANGE SET SIZE

10PCS: 1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 7/8", 1", 1-1/8", 1-1/4"

15PCS: 1/4", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4", 13/16", 7/8", 15/16", 1", 1-1/8", 1-1/4"



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



MCST 20, 25, 32, 42 MILLING COLLET CHUCK SYSTEM KITS

FEATURES:

- Package including: mcst milling chuck, st collet, wrench, wooden box.

DRAWBAR:

- NT30: 1. M12 x 1.75P 2. 1/2" - 12
- NT40: 1. M16 x 2.0P 2. 5/8" - 11
- NT50: 1. M24 x 3.0P 2. 1" - 8

METRIC RANGE SET SIZE:

- ST20 6PCS: 4, 6, 8, 10, 12, 16
- ST25 7PCS: 4, 6, 8, 10, 12, 16, 20
- ST32 7PCS: 6, 8, 10, 12, 16, 20, 25
- ST42 8PCS: 6, 8, 10, 12, 16, 20, 25, 32



UNIT: mm

ITEM NO.	TYPE	COLLET	WEIGHT (kgs)
52101110	NT30-MCST20-80/ 6PCS	ST20 6PCS	4
52101111	NT30-MCST25-85/ 7PCS	ST25 7PCS	4
52101112	NT40-MCST20-80/ 6PCS	ST20 6PCS	4.5
52101113	NT40-MCST25-85/ 7PCS	ST25 7PCS	4.5
52101002	NT40-MCST32-95/ 7PCS	ST32 7PCS	7
52101004	NT50-MCST32-100/ 7PCS	ST32 7PCS	9
52101008	NT50-MCST42-110/ 8PCS	ST42 8PCS	12
52101114	BT30-MCST20-85/ 6PCS	ST20 6PCS	4
52101115	BT40-MCST20-80/ 6PCS	ST20 6PCS	4.5
52101116	BT40-MCST20-120/ 6PCS	ST20 6PCS	5
52101117	BT40-MCST25-90/ 7PCS	ST25 7PCS	4.7
52101118	BT40-MCST25-135/ 7PCS	ST25 7PCS	5.2
52101006	BT40-MCST32-105/ 7PCS	ST32 7PCS	7
52101007	BT50-MCST32-110/ 7PCS	ST32 7PCS	9.5
52101010	BT50-MCST42-115/ 8PCS	ST42 8PCS	13
52101119	SK30-MCST20-95/ 6PCS	ST20 6PCS	4
52101120	SK40-MCST20-80/ 6PCS	ST20 6PCS	4.5
52101121	SK40-MCST25-90/ 7PCS	ST25 7PCS	4.8
52101122	SK40-MCST32-100/ 7PCS	ST32 7PCS	7.2
52101123	SK50-MCST32-105/ 7PCS	ST32 7PCS	9.1
52101124	SK50-MCST42-110/ 8PCS	ST42 8PCS	12



ER / CL COOLANT COLLET SYSTEM



1. HRC: 47°
2. COLLET CLASS: Standard
3. RUNOUT: 0.02 mm at * D1 length
4. CLAMPING RANGE: ≤ 0.3 mm

UNIT: mm			UNIT: mm			UNIT: mm			UNIT: mm		
TYPE	ØD	L	ER16 CL			ER16 CL			ER20 CL		
			ITEM NO.	ORDER NO.	ØD1	ITEM NO.	ORDER NO.	ØD1	ITEM NO.	ORDER NO.	ØD1
ER16	16.7	27	52172115	CL16030	3	52172123	CL20030	3	52172128	CL20080	8
ER20	20.7	31	52172116	CL16040	4	52172124	CL20040	4	52172129	CL20090	9
ER25	25.7	35	52172117	CL16050	5	52172125	CL20050	5	52172130	CL20100	10
ER32	32.7	40	52172118	CL16060	6	52172126	CL20060	6	52172131	CL20110	11
ER40	40.7	46	52172119	CL16070	7	52172127	CL20070	7	52172132	CL20120	12
			52172120	CL16080	8				52172133	CL20130	13
			52172121	CL16090	9						
			52172122	CL16100	10						

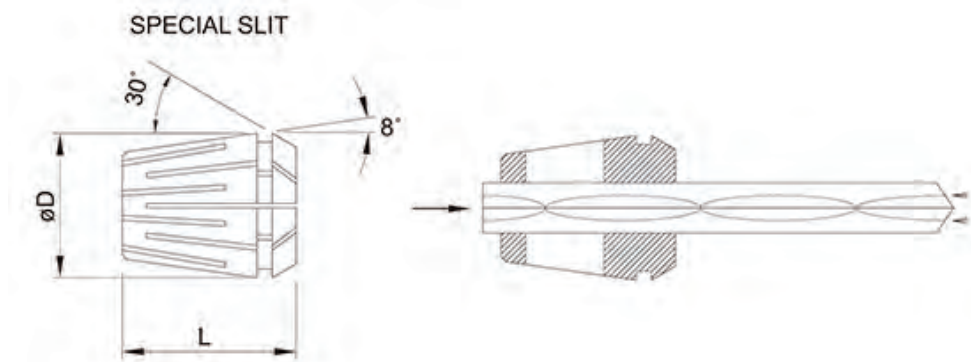
UNIT: inch			UNIT: inch			UNIT: inch		
ER16 CL			ER20 CL			ER20 CL		
ITEM NO.	ORDER NO.	ØD1	ITEM NO.	ORDER NO.	ØD1	ITEM NO.	ORDER NO.	ØD1
52172115-1	CL160108	1/8"	52172134	CL200108	1/8"	52172140	CL200516	5/16"
52172116-1	CL160532	5/32"	52172135	CL200532	5/32"	52172141	CL201132	11/32"
52172117-1	CL160316	3/16"	52172136	CL200316	3/16"	52172142	CL200308	3/8"
52172118-1	CL160732	7/32"	52172137	CL200732	7/32"	52172143	CL201332	13/32"
52172119-1	CL160104	1/4"	52172138	CL200104	1/4"	52172144	CL200716	7/16"
52172120-1	CL160932	9/32"	52172139	CL200932	9/32"	52172145	CL201532	15/32"
52172121-1	CL160516	5/16"				52172146	CL200102	1/2"
52172122-1	CL161132	11/32"						



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



ER / CL COOLANT COLLET SYSTEM



UNIT: mm

ER25 CL		
ITEM NO.	ORDER NO.	øD1
52172147	CL25030	3
52172148	CL25040	4
52172149	CL25050	5
52172150	CL25060	6
52172151	CL25070	7
52172152	CL25080	8
52172153	CL25090	9

UNIT: mm

ER25 CL		
ITEM NO.	ORDER NO.	øD1
52172154	CL25100	10
52172155	CL25110	11
52172156	CL25120	12
52172157	CL25130	13
52172158	CL25140	14
52172159	CL25150	15
52172160	CL25160	16

UNIT: inch

ER25 CL		
ITEM NO.	ORDER NO.	øD1
52172161	CL250108	1/8"
52172162	CL250532	5/32"
52172163	CL250316	3/16"
52172164	CL250732	7/32"
52172165	CL250104	1/4"
52172166	CL250932	9/32"
52172167	CL250516	5/16"
52172168	CL251132	11/32"

UNIT: inch

ER25 CL		
ITEM NO.	ORDER NO.	øD1
52172169	CL250308	3/8"
52172170	CL251332	13/32"
52172171	CL250716	7/16"
52172172	CL251532	15/32"
52172173	CL250102	1/2"
52172174	CL251732	17/32"
52172175	CL250916	9/16"
52172176	CL251932	19/32"
52172177	CL250508	5/8"

UNIT: mm

ER32 CL		
ITEM NO.	ORDER NO.	øD1
52172178	CL32040	4
52172179	CL32050	5
52172180	CL32060	6
52172181	CL32070	7
52172182	CL32080	8
52172183	CL32090	9
52172184	CL32100	10
52172185	CL32110	11

UNIT: mm

ER32 CL		
ITEM NO.	ORDER NO.	øD1
52172186	CL32120	12
52172187	CL32130	13
52172188	CL32140	14
52172189	CL32150	15
52172190	CL32160	16
52172191	CL32170	17
52172192	CL32180	18
52172193	CL32190	19
52172194	CL32200	20

UNIT: inch

ER32 CL		
ITEM NO.	ORDER NO.	øD1
52172195	CL320532	5/32"
52172196	CL320732	7/32"
52172197	CL320104	1/4"
52172198	CL320932	9/32"
52172199	CL320516	5/16"
52172200	CL321132	11/32"
52172201	CL320308	3/8"
52172202	CL321332	13/32"
52172203	CL320716	7/16"

UNIT: inch

ER32 CL		
ITEM NO.	ORDER NO.	øD1
52172204	CL321532	15/32"
52172205	CL320102	1/2"
52172206	CL321732	17/32"
52172207	CL320916	9/16"
52172208	CL321932	19/32"
52172209	CL320508	5/8"
52172210	CL322132	21/32"
52172211	CL321116	11/16"
52172212	CL322332	23/32"
52172213	CL320304	3/4"
52172214	CL322532	25/32"

UNIT: mm

ER40 CL		
ITEM NO.	øD1	ORDER NO.
52172215	4	CL40040
52172216	5	CL40050
52172217	6	CL40060
52172218	7	CL40070
52172219	8	CL40080
52172220	9	CL40090
52172221	10	CL40100
52172222	11	CL40110
52172223	12	CL40120
52172224	13	CL40130
52172225	14	CL40140
52172226	15	CL40150

UNIT: mm

ER40 CL		
ITEM NO.	øD1	ORDER NO.
52172227	16	CL40160
52172228	17	CL40170
52172229	18	CL40180
52172230	19	CL40190
52172231	20	CL40200
52172232	21	CL40210
52172233	22	CL40220
52172234	23	CL40230
52172235	24	CL40240
52172236	25	CL40250
52172237	26	CL40260

UNIT: inch

ER40 CL		
ITEM NO.	øD1	ORDER NO.
52172238	1/4"	CL400104
52172239	5/16"	CL400516
52172240	3/8"	CL400308
52172241	7/16"	CL400716
52172242	1/2"	CL400102
52172243	9/16"	CL400916
52172244	5/8"	CL400508
52172245	11/16"	CL401116
52172246	3/4"	CL400304
52172247	13/16"	CL401316
52172248	7/8"	CL400708
52172249	15/16"	CL401516
52172250	1"	CL401000



SK SPRING COLLET SYSTEM (A CLASS)

FEATURES:

- The gripping range of dia. below 3 mm is 0.25 mm.
- The gripping range of dia. over 3 mm is 0.5 mm.
- The runout of A collet is 10μ.



V SK06A UNIT:mm

ITEM NO.	ØD	RANGE
52170553	2	2~1.75
52170554	2.5	2.5~2.25
52170555	3	3~2.75
52170556	3.5	3.5~3
52170557	4	4~3.5
52170558	4.5	4.5~4
52170559	5	5~4.5
52170560	5.5	5.5~5
52170561	6	6~5.5

V SK10A UNIT:mm

ITEM NO.	ØD	RANGE
52170562	2	2~1.75
52170563	2.5	2.5~2.25
52170564	3	3~2.75
52170565	3.175	3.175~2.7
52170566	3.5	3.5~3
52170567	4	4~3.5
52170568	4.5	4.5~4
52170569	5	5~4.5
52170570	5.5	5.5~5
52170571	6	6~5.5
52170572	6.5	6.5~6
52170573	7	7~6.5
52170574	7.5	7.5~7
52170575	8	8~7.5
52170576	8.5	8.5~8
52170577	9	9~8.5
52170578	9.5	9.5~9
52170579	10	10~9.5

V SK16A UNIT:mm

ITEM NO.	ØD	RANGE
52170580	3	3~2.75
52170581	3.175	3.175~2.
52170582	3.5	3.5~3
52170583	4	4~3.5
52170584	4.5	4.5~4
52170585	5	5~4.5
52170586	5.5	5.5~5
52170587	6	6~5.5
52170588	6.5	6.5~6
52170589	7	7~6.5
52170590	7.5	7.5~7
52170591	8	8 7.5
52170592	8.5	8.5~8
52170593	9	9~8.5
52170594	9.5	9.5~9
52170595	10	10~9.5
52170596	10.5	10.5~10
52170597	11	11~10.5
52170598	11.5	11.5~11
52170599	12	12~11.5
52170600	12.5	12.5~12
52170601	13	13~12.5
52170602	13.5	13.5~13
52170603	14	14~13.5
52170604	14.5	14.5~14
52170605	15	15~14.5
52170606	15.5	15.5~15
52170607	16	16~15.5

V SK20A UNIT:mm

ITEM NO.	ØD	RANGE
52170608	3	3~2.75
52170609	4	4~3.5
52170610	6	6~5.5
52170611	8	8~7.5
52170612	10	10~9.5
52170613	12	12~11.5
52170614	16	16~15.5
52170615	20	20~19.5

V SK25A UNIT:mm

ITEM NO.	ØD	RANGE
52170616	6	6~5.5
52170617	8	8~7.5
52170618	10	10~9.5
52170619	12	12~11.5
52170620	14	14~13.5
52170621	16	16~15.5
52170622	18	18~17.5
52170623	20	20~19.5
52170624	22	22~21.5
52170625	24	24~23.5
52170626	25	25~24.5
52170627	25.4	25.4~25



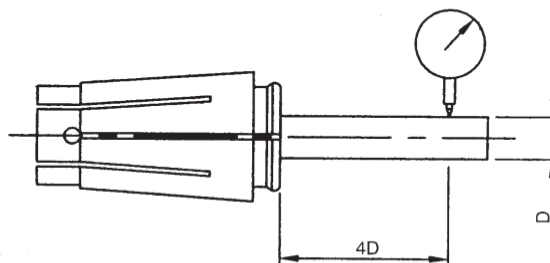
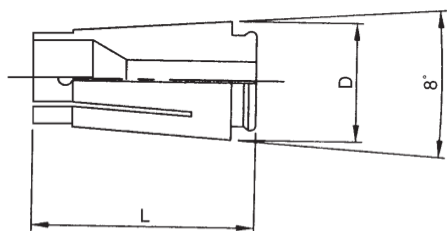
B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



SK SPRING COLLET SYSTEM (AA CLASS)

FEATURES:

- The gripping range of dia. below 3 mm is 0.25 mm.
- The gripping range of dia. over 3 mm is 0.5 mm.
- The runout of AA collet is 5μ.



V SK06AA

UNIT: mm

ITEM NO.	ØD	RANGE
52170628	2	2~1.75
52170629	2.5	2.5~2.25
52170630	3	3~2.75
52170631	3.5	3.5~3
52170632	4	4~3.5
52170633	4.5	4.5~4
52170634	5	5~4.5
52170635	5.5	5.5~5
52170636	6	6~5.5

V SK10AA

UNIT: mm

ITEM NO.	ØD	RANGE
52170637	2	2~1.75
52170638	2.5	2.5~2.25
52170639	3	3~2.75
52170640	3.175	3.175~2.7
52170641	3.5	3.5~3
52170642	4	4~3.5
52170643	4.5	4.5~4
52170644	5	5~4.5
52170645	5.5	5.5~5
52170646	6	6~5.5
52170647	6.5	6.5~6
52170648	7	7~6.5
52170649	7.5	7.5~7
52170650	8	8~7.5
52170651	8.5	8.5~8
52170652	9	9~8.5
52170653	9.5	9.5~9
52170654	10	10~9.5

V SK16AA

UNIT: mm

ITEM NO.	ØD	RANGE
52170655	3	3~2.75
52170656	3.175	3.175~2.7
52170657	3.5	3.5~3
52170658	4	4~3.5
52170659	4.5	4.5~4
52170660	5	5~4.5
52170661	5.5	5.5~5
52170662	6	6~5.5
52170663	6.5	6.5~6
52170664	7	7~6.5
52170665	7.5	7.5~7
52170666	8	8~7.5
52170667	8.5	8.5~8
52170668	9	9~8.5
52170669	9.5	9.5~9
52170670	10	10~9.5
52170671	10.5	10.5~10
52170672	11	11~10.5
52170673	11.5	11.5~11
52170674	12	12~11.5
52170675	12.5	12.5~12
52170676	13	13~12.5
52170677	13.5	13.5~13
52170678	14	14~13.5
52170679	14.5	14.5~14
52170680	15	15~14.5
52170681	15.5	15.5~15
52170682	16	16~15.5

UNIT: mm

TYPE	D	L
SK06	10.5	25
SK10	15.5	30.5
SK16	24.5	45
SK20	29.5	50
SK25	35.5	57

V SK20AA

UNIT: mm

ITEM NO.	ØD	RANGE
52170683	3	3~2.75
52170684	4	4~3.5
52170685	6	6~5.5
52170686	8	8~7.5
52170687	10	10~9.5
52170688	12	12~11.5
52170689	16	16~15.5
52170690	20	20~19.5

V SK25AA

UNIT: mm

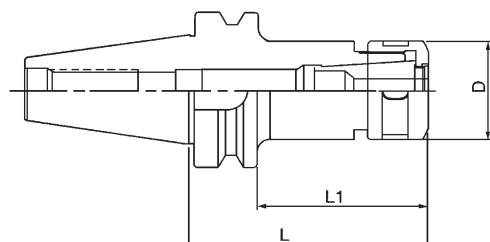
ITEM NO.	ØD	RANGE
52170691	6	6~5.5
52170692	8	8~7.5
52170693	10	10~9.5
52170694	12	12~11.5
52170695	14	14~13.5
52170696	16	16~15.5
52170697	18	18~17.5
52170698	20	20~19.5
52170699	22	22~21.5
52170700	24	24~23.5
52170701	25	25~24.5
52170702	25.4	25.4~25



BT / SK COLLET CHUCK SYSTEM

FEATURES:

- The SK chuck is according to the design of angel 8° with high accuracy and high gripping range. The gripping torque is higher than standard ER chuck.
- The dynamic balance of BT30 and BT45 SK chuck can be reached 15000RPM × 2.5 G.



UNIT:mm

ITEM NO.	TYPE	COLLET	L	L1	D	COLLET	WEIGHT (kgs)
52170703	BT30-SK6-60	2-6	60	38	20	SK6	0.5
52170704	BT30-SK6-90	2-6	90	68	20	SK6	0.55
52170705	BT30-SK10-60	2-10	60	38	28	SK10	0.5
52170706	BT30-SK10-90	2-10	90	68	28	SK10	0.7
52170707	BT30-SK16-60	3-16	60	38	40	SK16	0.6
52170708	BT30-SK16-90	3-16	90	68	40	SK16	0.7
52170709	BT40-SK6-60	2-6	60	33	20	SK6	0.9
52170710	BT40-SK6-90	2-6	90	63	20	SK6	1
52170711	BT40-SK6-120	2-6	120	93	20	SK6	1.2
52170712	BT40-SK10-60	2-10	60	33	28	SK10	1
52170713	BT40-SK10-90	2-10	90	63	28	SK10	1.1
52170714	BT40-SK10-120	2-10	120	93	28	SK10	1.2
52170715	BT40-SK10-150	2-10	150	123	28	SK10	1.3
52170716	BT40-SK16-60	3-16	60	33	40	SK16	1.2
52170717	BT40-SK16-90	3-16	90	63	40	SK16	1.3
52170718	BT40-SK16-120	3-16	120	93	40	SK16	1.4
52170719	BT40-SK16-150	3-16	150	123	40	SK16	1.5
52170720	BT40-SK20-60	3-20	60	33	50	SK20	1.2
52170721	BT40-SK20-90	3-20	90	63	50	SK20	1.3
52170722	BT40-SK20-120	3-20	120	93	50	SK20	1.4
52170723	BT40-SK20-150	3-20	150	123	50	SK20	1.5
52170724	BT40-SK25-80	6-25	80	53	55	SK25	1.5
52170725	BT40-SK25-100	6-25	100	73	55	SK25	1.65
52170726	BT50-SK6-100	2-6	100	62	20	SK6	3.6
52170727	BT50-SK6-150	2-6	150	112	20	SK6	4
52170728	BT50-SK10-100	2-10	100	62	28	SK10	3.6
52170729	BT50-SK10-150	2-10	150	112	28	SK10	4
52170730	BT50-SK16-100	3-16	100	62	40	SK16	4
52170731	BT50-SK16-150	3-16	150	112	40	SK16	4.5
52170732	BT50-SK20-100	3-20	100	62	50	SK20	4.3
52170733	BT50-SK20-150	3-20	150	112	50	SK20	5.3
52170734	BT50-SK25-100	6-25	100	62	55	SK25	4.5
52170735	BT50-SK25-150	6-25	150	112	55	SK25	5.5



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



SETS OF COLLET AND MAS BT CHUCK

FEATURES:

- AA collets packed in box.
- Package including: CHUCK, COLLET, WRENCH, BOX.

UNIT: mm

SK COLLET SET

SK6/ 5PCS: $\varnothing$ 2, 3, 4, 5, 6

SK10/ 8PCS: $\varnothing$ 3, 4, 5, 6, 7, 8, 9, 10

SK16/ 8PCS: $\varnothing$ 3, 4, 6, 8, 10, 12, 14, 16

SK20/ 8PCS: $\varnothing$ 4, 6, 8, 10, 12, 14, 16, 20

SK25/ 7PCS: $\varnothing$ 6, 8, 10, 12, 16, 20, 25



UNIT: mm

ITEM NO.	TYPE	SET RANGE	COLLET	WEIGHT (kgs)
52170736	BT30-SK6-60/ 5PCS	2-6	SK6/ 5PCS	1.3
52170737	BT30-SK6-90/ 5PCS	2-6	SK6/ 5PCS	1.45
52170738	BT30-SK10-60/ 8PCS	3-10	SK10/ 8PCS	1.7
52170739	BT30-SK10-90/ 8PCS	3-10	SK10/ 8PCS	1.9
52170740	BT30-SK16-60/ 8PCS	3-16	SK16/ 8PCS	2.5
52170741	BT30-SK16-90/ 8PCS	3-16	SK16/ 8PCS	2.8
52170742	BT40-SK6-60/ 5PCS	2-6	SK6/ 5PCS	2.1
52170743	BT40-SK6-90/ 5PCS	2-6	SK6/ 5PCS	2.3
52170744	BT40-SK10-60/ 8PCS	3-10	SK10/ 8PCS	2.6
52170745	BT40-SK10-90/ 8PCS	3-10	SK10/ 8PCS	2.8
52170746	BT40-SK16-60/ 8PCS	3-16	SK16/ 8PCS	3
52170747	BT40-SK16-90/ 8PCS	3-16	SK16/ 8PCS	3.3
52170748	BT40-SK20-60/ 8PCS	4-20	SK20/ 8PCS	3.8
52170749	BT40-SK20-90/ 8PCS	4-20	SK20/ 8PCS	4.1
52170750	BT40-SK25-80/ 7PCS	6-25	SK25/ 7PCS	4.5

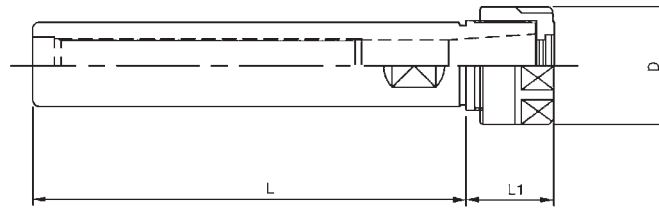
SET OF SK COLLET AND STRAIGHT CHUCK

UNIT: mm

ITEM NO.	TYPE	SET RANGE	COLLET	WEIGHT (kgs)
52170751	ST20-SK6-100/ 5PCS	2-6	SK6/ 5PCS	0.7
52170752	ST20-SK6-150/ 5PCS	2-6	SK6/ 5PCS	0.8
52170753	ST20-SK10-100/ 8PCS	3-10	SK10/ 8PCS	1.1
52170754	ST20-SK10-150/ 8PCS	3-10	SK10/ 8PCS	1.3



ST / SK STRAIGHT CHUCKS

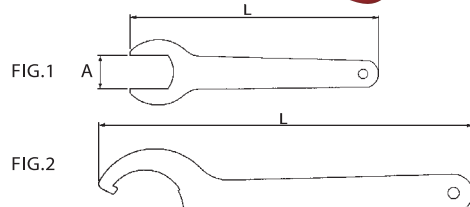


UNIT: mm

ITEM NO.	COLLET TYPE	L	L1	D	COLLET	WEIGHT (kgs)
52170755	ST20-SK6-100	100	20	20	SK6	0.25
52170756	ST20-SK6-150	150	20	20	SK6	0.3
52170757	ST20-SK10-100	100	20	28	SK10	0.3
52170758	ST20-SK10-150	150	20	28	SK10	0.45
52170759	ST20-SK10-200	200	20	28	SK10	0.55



SK WRENCHES

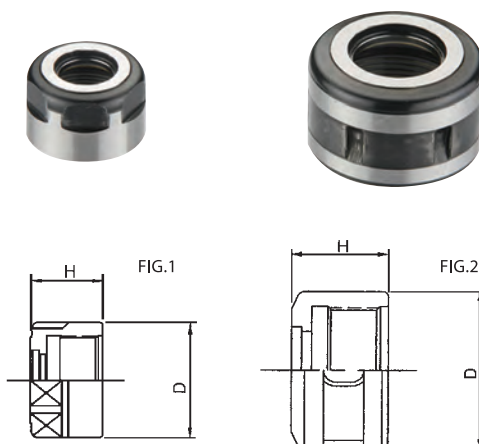


UNIT: mm

ITEM NO.	TYPE	A	L	FIG	WEIGHT (kgs)
52170760	SK06	18	130	1	0.08
52170761	SK10	25	140	1	0.08
52170762	SK16	-	195	2	0.2
52170763	SK20	-	228	2	0.22
52170764	SK25	-	228	2	0.22



SK NUTS



UNIT: mm

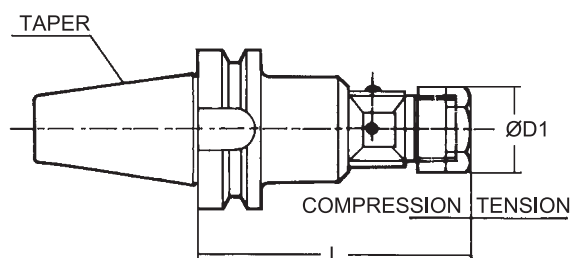
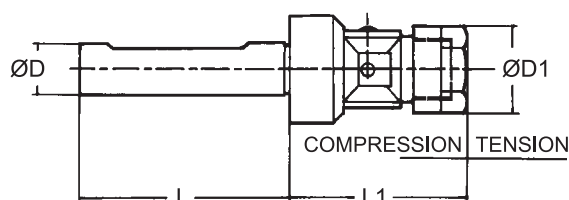
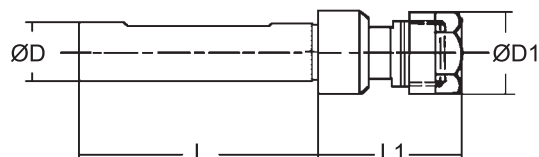
ITEM NO.	TYPE	A	L	FIG	WEIGHT (kgs)
52170765	SK06	19.5	15	1	0.05
52170766	SK10	28	17	1	0.05
52170767	SK16	40	24	2	0.08
52170768	SK20	50	25	2	0.1
52170769	SK25	55	30	2	0.12



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



EXPANSION TAPPING CHUCKS



UNIT:mm

ITEM NO.	TYPE	COLLET TYPE	L	L1	D	D1	TAPPING RANGE	WEIGHT (kgs)
52101356	ST20-TA16M-70	ER16	70	35	20	22	M3-M10	0.2
52101357	ST25-TA16M-70	ER16	70	35	25	22	1/8" x 3/8"	0.2
52101046	ST20-TA16-80	ER16	80	47	20	28	1/8" x 3/8"	0.2
52101048	ST20-TA20-80	ER20	80	70	20	34	M3-M16	0.5
52101050	ST25-TA20-80	ER20	80	70	25	34	1/8" x 5/8"	0.6
52101051	BT40-TA20-110	ER20	110			34	M3-M16	2.2
52101052	BT50-TA20-95	ER20	95			34	1/8"-5/8"	4
52101054	ST32-TA32-100	ER32	100	90	32	50	M3-M25 1/8"-1"	1.5
52101055	BT40-TA32-110	ER32	110			50	M3-M25	2.4
52101056	BT50-TA32-110	ER32	110			50	1/8"-1"	4.5

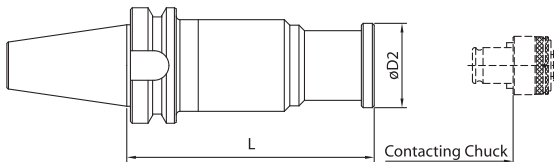


QUICK CHANGE TAPPING CHUCKS

WITH LENGTH COMPENSATION / EXTRA LENGTH

FEATURES:

- Quick change of tap adapters.
- Length compensation could prevent tap from breaking upon tapping.



UNIT: mm

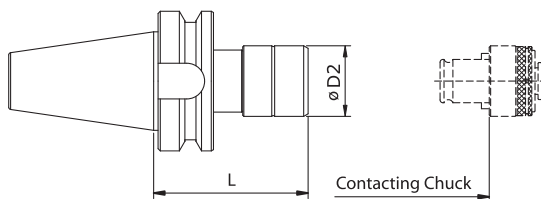
ITEM NO.	SPECIFICATION	CAPACITY	L	ØD2	COLLETS	
52170770	BT40-WFE12-135	M3~M12	135	36	TC312	TC312B
52170771	BT40-WFE12-165	M3~M12	165	36	TC312	TC312B
52170772	BT50-WFE12-135	M3~M12	135	36	TC312	TC312B
52170773	BT50-WFE12-165	M3~M12	165	36	TC312	TC312B
52170774	BT50-WFE12-195	M3~M12	135	36	TC312	TC312B

► TAP COLLETS TO BE ORDERED SEPARATELY.

WITH LENGTH COMPENSATION

FEATURES:

- Quick change of tap adapters.
- Length compensation could prevent tap from breaking upon tapping.



UNIT: mm

ITEM NO.	SPECIFICATION	CAPACITY	L	ØD2	COLLETS	
52170775	BT30-WF12	M3~M12	70	36	TC312	TC312B
52170776	BT40-WF12	M3~M12	70	36	TC312	TC312B
52170777	BT50-WF12	M3~M12	85	36	TC312	TC312B
52170778	BT30-WF20	M8~M20	95	50	TC820	TC820B
52170779	BT40-WF20	M8~M20	95	50	TC820	TC820B
52170780	BT50-WF20	M8~M20	105	50	TC820	TC820B
52170781	BT40-WF33	M14~M33	160	78	TC1433	TC1433
52170782	BT50-WF33	M14~M33	145	78	TC1433	TC1433

► TAP COLLETS TO BE ORDERED SEPARATELY.



B2 - TAPPING CHUCKS

TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS

B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS

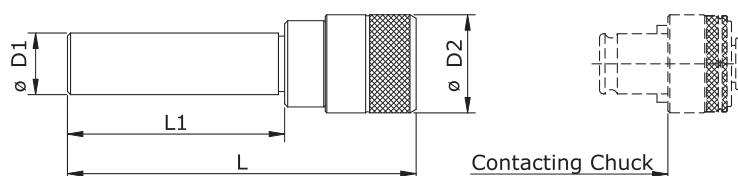


QUICK CHANGE TAPPING CHUCKS

WITH LENGTH COMPENSATION / STRAIGHT SHANK-COLLETS

FEATURES:

- Quick change of tap adapters.
- Length compensation could prevent tap from breaking upon tapping.



UNIT: mm

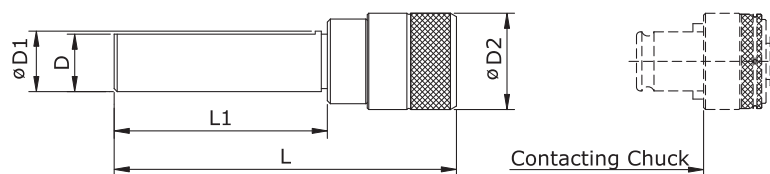
ITEM NO.	SPECIFICATION	CAPACITY	L	L1	$\phi D1$	$\phi D2$	COLLETS
52170783	D20-WF12	M3~M12	113	70	20	32	TC312
52170784	D32-WF12	M3~M12	-	70	32	32	TC312B
52170785	D20-WF20	M8~M20	-	70	20	50	TC820
52170786	D32-WF20	M8~M20	145	70	32	50	TC820B
52170787	D32-WF33	M14~M33	185	70	32	73	TC1433B

► TAP COLLETS TO BE ORDERED SEPARATELY.

WITH LENGTH COMPENSATION / STRAIGHT SHANK-SIDE-LOCK & CNC LATHE

FEATURES:

- Quick change of tap adapters.
- Length compensation could prevent tap from breaking upon tapping.



UNIT: mm

ITEM NO.	SPECIFICATION	CAPACITY	L	L1	øD1	øD2	COLLETS	
52170788	D20A-WF12	M3~M12	113	70	19	20	32	TC312
52170789	D32A-WF12	M3~M12	-	70	31	32	32	TC312B
52170790	D20A-WF20	M8~M20	-	70	19	20	50	TC820
52170791	D32A-WF20	M8~M20	145	70	31	32	50	TC820B
52170792	D32A-WF33	M14~M33	185	70	31	32	73	TC1433B

► TAP COLLETS TO BE ORDERED SEPARATELY.

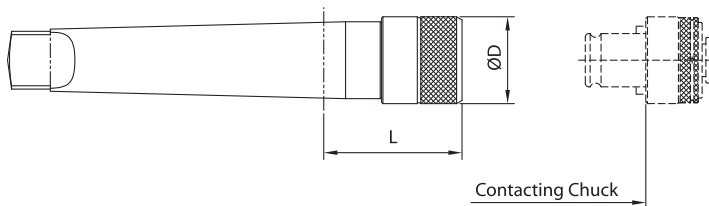


QUICK CHANGE TAPPING CHUCKS

WITH LENGTH COMPENSATION / MORSE TAPER SHANK

APPLICATION:

- The products are suitable for radial drilling machines, CNC turning centers, high-speed center lathe, drilling machines, radial drilling machines, air tapping machines, milling machines and other machines with reversible spindles.



UNIT: mm

ITEM NO.	SPECIFICATION	CAPACITY	L	ØD	COLLETS	
52170793	MT2-WF12	M3~M12	46	32	TC312 TC312B	
52170794	MT3-WF12	M3~M12	46	32		
52170795	MT4-WF12	M3~M12	46	32	TC820 TC820B	
52170796	MT2-WF20	M8~M20	70	50		
52170797	MT3-WF20	M8~M20	70	50		
52170798	MT4-WF20	M8~M20	70	50	TC1433 TC1433B	
52170799	MT4-WF33	M14~M33	110	73		

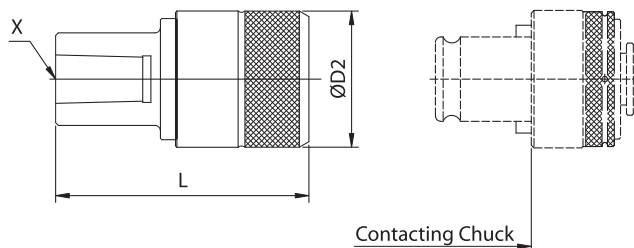
► TAP COLLETS TO BE ORDERED SEPARATELY.



QUICK CHANGE TAPPING CHUCKS ADAPTERS

FEATURES:

- Specially designed for tapping machine.
- Can connect to tap collet.
- Can easily quick change to the tap.



UNIT: mm

ITEM NO.	SPECIFICATION	CAPACITY	L	ØD	X	COLLETS	
52170800	JT6-SF12	M3~M14	66	32	JT6	TC312 TC312B	
52170801	B16-SF12	M3~M14	66	32	B16		
52170802	JT25-SF12	M3~M14	66	32	JT25	TC820 TC820B	
52170803	B12-SF12	M3~M14	61	32	B12		
52170804	JT6-SF20	M8~M24	86	50	JT6		
52170805	B18-SF20	M8~M24	92.5	50	B18		

► TAP COLLETS TO BE ORDERED SEPARATELY.



B2 - TAPPING CHUCKS

TOOLS OF WORKHOLDING&PRECISION TOOLS FOR MILLS&VMCS

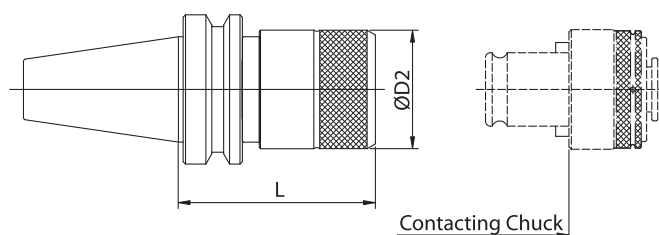
B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



QUICK CHANGE TAPPING CHUCKS

FEATURES:

- Quick change of tap adapters.
- Special designed for tapping.



UNIT: mm

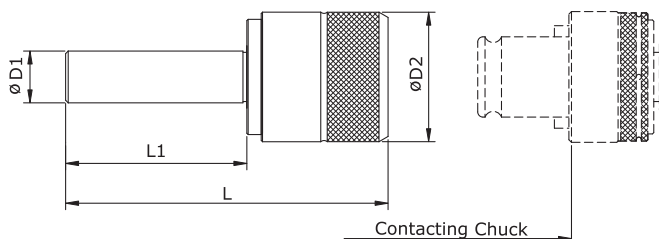
ITEM NO.	SPECIFICATION	CAPACITY	L	ØD2	COLLETS	
52170806	BT40-SF12	M3~M14	126.4	32	TC312	TC312B
52170807	BT40-SF20	M8~M24	146.4	50	TC820	TC820B
52170808	BT40-SF33	M14~M36	-	73	TC1433	TC1433

► TAP COLLETS TO BE ORDERED SEPARATELY.

STRAIGHT SHANK-COLLETS

FEATURES:

- Quick change of tap adapters.
- Special designed for tapping.



UNIT: mm

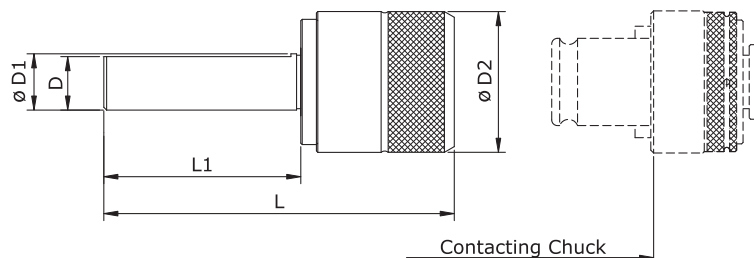
ITEM NO.	SPECIFICATION	CAPACITY	L	L1	ØD1	ØD2	COLLETS
52170809	D20-SF12	M3~M14	104	70	20	32	TC312
52170810	D32-SF12	M3~M14	-	70	32	32	TC312B
52170811	D20-SF20	M8~M24	124	70	20	50	TC820
52170812	D32-SF20	M8~M24	-	70	32	50	TC820B
52170813	D25-SF33	M14~M36	-	70	25	73	TC1433
52170814	D32-SF33	M14~M36	-	70	32	73	TC1433B

► TAP COLLETS TO BE ORDERED SEPARATELY.



QUICK CHANGE TAPPING CHUCKS

STRAIGHT SHANK-SIDE LOCK & CNC LATHE

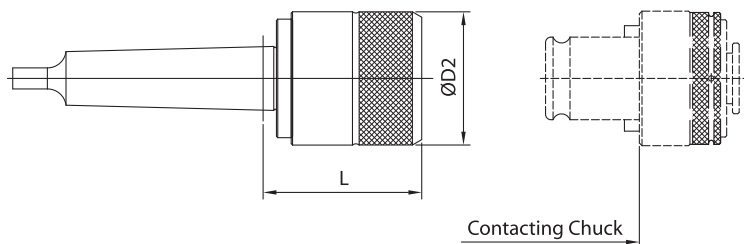


UNIT: mm

ITEM NO.	SPECIFICATION	CAPACITY	L	L1	D	$\varnothing D1$	$\varnothing D2$	COLLETS
52170815	D20A-SF12	M3~M14	104	70	19	20	32	TC312
52170816	D32A-SF12	M3~M14	-	70	31	32	32	TC312B
52170817	D20A-SF20	M8~M24	124	70	19	20	50	TC820
52170818	D32A-SF20	M8~M24	-	70	31	32	50	TC820B
52170819	D25A-SF33	M14~M36	-	70	24	25	73	TC1433
52170820	D32A-SF33	M14~M36	-	70	31	32	73	TC1433B

► TAP COLLETS TO BE ORDERED SEPARATELY.

MORSE TAPER SHANK



UNIT: mm

ITEM NO.	SPECIFICATION	CAPACITY	L	$\varnothing D2$	COLLETS
52170821	MT2-SF12	M3~M14	39	32	TC312
52170822	MT3-SF12	M3~M14	39	32	TC312B
52170823	MT4-SF12	M3~M14	40.5	32	
52170824	MT2-SF20	M8~M24	59	50	TC820
52170825	MT3-SF20	M8~M24	59	50	TC820B
52170826	MT4-SF20	M8~M24	60.5	50	
52170827	MT3-SF33	M14~M36	-	73	TC1433
52170828	MT4-SF33	M14~M36	92.5	73	TC1433B

► TAP COLLETS TO BE ORDERED SEPARATELY.



B2 - TAPPING CHUCKS

TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS

B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS

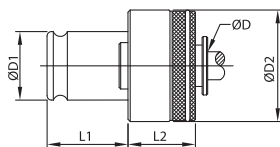


QUICK CHANGE TAP CHUCKS – JIS TYPE

WITH OVERLOAD CLUTCH

FEATURES:

- Overload clutch is designed to prevent tap from breaking upon tapping.



UNIT:mm



ITEM NO.		TC312 JIS TAP		TAP øD	SHANK □	CAPACITY	L1	L2	øD1	øD2
52170829	M2	-	-	3.0	2.5					
52170830	M3	-	#5, #6	4.0	3.2					
52170831	M4	M4.5	#8	5.0	4.0					
52170832	M5	M5.5	#10	5.5	4.5					
52170833	M6	-	UNC1/4	6.0	4.5					
52170834	-	-	UNC5/16	6.1	5.0	M3~M14	22	25	19	32
52170835	M8	M7	-	6.2	5.0					
52170836	M10	M9	UNC3/8	7.0	5.5					
52170837	-	M11	UNC7/16	8.0	6.0					
52170838	M12	-	-	8.5	6.5					
52170839	-	-	UNC1/2	9.0	7.0					
52170840	M14	M15	UNC9/16	10.5	8.0					

ITEM NO.		TC312 JIS TAP		TAP øD	SHANK □	CAPACITY	L1	L2	øD1	øD2
52170841	M5	M5.5	#10	5.5	4.5					
52170842	M6	-	UNC1/4	6.0	4.5					
52170843	-	-	UNC5/16	6.1	5.0					
52170844	M8	M7	-	6.2	5.0					
52170845	M10	M9	UNC3/8	7.0	5.5					
52170846	-	M11	UNC7/16	8.0	6.0					
52170847	M12	-	-	8.5	6.5					
52170848	-	-	UNC1/2	9.0	7.0	M8~M24	36	30.5	31	50
52170849	M14	M15	UNC9/16	10.5	8.0					
52170850	-	-	UNC5/8	12.0	9.0					
52170851	M16	-	-	12.5	10.0					
52170852	-	M17	-	13.0	10.0					
52170853	M18	-	UNC3/4	14.0	11.0					
52170854	M20	-	-	15.0	12.0					
52170855	M22	-	UNC7/8	17.0	13.0					
52170856	M24	M25	-	19.0	15.0					

ITEM NO.		TC312 JIS TAP		TAP øD	SHANK □	CAPACITY	L1	L2	øD1	øD2
52170857	M14	M15	UNC9/16	10.5	8.0					
52170858	-	-	UNC5/8	12.0	9.0					
52170859	M16	-	-	12.5	10.0					
52170860	-	M17	-	13.0	10.0					
52170861	M18	-	UNC3/4	14.0	11.0					
52170862	M20	-	-	15.0	12.0					
52170863	M22	-	UNC7/8	17.0	13.0					
52170864	M24	M25	-	19.0	15.0	M14~M36	56	45	48	72
52170865	M27	M26	UNC1	20.0	15.0					
52170866	M28	-	-	21.0	17.0					
52170867	-	-	UNC1-1/8	22.0	17.0					
52170868	M30	-	-	23.0	17.0					
52170869	M32	-	UNC1-1/4	24.0	19.0					
52170870	M33	-	-	25.0	19.0					
52170871	M35	M34	UNC1-3/8	26.0	21.0					
52170872	M36	-	-	28.0	21.0					

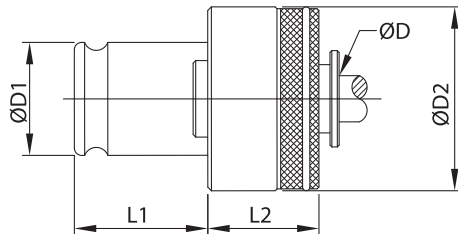


QUICK CHANGE TAP COLLETS – DIN 371 / 376 TYPE

WITH OVERLOAD CLUTCH

FEATURES:

- Overload clutch is designed to prevent tap from breaking upon tapping.



B2 - TAPPING CHUCKS

TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS

UNIT: mm

ITEM NO.	TC312 DIN371 TAP	TAP ØD	SHANK □	CAPACITY	L1	L2	ØD1	ØD2
52170873	M1~M1.8	2.5	2.1					
52170874	M2~M2.5	2.8	2.1					
52170875	M3	3.5	2.7					
52170876	M3.5	4.0	3.0					
52170877	M4	4.5	3.4	M3~M14	22	25	19	32
52170878	M4.5	6.0	4.9					
52170879	M5	6.0	4.9					
52170880	M6	6.0	4.9					
52170881	M8	8.0	6.2					
52170882	M10	10.0	8.0					

UNIT: mm

ITEM NO.	TC820 DIN376TAP	TAP ØD	SHANK □	CAPACITY	L1	L2	ØD1	ØD2
52170897	M8	6.0	4.9					
52170898	M10	7.0	5.5					
52170899	M12	9.0	7.0					
52170900	M14	11.0	9.0					
52170901	M16	12.0	9.0	M8~M24	36	30.5	31	50
52170902	M18	14.0	11.0					
52170903	M20	16.0	12.0					
52170904	M22	18.0	14.5					
52170905	M24	18.0	14.5					

UNIT: mm

ITEM NO.	TC820 DIN371 TAP	TAP ØD	SHANK □	CAPACITY	L1	L2	ØD1	ØD2
52170883	M5	6.0	4.9					
52170884	M6	6.0	4.9					
52170885	M8	8.0	6.2	M8~M24	36	30.5	31	50
52170886	M10	10.0	8.0					

UNIT: mm

ITEM NO.	TC1433 DIN376TAP	TAP ØD	SHANK □	CAPACITY	L1	L2	ØD1	ØD2
52170906	M14	11.0	9.0					
52170907	M16	12.0	9.0					
52170908	M18	14.0	11.0					
52170909	M20	16.0	12.0					
52170910	M22	18.0	14.5	M14~M36	56	45	48	72
52170911	M24	18.0	14.5					
52170912	M27	20.0	16.0					
52170913	M30	22.0	18.0					
52170914	M33	25.0	20.0					
52170915	M36	28.0	22.0					

UNIT: mm

ITEM NO.	TC312 DIN376TAP	TAP ØD	SHANK □	CAPACITY	L1	L2	ØD1	ØD2
52170887	M3.5	2.5	2.1					
52170888	M4	2.8	2.1					
52170889	M4.5	3.5	2.7					
52170890	M5	3.5	2.7					
52170891	M6	4.5	3.4	M3~M14	22	25	19	32
52170892	M7	5.5	4.3					
52170893	M8	6.0	4.9					
52170894	M10	7.0	5.5					
52170895	M12	9.0	7.0					
52170896	M14	11.0	9.0					

B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS

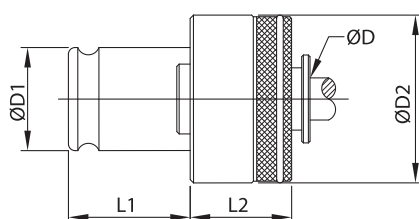


QUICK CHANGE TAP COLLETS – ISO 529 / 2283 TYPE

WITH OVERLOAD CLUTCH

FEATURES:

- Overload clutch is designed to prevent tap from breaking upon tapping.



UNIT: mm

ITEM NO.	TC312 ISO 529 TAP	TAP SHANK ØD	SHANK □	CAPACITY	L1	L2	ØD1	ØD2
52170916	M1~M2	2.5	2.0					
52170917	M2.2~M2.5	2.8	2.24					
52170918	M3	3.15	2.5					
52170919	M3.5	3.55	2.8					
52170920	M4	4.0	3.15					
52170921	M4.5	4.5	3.55					
52170922	M5	5.0	4.0					
52170923	M6	6.3	5.0					
52170924	M7	7.1	5.6					
52170925	M8	8.0	6.3					
52170926	M9	9.0	7.1					
52170927	M10	10.0	8.0					

M3~M14 22 25 19 32

UNIT: mm

ITEM NO.	TC820 ISO 529 TAP	TAP SHANK ØD	SHANK □	CAPACITY	L1	L2	ØD1	ØD2
52170928	M6	6.3	5.0					
52170929	M7	7.1	5.6					
52170930	M8	8.0	6.3					
52170931	M9	9.0	7.1					
52170932	M10	10.0	8.0					

M8~M24 36 30.5 31 50



UNIT: mm

ITEM NO.	TC312 ISO 529/2283 TAP	CAPACITY	L1	L2	ØD1	ØD2
52170933	M3	2.24	1.8			
52170934	M3.5	2.5	2.0			
52170935	M4	3.15	2.5			
52170936	M4.5	3.55	2.8			
52170937	M5	4.0	3.15			
52170938	M6	4.5	3.55			
52170939	M7	5.6	4.5			
52170940	M8	6.3	5.0			
52170941	M9	7.1	5.6			
52170942	M10	8.0	6.3			
52170943	M12	9.0	7.1			

UNIT: mm

ITEM NO.	TC820 ISO 529/2283 TAP	TAP SHANK ØD	SHANK □	CAPACITY	L1	L2	ØD1	ØD2
52170945	M8	6.3	5.0					
52170946	M9	7.1	5.6					
52170947	M10	8.0	6.3					
52170948	M12	9.0	7.1					
52170949	M14	11.2	9.0					
52170950	M16	12.5	10.0					
52170951	M18	14.0	11.2					
52170952	M20	14.0	11.2					
52170953	M22	16.0	12.5					
52170954	M24	18.0	14.0					

M8~M24 36 30.5 31 50

UNIT: mm

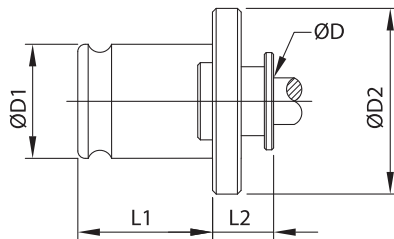
ITEM NO.	TC1433 ISO 529/2283 TAP	TAP SHANK ØD	SHANK □	CAPACITY	L1	L2	ØD1	ØD2
52170955	M14	11.2	9.0					
52170956	M16	12.5	10.0					
52170957	M18	14.0	11.2					
52170958	M20	14.0	11.2					
52170959	M22	16.0	12.5					
52170960	M24	18.0	14.0					
52170961	M27	20.0	16.0					
52170962	M30	20.0	16.0					
52170963	M33	22.4	18.0					
52170964	M36	25.0	20.0					

M14~M36 56 45 48 72



QUICK CHANGE TAP COLLETS – JIS TYPE

RIGID TYPE



UNIT:mm

ITEM NO.		TC312B JIS TAP		TAP SHANK Ø D □		CAPACITY	L1	L2	ØD1	ØD2
52170972	M2	-	-	3.0	2.5	M3~M14	22	7	19	30
52170973	M3	-	#5, #6	4.0	3.2					
52170974	M4	M4.5	#8	5.0	4.0					
52170975	M5	M5.5	#10	5.5	4.5					
52170976	M6	-	UNC1/4	6.0	4.5					
52170977	-	-	UNC5/16	6.1	5.0					
52170978	M8	M7	-	6.2	5.0					
52170979	M10	M9	UNC3/8	7.0	5.5					
52170980	-	M11	UNC7/16	8.0	6.0					
52170981	M12	-	-	8.5	6.5					
52170982	-	-	UNC1/2	9.0	7.0					
52170983	M14	M15	UNC9/16	10.5	8.0					

ITEM NO.		TC312B JIS TAP		TAP SHANK Ø D □		CAPACITY	L1	L2	ØD1	ØD2
52170984	M8	M7	-	6.2	5.0	M8~M24	36	11	31	48
52170985	M10	M9	UNC3/8	7.0	5.5					
52170986	-	M11	UNC7/16	8.0	6.0					
52170987	M12	-	-	8.5	6.5					
52170988	-	-	UNC1/2	9.0	7.0					
52170989	M14	M15	UNC9/16	10.5	8.0					
52170990	-	-	UNC5/8	12.0	9.0					
52170991	M16	-	-	12.5	10.0					
52170992	-	M17	-	13.0	10.0					
52170993	M18	-	UNC3/4	14.0	11.0					
52170994	M20	-	-	15.0	12.0					
52170995	M22	-	UNC7/8	17.0	13.0					
52170996	M24	M25	-	19.0	15.0					

ITEM NO.		TC312B JIS TAP		TAP SHANK Ø D □		CAPACITY	L1	L2	ØD1	ØD2
52170997	M14	M15	UNC9/16	10.5	8.0	M14~M36	56	14	48	70
52170998	-	-	UNC5/8	12.0	9.0					
52170999	M16	-	-	12.5	10.0					
52171000	-	M17	-	13.0	10.0					
52171001	M18	-	UNC3/4	14.0	11.0					
52171002	M20	-	-	15.0	12.0					
52171003	M22	-	UNC7/8	17.0	13.0					
52171004	M24	M25	-	19.0	15.0					
52171005	M27	M26	UNC1	20.0	15.0					
52171006	M28	-	-	21.0	17.0					
52171007	-	-	UNC1-1/8	22.0	17.0					
52171008	M30	-	-	23.0	17.0					
52171009	M32	-	UNC1-1/4	24.0	19.0					
52171010	M33	-	-	25.0	19.0					
52171011	M35	M34	UNC1-3/8	26.0	21.0					
52171012	M36	-	-	28.0	21.0					



B2 - TAPPING CHUCKS

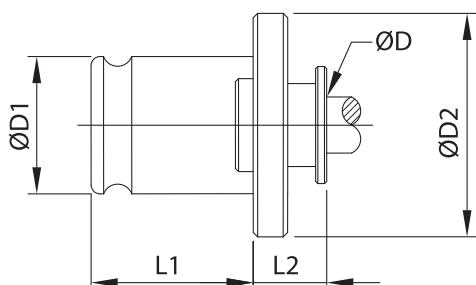
TOOLS OF WORKHOLDING&PRECISION TOOLS FOR MILLS&VMCS

B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



QUICK CHANGE TAP COLLETS – DIN 371 / 376 TYPE

RIGID TYPE



UNIT: mm									
ITEM NO.	TC312B DIN371 TAP	TAP SHANK ØD	□	CAPACITY	L1	L2	ØD1	ØD2	
52171022	M1~M1.8	2.5	2.1						
52171023	M2~M2.5	2.8	2.1						
52171024	M3	3.5	2.7						
52171025	M3.5	4.0	3.0						
52171026	M4	4.5	3.4	M3~M14	22	7	19	30	
52171027	M4.5	6.0	4.9						
52171028	M5	6.0	4.9						
52171029	M6	6.0	4.9						
52171030	M8	8.0	6.2						
52171031	M10	10.0	8.0						

UNIT: mm									
ITEM NO.	TC312B DIN376 TAP	TAP SHANK ØD	□	CAPACITY	L1	L2	ØD1	ØD2	
52171048	M3.5	2.5	2.1						
52171049	M4	2.8	2.1						
52171050	M4.5	3.5	2.7						
52171051	M5	3.5	2.7						
52171052	M6	4.5	3.4	M3~M14	22	7	19	30	
52171053	M7	5.5	4.3						
52171054	M8	6.0	4.9						
52171055	M10	7.0	5.5						
52171056	M12	9.0	7.0						
52171057	M14	11.0	9.0						

UNIT: mm									
ITEM NO.	TC820B DIN371 TAP	TAP SHANK ØD	□	CAPACITY	L1	L2	ØD1	ØD2	
52171032	M4.5	6.0	4.9						
52171033	M5	6.0	4.9						
52171034	M6	6.0	4.9	M8~M24	36	11	31	48	
52171035	M8	8.0	6.2						
52171036	M10	10.0	8.0						

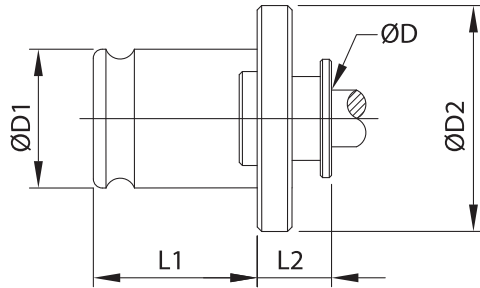
UNIT: mm									
ITEM NO.	TC820B DIN376 TAP	TAP SHANK ØD	□	CAPACITY	L1	L2	ØD1	ØD2	
52171058	M8	6.0	4.9						
52171059	M10	7.0	5.5						
52171060	M12	9.0	7.0						
52171061	M14	11.0	9.0						
52171062	M16	12.0	9.0	M8~M24	36	11	31	48	
52171063	M18	14.0	11.0						
52171064	M20	16.0	12.0						
52171065	M22	18.0	14.5						
52171066	M24	18.0	14.5						

UNIT: mm									
ITEM NO.	TC1433B DIN3716 TAP	TAP SHANK ØD	□	CAPACITY	L1	L2	ØD1	ØD2	
52171067	M14	11.0	9.0						
52171068	M16	12.0	9.0						
52171069	M18	14.0	11.0						
52171070	M20	16.0	12.0						
52171071	M22	18.0	14.5	M14~M36	56	14	48	70	
52171072	M24	18.0	14.5						
52171073	M27	20.0	16.0						
52171074	M30	22.0	18.0						
52171075	M33	25.0	20.0						
52171076	M36	28.0	22.0						



QUICK CHANGE TAP COLLETS – ISO 529 / 2283 TYPE

RIGID TYPE



UNIT: mm

ITEM NO.	TC312B DIN 529 TAP	TAP SHANK Ø D	□	CAPACITY	L1	L2	ØD1	ØD2
52171087	M1~M2	2.5	2.0					
52171088	M2.2~M2.5	2.8	2.24					
52171089	M3	3.15	2.5					
52171090	M3.5	3.55	2.8					
52171091	M4	4.0	3.15					
52171092	M4.5	4.5	3.55	M3~M14	22	7	19	30
52171093	M5	5.0	4.0					
52171094	M6	6.3	5.0					
52171095	M7	7.1	5.6					
52171096	M8	8.0	6.3					
52171097	M9	9.0	7.1					
52171098	M10	10.0	8.0					

UNIT: mm

ITEM NO.	TC820B DIN 529 TAP	TAP SHANK Ø D	□	CAPACITY	L1	L2	ØD1	ØD2
52171099	M6	6.3	5.0					
52171100	M7	7.1	5.6					
52171101	M8	8.0	6.3					
52171102	M9	9.0	7.1	M8~M24	36	11	31	48
52171103	M10	10.0	8.0					

UNIT: mm

ITEM NO.	TC312B DIN 529/2283 TAP	TAP SHANK Ø D	□	CAPACITY	L1	L2	ØD1	ØD2
52171112	M3	2.24	1.8					
52171113	M3.5	2.5	2.0					
52171114	M4	3.15	2.5					
52171115	M4.5	3.55	2.8					
52171116	M5	4.0	3.15	M3~M14	22	7	19	30
52171117	M6	4.5	3.55					
52171118	M7	5.6	4.5					
52171119	M8	6.3	5.0					
52171120	M9	7.1	5.6					
52171121	M10	8.0	6.3					
52171122	M12	9.0	7.1					
52171123	M14	11.2	9.0					

UNIT: mm

ITEM NO.	TC820B DIN 529/2283 TAP	TAP SHANK Ø D	□	CAPACITY	L1	L2	ØD1	ØD2
52171124	M8	6.3	5.0					
52171125	M9	7.1	5.6					
52171126	M10	8.0	6.3					
52171127	M12	9.0	7.1					
52171128	M14	11.2	9.0	M8~M24	36	11	31	48
52171129	M16	12.5	10.0					
52171130	M18	14.0	11.2					
52171131	M20	14.0	11.2					
52171132	M22	16.0	12.5					
52171133	M24	18.0	14.0					

UNIT: mm

ITEM NO.	TC1433B DIN 529/2283 TAP	TAP SHANK Ø D	□	CAPACITY	L1	L2	ØD1	ØD2
52171134	M14	11.2	9.0					
52171135	M16	12.5	10.0					
52171136	M18	14.0	11.2					
52171137	M20	14.0	11.2					
52171138	M22	16.0	12.5	M14~M36	56	14	48	70
52171139	M24	18.0	14.0					
52171140	M27	20.0	16.0					
52171141	M30	20.0	16.0					
52171142	M33	22.4	18.0					
52171143	M36	25.0	20.0					



B2 - TAPPING CHUCKS

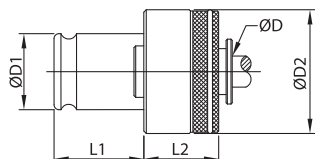
TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS

B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS

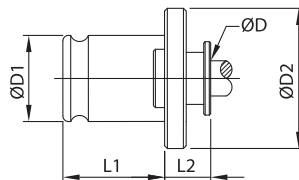


QUICK CHANGE TAP COLLETS – JIS TYPE

WITH OVERLOAD CLUTCH



RIGID TYPE



UNIT: mm									
ITEM NO.	TC312 DIN TAP	TAP ØD	SHANK □	CAPACITY	L1	L2	ØD1	ØD2	
52171144	PT1/8	8.0	6.0	PT1/8~PT1/4"	22	25	19	32	
52171145	PT1/4	11.0	9.0						

UNIT: mm									
ITEM NO.	TC820 DIN TAP	TAP ØD	SHANK □	CAPACITY	L1	L2	ØD1	ØD2	
52171146	PT1/8	8.0	6.0	PT1/8~PT1/2"	36	30.5	31	50	
52171147	PT1/4	11.0	9.0						
52171148	PT3/8	14.0	11.0						
52171149	PT1/2	18.0	14.0						

UNIT: mm									
ITEM NO.	TC433 DIN TAP	TAP ØD	SHANK □	CAPACITY	L1	L2	ØD1	ØD2	
52171150	PT1/4	11.0	9.0	PT1/4~PT1"	56	45	48	72	
52171151	PT3/8	14.0	11.0						
52171152	PT1/2	18.0	14.0						
52171153	PT3/4	23.0	17.0						
52171154	PT1	26.0	21.0						

UNIT: mm									
ITEM NO.	TC312B DIN TAP	TAP ØD	SHANK □	CAPACITY	L1	L2	ØD1	ØD2	
52171157	PT1/8	8.0	6.0	PT1/8~PT1/4"	22	7	19	30	
52171158	PT1/4	11.0	9.0						

UNIT: mm									
ITEM NO.	TC820B DIN TAP	TAP ØD	SHANK □	CAPACITY	L1	L2	ØD1	ØD2	
52171159	PT1/8	8.0	6.0	PT1/8~PT1/2"	36	11	31	48	
52171160	PT1/4	11.0	9.0						
52171161	PT3/8	14.0	11.0						
52171162	PT1/2	18.0	14.0						

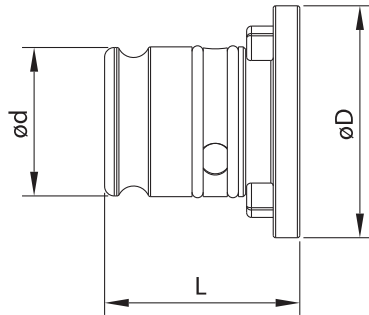
UNIT: mm									
ITEM NO.	TC1433B DIN TAP	TAP ØD	SHANK □	CAPACITY	L1	L2	ØD1	ØD2	
52171163	PT1/4	11.0	9.0	PT1/4~PT1"	56	14	48	70	
52171164	PT3/8	14.0	11.0						
52171165	PT1/2	18.0	14.0						
52171166	PT3/4	23.0	17.0						
52171167	PT1	26.0	21.0						



TAP CHUCK REDUCER

FEATURES:

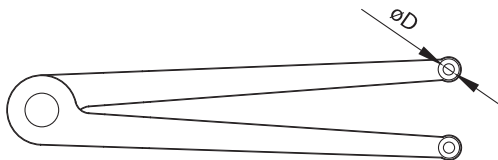
- The tap chuck adapter is designed for transferring a variety of tapping machine systems. It is easy to change quickly for users and apply in different system tools.



UNIT: mm						
ITEM NO.	SPECIFICATION	L	øD1	ød	COLLET	WEIGHT (g)
52171168	TC820-TC312	40.4	48	31	TC312 TC312B	168
52171169	TC1433-TC820	62.6	69	48	TC820 TC820B	558



ADJUSTABLE PIN WRENCHES



UNIT: mm			
ITEM NO.	SPECIFICATION	øD	COLLET
52171170	7-40	2.5	TC312
52171171	11-60	4	TC820



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS

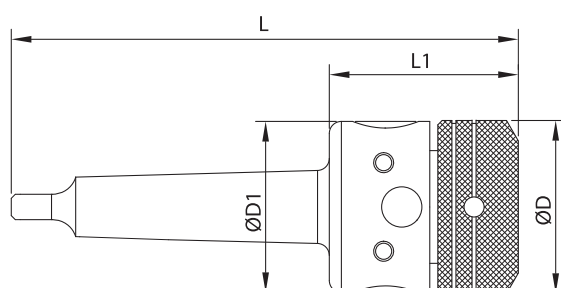


UNIVERSAL TAP CHUCKS

MORSE TAPER SHANK

APPLICATION:

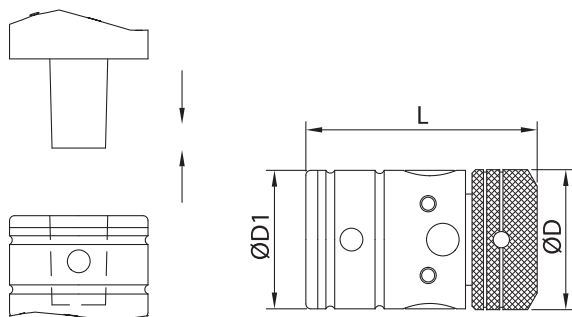
- The products are suitable for CNC machining centers, CNC turning centers, high-speed center lathes, drilling machines, radial drilling machines, air tapping machines, milling machines and other machines with reversible spindles.



UNIT: mm

ITEM NO.	SIZE	CAPACITY	TAPER MOUNT NO. DIN or JACOBS	L	L1	ØD	ØD1	WEIGHT(g)
52171172	1/2"	M3~M12 (1/8"~1/2")	MT2	129	49	43	42.5	-
52171174	5/8"	M3~M16 (1/8"~5/8")	MT2	136	60	48.5	46	732
52171175	5/8"	M3~M16 (1/8"~5/8")	MT3	-	60	48.5	46	-
52171176	3/4"	M9~M18 (3/8"~3/4")	MT2	143.5	58	51	49	924
52171177	3/4"	M9~M18 (3/8"~3/4")	MT3	162.5	58	51	49	1074
52171178	3/4"	M9~M18 (3/8"~3/4")	MT4	187.5	58	51	49	1380

WITH INNER TAPER HOLE



UNIT: mm

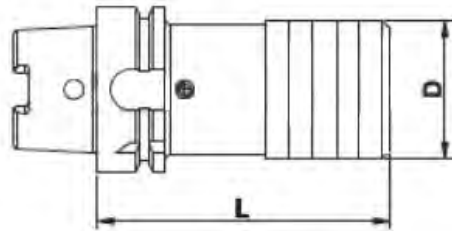
ITEM NO.	SIZE	CAPACITY	TAPER MOUNT NO. DIN or JACOBS	L	ØD	ØD1
52171179	1/2"	M3~M12 (1/8"~1/2")	JT6	72.5	43	42.5
52171182	1/2"	M3~M12 (1/8"~1/2")	B16	72.5	43	42.5
52171183	5/8"	M3~M16 (1/8"~5/8")	JT3	-	-	-
52171184	5/8"	M3~M16 (1/8"~5/8")	JT6	-	-	-
52171185	5/8"	M3~M16 (1/8"~5/8")	B18	-	-	-
52171186	3/4"	M9~M18 (3/8"~3/4")	JT3	82.5	51	49
52171187	3/4"	M9~M18 (3/8"~3/4")	JT6	82.5	51	49
52171188	3/4"	M9~M18 (3/8"~3/4")	B18	82.5	51	49



QUICK CHANGE TAPPING CHUCKS

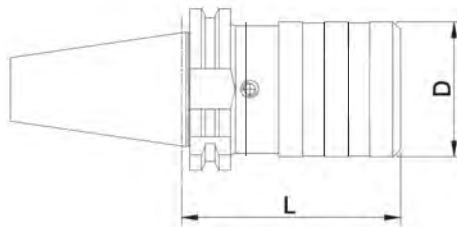
With length compensation, quick change of tap adapter.
Length compensation could prevent tap from breaking upon tapping.

- Custom-built products are available on request.
Tap collets to be ordered separately.



UNIT: mm

ITEM NO.	TYPE	CAPACITY	L	D	COLLETS
52172274	HSK40A-WF12	M3~M12	95	36	TC312/B
52172275	HSK50A-WF12	M3~M12	100	36	TC312/B
52172276	HSK50A-WF20	M8~M20	140	53	TC820/B
52172277	HSK63A-WF12	M3~M12	100	36	TC312/B
52172278	HSK63A-WF20	M8~M20	145	53	TC820/B
52172279	HSK63A-WF33	M14~M33	180	78	TC1433/B
52172280	HSK100A-WF12	M3~M12	110	36	TC312/B
52172281	HSK100A-WF20	M8~M20	150	53	TC820/B
52172282	HSK100A-WF33	M14~M33	190	78	TC1433/B



UNIT: mm

ITEM NO.	TYPE	CAPACITY	L	D	COLLETS
52172283	SK30A-WF12	M3~M12	70	36	TC312/B
52172284	SK30A-WF20	M8~M20	105	53	TC820/B
52172285	SK40A-WF12	M3~M12	75	36	TC312/B
52172286	SK40A-WF20	M8~M20	95	53	TC820/B
52172287	SK40A-WF33	M14~M33	160	78	TC1433/B
52172288	SK50A-WF12	M3~M12	85	36	TC312/B
52172289	SK50A-WF20	M8~M20	105	53	TC820/B
52172290	SK50A-WF33	M14~M33	150	78	TC1433/B



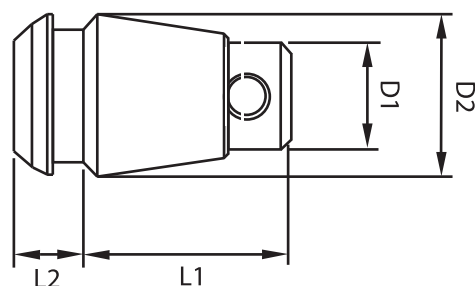
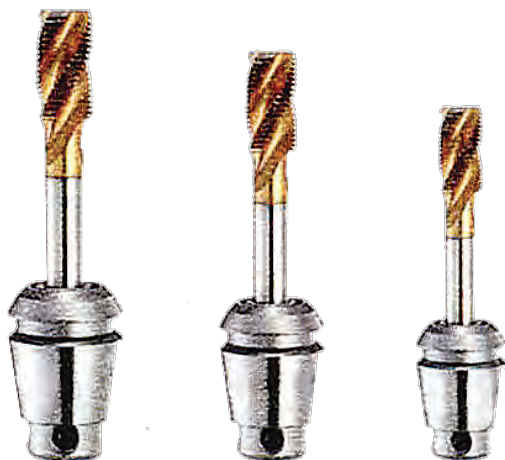
B2 - TAPPING CHUCKS

TOOLS OF WORKHOLDING&PRECISION TOOLS FOR MILLS&VMCS

B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



ER COMPENSATION TAPPING COLLETS



UNIT: mm

ITEM NO.	ER11-TYPE	CLAMPING RANGE	L1	L2	ØD1	ØD2
52172291	2.00	2~3.55	16.5	5	7	11.5
52172292	2.24					
52172293	2.50					
52172294	2.80					

UNIT: mm

ITEM NO.	ER11-TYPE	CLAMPING RANGE	L1	L2	ØD1	ØD2
52172295	3.00	2~3.55	16.5	5	7	11.5
52172296	3.15					
52172297	3.55					

UNIT: mm

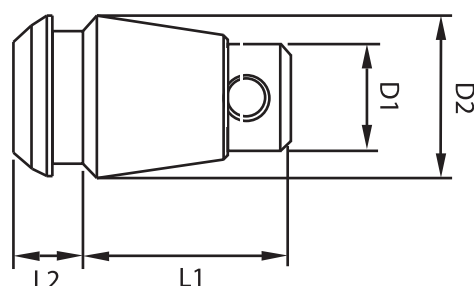
ITEM NO.	ER16-TYPE	CLAMPING RANGE	L1	L2	ØD1	ØD2
52172298	1.40	1.4~6	20	7	11	17
52172299	1.60					
52172300	1.80					
52172301	2.00					
52172302	2.24					
52172303	2.50					
52172304	2.80					
52172305	3.00					
52172306	3.15					
52172307	3.50					
52172308	3.55					
52172309	4.00					
52172310	4.50					
52172311	5.00					
52172312	5.50					
52172313	5.60					
52172314	6.00					

UNIT: mm

ITEM NO.	ER20-TYPE	CLAMPING RANGE	L1	L2	ØD1	ØD2
52172315	2.24	2.24~7	23	8	13	21
52172316	2.50					
52172317	2.80					
52172318	3.00					
52172319	3.15					
52172320	3.50					
52172321	3.55					
52172322	4.00					
52172323	4.50					
52172324	5.00					
52172325	5.50					
52172326	5.60					
52172327	6.00					
52172328	6.20					
52172329	6.30					
52172330	7.00					



ER COMPENSATION TAPPING COLLETS



UNIT: mm

ITEM NO.	ER25-TYPE	CLAMPING RANGE	L1	L2	ØD1	ØD2
52172331	2.50	2.5~10	24	10	19	26
52172332	2.80					
52172333	3.00					
52172334	3.15					
52172335	3.50					
52172336	3.55					
52172337	4.00					
52172338	4.50					
52172339	5.00					
52172340	5.50					

UNIT: mm

ITEM NO.	ER25-TYPE	CLAMPING RANGE	L1	L2	ØD1	ØD2
52172341	5.60	2.5~10	24	10	19	26
52172342	6.00					
52172343	6.20					
52172344	6.30					
52172345	7.00					
52172346	7.10					
52172347	8.00					
52172348	8.50					
52172349	9.00					
52172350	10.00					

UNIT: mm

ITEM NO.	ER32-TYPE	CLAMPING RANGE	L1	L2	ØD1	ØD2
52172351	4.50	4.5~12.5	32	11	23	33
52172352	5.00					
52172353	5.50					
52172354	5.60					
52172355	6.00					
52172356	6.20					
52172357	6.30					
52172358	7.00					
52172359	7.10					
52172360	8.00					
52172361	8.50					
52172362	9.00					
52172363	10.0					
52172364	10.5					
52172365	11.0					
52172366	11.2					
52172367	12.0					
52172368	12.5					

UNIT: mm

ITEM NO.	ER40-TYPE	CLAMPING RANGE	L1	L2	ØD1	ØD2
52172369	6.00	6~14	14	12	28	41
52172370	6.20					
52172371	6.30					
52172372	7.00					
52172373	7.10					
52172374	8.00					
52172375	8.50					
52172376	9.00					
52172377	10.0					
52172378	10.5					
52172379	11.0					
52172380	11.2					
52172381	12.0					
52172382	12.5					
52172383	14.0					



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS

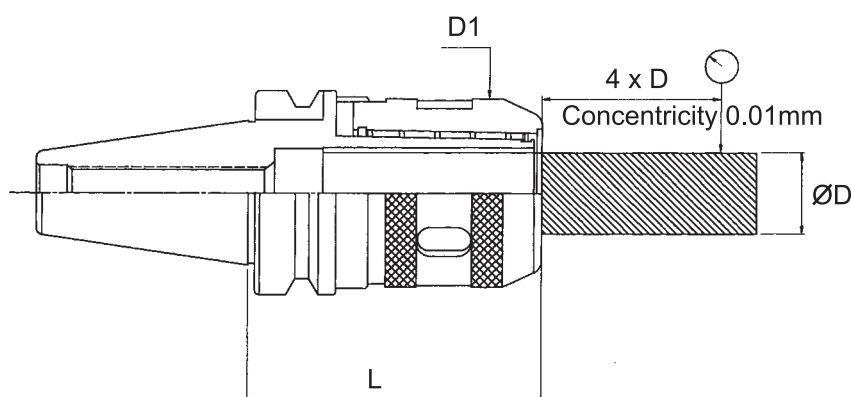
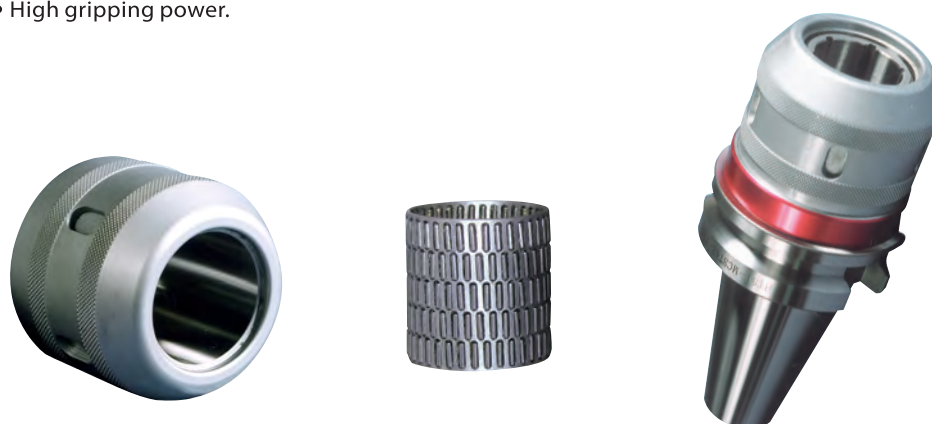


BT / MCST MILLING COLLET CHUCK HOLDERS

TYPE: MAS403

FEATURES:

- High precision needle bearing.
- High gripping power.



EACH UNIT INCLUDES WRENCH

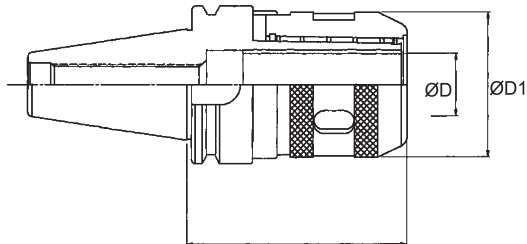
UNIT: mm

ITEM NO.	TYPE	ØD1	D1	L	CAPACITY	WEIGHT (kgs)
52101086	BT30-MCST20-85	20	52	85	ST20	1.5
52101088	BT40-MCST20-80	20	52	80	ST20	2
52101089	BT40-MCST20-120	20	52	120	ST20	2.8
52101090	BT40-MCST25-90	25	58	90	ST25	2.2
52101091	BT40-MCST25-135	25	58	135	ST25	2.9
52101015	BT40-MCST32-105	32	75	105	ST32	3
52101092	BT40-MCST32-150	32	75	150	ST32	3.5
52101016	BT50-MCST32-110	32	75	110	ST32	5.2
52101017	BT50-MCST32-150	32	75	150	ST32	7
52101020	BT50-MCST42-115	42	87	115	ST42	7
52101021	BT50-MCST42-150	42	87	150	ST42	8.5



SK / MCST MILLING COLLET CHUCK HOLDER

DIN69871A (W/ WRENCH)



UNIT: mm

ITEM NO.	TYPE	ØD	ØD1	L	COLLET	WEIGHT (g)
52101093	SK30-MCST20-95	20	52	95	ST20	1.5
52101094	SK40-MCST20-80	20	52	80	ST20	2
52101095	SK40-MCST25-90	25	58	90	ST25	2
52101096	SK40-MCST32-100	32	75	100	ST32	2.7
52101097	SK50-MCST32-105	32	75	105	ST32	4.5
52101098	SK50-MCST42-110	42	87	110	ST42	5.7

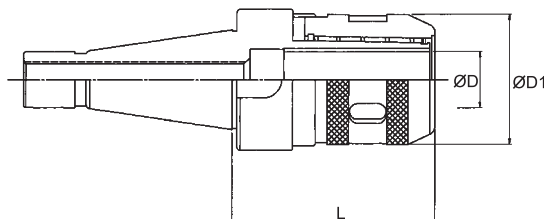


NT / MCST MILLING COLLET CHUCK HOLDER

DIN2080 (W/ WRENCH)

DRAWBAR:

- NT30: 1. M12 x 1.75P 2. 1/2"-12
- NT40: 1. M16 x 2.0P 2. 5/8"-11
- NT50: 1. M24 x 3.0P 2. 1"-8



UNIT: mm

ITEM NO.	TYPE	ØD	ØD1	L	COLLET	WEIGHT (g)
52101099	NT30-MCST20-80	20	52	80	ST20	1.5
52101100	NT30-MCST25-85	25	58	85	ST25	1.5
52101101	NT40-MCST20-80	20	52	80	ST20	2
52101102	NT40-MCST25-85	25	58	85	ST25	2
52101103	NT40-MCST32-95	32	75	95	ST32	2.6
52101104	NT50-MCST32-100	32	75	100	ST32	4.5
52101105	NT50-MCST42-110	42	87	110	ST42	5.5



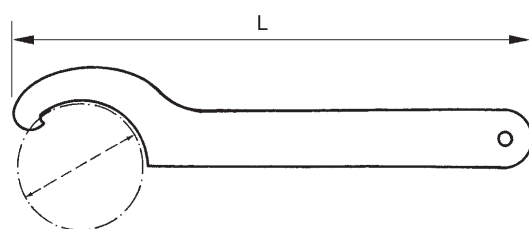
B3 - HOLDERS, SHANKS, CHUCKS, ADAPTERS, ARBORS

TOOLS OF WORKHOLDING&PRECISION TOOLS FOR MILLS&VMCS

B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



MCST 20, 25, 32, 42 WRENCHES



UNIT: mm

ITEM NO.	TYPE	L	D	WEIGHT (kgs)
52101106	MCST20	227	52	0.22
52101107	MCST25	227	58	0.22
52101108	MCST32	260	75	0.33
52101109	MCST42	270	87	0.35



END MILL HOLDERS



UNIT: mm

ITEM NO.	TAPER	HOLE DIA.	THREADS FOR DRAWBAR
52160294	NT30	12	M12-1.75 1/2" x 12
52160295		16	
52160296		20	
52160297		25	
52160298	NT40	12	M16-2.0
52160299		16	
52160300		20	
52160301		25	
52160302		32	
52160303	NT50	42	M24-3.0
52160304		12	
52160305		16	
52160306		20	
52160307		25	
52160308		32	
52160309		42	

UNIT: mm

ITEM NO.	TAPER	HOLE DIA.	THREADS FOR DRAWBAR
52160310	R8	12	7/16"-20
52160311		16	
52160312		20	
52160313		25	
52160314	MT 3	12	M10-1.5 or M12-1.75 3/8" x 16 or 1/2" x 12
52160364		16	
52160365		20	
52160366		25	
52160315	MT 4	12	M12-1.75
52160367		16	
52160368		20	
52160369		25	
52160370		32	



FACE MILL HOLDERS (FMA-inch / FMB-mm)



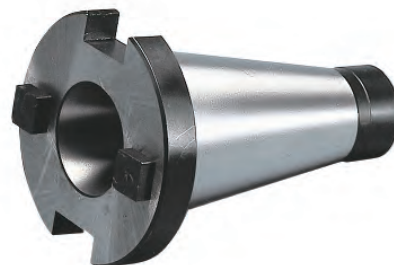
UNIT: mm			UNIT: mm			UNIT: mm		
ITEM NO.	TAPER	HOLE DIA.	ITEM NO.	TAPER	HOLE DIA.	ITEM NO.	TAPER	HOLE DIA.
52160316	ISO 30	22	52160324	ISO 50	22	52160372	MT3	22
52160317		27	52160325		27	52160331		27
52160318		32	52160326		32	52160373		32
52160319	ISO 40	22	52160327	R8	40	52160374	MT4	22
52160320		27	52160328		60	52160332		27
52160321		32	52160329		22	52160375		32
52160322		40	52160330	R8	27			
52160323		60	52160371		32			



MILLING MACHINE ADAPTERS



▲ ITEM NO. 52160333~52160345



▲ ITEM NO. 52160346~52160350

ITEM NO.	TAPER	HOLE DIA.
52160333	ISO 30	MT1
52160334		MT2
52160335		MT3
52160336		MT4
52160337	ISO 40	MT2
52160338		MT3
52160339		MT4
52160340		MT5

ITEM NO.	TAPER	HOLE DIA.
52160341	ISO 50	MT2
52160342		MT3
52160343		MT4
52160344		MT5
52160345		MT6

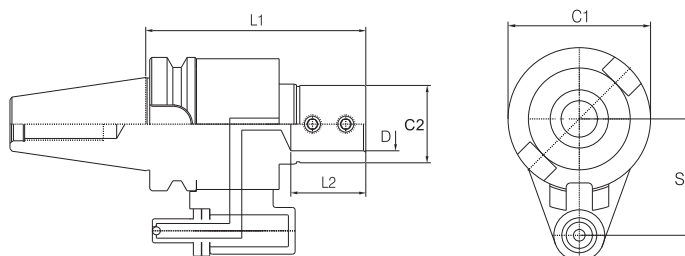
ITEM NO.	TAPER	HOLE DIA.
52160346	ISO 40	ISO 30
52160347	ISO 50	
52160348	ISO 50	ISO 40
52160349	ISO 40	R8
52160350	ISO 50	



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



OIL-FEED HOLDERS/ BT-OSL (CNC TOOLINGS)



UNIT: mm

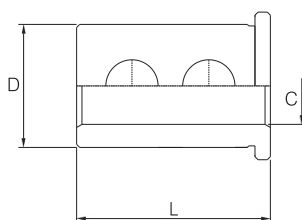
ITEM NO.	D	C1	C2	L1	L2	S	WEIGHT (kgs)	TYPE
52171189	16	82	48	150	48	65	3.8	BT40
52171190	20	82	48	150	50	65	3.8	
52171191	25	82	48	165	56	65	4	
52171192	32	82	75	165	60	65	4.1	
52171193	32	82	75	165	60	65	4.1	BT40 (ER32)
52171194	16	98	48	165	48	80	7.1	BT50
52171195	20	98	48	165	50	80	7.2	
52171196	25	98	48	165	56	80	7.5	
52171197	32	98	58	165	60	80	7.6	
52171198	40	98	58	165	70	80	7.8	
52171199	32	98	58	165	40	80	7.72	BT50 (ER32)



REDUCING SLEEVES FOR OIL-FEED HOLDER OSL-SD (C TYPE)

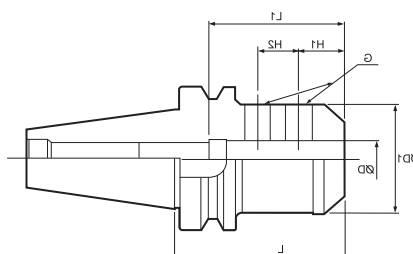
UNIT: mm

ITEM NO.	D	C	L	WEIGHT (kgs)	TYPE
52171200	32	16	66	0.5	C32
52171201	32	20	66	0.4	
52171202	32	25	66	0.3	
52171203	40	16	70	0.9	C40
52171204	40	20	70	0.8	
52171205	40	25	70	0.6	
52171206	40	32	70	0.5	





BT END MILL HOLDERS



UNIT:mm

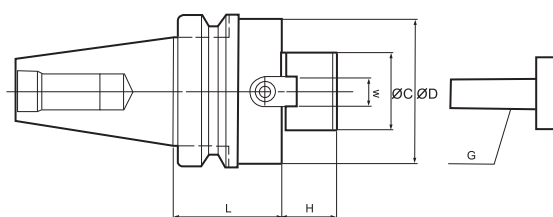
ITEM NO.	TYPE	ØD	ØD1	L	L1	H1	H2	G	WEIGHT (kgs)
52101553	BT30-SLA6-60	6	25	60	30	12	10	M6 x 1.0P	0.65
52101554	BT30-SLA8-60	8	28	60	35	14	12	M8 x 1.25P	0.65
52101555	BT30-SLA10-60	10	35	60	40	15	14	M8 x 1.25P	0.7
52101556	BT30-SLA12-60	12	42	60	50	20	16	M12 x 1.5P	0.7
52101557	BT30-SLA16-75	16	48	75	60	20	18	M12 x 1.5P	0.8
52101558	BT30-SLA20-75	20	52	75	70	23	19	M12 x 1.5P	0.8
52101559	BT40-SLA6-75	6	25	75	30	12	10	M6 x 1.0P	1.1
52101560	BT40-SLA8-75	8	28	75	35	14	12	M8 x 1.25P	1.2
52101561	BT40-SLA10-75	10	35	75	40	15	14	M8 x 1.25P	1.3
52101562	BT40-SLA12-75	12	42	75	50	20	16	M12 x 1.5P	1.4
52101563	BT40-SLA14-75	14	44	75	50	20	16	M12 x 1.5P	1.4
52101564	BT40-SLA16-75	16	48	75	60	20	18	M12 x 1.5P	1.5
52101565	BT40-SLA18-75	18	50	75	60	20	18	M12 x 1.5P	1.5
52101566	BT40-SLA20-90	20	52	90	70	23	19	M12 x 1.5P	1.8
52101567	BT40-SLA25-90	25	62	90	80	24	25	M18 x 1.5P	2.1
52101568	BT40-SLA32-90	32	63	90	80	24	28	M20 x 1.5P	2
52101569	BT40-SLA40-105	40	79	105	80	24	28	M20 x 1.5P	2.9
52101570	BT40-SLA42-105	42	79	105	80	24	28	M20 x 1.5P	2.9
52101571	BT50-SLA6-90	6	25	90	30	12	10	M6 x 1.0P	3.7
52101904	BT50-SLA6-150	6	25	150	30	12	10	M6 x 1.0P	4
52101905	BT50-SLA8-90	8	28	90	35	14	12	M8 x 1.25P	3.7
52101906	BT50-SLA8-150	8	28	150	35	14	12	M8 x 1.25P	4.15
52101573	BT50-SLA10-90	10	35	90	40	15	14	M8 x 1.25P	3.9
52101907	BT50-SLA10-150	10	35	150	40	15	14	M8 x 1.25P	4.3
52101574	BT50-SLA12-90	12	42	90	50	20	16	M12 x 1.5P	3.9
52101908	BT50-SLA12-150	12	42	150	50	20	16	M12 x 1.5P	4.6
52101575	BT50-SLA14-90	14	44	90	55	20	16	M12 x 1.5P	3.9
52101576	BT50-SLA16-90	16	48	90	60	20	18	M12 x 1.5P	4.1
52101577	BT50-SLA16-150	16	48	150	60	20	18	M12 x 1.5P	5
52101578	BT50-SLA18-90	18	50	90	60	20	18	M12 x 1.5P	4.1
52101579	BT50-SLA20-105	20	52	105	70	23	19	M12 x 1.5P	4.8
52101580	BT50-SLA20-150	20	52	150	70	23	19	M12 x 1.5P	5.2
52101909	BT50-SLA20-200	20	52	200	70	23	19	M12 x 1.5P	6.1
52101910	BT50-SLA20-250	20	52	250	70	23	19	M12 x 1.5P	7.1
52101581	BT50-SLA25-105	25	65	105	80	24	25	M18 x 1.5P	5
52101582	BT50-SLA25-150	25	65	150	80	24	25	M18 x 1.5P	6.1
52101911	BT50-SLA25-200	25	65	200	80	24	25	M18 x 1.5P	7.3
52101912	BT50-SLA25-250	25	65	250	80	24	25	M18 x 1.5P	9
52101583	BT50-SLA32-105	32	72	105	80	24	28	M20 x 1.5P	5.1
52101584	BT50-SLA32-150	32	72	150	80	24	28	M20 x 1.5P	6.5
52101913	BT50-SLA32-200	32	72	200	80	24	28	M20 x 1.5P	8.1
52101914	BT50-SLA32-250	32	72	250	80	24	28	M20 x 1.5P	9.8
52101585	BT50-SLA40-120	40	90	120	90	30	32	M20 x 1.5P	6.5
52101586	BT50-SLA42-120	42	90	120	90	30	32	M20 x 1.5P	6.5



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



BT / FMA-inch FACE MILL HOLDERS

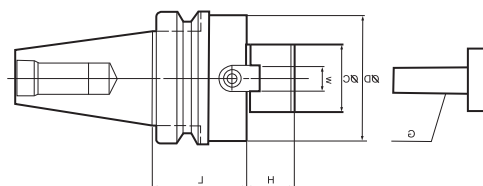


UNIT:mm

ITEM NO.	TYPE	ØC	ØD	L	H	W	G	WEIGHT (kgs)
52101597	BT30-FMA25.4-50	25.4	50	50	20	9.5	M12 x 1.75P	0.8
52101598	BT40-FMA25.4-45	25.4	50	45	20	9.5	M12 x 1.75P	1.5
52101599	BT40-FMA25.4-90	25.4	50	90	20	9.5	M12 x 1.75P	2.2
52101600	BT40-FMA31.75-45	31.75	60	45	22	12.7	M16 x 2.0P	1.7
52101601	BT40-FMA31.75-90	31.75	60	90	22	12.7	M16 x 2.0P	2.7
52101602	BT40-FMA38.1-60	38.1	74	60	25	15.9	M20 x 2.5P	2.5
52101603	BT50-FMA25.4-45	25.4	62	45	20	9.5	M12 x 1.75P	4
52101604	BT50-FMA25.4-75	25.4	50	75	20	9.5	M12 x 1.75P	4.5
52101605	BT50-FMA25.4-105	25.4	50	105	20	9.5	M12 x 1.75P	5.2
52101606	BT50-FMA25.4-150	25.4	50	150	20	9.5	M12 x 1.75P	6.3
52101607	BT50-FMA25.4-200	25.4	50	200	20	9.5	M12 x 1.75P	7.1
52101608	BT50-FMA31.75-45	31.75	70	45	22	12.7	M16 x 2.0P	4.2
52101609	BT50-FMA31.75-75	31.75	60	75	22	12.7	M16 x 2.0P	5
52101610	BT50-FMA31.75-105	31.75	60	105	22	12.7	M16 x 2.0P	5.7
52101611	BT50-FMA31.75-150	31.75	60	150	22	12.7	M16 x 2.0P	6.9
52101612	BT50-FMA31.75-200	31.75	60	200	22	12.7	M16 x 2.0P	7.7
52101613	BT50-FMA38.1-45	38.1	80	45	25	15.9	M20 x 2.5P	4.5
52101614	BT50-FMA38.1-75	38.1	80	75	25	15.9	M20 x 2.5P	5.3
52101615	BT50-FMA50.8-45	50.8	100	45	25	19.05	M24 x 3.0P	6.5
52101616	BT50-FMA50.8-75	50.8	100	75	25	19.05	M24 x 3.0P	7
52101617	BT50-FMA47.625-75	47.625	128.75	75	18	25.4		7



BT / FMB-mm FACK MILL HOLDERS



UNIT:mm

ITEM NO.	TYPE	ØC	ØD	L	H	W	G	WEIGHT(kgs)
52101618	BT30-FMB22-45	22	48	45	18	10	M10 x 1.5P	0.7
52101619	BT30-FMB27-45	27	60	45	20	12	M12 x 1.75P	0.8
52101620	BT40-FMB22-45	22	48	45	18	10	M10 x 1.5P	1.4
52101621	BT40-FMB22-90	22	48	90	18	10	M10 x 1.5P	2.1
52101622	BT40-FMB27-45	27	60	45	20	12	M12 x 1.75P	1.6
52101623	BT40-FMB27-90	27	60	90	20	12	M12 x 1.75P	2.6
52101624	BT40-FMB32-45	32	62	45	22	14	M16 x 2.0P	1.1
52101625	BT40-FMB40-60	40	85	60	26	16	M20 x 2.5P	1.2
52101626	BT50-FMB22-45	22	60	45	18	10	M10 x 1.5P	4
52101627	BT50-FMB22-75	22	48	75	18	10	M10 x 1.5P	4.3
52101628	BT50-FMB22-105	22	48	105	18	10	M10 x 1.5P	5
52101629	BT50-FMB22-150	22	48	150	18	10	M10 x 1.5P	5.8
52101630	BT50-FMB27-45	27	70	45	20	12	M12 x 1.75P	4.1
52101631	BT50-FMB27-75	27	60	75	20	12	M12 x 1.75P	4.7
52101632	BT50-FMB27-105	27	60	105	20	12	M12 x 1.75P	5.5
52101633	BT50-FMB27-150	27	60	150	20	12	M12 x 1.75P	6.7
52101634	BT50-FMB32-45	32	75	45	22	14	M16 x 2.0P	4.2
52101635	BT50-FMB32-75	32	80	75	22	14	M16 x 2.0P	5.3
52101636	BT50-FMB32-105	32	80	105	22	14	M16 x 2.0P	6.3
52101637	BT50-FMB32-150	32	80	150	22	14	M16 x 2.0P	8.3
52101638	BT50-FMB40-75	40	85	75	26	16	M20 x 2.5P	5.9



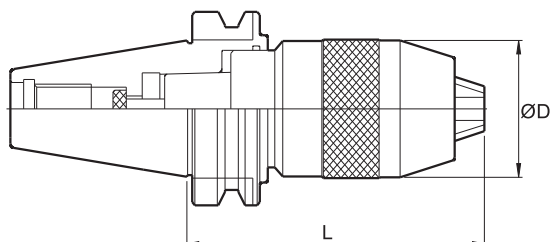
B3 - HOLDERS, SHANKS, CHUCKS, ADAPTERS, ARBORS

TOOLS OF WORKHOLDING&PRECISION TOOLS FOR MILLS&VMCS

B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



BT CNC DRILL CHUCKS

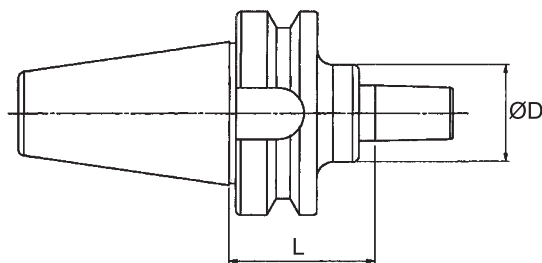


UNIT: mm

ITEM NO.	TYPE	L	D	WEIGHT (kgs)
52101639	BT30-APU08-80	80	37	0.8
52101640	BT30-APU13-100	100	50	1.6
52101641	BT40-APU08-85	85	37	1.3
52101642	BT40-APU13-110	110	50	1.7
52101643	BT40-APU16-120	120	58	2.1
52101644	BT50-APU08-95	95	37	4
52101645	BT50-APU13-120	120	50	4.3
52101646	BT50-APU13-180	180	50	5.6
52101647	BT50-APU16-120	120	58	4.5
52101898	BT50-APU16-190	190	58	6.3



BT DRILL CHUCK ARBORS



UNIT: mm

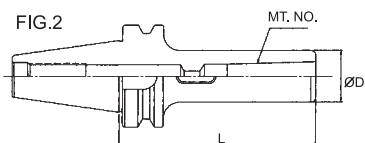
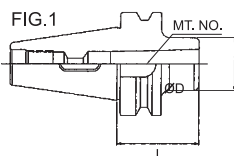
ITEM NO.	TYPE	L	D	WEIGHT (kgs)
52101899	BT40-JTA1-45	45	30	1.3
52101900	BT40-JTA2-45	45	30	1.3
52101670	BT40-JTA6-45	45	30	1.2
52101901	BT40-JTA6-90	90	30	1.5
52101902	BT50-JTA1-45	45	30	4.1
52101903	BT50-JTA2-45	45	30	4.1
52101672	BT50-JTA6-45	45	30	4.2
52101673	BT50-JTA6-105	105	30	4.6



BT / MTA AMORSE TAPER ADAPTERS (TYPE A)

MORSE TAPER:

- For adapting drills with morse taper shank.

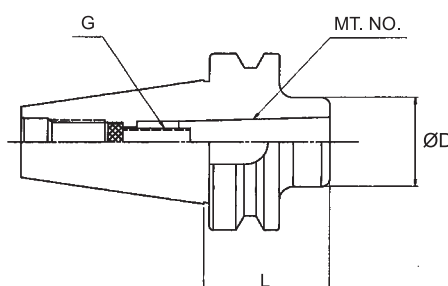


UNIT: mm

ITEM NO.	TYPE	FIG	L	ØD	WEIGHT (kgs)
52101648	BT30-MTA1-45	1	45	25	0.7
52101649	BT30-MTA2-60	1	60	32	0.8
52101651	BT40-MTA1-50	1	50	25	1
52101652	BT40-MTA1-120	2	120	25	1.3
52101653	BT40-MTA2-50	1	50	32	1
52101654	BT40-MTA2-120	2	120	32	1.4
52101655	BT40-MTA3-75	1	75	40	1.2
52101656	BT40-MTA3-135	2	135	40	1.7
52101657	BT40-MTA4-95	1	95	48	1.4
52101658	BT40-MTA4-165	2	165	48	2.3
52101659	BT50-MTA1-45	1	45	25	3.5
52101660	BT50-MTA1-120	2	120	25	3.9
52101661	BT50-MTA2-50	1	50	32	3.5
52101662	BT50-MTA2-135	2	135	32	4
52101663	BT50-MTA3-65	1	65	40	3.6
52101664	BT50-MTA3-150	2	150	40	4.4
52101665	BT50-MTA4-75	1	75	48	3.6
52101666	BT50-MTA4-180	2	180	48	4.9
52101886	BT50-MTA5-105	1	105	63	4.2



BT / MTB MORSE TAPER ADAPTERS (TYPE B)



UNIT: mm

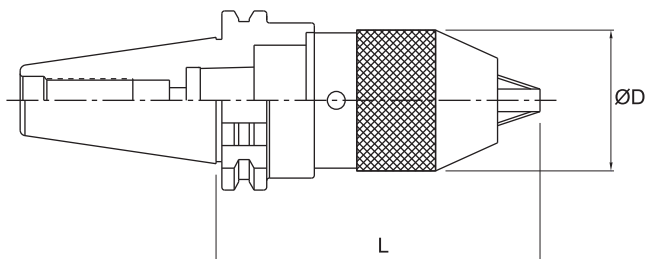
ITEM NO.	TYPE	MT NO.	L	ØD	G	WEIGHT (kgs)
52101887	BT30-MTB1-45	MTB1	45	25	M6	0.7
52101888	BT30-MTB2-60	MTB2	60	32	M10	0.8
52101889	BT40-MTB1-45	MTB1	45	25	M6	1
52101890	BT40-MTB2-45	MTB2	45	32	M10	1
52101891	BT40-MTB3-75	MTB3	75	40	M12	1.2
52101892	BT40-MTB4-75	MTB4	75	48	M16	1.3
52101893	BT50-MTB1-45	MTB1	45	25	M6	3.5
52101894	BT50-MTB2-45	MTB2	45	32	M10	3.6
52101895	BT50-MTB3-60	MTB3	60	40	M12	3.7
52101896	BT50-MTB4-75	MTB4	75	48	M16	3.7
52101897	BT50-MTB5-120	MTB5	120	63	M20	5.2



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



DIN 69871A – CNC DRILL CHUCKS



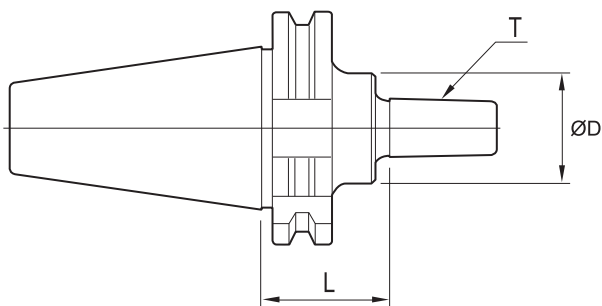
UNIT: mm

ITEM NO.	TYPE	L	ØD	WEIGHT (kgs)
52101676	SK40-APU08-80	80	37	1.3
52101678	SK40-APU13-105	105	50	1.7
52101680	SK50-APU08-80	80	37	3.8
52101682	SK50-APU13-105	105	50	4.1
52101684	SK50-APU16-115	115	58	4.3



DIN 69871A – CNC TOOLING SK SHANKS

DRILL CHUCK ARBORS

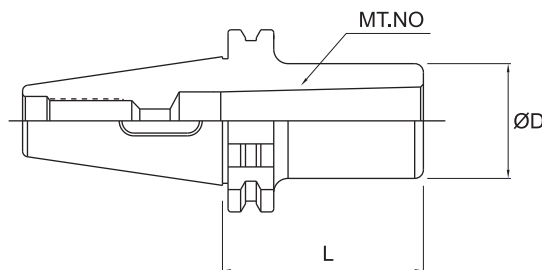


UNIT: mm

ITEM NO.	TYPE	TAPER SHANK	T	L
52101694	SK40-B16-45	SK40	B16	45
52101695	SK40-B18-45		B18	45
52101696	SK50-B16-45	SK50	B16	45
52101697	SK50-B18-45		B18	45



DIN 69871A – MORSE TAPER ADAPTORS



UNIT:mm

ITEM NO.	TYPE	L	ØD	WEIGHT (kgs)
52101685	SK40-MTA1-45	45	25	1.2
52101686	SK40-MTA2-50	50	32	1.1
52101687	SK40-MTA3-70	70	40	1.2
52101688	SK40-MTA4-90	90	48	1.35
52101689	SK50-MTA1-45	45	25	3
52101690	SK50-MTA2-60	60	32	3.1
52101691	SK50-MTA3-65	65	40	3.3
52101692	SK50-MTA4-90	90	48	3.45
52101693	SK50-MTA5-105	105	63	3.7



DIN 69871A – CNC TOOLING SK SHANKS

FACE MILL ARBOR

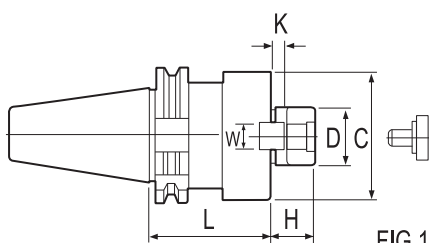


FIG.1

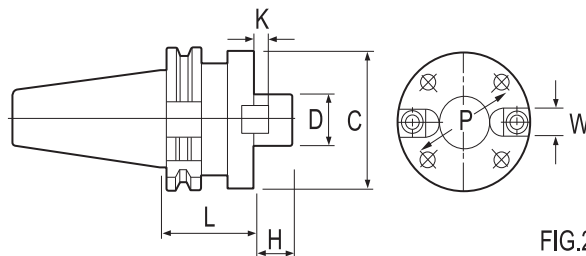


FIG.2

UNIT:mm

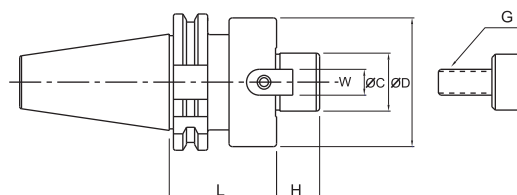
ITEM NO.	TYPE	TAPER SHAHK	FIG	D	L	C	H	K	W	P
52101698	SK40-FMA16-50	SK40	1	16	50	44	17	4	8	-
52101699	SK40-FMA22-50		1	22	50	54	19	5	10	-
52101700	SK40-FMA27-55		1	27	55	60	21	6	12	-
52101701	SK40-FMA32-60		1	32	60	72	24	7	14	-
52101702	SK50-FMA40-90F	SK50	2	40	90	89	27	8	16	66.7
52101703	SK50-FMA22-45		1	22	45	50	19	5	10	-
52101704	SK50-FMA27-45		1	27	45	60	21	6	12	-
52101705	SK50-FMA32-45		1	32	45	72	24	7	14	-
52101706	SK50-FMA40-70F		2	40	70	89	27	8	16	66.7
52101707	SK50-FMA60-70F		2	60	70	129	25	12.4	25.4	101.6



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



DIN 69871A – SHELL END MILL HOLDERS



UNIT: mm

ITEM NO.	TYPE	ØC	ØD	L	H	W	G	WEIGHT (kgs)
52101915	SK40-FMB22-45	22	48	45	18	10	M10 x 1.5P	1.2
52101916	SK40-FMB27-45	27	60	45	20	12	M12 x 1.75P	1.6
52101917	SK40-FMB32-45	32	62	45	22	14	M16 x 2.0P	1.9
52101918	SK50-FMB22-45	22	60	45	18	10	M10 x 1.5P	3.4
52101919	SK50-FMB27-45	27	70	45	20	12	M12 x 1.75P	3.5
52101920	SK50-FMB32-45	32	75	45	22	14	M16 x 2.0P	3.7
52101921	SK50-FMB40-55	40	85	55	26	16	M20 x 2.5P	4.7



DIN 69871A – END MILL HOLDERS

FIG.1

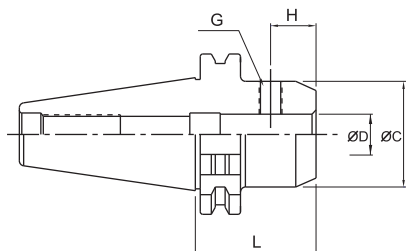
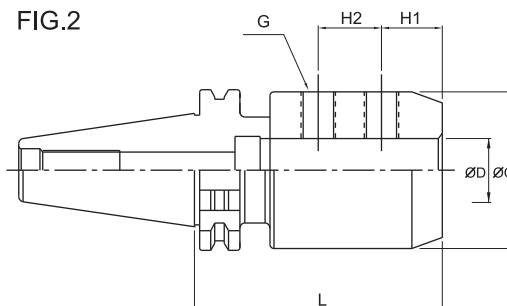


FIG.2



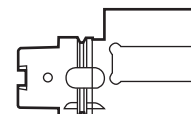
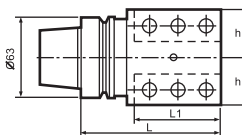
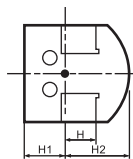
UNIT: mm

ITEM NO.	TYPE	FIG	ØC	ØD	L	H1	H2	G	WEIGHT (kgs)
52101718	SK40-SLA6-50	1	25	6	50	18	-	M6	0.9
52101719	SK40-SLA8-50		28	8	50	18	-	M8	1
52101720	SK40-SLA10-50		35	10	50	20	-	M10	1.1
52101721	SK40-SLA12-50		42	12	50	22.5	-	M12	1.15
52101722	SK40-SLA16-63		48	16	63	24	-	M14	1.35
52101723	SK40-SLA20-63	2	48	20	63	25	-	M16	1.4
52101724	SK40-SLA25-100		62	25	100	24	25	M18	2.2
52101725	SK40-SLA32-100		72	32	100	24	28	M20	2.6
52101726	SK50-SLA6-63	1	25	6	63	18	-	M6	3.1
52101727	SK50-SLA8-63		28	8	63	18	-	M8	3.15
52101728	SK50-SLA10-63		35	10	63	20	-	M10	3.3
52101729	SK50-SLA12-63		42	12	63	22.5	-	M12	3.5
52101730	SK50-SLA16-63		48	16	63	24	-	M14	3.5
52101731	SK50-SLA20-63	2	52	20	63	25	-	M16	3.6
52101732	SK50-SLA25-80		65	25	80	24	25	M18	4.3
52101733	SK50-SLA32-100		72	32	100	24	28	M20	5.1
52101734	SK50-SLA40-120		90	40	120	30	32	M20	5.8



HSK HOLDER FOR TURNING MILLS

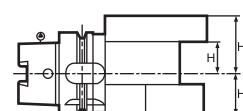
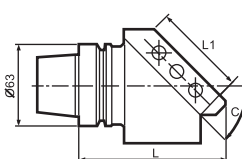
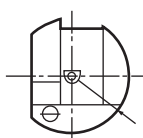
• ETA TYPE



UNIT: mm

ITEM NO.	L	L1	H	H1	H2	h
52171207	105	65	25	32	51	38

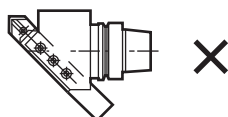
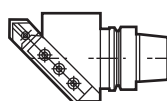
• ETN TYPE



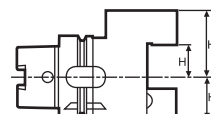
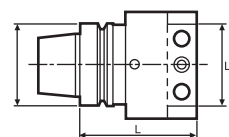
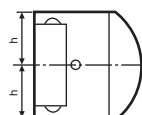
UNIT: mm

ITEM NO.	L	L1	H	H1	H2	R	C
52171208	115	70	25	32	45	45	45°

NOTICE:



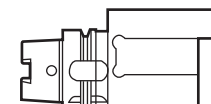
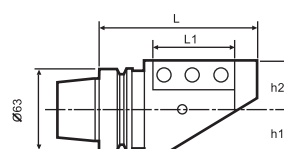
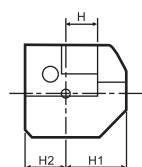
• ETH TYPE



UNIT: mm

ITEM NO.	L	L1	H	H1	H2	h
52171209	90	63	25	32	51	40.5

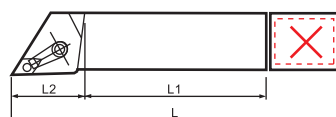
• ETV TYPE



UNIT: mm

ITEM NO.	L	L1	H	H1	H2	h1	h2
52171210	125	65	25	48	32	34	38

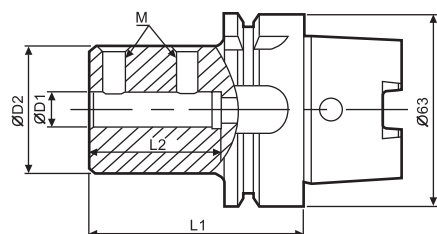
NOTICE:



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



HSK HOLDER FOR TURNING MILLS (WE TYPE)



UNIT: mm

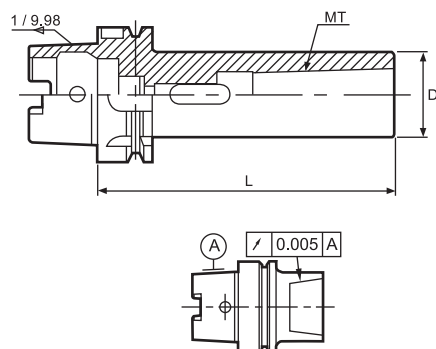
ITEM NO.	ØD1	ØD2	L1	L2	M
52171211	28	8	65	40	M8
52171212	35	10	70	45	M8
52171213	42	12	70	45	M8
52171214	48	16	75	50	M10
52171215	52	20	75	50	M10
52171216	62	25	83	58	M12
52171217	62	32	87	62	M12
52171218	65	40	97	72	M16



HSK MTA TYPE MORSE TAPER HOLDERS

MTA HSK (DIN 69893A)

- STD: 16000 rpm / G6.3
- OPT: 24000 rpm / G2.5

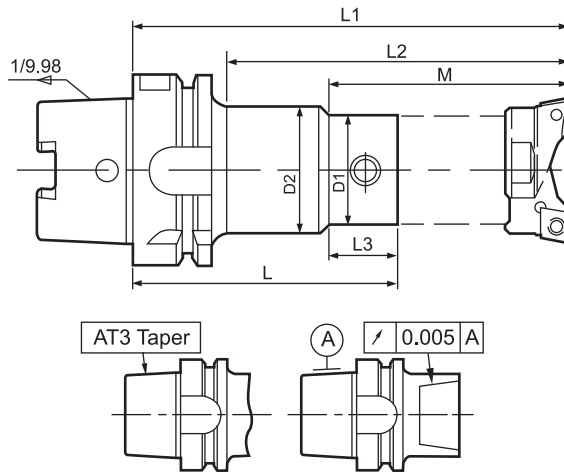


UNIT: mm

ITEM NO.	MT NO.	L	ØD
52171219	1	100	25
52171220	2	120	35
52171221	3	140	40
52171222	4	160	50
52171223	1	110	25
52171224	2	120	35
52171225	3	150	40
52171226	4	170	50
52171227	5	200	65



HSK BORING HOLDERS (ECK TYPE)



ECK-HSK (DIN 69893A)

- STD: 16000 rpm / G6.3
- OPT: 24000 rpm / G2.5

UNIT: mm

ITEM NO.	ØD1	ØD2	M	L	L1	L2	L3
52171228	23	36	100	100	140	109	60
52171229	29	-	114	100	145	114	-
52171230		40	121	125	170	139	76
52171231	37	-	128	100	155	128	-
52171232		-	149	125	180	149	-
52171233	48	-	129	100	160	129	-
52171234		-	153	125	185	153	-
52171235		-	144	100	175	144	-
52171236	60	-	169	125	200	169	-
52171237	23	36	100	125	165	131	60
52171238	29	40	121	125	170	136	76
52171239		40	121	150	195	161	76
52171240	37	-	121	100	155	121	-
52171241		-	146	125	180	146	-
52171242		-	171	150	205	171	-
52171243		-	126	100	210	126	-
52171244	48	-	176	150	210	176	-
52171245		-	226	200	260	226	-
52171246	60	-	191	150	225	191	-
52171247		-	241	200	275	241	-
52171248		-	291	250	325	291	-
52171249		-	206	150	240	206	-
52171250	80	-	256	200	290	256	-
52171251		-	306	250	340	306	-



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



HSK EMC POWER MILLING CHUCKS

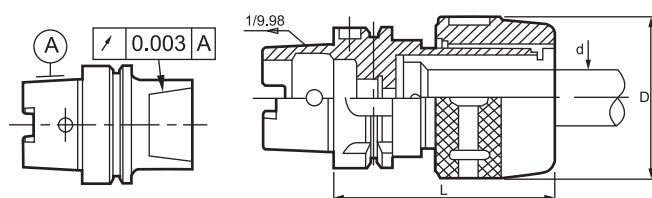


EMC HSK (DIN 69893A)

- STD: 16000 rpm / G6.3
- OPT: 24000 rpm / G2.5

UNIT: mm

ITEM NO.	L	øD	ød
52171252	100	73.5	6-32
52171253	100	73.5	6-32



HSK EM SMALL MILLING CUTTER HOLDERS

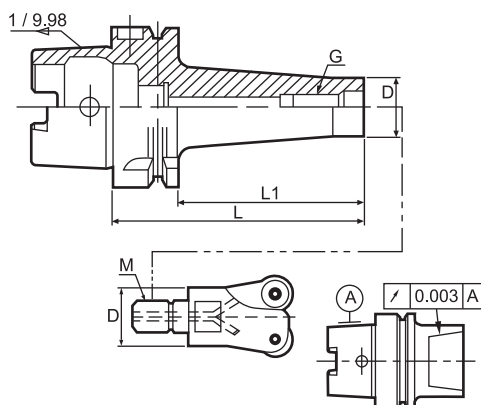


EM-HSK (DIN 69893A)

- STD: 16000 rpm / G6.3
- OPT: 24000 rpm / G2.5

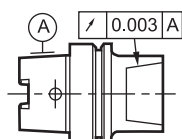
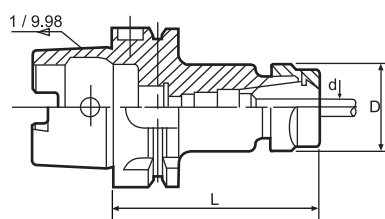
UNIT: mm

ITEM NO.	L	L2	øD	G
52171254	100	74	13.8	M8
52171255	150	124		
52171256	100	74	18.5	M10
52171257	150	124		
52171258	100	74	23	M12
52171259	150	124		
52171260	100	74	30	M16
52171261	150	124		
52171262	100	71	13.8	M8
52171263	150	121		
52171264	100	71	18.5	M10
52171265	150	121		
52171266	100	71	23	M12
52171267	150	121		
52171268	100	71	30	M16
52171269	150	121		





HSK ER COLLET CHUCKS



ER-HSK (DIN69893A)

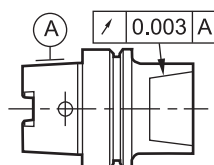
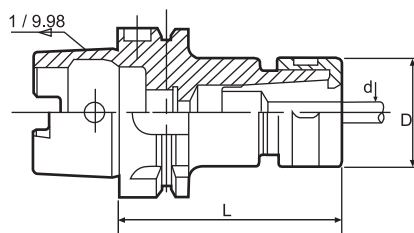
- STD: 16000 rpm / G6.3
- OPT: 24000 rpm / G2.5

UNIT: mm

ITEM NO.	L	øD1	ød
52171270	100	30	0.5~10
52171271	150		
52171272	100	35	1.0~13
52171273	150		
52171274	100	42	1.0~16
52171275	150		
52171276	100	50	2.0~20
52171277	150		
52171278	100	63	3.0~26
52171279	150		
52171280	100	30	0.5~10
52171281	150		
52171282	100	35	1.0~13
52171283	150		
52171284	100	42	1.0~16
52171285	150		
52171286	100	50	2.0~20
52171287	150		
52171288	100	63	3.0~26
52171289	150		



HSK SD PRECISION COLLET CHUCKS



SD HSK (DIN69893A)

- STD: 16000 rpm / G6.3
- OPT: 24000 rpm / G2.5

UNIT: mm

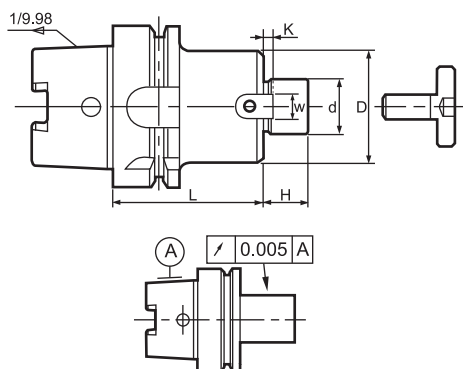
ITEM NO.	L	øD1	ød
52171290	100	20	1.75~6
52171291	150		
52171292	80	29	1.75~10
52171293	100		
52171294	150	41	2.75~16
52171295	80		
52171296	100	50	4~20
52171297	150		
52171298	100	55	6~25
52171299	150		
52171300	100	20	1.75~6
52171301	150		
52171302	100	29	1.75~10
52171303	150		
52171304	100	41	2.75~16
52171305	150		
52171306	100	50	4~20
52171307	150		
52171308	100	55	6~25
52171309	150		
52171310	100	55	6~25
52171311	150		



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



HSK FMA / FMB FACE MILL HOLDERS



FMA-HSK (DIN69893A)

- STD: 16000 rpm / G6.3
- OPT: 24000 rpm / G2.5

V FMA

UNIT:mm						
ITEM NO.	L	ød (h6)	øD	H	K	W
52171312	60	25.4	50	20	5	9.5
52171313	120					
52171314	60	31.75	60	22	7	12.7
52171315	120					
52171316	60	38.1	80	25	9	15.9
52171317	120					
52171318	50	25.4	50	20	5	9.5
52171319	120					
52171320	60	31.75	60	22	7	12.7
52171321	120					
52171322	60	38.1	80	25	9	15.9
52171323	120					
52171324	60	50.8	100	28	12	
52171325	120					

FMB-HSK (DIN69893A)

- STD: 16000 rpm / G6.3
- OPT: 24000 rpm / G2.5

V FMB

UNIT: mm						
ITEM NO.	L	ød (h6)	øD	H	K	W
52171326	50	22	48	18	5	10
52171327	120					
52171328	60	27	60	20	6	12
52171329	120					
52171330	60	32	72	22	7	14
52171331	120					
52171332	60	40	80	25	8	16
52171333	120					
52171334	50	22	48	18	5	10
52171335	120					
52171336	60	27	60	20	6	12
52171337	120					
52171338	60	32	72	22	7	14
52171339	120					
52171340	60	40	80	25	8	16
52171341	120					

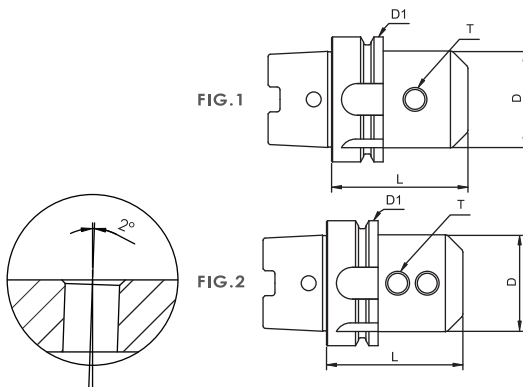


HSK SIDE LOCK END MILL HOLDERS

HSK SHANK DIN69893-1A W/ SIDE LOCK END MILL DIN 1835E

APPLICATION:

- It can be applied for heavy cutting and milling process generally.
- The cutting tools can be clamped precisely. Even it's worked in heavy cutting, it will not result in slipping on cutting tools.
- The product matches HSK BBT system (Big+Plus). It can increase the stability on the side direction processing.



UNIT:mm

ITEM NO.	TYPE	L	D	D1	T	FIG
52171342	HSK50A x SLNB6-80	80	25	50	M6	1
52171343	HSK50A x SLNB8-80	80	28	50	M8	1
52171344	HSK50A x SLNB10-80	80	35	50	M10	1
52171345	HSK50A x SLNB12-90	90	42	50	M12	1
52171346	HSK50A x SLNB14-90	90	44	50	M12	1
52171347	HSK50A x SLNB16-90	90	48	50	M14	1
52171348	HSK50A x SLNB18-90	90	50	50	M14	1
52171349	HSK50A x SLNB20-100	100	52	50	M16	1
52171350	HSK63A x SLNB6-80	80	25	63	M6	1
52171351	HSK63A x SLNB8-80	80	28	63	M8	1
52171352	HSK63A x SLNB10-80	80	35	63	M10	1
52171353	HSK63A x SLNB12-90	90	42	63	M12	1
52171354	HSK63A x SLNB14-90	90	44	63	M12	1
52171355	HSK63A x SLNB16-100	100	48	63	M14	1
52171356	HSK63A x SLNB18-100	100	50	63	M14	1
52171357	HSK63A x SLNB20-100	100	52	63	M16	1
52171358	HSK63A x SLNB25-110	110	65	63	M18	2
52171359	HSK63A x SLNB32-110	110	72	63	M20	2
52171360	HSK100A x SLNB6-90	90	25	100	M6	1
52171361	HSK100A x SLNB8-90	90	28	100	M8	1
52171362	HSK100A x SLNB10-90	90	35	100	M10	1
52171363	HSK100A x SLNB12-100	100	42	100	M12	1
52171364	HSK100A x SLNB14-100	100	44	100	M12	1
52171365	HSK100A x SLNB16-100	100	48	100	M14	1
52171366	HSK100A x SLNB18-100	100	50	100	M14	1
52171367	HSK100A x SLNB20-110	110	52	100	M16	1
52171368	HSK100A x SLNB25-120	120	65	100	M18	2
52171369	HSK100A x SLNB32-120	120	72	100	M20	2
52171370	HSK100A x SLNB40-120	120	90	100	M20	2



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



HSK SIDE LOCK END MILL HOLDERS

HSK SHANK DIN69893-1A W/ SIDE LOCK END MILL DIN 1835B

APPLICATION:

- It can be applied for heavy cutting and milling process generally.
- The cutting tools can be clamped precisely. Even it's worked in heavy cutting, it will not result in slipping on cutting tools.
- The product matches HSK BBT system (Big+Plus). It can increase the stability on the side direction processing.

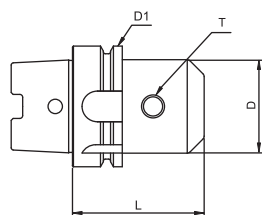


FIG.1

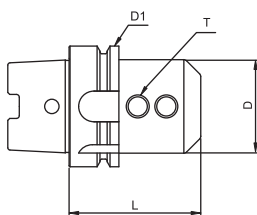


FIG.2



UNIT:mm

ITEM NO.	TYPE	L	D	D1	T	FIG
52171371	HSK50A x SLN6-65	65	25	50	M6	1
52171372	HSK50A x SLN6-80	80	25	50	M6	1
52171373	HSK50A x SLN8-65	65	28	50	M8	1
52171374	HSK50A x SLN8-80	80	28	50	M8	1
52171375	HSK50A x SLN10-65	65	35	50	M10	1
52171376	HSK50A x SLN10-80	80	35	50	M10	1
52171377	HSK50A x SLN12-80	80	42	50	M12	1
52171378	HSK50A x SLN14-80	80	44	50	M12	1
52171379	HSK50A x SLN16-80	80	48	50	M14	1
52171380	HSK50A x SLN16-90	90	48	50	M14	1
52171381	HSK50A x SLN18-80	80	50	50	M14	1
52171382	HSK50A x SLN20-80	80	52	50	M16	1
52171383	HSK63A x SLN20-90	90	52	50	M16	1
52171384	HSK63A x SLN6-65	65	25	63	M6	1
52171385	HSK63A x SLN6-80	80	25	63	M6	1
52171386	HSK63A x SLN8-65	65	28	63	M8	1
52171387	HSK63A x SLN8-80	80	28	63	M8	1
52171388	HSK63A x SLN10-65	65	35	63	M10	1
52171389	HSK63A x SLN10-80	80	35	63	M10	1
52171390	HSK63A x SLN12-80	80	42	63	M12	1
52171391	HSK63A x SLN14-80	80	44	63	M12	1
52171392	HSK63A x SLN16-80	80	48	63	M14	1
52171393	HSK63A x SLN16-100	100	48	63	M14	1
52171394	HSK63A x SLN18-80	80	50	63	M14	1
52171395	HSK63A x SLN20-80	80	52	63	M16	1
52171396	HSK63A x SLN20-100	100	52	63	M16	1
52171397	HSK63A x SLN25-110	110	65	63	M18	2
52171398	HSK63A x SLN32-110	110	72	63	M20	2
52171399	HSK100A x SLN6-80	80	25	100	M6	1
52171400	HSK100A x SLN8-80	80	28	100	M8	1
52171401	HSK100A x SLN10-80	80	35	100	M10	1
52171402	HSK100A x SLN12-80	80	42	100	M12	1
52171403	HSK100A x SLN14-80	80	44	100	M12	1
52171404	HSK100A x SLN16-100	100	48	100	M14	1
52171405	HSK100A x SLN18-100	100	50	100	M14	1
52171406	HSK100A x SLN20-100	100	52	100	M16	1
52171407	HSK100A x SLN25-100	100	65	100	M18	2
52171408	HSK100A x SLN32-100	100	72	100	M20	2
52171409	HSK100A x SLN40-120	120	90	100	M20	2

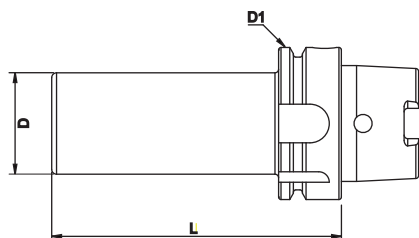


HSK SLIM – FIT CHUCKS

DIN69893-1A

FEATURES:

- Slim-fit collet chuck is clamped by slim-fit collet, it is applied for high-speed and high precision machine.
- The product matches HSK BBT system (Big + Plus). It can increase the stability on the side direction processing.



UNIT: mm					UNIT: mm				
ITEM NO.	TYPE	L	D	D1	ITEM NO.	TYPE	L	D	D1
52171410	HSK50A x SBL6-105	105	14	50	52172098	HSK63A x SBL6-110	110	14	63
52171411	HSK50A x SBL6-120	120	14	50	52172099	HSK63A x SBL6-120	120	14	63
52171412	HSK50A x SBL12-120	120	26	50	52172100	HSK63A x SBL12-120	120	26	63
52171413	HSK50A x SBL12-130	130	26	50	52172101	HSK63A x SBL12-150	150	26	63
52171414	HSK50A x SBL20-130	130	35	50	52172102	HSK63A x SBL20-130	130	35	63
52171415	HSK50A x SBL20-150	150	35	50	52172103	HSK63A x SBL20-140	140	35	63

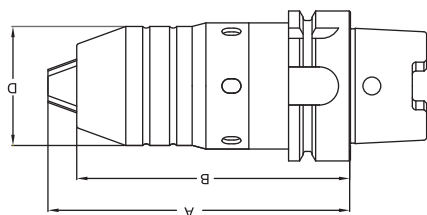


HSK #650 UNIVERSAL CHUCKS

DIN69893-1A

FEATURES:

- Case hardened steel, tensile in the core min. 800N/mm.
- Case hardened HRC 60±2 (Hv 700±50) depth of case 0.8 mm±0.2 black finish.
- Taper is suitable for AT3 standard.
- Individually 100% strictly inspection.



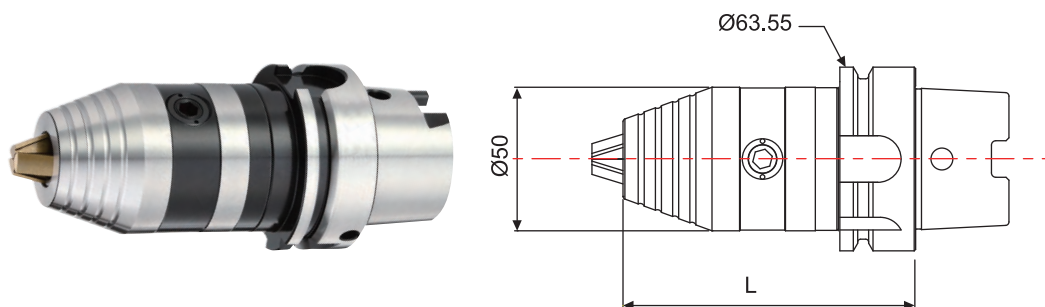
UNIT: mm							
ITEM NO.	MOUNT TYPE	SIZE	CAPACITY mm	CAPACITY inch	A (CLOSED)	DIMENSIONS B (OPEN)	D (SLEEVE)
52171416	HSK32A	13	0-13	0-1/2	116	104	50
52171417	HSK40A	13	0-13	0-1/2	116	104	50
52171418	HSK40A	16	3-16	1/8-5/8	122.2	109.28	57
52171419	HSK50A	13	0-13	0-1/2	122	110	50
52171420	HSK50A	16	3-16	1/8-5/8	128.2	115.28	57
52171421	HSK63A	13	0-13	0-1/2	122	110	50
52171422	HSK63A	16	3-16	1/8-5/8	128.2	115.28	57



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



HSK HEX KEY DRILL CHUCKS



UNIT: mm

ITEM NO.	TYPE	L	CAPACITY	
			mm	inch
52171423	HSK63A x GHK13-105	105	1.0-13	3/64~1/2
52171424	HSK63A x GHK16-110	110	1.5-16	1/16~5/8

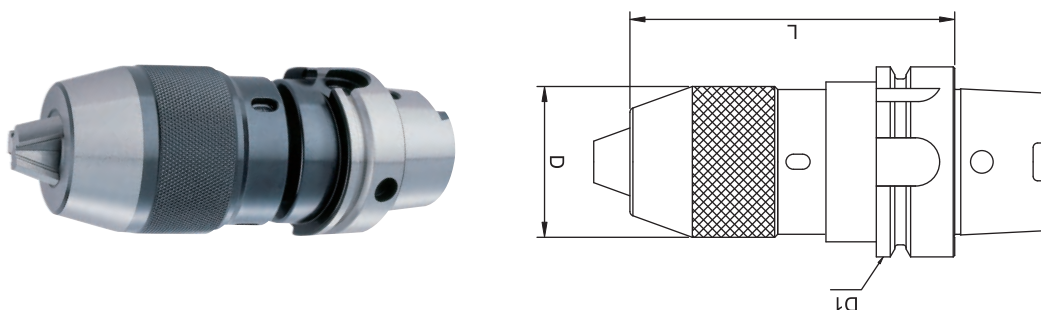


HSK CHU CNC DRILL CHUCKS

DIN69893-1A

FEATURES:

- 3 times better clamping capacity, comparing to keyed drill chucks.
- The drill bit won't be loosen or failing off.
- Twice precision than the keyed drill chucks.
- The drill chuck is interchangeable.



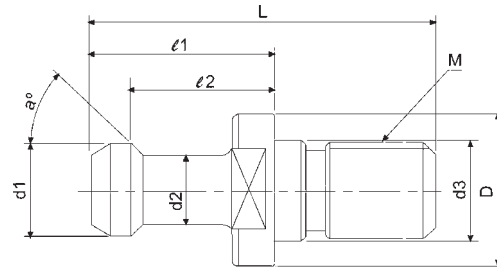
UNIT: mm

ITEM NO.	TYPE	L	D	D1	SPANNER NO.
52171425	HSK50A x CHU13-110	110	50	50	12806
52171426	HSK63A x CHU13-145	145	50	63	12806
52171427	HSK100A x CHU13-120	120	50	100	12806



PULL STUDS – BT TYPE

FOR MAS 403



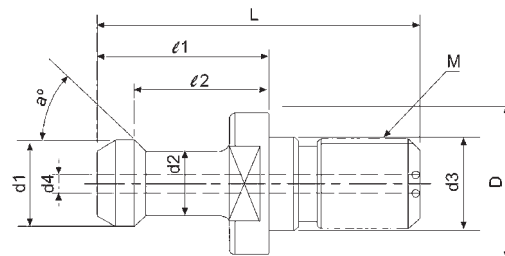
UNIT: mm

ITEM NO.	TYPE	a°	L	e1	e2	D	d1	d2	d3	M
52101735	BT30×45°	45	43	23	18	16.5	11	7	12.5	M12
52101736	BT30×60°	60	43	23	18	16.5	11	7	12.5	M12
52171428	BT30×90°	90	43	23	18	16.5	11	7	12.5	M12
52101737	BT40×45°	45	60	35	28	23.0	15	10	17.0	M16
52101738	BT40×60°	60	60	35	28	23.0	15	10	17.0	M16
52101739	BT40×90°	90	60	35	28	23.0	15	10	17.0	M16
52101740	BT50×45°	45	90	45	35	38.0	23	17	25.0	M24
52101741	BT50×60°	60	90	45	35	38.0	23	17	25.0	M24
52101742	BT50×90°	90	90	45	35	38.0	23	17	25.0	M24



PULL STUDS – BT TYPE (W/ COOLANT THROUGH HOLE)

FOR MAS 403



UNIT: mm

ITEM NO.	TYPE	a°	L	e1	e2	D	d1	d2	d3	M
52171429	BT40 x 45°W	45	60	35	28	23	15	10	17	M16
52171430	BT40 x 60°W	60	60	35	28	23	15	10	17	M16
52171431	BT40 x 90°W	90	60	35	28	23	15	10	17	M16
52171432	BT50 x 45°W	45	80	45	35	38	23	17	25	M24
52171433	BT50 x 60°W	60	80	45	35	38	23	17	25	M24
52171434	BT50 x 90°W	90	80	45	35	38	23	17	25	M24

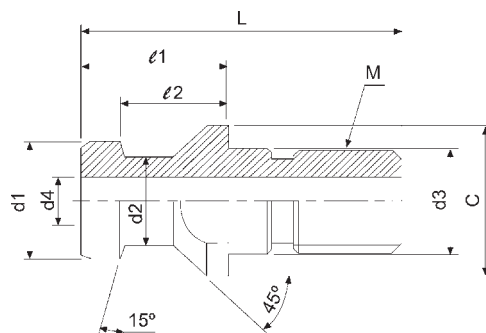


B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



PULL STUDS – DIN A TYPE

FOR DIN 69872A



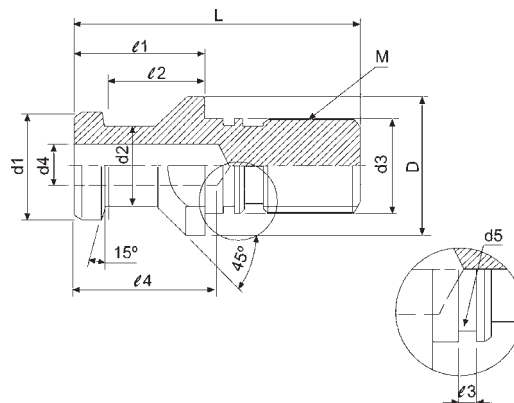
UNIT: mm

ITEM NO.	TYPE	L	e1	e2	D	d1	d2	d3	d4	M
52171435	DIN30-A	44	24	19	17	13	9	13	-	M12
52171436	DIN40-A	54	26	20	23	19	14	17	7.0	M16
52171437	DIN40-A-L	54	29	23	23	19	14	17	7.0	M16
52171438	DIN50-A	74	34	25	36	28	21	25	11.5	M24



PULL STUDS – DIN B TYPE

FOR DIN 69872B (WITHOUT O-RING)



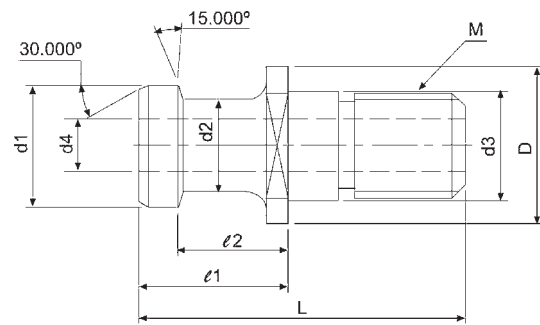
UNIT: mm

ITEM NO.	TYPE	L	e1	e2	e3	e4	D	d1	d2	d3	d4	M
52171439	DIN30-B	44	24	19	1.4	-	17	13	9	13	-	M12
52171440	DIN40-B	54	26	20	1.9	27	23	19	14	17	7.0	M16
52171441	DIN50-B	74	34	25	3.0	37	36	28	21	25	11.5	M24



PULL STUDS – ISO A TYPE

FOR ISO / DIS 7388 / 2 / A



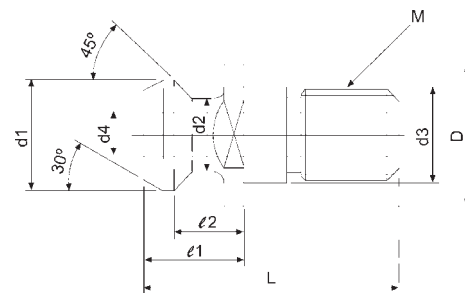
UNIT: mm

ITEM NO.	TYPE	L	e1	e2	D	d1	d2	d3	d4	M
52171442	ISO40-A	54	26	20	23	19	14	17	7.0	M16
52171443	ISO50-A	74	34	25	36	28	21	25	11.5	M24



PULL STUDS – ISO B TYPE

FOR ISO / DIS 7388 / 2 / B



UNIT: mm

ITEM NO.	TYPE	L	e1	e2	D	d1	d2	d3	d4	M
52171444	ISO40-B	44.5	16.4	11.50	22.5	18.95	12.95	17	7.35	M16
52171445	ISO50-B	65.5	25.5	17.95	37	29.10	19.60	25	11.55	M24



B3 - HOLDERS, SHANKS, CHUCKS, ADAPTERS, ARBORS

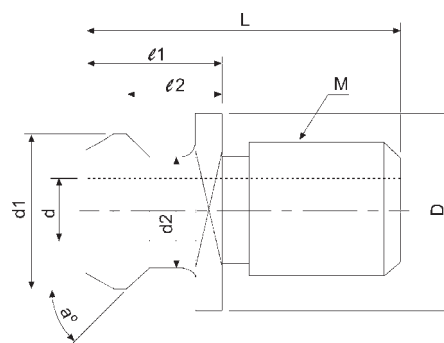
TOOLS OF WORKHOLDING&PRECISION TOOLS FOR MILLS&VMCS

B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



PULL STUDS – CAT TYPE

FOR ANSI B5-50



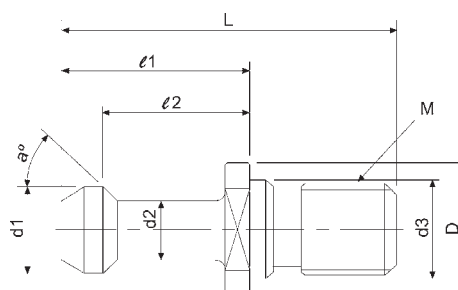
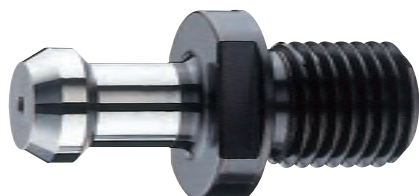
UNIT:mm

ITEM NO.	TYPE	a°	L	e1	e2	D	d1	d2	d3	M
52171446	CAT40	45	38.1	16.2	11.2	23.8	18.8	12.4	7.4	5/8"
52171447	CAT50	45	58.4	25.4	17.8	36.0	28.9	20.8	11.8	1"



PULL STUDS – CAT-BT TYPE

FOR BT MACHINE



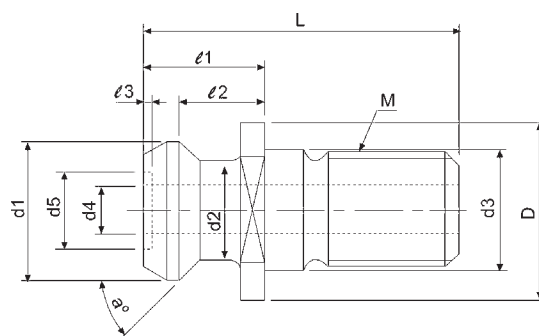
UNIT:mm

ITEM NO.	TYPE	a°	L	e1	e2	D	d1	d2	d3	M
52171448	CAT40 x 45°	45	57.0	32	25.0	23	15	10	-	5/8"
52171449	CAT40 x 60°	60	57.0	32	25.0	23	15	10	-	5/8"
52171450	CAT40 x 90°	90	57.0	32	25.0	23	15	10	-	5/8"
52171451	CAT50 x 45°	45	78.6	45	35.2	38	23	17	-	1"
52171452	CAT50 x 60°	60	78.6	45	35.2	38	23	17	-	1"
52171453	CAT50 x 90°	90	78.6	45	35.2	38	23	17	-	1"
52171454	CAT40 x 45°M	45	57.0	32	25.0	23	15	10	17	M16
52171455	CAT40 x 60°M	60	57.0	32	25.0	23	15	10	17	M16
52171456	CAT40 x 90°M	90	57.0	32	25.0	23	15	10	17	M16



PULL STUDS – MAZAK TYPE

FOR MAZAK MACHINE



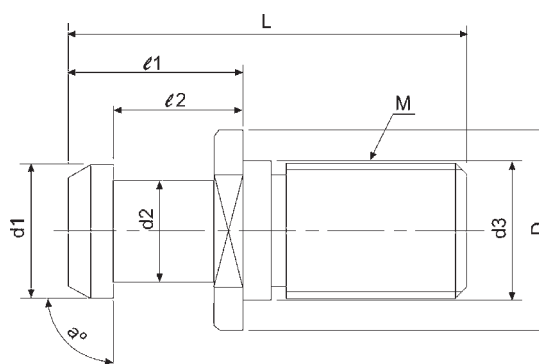
UNIT:mm

ITEM NO.	TYPE	L	e1	e2	e3	D	d1	d2	d3	d4	d5	M
52171457	MAZAK BT50	65.2	25.2	17.58	1.8	37	28.95	20.83	25	10	16	M24
52171458	MAZAK BT40	44.1	19.1	14	-	22	18.8	12.45	17	7	-	M16
52171459	MAZAK CAT40	41.1	16.1	11	-	22	18.8	12.45	17	7	-	M16



PULL STUDS – MITSUI TYPE

FOR MITSUI MACHINE



UNIT:mm

ITEM NO.	TYPE	a°	L	e1	e2	D	d1	d2	d3	M
52171460	MITSUMI BT40	90	50	25	18	23	15	10	17	M16
52171461	MITSUMI BT50	90	71	31	23	36	24	18	25	M24



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



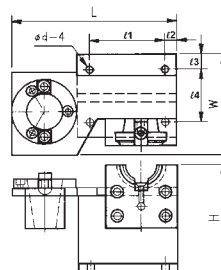
TOOL SETTING STANDS

FEATURES:

- Can be used vertically or horizontally.
- Adapt all tapers.

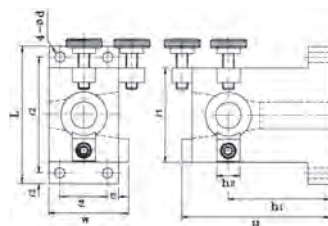
FEATURES:

- The following 3 types of tool setting stands are used to fix tools and pull studs on tool holder.
- Protects the taper of holder with protective insert.
- Select between horizontal or vertical tool holding.



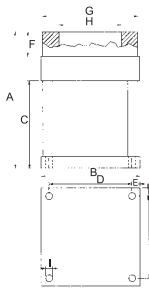
UNIT: mm

ITEM NO.	ADAPTER HOLDING	L	e1	e2	e3	e4	H	W	WEIGHT (kgs)
52101749	BT30	210	95	10	15	67	130	100	3.6
52101750	BT40	210	95	10	15	67	130	100	3.6
52101751	BT50	275	113	20	24	105	200	150	11.4
52101752	DIN30 (SK)	210	95	10	5	67	130	100	3.6
52101753	DIN40 (SK)	210	95	10	15	67	130	100	3.6
52101754	DIN50 (SK)	275	113	20	24	105	200	150	11.4
52101755	CAT40	210	95	10	15	67	130	100	3.6
52101756	CAT50	275	113	20	24	105	200	150	11.4



UNIT: mm

ITEM NO.	ADAPTER HOLDING	L	e1	e2	e3	e4	H	W	WEIGHT (kgs)
52101757	BT, DIN, CAT30	210	95	10	15	67	130	100	0.9
52101758	BT, DIN, CAT40	210	95	10	15	67	130	100	1.6
52101759	BT, DIN, CAT50	275	113	20	24	105	200	150	6.1

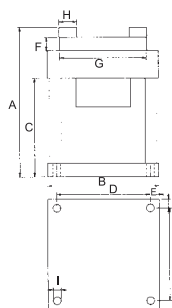


UNIT: mm

ITEM NO.	TYPE	A	B	C	D	E	F	G	H	I	G.W.
52172384	ISO20	138	100	89	84	8	24	80	33	7	3.0 kgs
52172385	ISO25	138	100	89	84	8	24	80	37	7	2.9 kgs
52172386	ISO30	142	100	89	84	8	28	95	46	7	3.0 kgs
52172387	DIN30	137	100	89	84	8	23	95	50	7	3.1 kgs
52172388	HSK32	141	100	89	84	8	27	80	32	7	3.0 kgs
52172389	HSK40	141	100	89	84	8	27	80	40	7	2.9 kgs
52172390	HSK50	147	100	89	84	8	33	95	50	7	3.0 kgs
52172391	HSK63	139	100	89	84	8	25	96.5	63	7	3.1 kgs

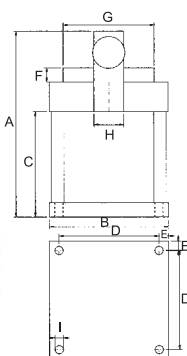


TOOL SETTING STANDS



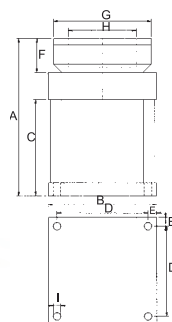
UNIT: mm

ITEM NO.	TYPE	A	B	C	D	E	F	G	H	I	G.W.
52101760	BT30	135	100	89	84	8	12	78	22.5	7	3 kgs
52101761	BT40	134	100	89	84	8	12	78	16	7	3 kgs
52101762	BT50	193	125	115	101	12	12	115	25	9	6.8 kgs



UNIT: mm

ITEM NO.	TYPE	A	B	C	D	E	F	G	H	I	G.W.
52102392	HSK63A	157	100	89	84	8	12	76.5	25	7	3 kgs
52102393	HSK100A	208	125	115	101	12	12	115	25	9	7 kgs



UNIT: mm

ITEM NO.	TYPE	A	B	C	D	E	F	G	H	I	G.W.
52102394	HSK63	145.5	100	89	84	8	31.5	96.5	63	7	3.2 kgs
52102395	HSK50	139.5	100	89	84	8	25.5	77.5	50	7	2.5 kgs



B3 - HOLDERS, SHANKS, CHUCKS, ADAPTERS, ARBORS

TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS

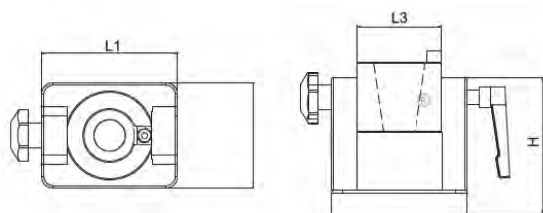
B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



TOOL LOCKING FIXTURES

FEATURES:

- Easy handling and low cost tool locking fixture on work bench for preparing tools for machining centers.
- Swivel in vertical and horizontal.



UNIT: mm

ITEM NO.	TAPER	H	A	B
52101763	BT/CAT/SK30	117	117	90
52101764	BT/CAT/SK40	117	117	90
52101765	BT/CAT/SK50	130	137	90



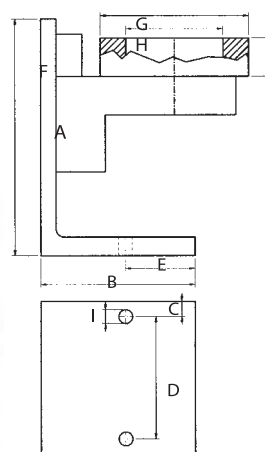
▲ ITEM NO. 52101763~65



ROTATION TYPE TOOL SETTING STANDS

FEATURES:

- Pull type tool is also suitable.
- The rotation angles are as follows: 90°, 45°, 180°.



UNIT: mm

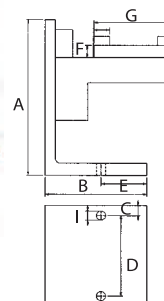
ITEM NO.	TYPE	A	B	C	D	E	F	G	H	I	G.W.
52172396	ISO20	154.5	100	10	80	45	24	80	33	9	5.7 kgs
52172397	ISO25	154.5	100	10	80	45	24	80	37	9	5.7 kgs
52172398	ISO30	154.5	100	10	80	45	28	95	46	9	5.9 kgs
52172399	DIN30	154.5	100	10	80	45	23	95	50	9	5.7 kgs
52172400	HSK32	154.5	100	10	80	45	27	80	32	9	5.7 kgs
52172401	HSK40	154.5	100	10	80	45	27	80	40	9	5.7 kgs
52172402	HSK50	154.5	100	10	80	45	33	95	50	9	5.8 kgs
52172403	HSK63	154.5	100	10	80	45	25	96.5	63	9	5.7 kgs



ROTATION TYPE TOOL SETTING STANDS

FEATURES:

- Pull type tool is also suitable.
- The rotation angles are as follows: 90°, 45°, 180°.

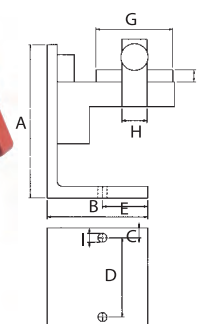


UNIT: mm

ITEM NO.	TYPE	A	B	C	D	E	F	G	H	I	G.W.
52172404	BT30	154.5	100	10	80	45	12	78	22.5	9	5.5 kgs
52172405	BT40	154.5	100	10	80	45	12	78	16	9	5.5 kgs

FEATURES:

- Pull type tool is also suitable.
- The rotation angles are as follows: 90°, 45°, 180°.

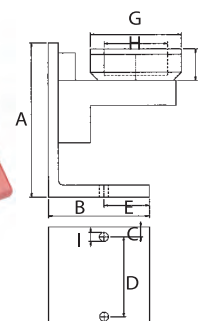


UNIT: mm

ITEM NO.	TYPE	A	B	C	D	E	F	G	H	I	G.W.
52172406	HSK63A	154.5	100	10	80	45	12	76.5	25	9	5.7 kgs

FEATURES:

- Pull type tool is also suitable.
- The rotation angles are as follows: 90°, 45°, 180°.



UNIT: mm

ITEM NO.	TYPE	A	B	C	D	E	F	G	H	I	G.W.
52172408	HSK63	154.5	100	10	80	45	31.5	90.5	63	9	6.0 kgs
52172407	HSK50	154.5	100	10	80	45	31.5	77.5	50	9	5.9 kgs



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



TOOL TIGHTENING FIXTURE

FEATRES:

- Tool holder is interchangeable.
Easy assemble and dis-assemble tool holder from main body while pressing the valve on the right hand side of the device.
- Tool holder is adjustable up to 360°
Easily adjusted tool holders for a f 360° (45° increments) by pressing the valve on the top of the device.
- 4pcs of M10x40mm bolt can be fastened from the top of the mounting flange or 4pcs of M12 bolt can be fastened from the bottom of the mounting.



Main Body

ITEM NO.	TYPE	N.W.
52172790	150	6kgs



Tool Holder

ITEM NO.	TYPE	N.W.
52172791	BT30	2.3kgs
52172792	BT40	2.8kgs
52172793	BT50	4.8kgs
52172794	HSK-A-40	3.3kgs
52172795	HSK-A-63	2.3kgs
52172796	HSK-A-80	3.5kgs
52172797	HSK-A-100	3.8kgs
52172798	HSK-E-25	2.3kgs
52172799	HSK-E-32	2.5kgs
52172800	HSK-E-40	2.8kgs
52172801	HSK-E-50	3.0kgs
52172802	HSK-F-63	3.2kgs





TOOL PRESETTERS – FIXED SPINDLE

FEATURES:

- The LED linear scale measures the two axes accurately and assures convenient operation.
- X, Z axes linear scale guides on the two axes allow for rapid traverse and micrometric position.
- A convenient tool release action is possible through the releasing operation.
- The Z-axis is precisely machined from high grade cast iron for superior accuracy and no deformation even after years of operation.



- 52172409 TRAVEL: D: 300 L: 60~300 RESOLUTION: 0.005 (mm) - 40 TYPE
- 52172410 TRAVEL: D: 300 L: 60~300 RESOLUTION: 0.005 (mm) - 50 TYPE



- 52101766 TRAVEL: D: 300 L: 60~400 RESOLUTION: 0.005 (mm) - 40 TYPE
- 52101766-1 TRAVEL: D: 300 L: 60~400 RESOLUTION: 0.005 (mm) - 50 TYPE

✓ STANDRAD ACCESSORIES

UNIT: mm

ITEM NO.	TEST ARBOR	DIAL GAUGE	HEX. WRENCH	DUST COVER	GROSS WEIGHT	MACHINE SIZE
52172409	1pc (D40, L200)	2 pcs	1 set	1 pc	68 kgs	L: 600
52172410						W:165 (+200) H: 690
52101766	1pc (D40, L200)	2 pcs	1 set	1 pc	130 kgs	L: 720
52101766-1						W:280 (+200) H:930



B3 - HOLDERS, SHANKS, CHUCKS, ADAPTERS, ARBORS

TOOLS OF WORKHOLDING&PRECISION TOOLS FOR MILLS&VMCS

B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



TOOL PRESETTERS – ROTATING SPINDLE



- 52172411 TRAVEL: D: 300 L: 60~400 RESOLUTION: 0.001 (mm)- 3040 TYPE
- 52172412 TRAVEL: D: 500 L: 60~600 RESOLUTION: 0.001 (mm)- 5060 TYPE



- 52172413 TRAVEL: D: 300 L: 60~400 RESOLUTION: 0.001 (mm) - 3044 TYPE
- 52172414 TRAVEL: D: 300 L: 60~400 RESOLUTION: 0.001 (mm) - 3045 TYPE
- 52172415 TRAVEL: D: 500 L: 60~600 RESOLUTION: 0.001 (mm) - 5060 TYPE

V STANDRAD ACCESSORIES

OPTIONAL ACCESSORIES VACUUM PULLING VICE (PNEUMATIC)

UNIT: mm

ITEM NO.	TEST ARBOR	DIAL GAUGE	HEX. WRENCH	DUST COVER	GROSS WEIGHT	MACHINE SIZE
52172413 52172414	1pc (D40, L200)	2 pcs	1 set	1 pc	150 kgs	L: 720 W:280 (+200) H: 930
52172415	1pc (D40, L200)	2 pcs	1 set	1 pc	200 kgs	L: 870 W:280 (+200) H:1150
52172411	1pc (D40, L200)	2 pcs	1 set	1 pc	150 kgs	L: 760 W:420(+200) H: 1000
52172412	1pc (D40, L200)	2 pcs	1 set	1 pc	200 kgs	L: 900 W:420 (+200) H:1200



OPTIONAL ACCESSORIES FOR TOOL PRESETTERS



▲ TEST ARBOR
(BT40 – ITEM NO. 52101767)



▲ SLEEVE
(1000 – R – TYPE)



▲ SLEEVE (BT50, 40, 30 / HSK63, 50, 40)
(BT40 – ITEM NO. 52101768)



▲ WORKING TABLE



▲ TOOL CABINET



B3 - HOLDERS, SHANKS, CHUCKS, ADAPTERS, ARBORS

TOOLS OF WORKHOLDING&PRECISION TOOLS FOR MILLS&VMCS

B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



MILLING MACHINE VISES

> W/ LOCK DOWN JAW MECHANISM

FEATURES:

- Minimum bending of vise body.
- Highest clamping power.
- Rigid and high tensile cast iron body that never breaks.
- Flame hardened bed, precision ground.
- Lock down jaw mechanism eliminates jaw tilt and takes up wear.
- Simple mechanism free from disorders.
- Guaranteed accuracy.



UNIT: mm

ITEM NO.	JAW WIDTH	JAW DEPTH	JAW OPENING	WEIGHT PLAIN (kgs)
52110101	102	34	104	20
52110102	130	36	130	32
52110103	150	45	146	45
52110105	200	58	200	100

SWIVEL BASE:

UNIT: mm

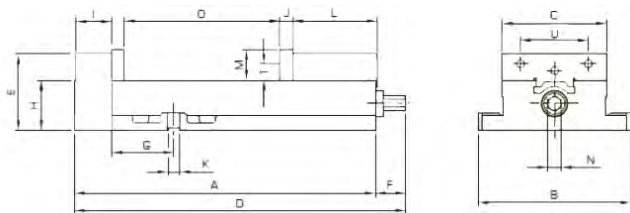
ITEM NO.	FOR JAW WIDTH	WEIGHT (kgs)
52110111	102	4
52110112	130	8
52110113	152	12
52110114	200	30

> 7.5" & 8.9" LARGE OPENING FOR A 6" VISE



PREMIER QUALITY:

- Adopts FC 30 Ductile iron for vise body.
- Other features and specifications are same as those of cast iron vise body.
- The item no. for premier quality are 52110106 (4"), 52110107 (5"), 52110108 (8"), 52110109 (6"-7.5" opening), 52110110 (6"-8.9" opening).



UNIT: mm

ITEM NO.	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	T	U	WEIGHT
52110110	437	222	151	481	111.025	44	90.5	73.025	52	18	17.48 / 18	123	44.5	19	226	23.8	98.4	36.3 kgs
52110108	555	295	206	585	134.074	30	125.7	84.074	58	24.2	20.65 / 18	157	56	19	265	32	120	68.2 kgs

UNIT: mm

ITEM NO.	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	T	U	WEIGHT
52110106	321	160	106	361	85.65	40	71	57	35.1	15	12	102	35	14	153	17.5	63.5	14 kgs
52110107	368	194	126	425	97	47	85	63.5	40.5	17	16	120	38.1	16	178	20.6	79.4	21 kgs
52110109	432	235	151	476	111.025	44	108	73.025	52	18	17.48 / 18	123	44.5	19	192	23.8	98.4	36 kgs



UTILITY MILLING VISES

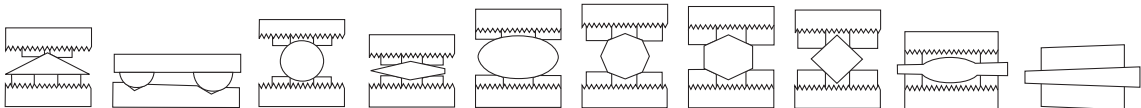
W/ LOCK DOWN JAW MECHANISM

FEATURES:

- FCD 60 ductile iron cast body.
- Movable jaw swivels left & right 8° for clamping Non-Parallel workpiece.
- Extra jaw plates included for clamping thin workpiece.
- Patented design jaw plates for clamping workpiece of irregular shapes.



> PLAIN TYPE



UNIT: mm

ITEM NO.	JAW WIDTH	JAW DEPTH	JAW OPENING	N.W. (kgs)
52110115	100	48	75-175	20
52110116	160	56	125-265	30
52110117	200	70	230-420	66

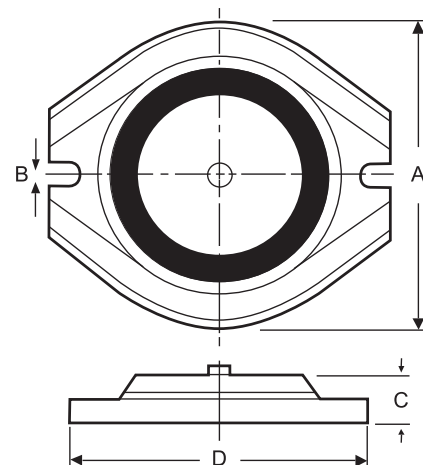


SWIVEL BASES

FOR UTILITY MILLING VISES

UNIT: mm

ITEM NO.	FOR JAW WIDTH	A	B	C	D	N.W. (kgs)
52110118	100	245	13	34	260	6.5
52110119	160	315	16	43	335	12
52110120	200	355	20	57	380	22



B4 - VISES, TABLES, BLOCKS

TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS

B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS

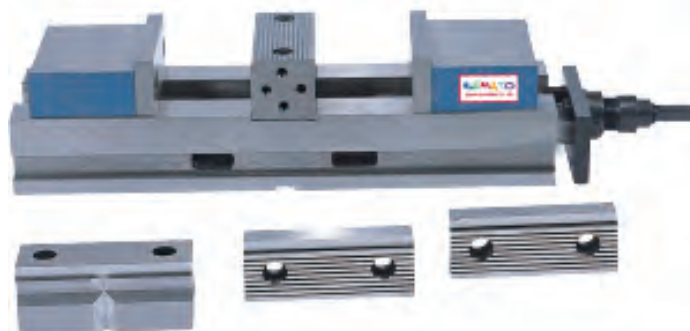


VERSATILE DOUBLE CLAMP VISE

✓ W/ LOCK DOWN JAW MECHANISM

FEATURES:

- FCD 55 Ductile iron cast body.
- Clamps from 0-115 mm each Jaw or from 0-293 mm without central block.
- No minimum clamping allowance.
- Each vise includes:
- 2 pcs standard jaw plate.
- 2 pcs step & serrated jaw plate.
- 1 pc central block w/ Serrated surface.
- 1 pc central block w/ V-Grooves.



UNIT: mm

ITEM NO.	JAW WIDTH	JAW DEPTH	JAW OPENING	JAW OPENING W/O CENTRAL BLOCK	OVERALL HEIGHT	OVERALL LENGTH	OVERALL WIDTH	N.W. (kgs)
52110121	153	58	115	293	80	720	160	64.5

FEATURES:

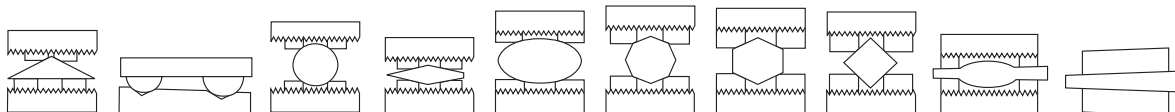
- FCD 55 Ductile iron cast body.
- Both jaws swivel left and right 8° for clamping Non-Parallel workpiece.
- Clamps from 0-115 mm each jaw or from 0-293 mm without central block.
- No minimum clamping allowance.
- Each vise includes:
- 1 pc central block w/special jaws for clamping workpiece of irregular shapes.
- 2 pcs special jaw plate for clamping workpiece of irregular shapes.
- 2 pcs step & serrated jaw plate.
- 1 pc central block w/ V-Grooves.



UNIT: mm

ITEM NO.	JAW WIDTH	JAW DEPTH	JAW OPENING	JAW OPENING W/O CENTRAL BLOCK	OVERALL HEIGHT	OVERALL LENGTH	OVERALL WIDTH	N.W. (kgs)
52110122	153	58	115	293	80	720	160	64.5

✓ The comprehensive examples of clamping configuration





MILLING MACHINE VISES

V ITEM NO. 52110123~52110126



UNIT:mm				
ITEM NO.	JAW WIDTH	JAW DEPTH	JAW OPENING	WEIGHT (kgs)
52110123	100	30	62	10
52110124	125	37	85	19
52110125	150	40	114	27
52110126	200	58	150	54

UNIT:mm				
ITEM NO.	JAW WIDTH	JAW DEPTH	JAW OPENING	WEIGHT (kgs)
52110127	100	33	65	10
52110128	125	37	100	25
52110129	150	40	114	39



A ITEM NO. 52110127~52110129



MILLING MACHINE VISES-WITH LARGE OPENINGS



UNIT:mm					
ITEM NO.	JAW WIDTH	JAW OPENING	OVERALL HEIGHT	JAW DEPTH	WEIGHT (kgs)
52110130	110	180	95	37	21
52110131	130	235	114	48	32
52110132	152	300	131	54	45



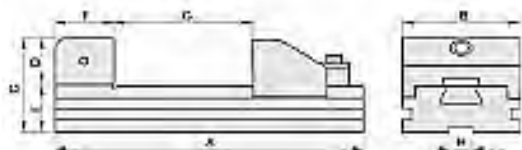
B4 - VISES, TABLES, BLOCKS

TOOLS OF WORKHOLDING&PRECISION TOOLS FOR MILLS&VMCS

B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



TOOLMAKERS VISE



UNIT: mm

ITEM NO.	A	B	C	D	E	F	G	H	N.W.
53100183	180	60	55	27	28	35	0-80	14	3.0 kgs
53100184	205	80	64	32	32	40	0-100	14	4.9 kgs
53100185	250	96	82	40	42	45	0-125	14	9.7 kgs
53100185-1	310	125	88	43	45	50	0-150	16	16.5 kgs



3-WAY & 2-WAY ANGLE VISES



▲ ITEM NO. 52110133~52110135
3-WAY



▲ ITEM NO. 52110136~52110137
2-WAY

UNIT: mm

ITEM NO.	JAW WIDTH	JAW OPENING	JAW DEPTH	HEIGHT AT VERTICAL POSITION	GROSS WEIGHT (kgs)
52110133	80	90	30	385	15
52110134	106	105	38	470	32
52110135	132	140	40	590	50
52110137	150	300	54	280	78



CLOSED BODY MILLING VISE

FEATURES:

- Vise body made from high grade cast iron.
- Low profile.
- Movable jaw slides on dovetail ways with provision for wear adjustment.
- Hardened and ground steel jaw plates.
- Totally closed ACME screw with phosphor bronze nut.
- Supplied complete with drop forged handle.
- Adjustable positioner.

✓ ITEM NO. 52110139



✓ ITEM NO. 52110140
(SWIVEL BASE)



UNIT: mm

ITEM NO.	JAW WIDTH	JAW OPENING	JAW DEPTH	OVERALL SIZE OF BASE	OVERALL HEIGHT	WEIGHT PLAIN
52110139	150	165	50	400 x 220	100	35 kgs

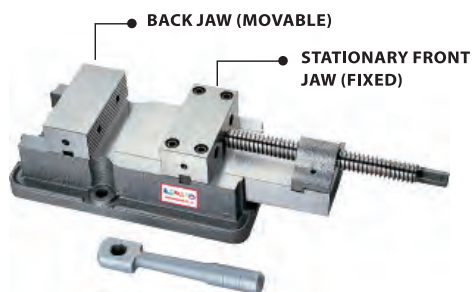


HEAVY DUTY PRECISION MILLING VISE

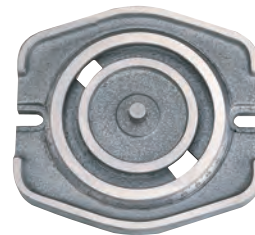
FEATURES:

- Stationary front jaw.
- The back jaw moves along with the slide reducing the tendency towards deflection preventing the workpieces from tilting.
- Hardened & ground on all slides and contacting surface.
- Jaws and body are steel construction.
- Ideal for CNC application.

✓ ITEM NO. 52110141



✓ ITEM NO. 52130122
(SWIVEL BASE)



UNIT: mm

ITEM NO.	JAW WIDTH	JAW OPENING	JAW DEPTH	OVERALL HEIGHT	WEIGHT PLAIN
52110141	145 (6")	210 (8-1/2")	48 (1.9")	127 (5")	40 kgs



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS

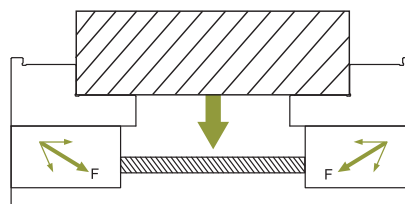
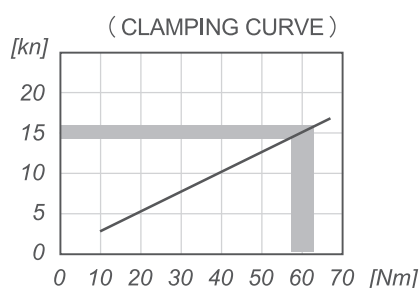
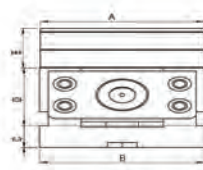
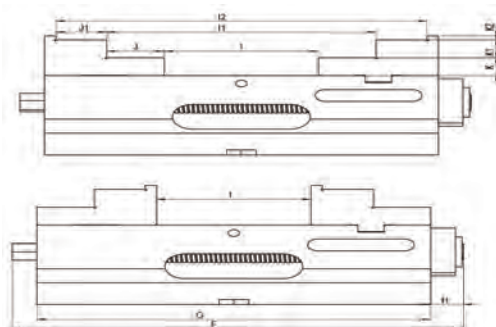
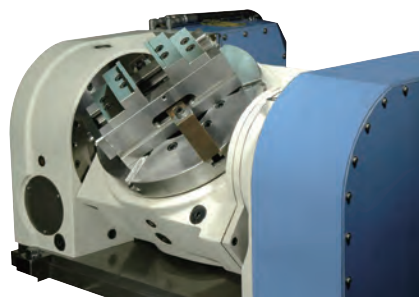


SELF CENTERING VISE

FEATURES:

- Self centering precision vise is suitable for 4 and 5 axis CNC rotary table usage, either in horizontal or vertical machining.
- Vise precision of its center repetition position is ± 0.01 mm.
- Using high quality cast iron FCD 60 (GGG 60). Slideway has high frequency heat treatment at HRC 45° or more to keep the accuracy and its long use life.
- Vise hard jaw material is full steel and heat treatment at HRC 55° or more. Owing to its good design to use both sides of jaw since it is exchangeable.
- Special design for the self centring precision vise to prevent work piece from bending during clamping and machining. Thus, it has the best solution in clamping the work piece.

✓ ITEM NO. 52171462



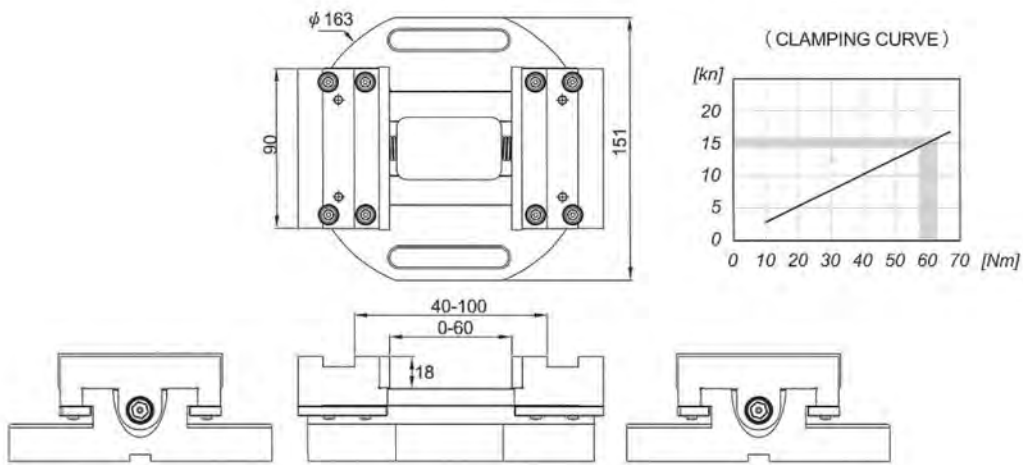
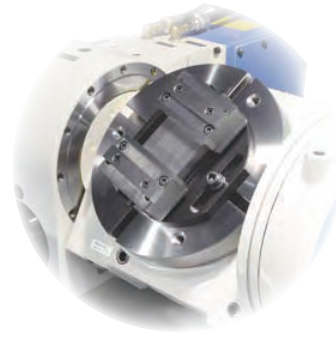
UNIT: mm

ITEM NO.	MODEL	A	B	C	D	E	F	G	H	I	I1	I2	J	J1	K	K2	K3
52172416	2.5"	59	60	18	60	25	143	120	13	0~50	38~85		17.5		12.5	12.5	
52171462	4"	100	101	22	80	40	260	240	20	0~90	70~160	134~222	35	31	18	18	4
52172417	6"	160	161	22	105	55	440	370	70	0~200	86~285		42.5		27.5	27.5	



SELF CENTERING VISE

✓ ITEM NO. 52172418



1. Self centering precision vise is suitable for 4 and 5 Axis CNC rotary table usage either in horizontal or vertical machining.
2. Vise precision of its center repetition position is $\pm 0.01\text{mm}$.
3. Using high quality alloy steel. Slideway has high frequency heat treatment at HRC 45 or more to keep the accuracy and its long use life.
4. Vise hard jaw material is full steel and heat treatment at HRC 55° or more.
Owing to its good design to use both sides of jaw since it is exchangeable.
5. Special design for the self centering precision vise to prevent work piece from bending during clamping and machining. Thus, it has the best solution in clamping the work piece.

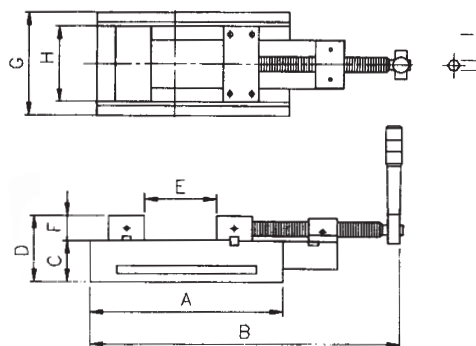


B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



H/V HEAVY DUTY PRECISION MILLING VISE

- Can be used side mounting.



UNIT: mm						
ITEM NO.	JAW WIDTH	JAW OPENING	JAW DEPTH	OVERALL LENGTH	OVERALL HEIGHT	WEIGHT PLAIN
52110142	145	210	48	630	127	40 kgs



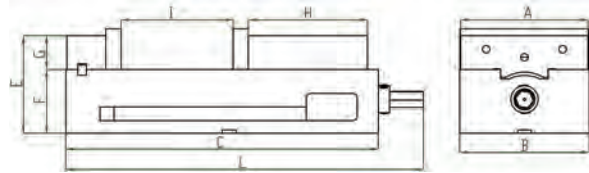
SHAPER VISES



UNIT: mm				
ITEM NO.	JAW WIDTH	JAW DEPTH	JAW OPENING	N.W. (kgs)
52110145	300	70	300	75
52110146	400	85	400	130
52110147	500	95	500	180



LOCK-FIXED PRECISION MACHINE VISES



UNIT: mm

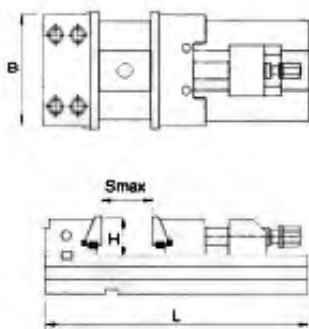
ITEM NO.	A	B	C	E	F	G	H	I	L	WEIGHT (kgs)
52172419	102	106	280	86	58	28	102	95	320	12.5 kgs
52172420	131	134	310	96	64	32	130	105	350	19.5 kgs
52110148	150	153	368	115	75	40	140	148	400	29 kgs
52172421	200	204	490	134	82	52	170	225	520	58 kgs



PRECISION RAPID (MODULAR) VISES

FEATURES:

- Widely used in machining centers.
- Swivel base is optional.
- Material : high quality alloy steel, HRC58°-62°
Parallelism: within 0.005 / 100 mm
- Squareness: within 0.005 / 100 mm



UNIT: mm

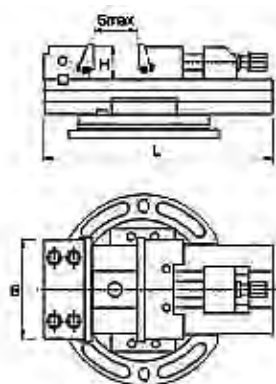
ITEM NO.	MODEL	B	H	Smax	L	CLAMPING FORCE (kgs)
52172422	GL100-I	100	30	100	270	3000
52172423	GL125-I	125	40	150	345	3000
52172424	GL150A-I	150	50	200	420	5000
52172425	GL150B-I	150	50	300	520	5000
52172426	GL150C-I	150	50	400	320	5000
52172427	GL175A-I	175	60	200	455	6000
52172428	GL175B-I	175	60	300	555	6000
52172429	GL175C-I	175	60	400	655	6000
52172429-1	GL175D-I	175	60	500	755	6000
52172429-2	GL175E-I	175	60	600	855	6000
52172429-3	GL200A-I	200	65	200	495	10000
52172429-4	GL200B-I	200	65	300	595	10000
52172429-5	GL200C-I	200	65	400	695	10000
52172429-6	GL200D-I	200	65	500	795	10000
52172429-7	GL200E-I	200	65	600	895	10000
52172429-8	GL300A-I	300	80	200	535	12000
52172429-9	GL300B-I	300	80	300	635	12000
52172429-10	GL300C-I	300	80	400	735	12000
52172429-11	GL300D-I	300	80	500	835	12000
52172429-12	GL300E-I	300	80	600	935	12000
52172429-13	GL300F-I	300	80	700	1035	12000
52172429-14	GL300G-I	300	80	800	1135	12000



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



PRECISION RAPID (MODULAR) VISES WITH SWIVEL BASE



UNIT: mm

ITEM NO.	MODEL	B	H	Smax	L	CLAMPING FORCE (kgs)
52172430	GL100-II	100	30	100	270	3000
52172431	GL125-III	125	40	150	345	3000
52172432	GL150A-II	150	50	200	420	5000
52172433	GL150B-II	150	50	300	520	5000
52172434	GL150C-II	150	50	400	320	5000
52172435	GL175A-II	175	60	200	455	6000
52172436	GL175B-II	175	60	300	555	6000
52172436-1	GL175C-II	175	60	400	655	6000
52172436-2	GL175D-II	175	60	500	755	6000
52172436-3	GL175E-II	175	60	600	855	6000
52172436-4	GL200A-II	200	65	200	495	10000
52172436-5	GL200B-II	200	65	300	595	10000
52172436-6	GL200C-II	200	65	400	695	10000
52172436-7	GL200D-II	200	65	500	795	10000
52172436-8	GL200E-II	200	65	600	895	10000
52172436-9	GL300A-II	300	80	200	535	12000
52172436-10	GL300B-II	300	80	300	635	12000
52172436-11	GL300C-II	300	80	400	735	12000
52172436-12	GL300D-II	300	80	500	835	12000
52172436-13	GL300E-II	300	80	600	935	12000
52172436-14	GL300F-II	300	80	700	1035	12000
52172436-15	GL300G-II	300	80	800	1135	12000



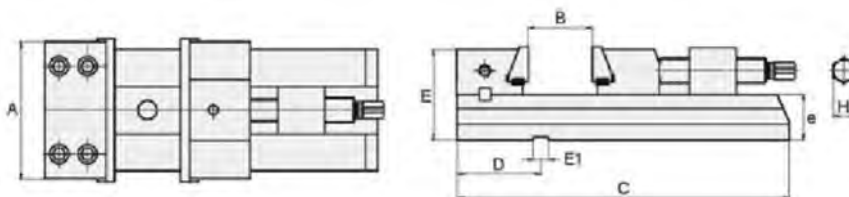
PRECISION RAPID (MODULAR) VISES (HYDRAULIC TYPE)

FEATURES:

- Widely used in machining centers.
- Swivel base is optional.
- Designed with HYDRAULIC LEAD SCREW for easy operation.
- Material: S50C. Hardness: HRC 52°~56°

STANDARD ACCESSORIES:

- 2 pcs of alignment Wedge
- 4 pcs of clamp
- 1 pc of handle



UNIT: mm

ITEM NO.	A	B	C	D	E	E1	e	H	CLAMPING FORCE	WEIGHT (kgs)
52172437		150	350							23.5
52172438		200	400							25.5
52172439	150	250	450	85±0.02	95	18	48±0.01	19	4000 kgs	27.5
52172440		300	500							29.5
52172441		200	470							55.5
52172442	205	250	520	85±0.02	126	18	63±0.01	19	5000 kgs	63.5
52172443		300	570							73.5



HYDRAULIC POWER MACHINE VISES

FEATURES:

- High tensile & tempered cast iron.
- Flame hardened bed.
- Well designed hydraulic booster provides steady clamping force against shocks and vibration during operation.
- 3 steps clamping range for large opening.
- Picture shown with optional swivel base (52130105~07)

UNIT: mm

ITEM NO.	JAW WIDTH	JAW OPENING	JAW DEPTH	CLAMPING FORCE (kgs)	WEIGHT PLAIN (kgs)
52130101	104	170	36	2500	24
52130102	130	220	46	3500	37
52130103	154	300	54	4400	57.5
52130104	206	300	62	6600	104

FEATURES: (ANGLE VISES)

- High tensile & tempered cast iron.
- Flame hardened bed.
- Well designed hydraulic booster provides steady clamping force against shocks and vibration during operation.
- 3 steps clamping range for large opening.
- Tilting angles from 0°-50°

UNIT: mm

ITEM NO.	JAW WIDTH	JAW OPENING	JAW DEPTH	CLAMPING FORCE (kgs)	WEIGHT PLAIN (kgs)
52130108	104	170	36	2500	28
52130109	152	300	54	4400	75



HYDRAULIC VISES

FEATURES:

- High tensile & tempered cast iron.
- Flame hardened bed.
- Well designed hydraulic booster provides steady clamping force against shocks and vibration during operation.
- 3 steps clamping range for large opening.

UNIT: mm

ITEM NO.	JAW WIDTH	JAW OPENING	JAW DEPTH	CLAMPING FORCE (kgs)	WEIGHT PLAIN (kgs)
52130116	100	170	36	2500	18
52130117	125	220	46	3500	34
52130118	150	300	51	5000	55
52130119	200	300	62	8000	90



SWIVEL BASES FOR HYDRAULIC VISES

UNIT: mm

ITEM NO.	SUITABLE JAW WIDTH OF HYD. VISE	WEIGHT (kgs)
52130120	100	7
52130121	125	12
52130122	150	16
52130123	200	16



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



HYDRAULIC TILTING VISES

FEATURES:

- High tensile & tempered cast iron.
- Flame hardened bed.
- Well designed hydraulic booster provides steady clamping force against shocks and vibration during operation.
- 3 steps clamping range for large opening.
- Tilting angles from 0°-50°.



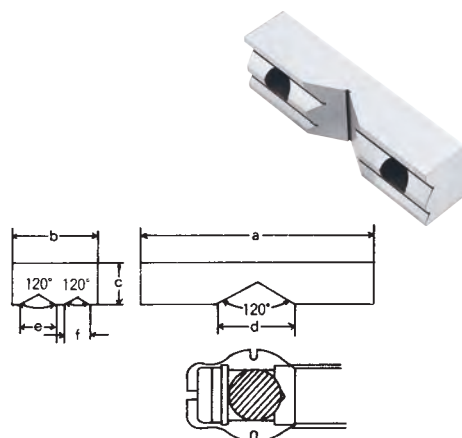
UNIT: mm

ITEM NO.	JAW WIDTH	JAW OPENING	JAW DEPTH	CLAMPING FORCE (kgs)	WEIGHT PLAIN (kgs)
52130124	100	170	36	2500	25
52130125	150	300	51	4400	67



SPECIAL JAW PLATES FOR HYDRAULIC VISES (52130101~04)

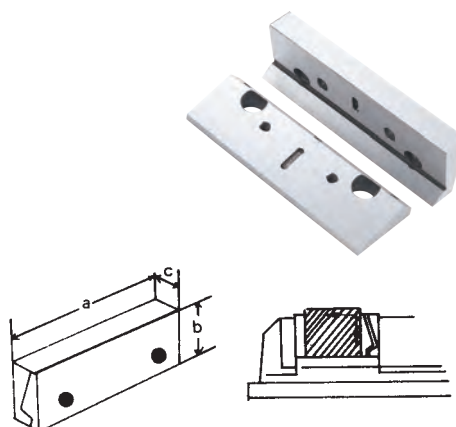
✓ ITEM NO. 52130110~52130112
JAW PLATE FOR ROUND WORKPIECE



UNIT: mm

ITEM NO.	a	b	c	CAPACITY d, e, f
52130110	100	35	32	6~50
52130111	125	45	32	6~70
52130112	156	50	32	6~89

✓ ITEM NO. 52130113~52130115
DOUBLE JAW PLATE



UNIT: mm

ITEM NO.	a	b	c
52130113	100	35	22
52130114	125	45	25
52130115	156	50	25

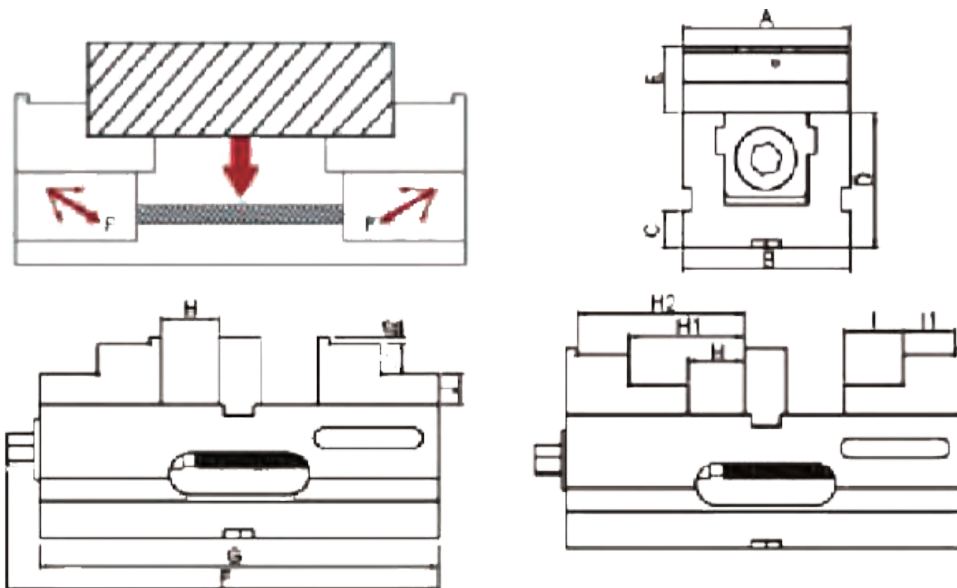


DOUBLE-LOCK MECHANICAL VISE



FEATURES:

- Special device its can clamp two different sizes of workpiece at the same time.
- Take apart fixed block from the vise center so as to clamp larger workpiece.
- There are fixed-height of vise body and jaws so that can be used in both the vertical and horizontal position
- Apply to small CNC machine center. Serveral vises can be combined and used together.
- Soft jaws is optional.
- Special angle lock design can prevent workpiece be floated during clamping and machining.
Thus, it has the best solution in clamping the workpiece.



UNIT: mm

ITEM NO.	A	B	C	D	E	F	G	H	H1	H2	I	I1	J	J1	J2
52172444	100	101	22	80	40	260	240	0-35	35-70	66-100	35	31	18	18	4



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



2 IN 1 & 3 IN 1 HYDRAULIC VISES

FEATURES:

- 2(3) hydraulic vises built in one plane for mass production purpose.
- Work pieces can be set-up rapidly and repeatedly maintaining same height tolerance.
- Built-in workpiece stopper.
- Large workpiece can be applied.

✓ ITEM NO. 52130126



✓ ITEM NO. 52130127



UNIT: mm

ITEM NO.	JAW WIDTH	JAW OPENING	JAW DEPTH	WORKABLE CLAMPING WIDTH	OVERALL WIDTH	OVERALL HEIGHT	OVERALL DEPTH	CLAMPING FORCE	WEIGHT
52130126	150	300	51	484	550	180	807	5000 kgs	145 kgs
52130127	150	300	51	594	660	180	807	5000 kgs	215 kgs

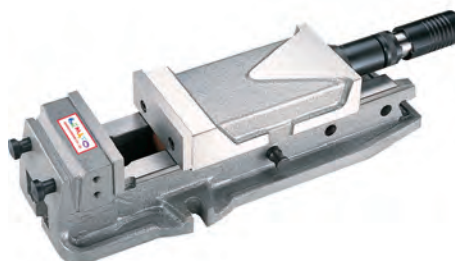


HYDRAULIC VISES – W/ LOCK DOWN JAW MECHANISM

FEATURES:

- High tensile FCD 60 ductile iron vise body, tempered.
- Flame hardened bed HRC 45°.
- Large opening 0-310 mm.
- Hydraulic spindle built outside for easy maintenance.
- Available clamping hydraulic / mechanical.

✓ SWIVEL BASE: ITEM NO. 52130121~23



UNIT: mm

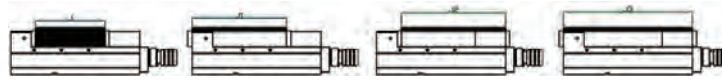
ITEM NO.	JAW WIDTH	JAW OPENING	JAW DEPTH	CLAMPING FORCE (kgs)
52130707	130	220	55	4000
52130128	160	310	58	4000
52130708	200	310	63	6000



MC PRECISION MACHINE VISES



Four clamping way for choice



UNIT: mm

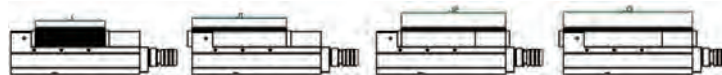
ITEM NO.	A	B	C	D	E	F	G	H	I	J	J1	J2	J3	K	WEIGHT (kgs)
52172445	100	395	485	85	53	60	110	25	18	200	260	300	390	135	36
52172446	130	470	560	100	58	75	160	25	18	250	340	370	460	155	48
52172447	160	545	635	400	63	80	200	25	18	300	370	400	530	160	66
52172448	200	605	695	110	63	95	220	25	18	330	430	490	590	170	104



MC POWER MACHINE VISES – HYDRAULIC TYPE



Four clamping way for choice



UNIT: mm

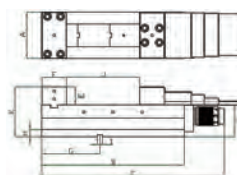
ITEM NO.	A	B	C	D	E	F	G	H	I	J	J1	J2	J3	K	CLAMPING FORCE	WEIGHT (kgs)
52172449	100	395	525	85	53	60	110	25	18	200	260	218	300	135	4000 kgf	36
52172450	130	470	600	100	58	75	160	25	18	250	340	310	370	155	4500 kgf	49
52172451	160	545	675	110	63	80	200	25	18	300	370	350	400	160	5500 kgf	67
52172452	200	605	735	110	63	95	220	25	18	330	430	425	490	170	5500 kgf	105



POWER MACHINE VISES – ADJUSTABLE TYPE



Four clamping way for choice



UNIT: mm

ITEM NO.	A	B	C	D	E	F	G	H	I	J	J1	J2	J3	K	CLAMPING FORCE	WEIGHT (kgs)
52172453	100	310	415	85	50	75	110	25	18	158	218	218	310	135	5500 kgf	30
52172454	130	410	515	100	55	80	135	25	18	245	310	310	410	155	5500 kgf	48
52172455	160	490	595	110	60	85	200	25	18	320	385	385	490	170	5500 kgf	62
52172456	200	530	635	110	60	85	220	25	18	355	425	425	530	170	5500 kgf	105



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



COMPACT MILLING MACHINE VISES – FOR VMCS

FEATURES:

- Rigid material-Ductile iron FCD60JIS (equal to GGG60) with 60 kgs/mm² or 80,000 psi tensile strength.
- Vise bed flame hardened to HRC 45° and up takes up wear and maintains accuracy for long.
- Chip covers adopt on each vise for preventing chips falling into leadscrew and inside of vise.
- Holding workpiece firmly in single and multiple vises setup.
- Semi-spherical segment eliminates jaw lifting and workpiece tilting.
- One piece casting of vise bed and fixed jaw.

V CV-S



V CV-V

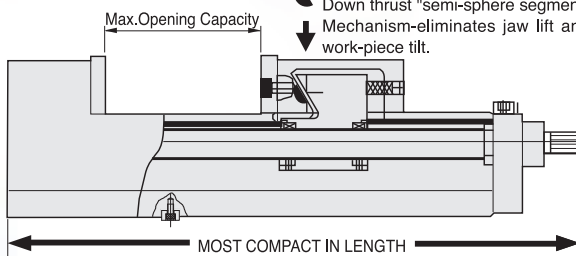


V VISE SIDE-LOCK



V VISE MAX. OPENING (OPT.)

2 KGS of power in this direction
Produce 1KG of downward.
Down thrust "semi-sphere segment"
Mechanism-eliminates jaw lift and work-piece tilt.



STANDARD ACCESSORIES:

- Handle x 1pc
- Guide key x 2pcs
M6 x 10L x 2pcs
- Vise locked block x 4pcs

OPTIONAL ACCESSORIES:

- Special application jaw plates
(Page B133~B134)
- Swivel base-SBD (steel)

THE EXCELLENT CLEARANCE CONTROL

 X= 0 -0.02 V=YES S=NO	 Y= 0 -0.02 V=YES S=NO	 G= 0 -0.02 V=YES S=NO	 R= 0 -0.03 V=YES S=NO
 E= 0 -0.03 V=YES S=NO	 90°= 0 -0.015 V=YES S=YES	 Parallel X Y //= 0.01/100mm(X,Y) V=YES S=YES	 Parallel //= 0.015/100mm V=YES S=YES
 //= 0.015/100mm V=YES S=YES	 90°= 0.015/100mm V=YES S=NO	 Perpendicular of side locked 90° 90°= 0.015/100mm V=YES S=NO	 Perpendicular 90° 90°= 0.015/100mm V=YES S=NO
 Perpendicular 90°= 0.01/100mm V=YES S=NO	 Perpendicular 90°= 0.01/100mm V=YES S=NO	The models V & S represent two different quality levels in accuracy. The "V=YES" or "S=YES" symbolizes the specific accuracy for V & S models can be reached. When it is "S=NO", the specific accuracy is not applied to S models.	



SWIVEL BASES (STEEL) – OPTIONAL

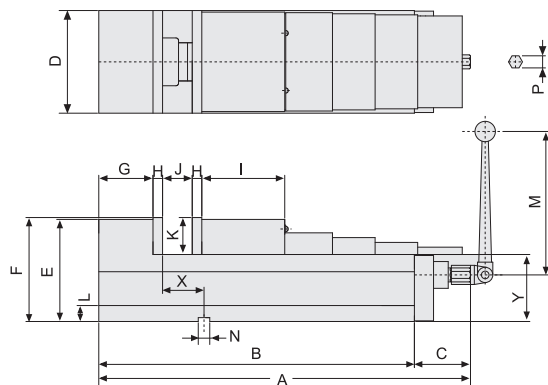
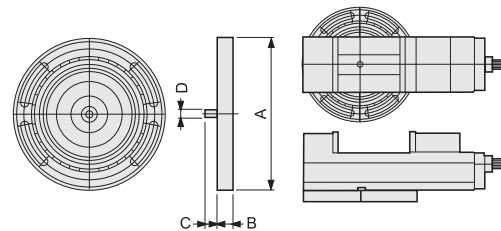
FEATURES:

- The whole swivel base is machined from one piece of solid steel and hardened to take up wear and maintain accuracy for long.

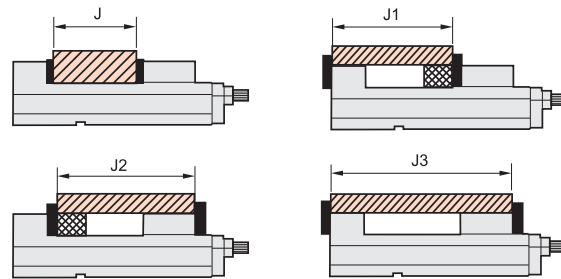


UNIT: mm

ITEM NO.	FOR SIZE OF VISE	A	B	C	D	N.M.
52130190	100	248	29	25	16	6.6 kgs
52130191	130	296	32	25	18	10.6 kgs
52130192	160	312	34	25	18	15.5 kgs
52130193	200	378	44	25	18	27.2 kgs



The 4 ways of clamping for your application.



UNIT: mm

ITEM NO.	MODEL	A	B	C	D	E	F	G	H	I	J	J1	J2	J3
52130182	CV-100V	430	340	90	101	130	133	65	15	105	0-125	125-190	125-230	125-320
52130183	CV-100S	430	340	90	101	130	133	65	15	105	0-125	125-190	125-230	
52130184	CV-130V	495	405	90	131	147	150	70	15	115	0-180	180-240	180-290	180-380
52130185	CV-130S	495	405	90	131	147	150	70	15	115	0-180	180-240	180-290	
52130186	CV-160V	585	495	90	161	160	163	85	15	130	0-240	240-320	240-360	240-470
52130187	CV-160S	585	495	90	161	160	163	85	15	130	0-240	240-320	240-360	
52130188	CV-200V	666	570	96	201	170	173	90	18	150	0-280	280-360	280-420	280-540
52130189	CV-200S	666	570	96	201	170	173	90	18	150	0-280	280-360	280-420	

UNIT: mm

ITEM NO.	MODEL	K	L	M	N	P	X	$X = \begin{smallmatrix} 0 \\ -0.02 \end{smallmatrix}$	Y	$Y = \begin{smallmatrix} 0 \\ -0.02 \end{smallmatrix}$	N.W.	G.W.	MEASUREMENT
52130182	CV-100V	48	22	260	16	19	45	Yes	85	Yes	24 kgs	26 kgs	600 x 220 x 185
52130183	CV-100S	48	22	260	16	19	45	No	85	No	24 kgs	26 kgs	600 x 220 x 185
52130184	CV-130V	55	22	260	18	19	65	Yes	95	Yes	37 kgs	39 kgs	665 x 250 x 205
52130185	CV-130S	55	22	260	18	19	65	No	95	No	37 kgs	39 kgs	665 x 250 x 205
52130186	CV-160V	58	22	260	18	19	65	Yes	105	Yes	57 kgs	59 kgs	760 x 280 x 215
52130187	CV-160S	58	22	260	18	19	65	No	105	No	57 kgs	59 kgs	760 x 280 x 215
52130188	CV-200V	63	22	260	18	19	82	Yes	110	Yes	77 kgs	80 kgs	860 x 320 x 225
52130189	CV-200S	63	22	260	18	19	82	No	110	No	77 kgs	80 kgs	860 x 320 x 225



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



COMPACT MILLING MACHINE VISES – FOR VMCS

FEATURES:

- Rigid material-Ductile iron FCD60JIS (equal to GGG60) with 60 kgs/mm² or 80,000 psi tensile strength.
- Vise bed flame hardened to HRC 45° and up takes up wear and maintains accuracy for long.
- Chip covers adopt on each vise for preventing chips falling into leadscrew and inside of vise.
- Holding workpiece firmly in single and multiple vises setup.
- Semi-spherical segment eliminates jaw lifting and workpiece tilting.
- Clamping system: mechanical/ hydraulic.
- One piece casting of vise bed and fixed jaw.



▲ VISE SIDE-LOCK



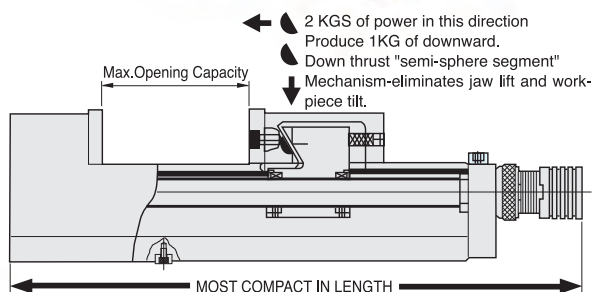
▲ VISE MAX. OPENING (OPT.)



▼ CHV-V



▼ CHV-S



STANDARD ACCESSORIES:

- Handle x 1pc
- Guide key x 2pcs
- M6 x 10L x 2pcs
- Vise locked block x 4pcs

OPTIONAL ACCESSORIES:

- Special application jaw plates (Page B133~B134)
- Swivel base-SBD (steel)

THE EXCELLENT CLEARANCE CONTROL

1	2	3	4
5	6	7	8
9	10	11	12
13	14	The models V & S represent two different quality levels in accuracy. The "V=YES" or "S=YES" symbolizes the specific accuracy for V & S models can be reached. When it is "S=NO", the specific accuracy is not applied to S models.	



SWIVEL BASES (STEEL) – OPTIONAL

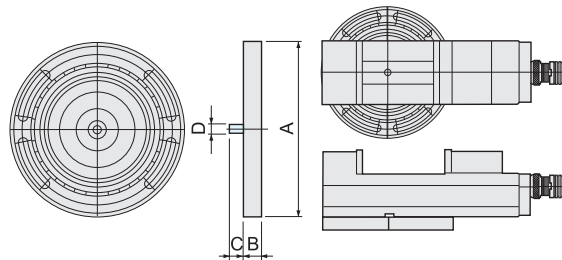
FEATURES:

- The whole swivel base is machined from one piece of solid steel and hardened to take up wear and maintain accuracy for long.

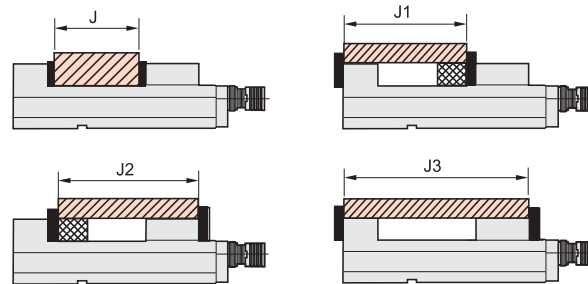
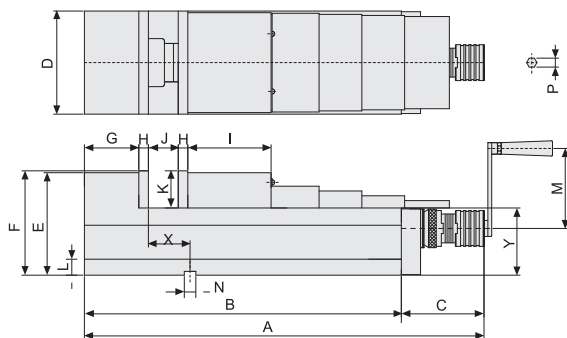


UNIT: mm

ITEM NO.	FOR SIZE OF VISE	A	B	C	D	N.W.
52130202	100	248	29	25	16	6.6 kgs
52130203	130	296	32	25	18	10.6 kgs
52130204	160	312	34	25	18	15.5 kgs
52130205	200	378	44	25	18	27.2 kgs



The 4 ways of clamping for your application.



UNIT: mm

ITEM NO.	MODEL	A	B	C	D	E	F	G	H	I	J	J1	J2	J3	K	L
52130194	CHV-100V	475	340	135	101	130	133	65	15	105	0-125	125-190	125-230	125-320	48	22
52130195	CHV-100S	475	340	135	101	130	133	65	15	105	0-125	125-190	125-230		48	22
52130196	CHV-130V	540	405	135	131	147	150	70	15	115	0-180	180-240	180-290	180-380	55	22
52130197	CHV-130S	540	405	135	131	147	150	70	15	115	0-180	180-240	180-290		55	22
52130198	CHV-160V	630	495	135	161	160	163	85	15	130	0-240	240-320	240-360	240-470	58	22
52130199	CHV-160S	630	495	135	161	160	163	85	15	130	0-240	240-320	240-360		58	22
52130200	CHV-200V	705	570	135	201	170	173	90	18	150	0-280	280-360	280-420	280-540	63	22
52130201	CHV-200S	705	570	135	201	170	173	90	18	150	0-280	280-360	280-420		63	22

ITEM NO.	MODEL	M	N	P	X	X=0 -0.02	Y	Y=0 -0.02	MAX. PRESSURE	LIMIT PRESSURE	N.W.	G.W	MEASUREMENT
52130194	CHV-100V	125	16	14	45	Yes	85	Yes	36KN(3528 kgf)	41KN (4018 kgf)	25 kgs	27 kgs	600 x 220 x 185
52130195	CHV-100S	125	16	14	45	No	85	No	36KN(3528 kgf)	41KN (4018 kgf)	25 kgs	27 kgs	600 x 220 x 185
52130196	CHV-130V	125	18	14	65	Yes	95	Yes	46KN(4508 kgf)	52KN (5096 kgf)	38 kgs	40 kgs	665 x 250 x 205
52130197	CHV-130S	125	18	14	65	No	95	No	46KN(4508 kgf)	52KN (5096 kgf)	38 kgs	40 kgs	665 x 250 x 205
52130198	CHV-160V	125	18	14	65	Yes	105	Yes	56KN(5488 kgf)	61KN (5978 kgf)	57 kgs	60 kgs	760 x 280 x 215
52130199	CHV-160S	125	18	14	65	No	105	No	56KN(5488 kgf)	61KN (5978 kgf)	57 kgs	60 kgs	760 x 280 x 215
52130200	CHV-200V	125	18	14	82	Yes	110	Yes	71KN(6958 kgf)	82KN (8036 kgf)	78 kgs	81 kgs	860 x 320 x 225
52130201	CHV-200S	125	18	14	82	No	110	No	71KN(6958 kgf)	82KN (8036 kgf)	78 kgs	81 kgs	860 x 320 x 225



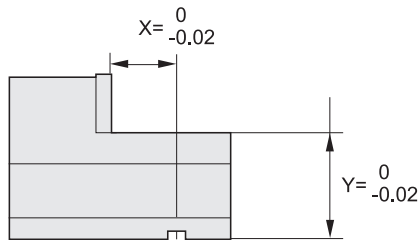
B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



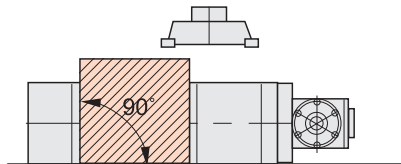
COMPACT HYDRAULIC W/ 90° DRIVING UNIT – FOR VMCS

FEATURES:

- Rigid material-Ductile iron FCD60JIS (equal to GGG60) with 60 kgs/mm² or 80,000 psi tensile strength.
- Vise bed flame hardened to HRC 45° and up takes up wear and maintains accuracy for long.
- Chip covers adopt on each vise for preventing chips falling into leadscrew and inside of vise.
- Holding workpiece firmly in single and multiple vises setup.
- Semi-spherical segment eliminates jaw lifting and workpiece tilting.
- With 90° driving mechanism unit, avoid handle interrupted of table.
- Clamping system: hydraulic.
- One piece casting of vise bed and fixed jaw.



V=YES S=NO

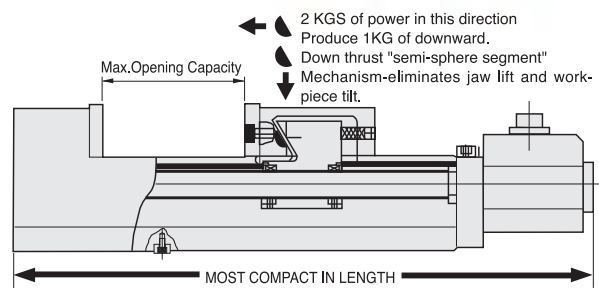
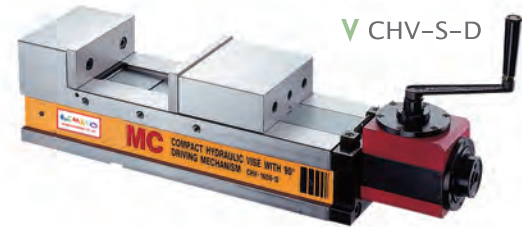


V=Side lock control perpendicular
S=Side lock without control perpendicular

V CHV-V-D



V CHV-S-D



STANDARD ACCESSORIES: OPTIONAL ACCESSORIES:

- Handle x 1pc
- Guide key x 2pcs
- M6 x 10L x 2pcs
- Chip cover x 1set
- Vise locked block x 4pcs
- Special application jaw plates (Page B133~B134)
- Swivel base-SBD (steel)

THE EXCELLENT CLEARANCE CONTROL

1 X=0/-0.02 V=YES S=NO	2 Y=0/-0.02 V=YES S=NO	3 G=0/-0.02 V=YES S=NO	4 R=0/-0.03 V=YES S=NO
5 E=0/-0.03 V=YES S=NO	6 90° Perpendicular V=YES S=YES	7 Parallel // = 0.01/100mm(X,Y) V=YES S=YES	8 Parallel // = 0.015/100mm V=YES S=NO
9 Keyways on bottom of vise Bed parallel to jaw plate // = 0.015/100mm V=YES S=YES	10 90° Perpendicular of side locked 90° = 0.015/100mm V=YES S=NO	11 Perpendicular of side locked 90° = 0.015/100mm V=YES S=NO	12 Perpendicular 90° = 0.015/100mm V=YES S=NO
13 Perpendicular 90° = 0.01/100mm V=YES S=NO	14 Perpendicular 90° = 0.01/100mm V=YES S=NO	The models V & S represent two different quality levels in accuracy. The "V=YES" or "S=YES" symbolizes the specific accuracy for V & S models can be reached. When it is "S=NO", the specific accuracy is not applied to S models.	



SWIVEL BASES (STEEL) – OPTIONAL

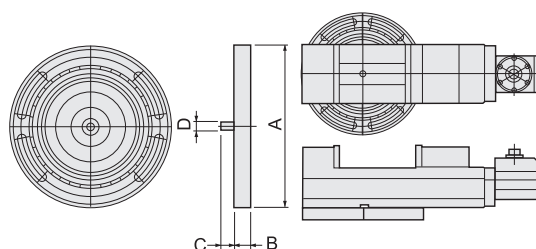
FEATURES:

- The whole swivel base is machined from one piece of solid steel and hardened to take up wear and maintain accuracy for long.

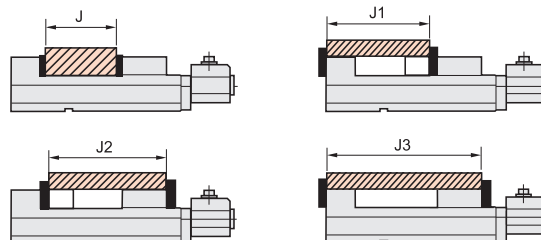
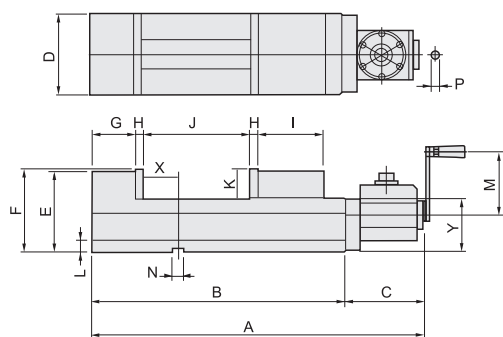


UNIT: mm

ITEM NO.	FOR SIZE OF VISE	A	B	C	D	N.W.
52130214	100	248	29	25	16	6.6 kgs
52130215	130	296	32	25	18	10.6 kgs
52130216	160	312	34	25	18	15.5 kgs
52130217	200	378	44	25	18	27.2 kgs



The 4 ways of clamping for your application.



UNIT: mm

ITEM NO.	MODEL	A	B	C	D	E	F	G	H	I	J	J1	J2	J3	K	L
52130206	CHV-100V-D	512	340	172	101	130	133	65	15	105	0-125	125-190	125-230	125-320	48	22
52130207	CHV-100S-D	512	340	172	101	130	133	65	15	105	0-125	125-190	125-230		48	22
52130208	CHV-130V-D	577	405	172	131	147	150	70	15	115	0-180	180-240	180-290	180-380	55	22
52130209	CHV-130S-D	577	405	172	131	147	150	70	15	115	0-180	180-240	180-290		55	22
52130210	CHV-160V-D	667	495	172	161	160	163	85	15	130	0-240	240-320	240-360	240-470	58	22
52130211	CHV-160S-D	667	495	172	161	160	163	85	15	130	0-240	240-320	240-360		58	22
52130212	CHV-200V-D	742	570	172	201	170	173	90	18	150	0-280	280-360	280-420	280-540	63	22
52130213	CHV-200S-D	742	570	172	201	170	173	90	18	150	0-280	280-360	280-420		63	22

UNIT: mm

ITEM NO.	MODEL	M	N	P	X	X= 0 -0.02	Y	Y= 0 -0.02	MAX. PRESSURE	LIMIT PRESSURE	N.W.	G.W.	MEASUREMENT
52130206	CHV-100V-D	125	16	14	45	Yes	85	Yes	36KN (3528 kgf)	41KN (4018kgf)	29 kgs	31 kgs	600 x 220 x 185
52130207	CHV-100S-D	125	16	14	45	No	85	No	36KN (3528 kgf)	41KN (4018kgf)	29 kgs	31 kgs	600 x 220 x 185
52130208	CHV-130V-D	125	18	14	65	Yes	95	Yes	46KN (4508 kgf)	52KN (5096kgf)	42 kgs	44 kgs	665 x 250 x 205
52130209	CHV-130S-D	125	18	14	65	No	95	No	46KN (4508 kgf)	52KN (5096kgf)	42 kgs	44 kgs	665 x 250 x 205
52130210	CHV-160V-D	125	18	14	65	Yes	105	Yes	56KN (5488 kgf)	61KN (5978kgf)	63 kgs	65 kgs	760 x 280 x 215
52130211	CHV-160S-D	125	18	14	65	No	105	No	56KN (5488 kgf)	61KN (5978kgf)	63 kgs	65 kgs	760 x 280 x 215
52130212	CHV-200V-D	125	18	14	82	Yes	110	Yes	71KN (6958 kgf)	82KN (8036kgf)	83 kgs	86 kgs	860 x 320 x 225
52130213	CHV-200S-D	125	18	14	82	No	110	No	71KN (6958 kgf)	82KN (8036kgf)	83 kgs	86 kgs	860 x 320 x 225



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



COMPACT MECHANICAL POWER VISES – FOR VMCS

FEATURES:

- Rigid material-Ductile iron FCD60JIS (equal to GGG60) with 60 kgs/mm² or 80,000 psi tensile strength.
- Vise bed flame hardened to HRC 45° and up takes up wear and maintains accuracy for long.
- Chip covers adopt on each vise for preventing chips falling into leadscrew and inside of vise.
- Holding workpiece firmly in single and multiple vises setup.
- Semi-spherical segment eliminates jaw lifting and workpiece tilting.
- Clamping power indications graduations are engraved on the vise handle to show instantly the applied clamping force in tones.
- One piece casting of vise bed and fixed jaw.
- Drive spindle with clamping force presetting and stopper mechanism device.

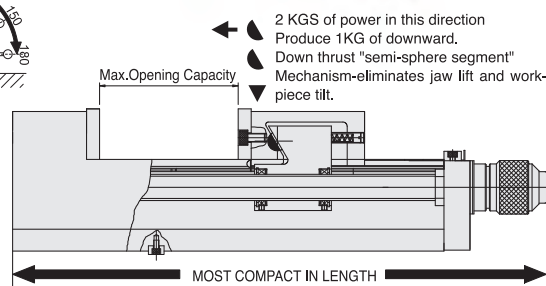
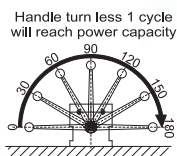
V CMV-V



V CMV-S



▲ VISE MAX. OPENING (OPT.)



UNIT: mm

MODEL	4	3	4	1	0
CMV-100	46 (4508)	37 (3626)	23 (2254)	10 (980)	4 (392)
CMV-130	52 (5096)	40 (3920)	25 (2450)	13 (1274)	4 (392)
CMV-160	57 (5586)	43 (4214)	29 (2842)	15 (1470)	5 (490)
CMV-200	65 (6370)	49 (4802)	35 (3430)	22 (2156)	5 (490)

▲ VISE SIDE-LOCK

THE EXCELLENT CLEARENCE CONTROL

1 X= 0 -0.02 V=YES S=NO	2 Y= 0 -0.02 V=YES S=NO	3 G= 0 -0.02 V=YES S=NO	4 R= 0 -0.02 V=YES S=NO
5 E= 0 -0.03 V=YES S=NO	6 90°= 0 -0.015 V=YES S=YES	7 //=0.015/100mm(X,Y) V=YES S=YES	8 //=0.015/100mm V=YES S=YES
9 //=0.015/100mm V=YES S=YES	10 90°=0.015/100mm V=YES S=NO	11 90°=0.01/100mm V=YES S=NO	12 90°=0.015/100mm V=YES S=NO
13 90°=0.01/100mm V=YES S=NO	14 90°=0.01/100mm V=YES S=NO		

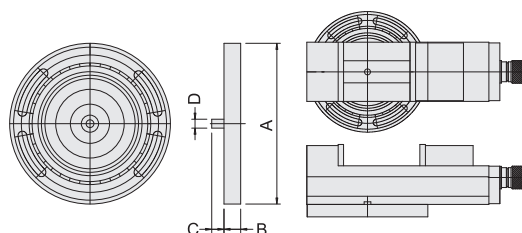
The models V & S represent two different quality levels in accuracy. The "V=YES" or "S=YES" symbolizes the specific accuracy for V & S models can be reached. When it is "S=NO", the specific accuracy is not applied to S models.



SWIVEL BASES (STEEL) – OPTIONAL

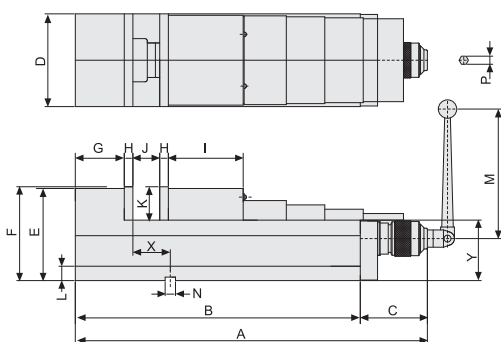
FEATURES:

- The whole swivel base is machined from one piece of solid steel and hardened to take up wear and maintain accuracy for long.

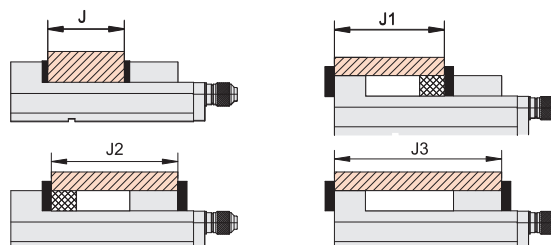


UNIT: mm

ITEM NO.	FOR SIZE OF VISE	A	B	C	D	N.W.
52130226	100	248	29	25	16	6.6 kgs
52130227	130	296	32	25	18	10.6 kgs
52130228	160	312	34	25	18	15.5 kgs
52130229	200	378	44	25	18	27.2 kgs



The 4 ways of clamping for your application.



STANDARD ACCESSORIES:

- Handle x 1pc
- Guide key x 2pcs
- M6 x 10L x 2pcs
- Vise locked block x 4pcs

OPTIONAL ACCESSORIES:

- Special application jaw plates (Page B133~B134)
- Swivel base-SBD (steel)

UNIT: mm

ITEM NO.	MODEL	A	B	C	D	E	F	G	H	I	J	J1	J2	J3	K	L
52130218	CMV-100V	475	340	135	101	130	133	65	15	105	0-125	125-190	125-230	125-320	48	22
52130219	CMV-100S	475	340	135	101	130	133	65	15	105	0-125	125-190	125-230		48	22
52130220	CMV-130V	540	405	135	131	147	150	70	15	115	0-180	180-240	180-290	180-380	55	22
52130221	CMV-130S	540	405	135	131	147	150	70	15	115	0-180	180-240	180-290		55	22
52130222	CMV-160V	630	495	135	161	160	163	85	15	130	0-240	240-320	240-360	240-470	58	22
52130223	CMV-160S	630	495	135	161	160	163	85	15	130	0-240	240-320	240-360		58	22
52130224	CMV-200V	705	570	135	201	170	173	90	18	150	0-280	280-360	280-420	280-540	63	22
52130225	CMV-200S	705	570	135	201	170	173	90	18	150	0-280	280-360	280-420		63	22

UNIT: mm

ITEM NO.	MODEL	M	N	P	X	X= 0 -0.02	Y	Y= 0 -0.02	MAX. PRESSURE	N.W.	G.W.	MEASUREMENT
52170218	CMV-100V	125	16	14	45	Yes	85	Yes	46KN (4508 kgf)	25 kgs	27 kgs	600 x 220 x 185
52170219	CMV-100S	125	16	14	45	No	85	No	46KN (4508 kgf)	25 kgs	27 kgs	600 x 220 x 185
52170220	CMV-130V	125	18	14	65	Yes	95	Yes	52KN (5096 kgf)	38 kgs	40 kgs	665 x 250 x 205
52170221	CMV-130S	125	18	14	65	No	95	No	52KN (5096 kgf)	38 kgs	40 kgs	665 x 250 x 205
52170222	CMV-160V	125	18	14	65	Yes	105	Yes	57KN (5586 kgf)	58 kgs	60 kgs	760 x 280 x 215
52170223	CMV-160S	125	18	14	65	No	105	No	57KN (5586 kgf)	58 kgs	60 kgs	760 x 280 x 215
52170224	CMV-200V	125	18	14	82	Yes	110	Yes	65KN (6370 kgf)	78 kgs	81 kgs	860 x 320 x 225
52170225	CMV-200S	125	18	14	82	No	110	No	65KN (6370 kgf)	78 kgs	81 kgs	860 x 320 x 225

B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



MC 2 IN 1 DOUBLE SELF-CENTERING VISES

FEATURES:

- Rigid material-Ductile iron FCD60JIS (equal to GGG60) with 60 kgs/mm² or 80,000 psi tensile strength.
- Vise bed flame hardened to HRC 45° and up takes up wear and maintains accuracy for long.
- Chip covers adopt on each vise for preventing chips falling into leadscrew and inside of vise.
- Holding workpiece firmly in single and multiple vises setup.
- Movable flame hardened to HRC55° and up takes up wear and maintain accuracy for long.
- Down thrust mechanism eliminates jaw lifting and workpiece tilting
- Double self-centering function.
- Each self-centering clearance within $\pm 0.010\text{mm}$.

V DBV-S



V WORKPIECE LIFTING ACCURACY
WITHIN 0.010MM



V DBV-V



V WORKPIECE LIFTING ACCURACY
WITHIN 0.010MM



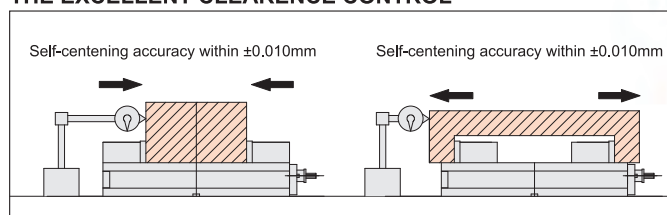
STANDARD ACCESSORIES:

- Handle x 1pc
- Guide key x 2pcs
M6 x 10L x 2pcs
- Vise locked block x 4pcs
- Chip cover x 1set

OPTIONAL ACCESSORIES:

- Special application jaw plates
(Page B133~B134)

THE EXCELLENT CLEARENCE CONTROL





MC 2 IN 1 DOUBLE SELF-CENTERING VISES

21

MODEL NO.	A=MAX	A=MIN.
DBV-100V/S	210mm	80mm
DBV-130V/S	230mm	60mm
DBV-160V/S	260mm	60mm
DBV-200V/S	370mm	90mm

22

MODEL NO.	A=MAX	A=MIN.
DBV-100V/S	400mm	270mm
DBV-130V/S	440mm	270mm
DBV-160V/S	490mm	290mm
DBV-200V/S	630mm	350mm

25

23

MODEL NO.	A=MIN. THICKNESS	B=MIN. THICKNESS
DBV-100V/S	48mm	48mm
DBV-130V/S	48mm	48mm
DBV-160V/S	48mm	48mm
DBV-200V/S	63mm	63mm

24

MODEL NO.	Dia=MAX	Dia=MIN.
DBV-100V/S	180mm	60mm
DBV-130V/S	220mm	60mm
DBV-160V/S	230mm	60mm
DBV-200V/S	340mm	80mm

MODEL NO.	Dia=MAX	Dia=MIN.
DBV-100V/S	410mm	270mm
DBV-130V/S	450mm	270mm
DBV-160V/S	500mm	290mm
DBV-200V/S	640mm	350mm

■ When work in self-centering condition (Fig 23), optional jaw plates (2 pcs) are available for size of work-piece smaller than 60mm or 80mm.

Example

Example

UNIT: mm

ITEM NO.	MODEL	A	B	C	D	E	F	G	H	L	L	L1
52171463	DBV-100V	488	410	78	101	48	125	128	15	80~210	0~150	270~400
52171464	DBV-100S	488	410	78	101	48	125	128	15	80~210	0~150	270~400
52171465	DBV-130V	528	450	78	131	55	137	140	15	60~230	0~170	270~440
52171466	DBV-130S	528	450	78	131	55	137	140	15	60~230	0~170	270~440
52171467	DBV-160V	578	500	78	161	58	145	148	15	60~260	0~200	270~490
52171468	DBV-160S	578	500	78	161	58	145	148	15	60~260	0~200	270~490
52171469	DBV-200V	720	642	78	201	63	155	158	18	90~370	0~290	350~630
52171470	DBV-200S	720	642	78	201	63	155	158	18	90~370	0~290	350~630

UNIT: mm

ITEM NO.	MODEL	M	N	Y	Y=0 -0.02	N.W.	G.W.	MEASUREMENT
52171463	DBV-100V	16	19	80	Yes	25 kgs	27 kgs	600 x 220 x 185
52171464	DBV-100S	16	19	80	No	25 kgs	27 kgs	600 x 220 x 185
52171465	DBV-130V	18	19	85	Yes	38 kgs	41 kgs	665 x 250 x 205
52171466	DBV-130S	18	19	85	No	38 kgs	41 kgs	665 x 250 x 205
52171467	DBV-160V	18	19	90	Yes	53 kgs	55 kgs	760 x 280 x 215
52171468	DBV-160S	18	19	90	No	53 kgs	55 kgs	760 x 280 x 215
52171469	DBV-200V	18	19	95	Yes	87 kgs	90 kgs	860 x 320 x 225
52171470	DBV-200S	18	19	95	No	87 kgs	90 kgs	860 x 320 x 225



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



MC 2 IN 1 DOUBLE LOCK & ANGLOCK MACHINE VISES

V DAV-S

V DAV-V

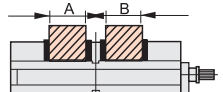


	11 1.Patented mechanical clamping lock down jaw mechanism 1-1 Workpiece are held securely and precisely for heavy machining. 1-2 No minimum limit on size of workpiece clamping range is freely adjusted from 0 to the maximum jaw opening.
	12 2.As long as size tolerance clearance is ±1.5mm for parts 2-1 The vise can clamp parts without re-adjusting the clamping position meanwhile the clamping power is equal on 2 parts.
	13 3.When install the part first install part A, after part B. When take out the part first take out part B, after part A. 3-1 When install the part first install part A then light clamping by handle,, after install part B, then light clamping by handle, finally, the clamping power is equal on 2 parts. 3-2 When loosen parts first loosen part B, after part A.
	14 4.Large workpiece (square, rectangular, round surface) clamping 4-1 Remove stationary jaw for clamping large part 4-2 Jaws clamp simultaneously with equal clamping power.
	15 5.Mc 2 in 1 anglock vise, most suitable for machine center 5-1 Rigid material ductile iron FCD 60 kgs/mm² or 80,000 psi tensile strength. 5-2 Vise bed flame hardened to HRC45° and up take up wear and maintain accuracy for long.
	16 6.Movable jaws lock down mechanism eliminates lift of parts 6-1 Both movable jaws is featured with lock down mechanism eliminates the lift of parts. 6-2 Vise leadscrew is covered with chip way cover to prevent chips for falling into the vise inner bottom and damage the leadscrew. 6-3 Jaw plates position set up as shown of fig.21-26.

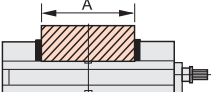
V=YES S=NO	V=YES S=NO	V=YES S=NO
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V=YES S=YES	V=YES S=YES	V=YES S=NO



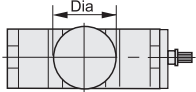
MC 2 IN 1 DOUBLE SELF-CENTERING VISES



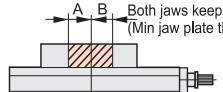
MODEL NO.	A	B
DAV-100V/S	0-75mm	0-75mm
DAV-130V/S	0-85mm	0-85mm
DAV-160V/S	0-100mm	0-100mm
DAV-200V/S	0-150mm	0-150mm



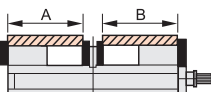
MODEL NO.	A=MAX.	A=MIN.
DAV-100V/S	210mm	80mm
DAV-130V/S	230mm	60mm
DAV-160V/S	260mm	60mm
DAV-200V/S	370mm	90mm



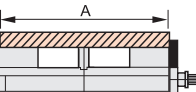
MODEL NO.	Dia=MAX.	Dia=MIN.
DAV-100V/S	180mm	60mm
DAV-130V/S	220mm	60mm
DAV-160V/S	230mm	60mm
DAV-200V/S	340mm	80mm



MODEL NO.	A=MIN. THICKNESS	B=MIN. THICKNESS
DAV-100V/S	48mm	48mm
DAV-130V/S	48mm	48mm
DAV-160V/S	48mm	48mm
DAV-200V/S	63mm	63mm



MODEL NO.	A=MAX.	B=MIN.
DAV-100V/S	80-170mm	80-170mm
DAV-130V/S	90-190mm	90-190mm
DAV-160V/S	100-220mm	100-220mm
DAV-200V/S	110-280mm	110-280mm



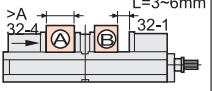
MODEL NO.	A=MAX.	A=MIN.
DAV-100V/S	400mm	260mm
DAV-130V/S	440mm	280mm
DAV-160V/S	490mm	300mm
DAV-200V/S	630mm	340mm

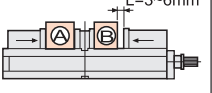
■ When work in self-centering condition (fig.22&23). Optional jaw plates (2 pcs) are available for size of work-piece smaller than 60mm or 80mm.
 ■ Optional fixed plate is available for converting the vise to be a standard vise.(See fig 24.)

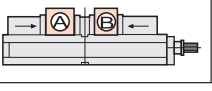
OPTIONAL METHODS:FIGURES FOR SHOWING THE PROCEDURES OF CLAMPING WORKPIECES.

31-1  **31-1**

31-4  **31-4**

32-1  **32-1**

33-1  **33-1**

34-1  **34-1**

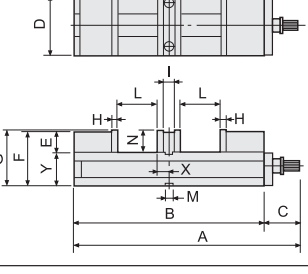
REMARKS:

- When clamping other size, please follow the same procedures as stated below.
- When install the part first part A after part B.
- When take out the part, first part B after A.
- 31-1 If part a and b are different in sizes.
- 31-2 First of all make sure the set screw (D) is loosen stated.
- 31-3 Second make sure the clutch (E) is engagement stated.
- 31-4 Rotate handle till the part b can fit in.
- 32-1 Adjusting the gap between movable jaw and part (B) is 3-6mm.
- 32-2 Then lock the set screw (D) but don't lock too tight.
- 32-3 Then pull out the clutch to non engagement stated.
- 32-4 Finally rotate handle till the part A can fit in. But part B the gap always keep 3-6mm can't move it.
- 33-1 The set screw (D) keep lock and clutch (E) keep non engagement stated.
- 33-2 Rotate handle by clockwise till the movable jaw and part A is touch.
- 33-3 Then rotate handle by under clockwise till near next slot also push clutch to engagement stated.
- 33-4 Finally loosen set screw (D).
- 34-1 As procedures 31-33 already finished adjusting part A and B size then lock set screw (F) on clutch (E).
- 34-2 Rotate handle by clockwise first the part A will be by clamping, then will be move the part B gap (L=3-6mm) till the gap between movable jaw and part B is by clamping.
- 34-3 By heavy power on handle by clockwise the part A, B will be heavy power capacity by clamped.

(The part A and B is same power capacity by designed).

Standard Accessories

- Handle x 1 pc
- Guide key x 2pcs
- M6 x 10L x 2pcs
- Chip cover x 1 set
- Vise locked block x 4 pcs



UNIT: mm

ITEM NO.	MODEL	A	B	C	D	E	F	G	H	I
52130238	DAV-100V	495	410	85	101	45	125	128	15	30
52130239	DAV-100S	495	410	85	101	45	125	128	15	30
52130240	DAV-130V	535	450	85	131	52	137	140	15	30
52130241	DAV-130S	535	450	85	131	52	137	140	15	30
52130242	DAV-160V	585	500	85	161	55	145	148	15	30
52130243	DAV-160S	585	500	85	161	55	145	148	15	30
52130244	DAV-200V	727	642	85	201	60	155	158	18	40
52130245	DAV-200S	727	642	85	201	60	155	158	18	40

UNIT: mm

ITEM NO.	MODEL	L (EACH OPENING)	M	N	X	Y	Y ⁰ -0.02	N.W.	G.W.	MEASUREMENT
52130238	DAV-100V	0-75	0-75	16	48	30	Yes	80	Yes	27 kgs 29 kgs 600 x 220 x 185
52130239	DAV-100S	0-75	0-75	16	48	30	No	80	No	27 kgs 29 kgs 600 x 220 x 185
52130240	DAV-130V	0-85	0-85	18	55	30	Yes	85	Yes	39 kgs 41 kgs 665 x 250 x 205
52130241	DAV-130S	0-85	0-85	18	55	30	No	85	No	39 kgs 41 kgs 665 x 250 x 205
52130242	DAV-160V	0-100	0-100	18	58	30	Yes	90	Yes	56 kgs 59 kgs 760 x 280 x 215
52130243	DAV-160S	0-100	0-100	18	58	30	No	90	No	56 kgs 59 kgs 760 x 280 x 215
52130244	DAV-200V	0-150	0-150	18	63	38	Yes	95	Yes	89 kgs 92 kgs 860 x 320 x 225
52130245	DAV-200S	0-150	0-150	18	63	38	No	95	No	89 kgs 92 kgs 860 x 320 x 225



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS

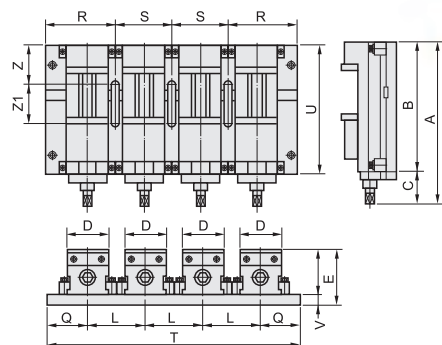


COMPACT & MULTIPLE VISES – FOR VMCS

V 2, 3, 4, IN ONE SET UP

FEATURES:

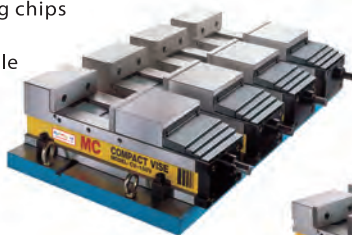
- Multiply MC compact vise for mounting on a vertical machining center to achieve highest productivity.
- Incorporates lock down jaw principle assures zero part lift and near zero deflection when clamping.
- Parts can be clamped in a consecutive pattern for progressive "all sides" machining.
- Chip covers adopt on each vise for preventing chips falling into leadscrew and inside of vise.
- With 90° driving mechanism unit, avoid handle interrupted of table.



V CHV-HYDRAULIC/ MECHANICAL



V CV-MECHANICAL



V CHV-D-HYDRAULIC



STANDARD ACCESSORIES:

- Handle x 2, 3, 4pcs
- Guide key x 2pcs
- M6 x 10L x 2pcs

OPTIONAL ACCESSORIES:

- Special application jaw plates (Page B133~B134)

UNIT: mm

ITEM NO.	MODEL	A	B	C	D	E	J	L	Q	R	S	T	U	V	Z	Z1
52130246	CV-100-2S	430	340	90	101	163	0-125	300	105	180	150	510	340	30	100	100
52130247	CV-100-3S	430	340	90	101	163	0-125	150	105	180	150	510	340	30	100	100
52130248	CV-100-4S	430	340	90	101	163	0-125	150	105	180	150	660	340	30	100	100
52130249	CV-130-2S	495	405	90	131	185	0-180	360	120	210	180	600	405	35	120	120
52130250	CV-130-3S	495	405	90	131	185	0-180	180	120	210	180	600	405	35	120	120
52130251	CV-130-4S	495	405	90	131	185	0-180	180	120	210	180	780	405	35	120	120
52130252	CV-160-2S	585	495	90	161	203	0-240	440	140	250	220	720	495	40	150	150
52130253	CV-160-3S	585	495	90	161	203	0-240	220	140	250	220	720	495	40	150	150
52130254	CV-160-4S	585	495	90	161	203	0-240	220	140	250	220	940	495	40	150	150
52130255	CHV-100-2S	475	340	135	101	163	0-125	300	105	180	150	510	340	30	100	100
52130256	CHV-100-3S	475	340	135	101	163	0-125	150	105	180	150	510	340	30	100	100
52130257	CHV-100-4S	475	340	135	101	163	0-125	150	105	180	150	660	340	30	100	100
52130258	CHV-130-2S	540	405	135	131	185	0-180	360	120	210	180	600	405	35	120	120
52130259	CHV-130-3S	540	405	135	131	185	0-180	180	120	210	180	600	405	35	120	120
52130260	CHV-130-4S	540	405	135	131	185	0-180	180	120	210	180	780	405	35	120	120
52130261	CHV-160-2S	630	495	135	161	203	0-240	440	140	250	220	720	495	40	150	150
52130262	CHV-160-3S	630	495	135	161	203	0-240	220	140	250	220	720	495	40	150	150
52130263	CHV-160-4S	630	495	135	161	203	0-240	220	140	250	220	940	495	40	150	150
52130264	CHV-100-2S-D	512	340	172	101	163	0-125	300	105	180	150	510	340	30	100	100
52130265	CHV-100-3S-D	512	340	172	101	163	0-125	150	105	180	150	510	340	30	100	100
52130266	CHV-100-4S-D	512	340	172	101	163	0-125	150	105	180	150	660	340	30	100	100
52130267	CHV-130-2S-D	577	405	172	131	185	0-180	360	120	210	180	600	405	35	120	120
52130268	CHV-130-3S-D	577	405	172	131	185	0-180	180	120	210	180	600	405	35	120	120
52130269	CHV-130-4S-D	577	405	172	131	185	0-180	180	120	210	180	780	405	35	120	120
52130270	CHV-160-2S-D	667	495	172	161	203	0-240	440	140	250	220	720	495	40	150	150
52130271	CHV-160-3S-D	667	495	172	161	203	0-240	220	140	250	220	720	495	40	150	150
52130272	CHV-160-4S-D	667	495	172	161	203	0-240	220	140	250	220	940	495	40	150	150

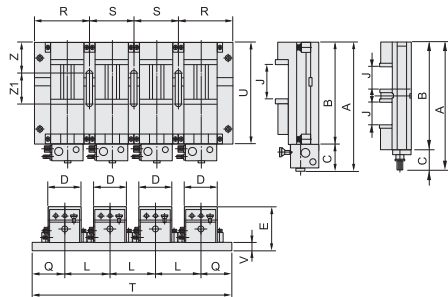


COMPACT & MULTIPLE VISES – FOR VMCs

√ 2, 3, 4, IN ONE SET UP

FEATURES:

- Multiply MC compact vise for mounting on a vertical machining center to achieve highest productivity.
- Incorporates lock down jaw principle assures zero part lift and near zero deflection when clamping.
- Parts can be clamped in a consecutive pattern for progressive "all sides" machining.
- Chip covers adopt on each vise for preventing chips falling into leadscrew and inside of vise.



STANDARD ACCESSORIES:

- Handle x 2, 3, 4pcs
- Guide key x 2pcs
- M6 x 10L x 2pcs

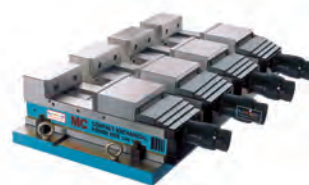
OPTIONAL ACCESSORIES:

- Special application jaw plates (Page B133~B134)

√ DAV-2 IN 1 DOUBLE LOCK



√ CMV-MECHANICAL POWER



√ PQV-PNEUMATIC



UNIT: mm

ITEM NO.	MODEL	A	B	C	D	E	J	L	Q	R	S	T	U	V	Z	Z3
52130273	CMV-100-2S	475	340	135	101	163	0-125	300	105	180	150	510	340	30	100	100
52130274	CMV-100-3S	475	340	135	101	163	0-125	150	105	180	150	510	340	30	100	100
52130275	CMV-100-4S	475	340	135	101	163	0-125	150	105	180	150	660	340	30	100	100
52130276	CMV-130-2S	540	405	135	131	185	0-180	360	120	210	180	600	405	35	120	120
52130277	CMV-130-3S	540	405	135	131	185	0-180	180	120	210	180	600	405	35	120	120
52130278	CMV-130-4S	540	405	135	131	185	0-180	180	120	210	180	780	405	35	120	120
52130279	CMV-160-2S	630	495	135	161	203	0-240	440	140	250	220	720	495	40	150	150
52130280	CMV-160-3S	630	495	135	161	203	0-240	220	140	250	220	720	495	40	150	150
52130281	CMV-160-4S	630	495	135	161	203	0-240	220	140	250	220	940	495	40	150	150
52130291	DAV-100-2S	495	410	85	101	158	0-75	300	105	180	150	510	340	30	100	100
52130292	DAV-100-3S	495	410	85	101	158	0-75	150	105	180	150	510	340	30	100	100
52130293	DAV-100-4S	495	410	85	101	158	0-75	150	105	180	150	660	340	30	100	100
52130294	DAV-130-2S	535	450	85	131	175	0-85	360	120	210	180	600	405	35	120	120
52130295	DAV-130-3S	535	450	85	131	175	0-85	180	120	210	180	600	405	35	120	120
52130296	DAV-130-4S	535	450	85	131	175	0-85	180	120	210	180	780	405	35	120	120
52130297	DAV-160-2S	585	500	85	161	188	0-100	440	140	250	220	720	495	40	150	150
52130298	DAV-160-3S	585	500	85	161	188	0-100	220	140	250	220	720	495	40	150	150
52130299	DAV-160-4S	585	500	85	161	188	0-100	220	140	250	220	940	495	40	150	150
52130300	PQV-100-2S	442	340	102	101	163	0-105	300	105	180	150	510	340	30	100	100
52130301	PQV-100-3S	442	340	102	101	163	0-105	150	105	180	150	510	340	30	100	100
52130302	PQV-100-4S	442	340	102	101	163	0-105	150	105	180	150	660	340	30	100	100
52130303	PQV-130-2S	507	405	102	131	185	0-140	360	120	210	180	600	405	35	120	120
52130304	PQV-130-3S	507	405	102	131	185	0-140	180	120	210	180	600	405	35	120	120
52130305	PQV-130-4S	507	405	102	131	185	0-140	180	120	210	180	780	405	35	120	120
52130306	PQV-160-2S	534	432	102	161	203	0-150	440	140	250	220	720	495	40	150	150
52130307	PQV-160-3S	534	432	102	161	203	0-150	220	140	250	220	720	495	40	150	150
52130308	PQV-160-4S	534	432	102	161	203	0-150	220	140	250	220	940	495	40	150	150



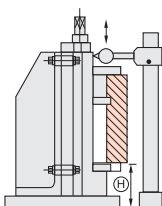
B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



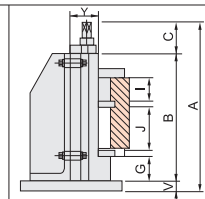
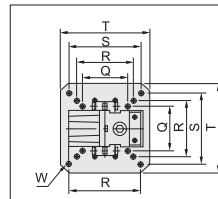
COMPACT & UPRIGHT MULTIPLE VISES – FOR VMCS

FEATURES:

- Mounting 1 MC compact vise upright on a piece of sub-plate and 1 upright bracket to be best used on horizontal machine center with pallet changer.
- Ideal for clamping 1 work-piece for machining five surfaces on horizontal machine center.
- Chip covers adopt on each vise for preventing chips falling into leadscrew and inside of vise.



PATENTED



✓ CV-MECHANICAL



✓ CHV-MECHANICAL / HYDRAULIC



✓ CMV-MECHANICAL POWER



✓ CHV-D-MECHANICAL W/ 90° DRIVING MECHANISM UNIT



◀ DAV-2 IN 1 DOUBLE LOCK

STANDARD ACCESSORIES:

- Handle x 2, 3, 4pcs
- Sub-plate x 1pc
- 1 upright bracket x 1pc

OPTIONAL ACCESSORIES:

- Special application jaw plates (P-B132.P-B133)

TEST ITEM	GUARANTEED
1. Both vise jaw plates to bottom plate parallel within 0.020 mm	0.020 mm
2. Vise "Y" dimension with 0.020 mm	0.020 mm
3. Vise on bottom of vise bed square within 0.010 mm / 100 mm	0.010 / 100 mm

UNIT: mm

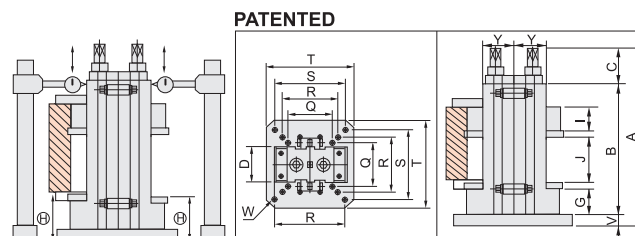
ITEM NO.	MODEL	A	B	C	D	E	J	L	Q	R	S	T	U	V	Z	Z3
52130309	CV-100V1	470	340	90	101	65	105	0-125	125	160	200	300	40	M16	85	61 kgs
52130310	CV-130V1	535	405	90	131	70	115	0-180		160	200	300	40	M16	95	78 kgs
52130311	CV-160V1	625	495	90	161	85	130	0-240	200	250	320	400	40	M16	105	133 kgs
52130312	CV-200V1	706	570	90	201	90	150	0-280		250	320	400	40	M16	110	170 kgs
52130313	CHV-100V1	515	340	135	101	65	105	0-125	125	160	200	300	40	M16	85	69 kgs
52130314	CHV-130V1	580	405	135	131	70	115	0-180		160	200	300	40	M16	95	79 kgs
52130315	CHV-160V1	670	495	135	161	85	130	0-240	200	250	320	400	40	M16	105	134 kgs
52130316	CHV-200V1	745	570	135	201	90	150	0-280		250	320	400	40	M16	110	171 kgs
52130317	CHV-100V1-D	552	340	172	101	65	105	0-125	125	160	200	300	40	M16	85	74 kgs
52130318	CHV-130V1-D	617	405	172	131	70	115	0-180		160	200	300	40	M16	95	83 kgs
52130319	CHV-160V1-D	707	495	172	161	85	130	0-240	200	250	320	400	40	M16	105	139 kgs
52130320	CHV-200V1-D	782	570	172	201	90	150	0-280		250	320	400	40	M16	110	176 kgs
52130321	CMV-100V1	515	340	135	101	65	105	0-125	125	160	200	300	40	M16	85	69 kgs
52130322	CMV-130V1	580	405	135	131	70	115	0-180		160	200	300	40	M16	95	79 kgs
52130323	CMV-160V1	670	495	135	161	85	130	0-240	200	250	320	400	40	M16	105	134 kgs
52130324	CMV-200V1	745	570	135	201	90	150	0-280		250	320	400	40	M16	110	171 kgs
52130329	DAV-100V1	535	410	85	101		80	0-75	125	160	200	300	40	M16	80	72 kgs
52130330	DAV-130V1	575	450	85	131		90	0-85		160	200	300	40	M16	85	80 kgs
52130331	DAV-160V1	625	500	85	161		100	0-100	200	250	320	400	40	M16	90	133 kgs
52130332	DAV-200V1	767	642	85	201		110	0-150		250	320	400	40	M16	95	176 kgs



COMPACT & UPRIGHT MULTIPLE VISES – FOR VMCs

FEATURES:

- Mounting 2 MC compact vise upright on a piece of sub-plate to be best used on horizontal machine center with pallet changer.
- Ideal for clamping 2 work-piece for machining five surfaces on horizontal machine center.
- Mechanical, mechanical/ hydraulic type and with 90° driving mechanism unit for your best choice.
- Chip covers adopt on each vise for preventing chips falling into leadscrew and inside of vise.



✓ CV-MECHANICAL

✓ CHV-MECHANICAL / HYDRAULIC

✓ CMV-MECHANICAL POWER

✓ CHV-D-MECHANICAL W/ 90° DRIVING MECHANISM UNIT



◀ DAV-2 IN 1 DOUBLE LOCK

STANDARD ACCESSORIES:

- Handle x 2pcs
- Sub-plate x 1 pc

OPTIONAL ACCESSORIES:

- Special application jaw plates (Page B133~B134)

TEST ITEM	GUARANTEED
1.Both vise jaw plates to bottom plate parallel within 0.020 mm	0.020 mm
2.Vise "Y" dimension with 0.020 mm	0.020 mm
3.Vise on bottom of vise bed square within 0.010 mm /100 mm	0.010 / 100 mm

UNIT: mm

ITEM NO.	MODEL	A	B	C	D	G	I	L	Q	R	S	T	V	W	Y	N.W.
52130333	CV-100V2	470	340	90	101	65	105	0-125	125	160	200	300	40	M16	85	67 kgs
52130334	CV-130V2	535	405	90	131	70	115	0-180		160	200	300	40	M16	95	93 kgs
52130335	CV-160V2	625	495	90	161	85	130	0-240	200	250	320	400	40	M16	105	150 kgs
52130336	CV-200V2	706	570	90	201	90	150	0-280		250	320	400	40	M16	110	208 kgs
52130337	CHV-100V2	515	340	135	101	65	105	0-125	125	160	200	300	40	M16	85	69 kgs
52130338	CHV-130V2	580	405	135	131	70	115	0-180		160	200	300	40	M16	95	95 kgs
52130339	CHV-160V2	670	495	135	161	85	130	0-240	200	250	320	400	40	M16	105	152 kgs
52130340	CHV-200V2	745	570	135	201	90	150	0-280		250	320	400	40	M16	110	210 kgs
52130341	CHV-100V2-D	552	340	172	101	65	105	0-125	125	160	200	300	40	M16	85	73 kgs
52130342	CHV-130V2-D	617	405	172	131	70	115	0-180		160	200	300	40	M16	95	99 kgs
52130343	CHV-160V2-D	707	495	172	161	85	130	0-240	200	250	320	400	40	M16	105	156 kgs
52130344	CHV-200V2-D	782	570	172	201	90	150	0-280		250	320	400	40	M16	110	215 kgs
52130345	CMV-100V2	515	340	135	101	65	105	0-125	125	160	200	300	40	M16	85	69 kgs
52130346	CMV-130V2	580	405	135	131	70	115	0-180		160	200	300	40	M16	95	95 kgs
52130347	CMV-160V2	670	495	135	161	85	130	0-240	200	250	320	400	40	M16	105	152 kgs
52130348	CMV-200V2	745	570	135	201	90	150	0-280		250	320	400	40	M16	110	210 kgs
52130353	DAV-100V2	535	410	85	101		80	0-75	125	160	200	300	40	M16	80	75 kgs
52130354	DAV-130V2	575	450	85	131		90	0-85		160	200	300	40	M16	85	99 kgs
52130355	DAV-160V2	625	500	85	161		100	0-100	200	250	320	400	40	M16	90	156 kgs
52130356	DAV-200V2	767	642	85	201		110	0-150		250	320	400	40	M16	95	220 kgs



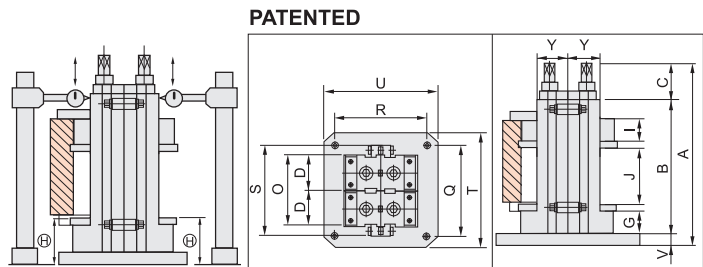
B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



COMPACT & UPRIGHT MULTIPLE VISES – FOR VMCS

FEATURES:

- Mounting 4 MC compact vise upright on a piece of sub-plate to be best used on horizontal machine center with pallet changer.
- Ideal for clamping 4 work-piece for machining five surfaces on horizontal machine center.
- Mechanical, mechanical/ hydraulic type and with 90° driving mechanism unit for your best choice.
- Chip covers adopt on each vise for preventing chips falling into leadscrew and inside of vise.



▼ CV-MECHANICAL



▼ CHV-MECHANICAL / HYDRAULIC



▼ CMV-MECHANICAL POWER



▼ CHV-D-HORIZONTAL / WITH 90° DRIVING MECHANISM UNIT



STANDARD ACCESSORIES:

- Handle x 4pcs
- Sub-plate x 1pc

OPTIONAL ACCESSORIES:

- Special application jaw plates (P-B132.P-B133)

TEST ITEM	GUARANTEED
1.Both vise jaw plates to bottom plate parallel within 0.020 mm	0.020 mm
2.Vise "Y" dimension with 0.020 mm	0.020 mm
3.Vise on bottom of vise bed square within 0.010 mm/100 mm	0.010 / 100 mm

UNIT:mm

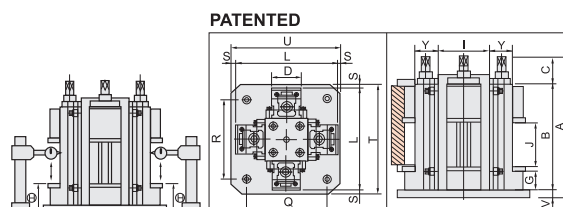
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52130357	CV-100V4	470	340	90	101	65	105	0-125	320	320	304	400	40	M16	85	119 kgs
52130358	CV-130V4	535	405	90	131	70	115	0-180	320	320	364	400	40	M16	95	183 kgs
52130359	CV-160V4	625	495	90	161	85	130	0-240	400	400	424	500	40	M16	105	280 kgs
52130360	CV-200V4	706	570	90	201	90	150	0-280	400	400	504	500	40	M16	110	380 kgs
52130361	CHV-100V4	515	340	135	101	65	105	0-125	320	320	304	400	40	M16	85	121 kgs
52130362	CHV-130V4	580	405	135	131	70	115	0-180	320	320	364	400	40	M16	95	173 kgs
52130363	CHV-160V4	670	495	135	161	85	130	0-240	400	400	424	500	40	M16	105	266 kgs
52130364	CHV-200V4	745	570	135	201	90	150	0-280	400	400	504	500	40	M16	110	382 kgs
52130365	CHV-100V4-D	552	340	172	101	65	105	0-125	320	320	304	400	40	M16	85	125 kgs
52130366	CHV-130V4-D	617	405	172	131	70	115	0-180	320	320	364	400	40	M16	95	177 kgs
52130367	CHV-160V4-D	707	495	172	161	85	130	0-240	400	400	424	500	40	M16	105	270 kgs
52130368	CHV-200V4-D	782	570	172	201	90	150	0-280	400	400	504	500	40	M16	110	386 kgs
52130369	CMV-100V4	515	340	135	101	65	105	0-125	320	320	304	400	40	M16	85	121 kgs
52130370	CMV-130V4	580	405	135	131	70	115	0-180	320	320	364	400	40	M16	95	173 kgs
52130371	CMV-160V4	670	495	135	161	85	130	0-240	400	400	424	500	40	M16	105	266 kgs
52130372	CMV-200V4	745	570	135	201	90	150	0-280	400	400	504	500	40	M18	110	382 kgs



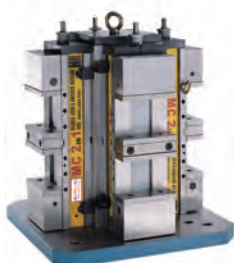
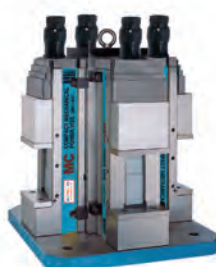
COMPACT & UPRIGHT MULTIPLE VISES – FOR VMCS

FEATURES:

- Mounting 4 MC compact vise upright on a piece of jig block to be best used on horizontal machine center with pallet changer.
- Ideal for clamping 4 workpieces for machining five surfaces on horizontal machine center.
- Chip covers adopt on each vise for preventing chips falling into leadscrew and inside of vise.



▼ CV-MECHANICAL ▼ CHV-MECHANICAL / HYDRAULIC ▼ CMV-MECHANICAL POWER ▼ CHV-D-HORIZONTAL / WITH 90° DRIVING MECHANISM UNIT.



◀ DAV-2 IN 1
DOUBLE LOCK

STANDARD ACCESSORIES:

- Handle x 4pcs
- Sub-plate x 1pc
- Jig block x 1pc

OPTIONAL ACCESSORIES:

- Special application jaw plates (Page B133~B134)

TEST ITEM	GUARANTEED
1.Both vise jaw plates to bottom plate parallel within 0.020 mm	0.020 mm
2.Vise "Y" dimension with 0.020 mm	0.020 mm
3.Vise on bottom of vise bed square within 0.010 mm / 100 mm	0.010 / 100 mm

UNIT:mm

ITEM NO.	MODEL	A	B	C	D	G	I	L	Q	R	S	T	V	W	Y	N.W.
52130373	CV-100V4B	470	340	90	101	65	150	0-125	320	320	17	450	40	M16	85	193 kgs
52130374	CV-130V4B	535	405	90	131	70	180	0-180	320	320	10	500	40	M16	95	296 kgs
52130375	CV-160V4B	625	495	90	161	85	210	0-240	400	400	7	550	40	M16	105	396 kgs
52130376	CV-200V4B	711	570	90	201	90	250	0-280	500	500	2	600	45	M18	110	584 kgs
52130377	CHV-100V4B	515	340	135	101	65	150	0-125	320	320	17	450	40	M16	85	197 kgs
52130378	CHV-130V4B	580	405	135	131	70	180	0-180	320	320	10	500	40	M16	95	300 kgs
52130379	CHV-160V4B	670	495	135	161	85	210	0-240	400	400	7	550	40	M16	105	432 kgs
52130380	CHV-200V4B	750	570	135	201	90	250	0-280	500	500	2	600	45	M18	110	553 kgs
52130381	CHV-100V4B-D	552	340	172	101	65	150	0-125	320	320	17	450	40	M16	85	217 kgs
52130382	CHV-130V4B-D	617	405	172	131	70	180	0-180	320	320	10	500	40	M16	95	320 kgs
52130383	CHV-160V4B-D	707	495	172	161	85	210	0-240	400	400	7	550	40	M16	105	452 kgs
52130384	CHV-200V4B-D	787	570	172	201	90	250	0-280	500	500	2	600	45	M18	110	610 kgs
52130385	CMV-100V4B	515	340	135	101	65	150	0-125	320	320	17	450	40	M16	85	197 kgs
52130386	CMV-130V4B	580	405	135	131	70	180	0-180	320	320	10	500	40	M16	95	300 kgs
52130387	CMV-160V4B	670	495	135	161	85	210	0-240	400	400	7	550	40	M16	105	432 kgs
52130388	CMV-200V4B	750	570	135	201	90	250	0-280	500	500	2	600	45	M18	110	588 kgs
52130393	DAV-100V4B	535	410	85	101		150	0-75	320	320	22	450	40	M16	80	206 kgs
52130394	DAV-130V4B	575	450	85	131		180	0-85	320	320	20	500	40	M16	85	308 kgs
52130395	DAV-160V4B	625	500	85	161		210	0-100	400	400	22	550	40	M16	90	386 kgs
52130396	DAV-200V4B	772	642	85	201		250	0-150	500	500	17	600	45	M18	95	608 kgs



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



PNEUMATIC POWER VISES



V PNV-V



V PNV-S

FEATURES:

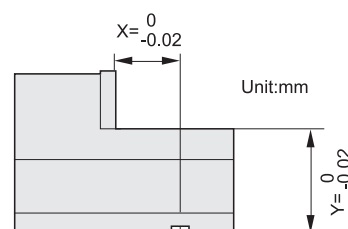
- Robust construction of one piece casting of fixed jaw and vise bed.
- Rigid and high tensile casting of ductile iron FCD60JIS (Equal to GG60) with 60kgs/mm² or 80,000 psi tensile strength.
- Most suitable for mass production and to be used on machine centers, milling machines, drilling machines and special purpose machines.
- Most compact pneumatic mechanism design. No oil, just joint with the air supply will do.
- Most compact in total length of vise with Max. clamping capacity.
- Safety locking mechanism for unexpected termination of air supply. After pneumatic clamping, the work piece will be clamped firmly even without the air supply.
- Easy and simple ON-OFF switch control for pneumatic operation. The optional electric control for automatic and FMS system is available.
- Safety protection Max. pneumatic clamping stroke is 4mm to prevent inserting operator's finger during clamping operation. (Stroke is 2mm best power capacity)
- Rapid ON-OFF only 1.5sec.
- Multiply pneumatic Quick Vise set up available with only one source of air supply. (Optional)
- Free adjusting of Max. pneumatic clamping pressure from 0-1,000kgf (4,000) by air regulator, jaw opening 2mm is best clamping power capacity of workpiece.
- Vise bed flame hardened to HRC 45° and up takes up wear and maintains accuracy for long.
- Down thrust "semi-spherical segment" mechanism eliminates jaw lifting and workpiece.

STANDARD ACCESSORIES:

- Handle x 4pcs
- Guide key x 2pcs
- M6 x 10L x 2pcs
- Vise locked block x 4pcs

OPTIONAL ACCESSORIES:

- Special application jaw plates (Page B133~B134)



V=YES

S=NO

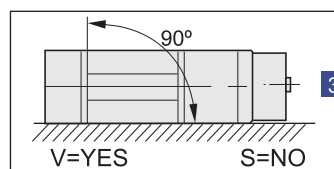
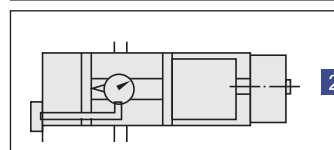
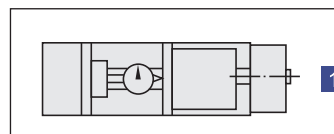
PNV-100V, 130V, 160V, 200V

X=0/-0.02 Y=0/-0.02

Vise side-lock square within 0.010mm

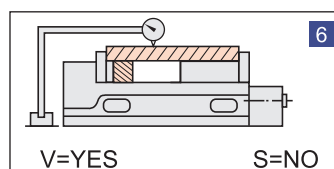
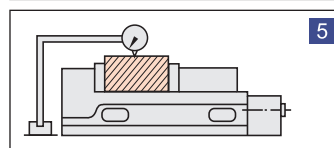
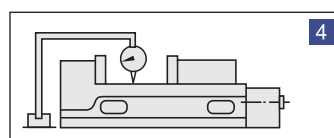
PNV-100S, 130S, 160S, 200S

Vise side-lock square without control



V=YES

S=NO



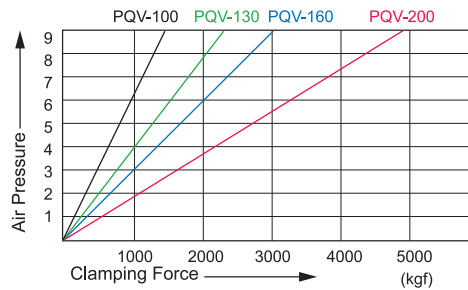
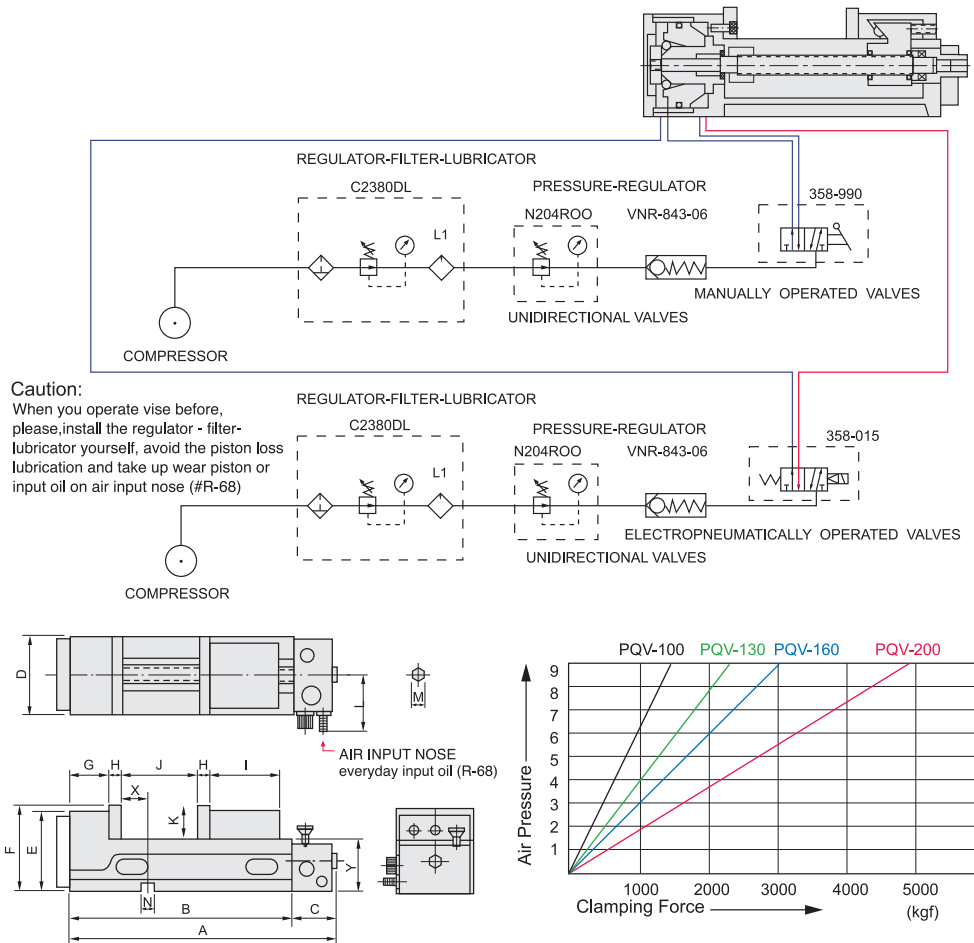
V=YES

S=NO

TEST ITEM	JIS GRADE 1	GUARANTEED
1.Both jaw plate parallel.	0.020 / 100 mm	0.020 / 100 mm
2.Keyways on bottom of vise bed square to clamping surface of jaw.	0.020 / 100 mm	0.015 / 100 mm
3.Vise side-lock on bottom to slide way square.	0.020 / 100 mm	0.010 / 100 mm
4.Surface of vise bed parallel to bottom of vise body.	0.020 / 100 mm	0.010 / 100 mm
5.Top of rectangular test block clamped tightly by jaw parallel to bottom of vise.	0.030 / 100 mm	0.020 / 100 mm
6.Max. opening test block parallel to bottom of vise body.	0.050 / 100 mm	0.030 / 100 mm



PNEUMATIC POWER VISES



UNIT: mm

ITEM NO.	MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	X
52130397	PQR-100V	442	340	102	101	130	133	96	15	105	0-105	48	95	14	16	45
52130398	PQR-100S	442	340	102	101	130	133	96	15	105	0-105	48	95	14	16	45
52130399	PQR-130V	507	405	102	131	152	155	100	15	115	0-140	55	95	14	18	65
52130400	PQR-130S	507	405	102	131	152	155	100	15	115	0-140	55	95	14	18	65
52130401	PQR-160V	534	432	102	161	160	163	115	15	130	0-150	58	105	14	18	65
52130402	PQR-160S	534	432	102	161	160	163	115	15	130	0-150	58	105	14	18	65
52130403	PQR-200V	627	525	102	201	185	188	125	18	150	0-200	63	105	14	18	82
52130404	PQR-200S	627	525	102	201	185	188	125	18	150	0-200	63	105	14	18	82

UNIT: mm

ITEM NO.	MODEL	X=0 -0.02	Y	Y=0 -0.02	POWER	AIR PRESSURE	STROKE	N.W.	G.W.	MEASUREMENT
52130397	PQR-100V	Yes	85	Yes	11KN (1078 kgf)	1.5-7.0 kg/cm²	0-3	27 kgs	29 kgs	600 x 220 x 185
52130398	PQR-100S	No	85	No	11KN (1078 kgf)	1.5-7.0 kg/cm²	0-3	27 kgs	29 kgs	600 x 220 x 185
52130399	PQR-130V	Yes	100	Yes	16KN (1568 kgf)	1.5-7.0 kg/cm²	0-3	40 kgs	42 kgs	665 x 250 x 205
52130400	PQR-130S	No	100	No	16KN (1568 kgf)	1.5-7.0 kg/cm²	0-3	40 kgs	42 kgs	665 x 250 x 205
52130401	PQR-160V	Yes	105	Yes	21KN (2058 kgf)	1.5-7.0 kg/cm²	0-4	52 kgs	55 kgs	760 x 280 x 215
52130402	PQR-160S	No	105	No	21KN (2058 kgf)	1.5-7.0 kg/cm²	0-4	52 kgs	55 kgs	760 x 280 x 215
52130403	PQR-200V	Yes	125	Yes	41KN (4018 kgf)	1.5-7.0 kg/cm²	0-4	83 kgs	86 kgs	860 x 320 x 225
52130404	PQR-200S	No	125	No	41KN (4018 kgf)	1.5-7.0 kg/cm²	0-4	83 kgs	86 kgs	860 x 320 x 225



B4 - VISES, TABLES, BLOCKS

TOOLS OF WORKHOLDING&PRECISION TOOLS FOR MILLS&VMCS

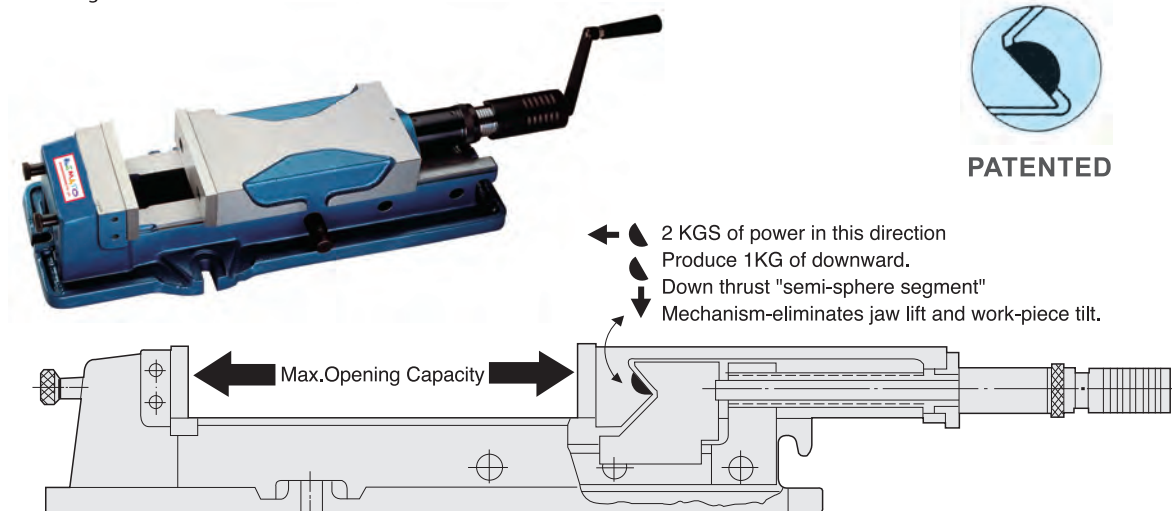
B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



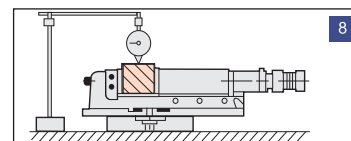
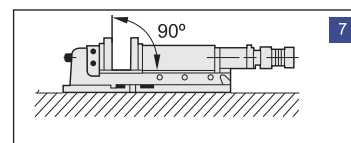
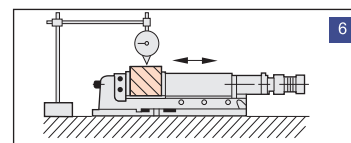
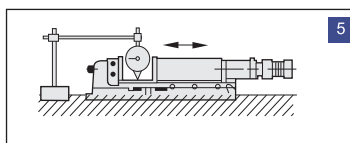
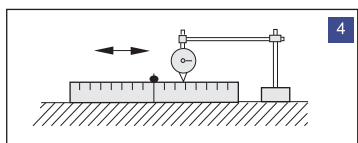
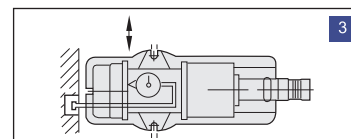
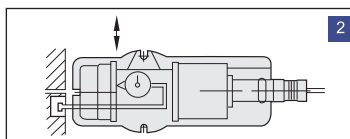
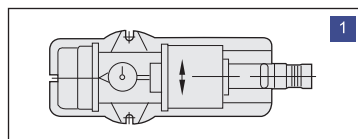
HYDRAULIC POWER VISES – W/ LOCK DOWN JAW MECHANISM

FEATURES:

- Mechanical / Hydraulic spindle without original clutch mechanism.
- Clamping system: mechanical / hydraulic.
- Large clamping & long guidance of movable jaw.
- Rapid clamping range adjustment.
- Rigid material-vise body of Ductile iron FCD60 JIS (equal to GGG 60) with 60 kgs/mm² or 80,000 psi tensile strength.
- Down thrust "Semi-sphere segment" mechanism-eliminates jaw lift and work tilt.
- Vise bed flame hardened to HRC 45" and up takes up wear and maintain accuracy for long.



PATENTED



TEST ITEM	JIS GRADE 1	GUARANTEED
1. Both jaw plate parallel.	0.020 / 100 mm	0.020 / 100 mm
2. Keyways on bottom of vise bed square to clamping surface of jaw.	0.020 / 100 mm	0.015 / 100 mm
3. Keyways on bottom of vise bed parallel to clamping surface of jaw.	0.020 / 100 mm	0.015 / 100 mm
4. Swivel base parallel	0.020 / 100 mm	0.015 / 100 mm
5. Surface of vise bed parallel to bottom of vise body.	0.020 / 100 mm	0.010 / 100 mm
6. Surface of vise bed parallel to bottom of vise body.	0.030 / 100 mm	0.020 / 100 mm
7. Clamping surface of jaw plate perpendicular to vise bed, the angle always being less than 90°.	0.050 / 100 mm	0.030 / 100 mm
8. Top of rectangular test block clamped tightly by jaw parallel to bottom of swivel base.	0.040 / 100 mm	0.030 / 100 mm

STANDARD ACCESSORIES:

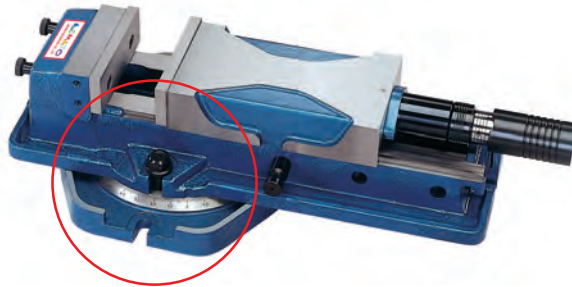
- Handle x 1pcs
- Guide key x 2pcs
- M6 x 10L x 2pcs

OPTIONAL ACCESSORIES:

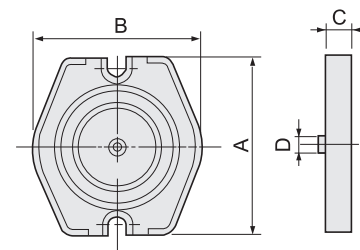
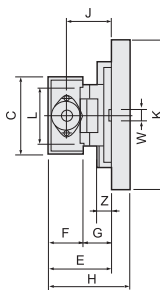
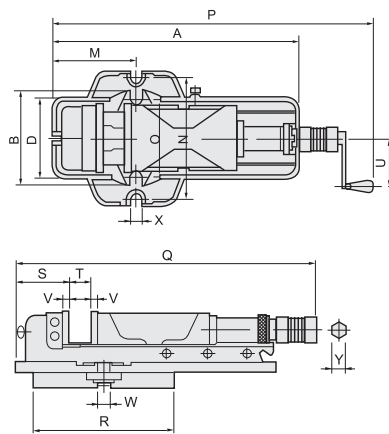
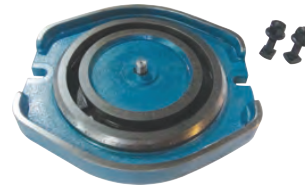
- Special application jaw plates (Page B133~B134)
- Swivel base (SB-cast iron)



SWIVEL BASES (CAST IRON) – OPTIONAL



✓ SWIVEL BASE (CAST IRON)



STANDARD ACCESSORIES:

- T-Bolts x 2pcs
- 5/8" nuts x 2pcs

UNIT: mm

ITEM NO.	SB	A	B	C	D	N.W.
52130412	130	290	260	34	16	9 kgs
52130413	160	340	320	39	16	15 kgs
52130414	200	400	360	46	18	23 kgs
52130415	250	460	420	50	18	32 kgs

UNIT: mm

ITEM NO.	MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P
52130405	PHV-130	505	190	130	170	127	55	72	163	95	290	106	180	250	160	695 / 920
52130406	PHV-160	625	240	160	205	140	58	82	179	105	340	125	208	300	196	755 / 1055
52130407	PHV-200	700	280	200	240	163	63	100	205	125	400	165	265	360	240	830 / 1140
52130408	PHV-250	810	320	250	290	190	80	110	238	139	460	195	320	410	270	920 / 1260

UNIT: mm

ITEM NO.	MODEL	Q	R	S	T	U	V	W	X	Y	Z	JAW OPENING POSITION / I / II / III
52130405	PHV-130	570 / 795	260	105	220	125	15	16	18	14	25	0-75 / 70-150 / 145-225
52130406	PHV-160	640 / 940	320	125	300	125	15	16	18	14	27	0-110 / 100-210 / 200-310
52130407	PHV-200	725 / 1035	365	150	300	125	18	18	22	14	36	0-110 / 100-210 / 200-310
52130408	PHV-250	815 / 1155	420	180	340	125	21	18	22	14	36	0-115 / 110-230 / 225-345

UNIT: mm

ITEM NO.	MODEL	MAX. PRESSURE	LIMITED PRESSURE	N.W./ G.W.	PACKING	WEIGHT OF VISE W/ SWIVEL BASE	VISE WITH SWIVEL BASE
52130405	PHV-130	36KN (3528 kgf)	41KN (4018 kgf)	36 / 38 kgs	645 x 260 x 185	46 / 55 kgs	690 x 360 x 270
52130406	PHV-160	41KN (4018 kgf)	52KN (5096 kgf)	56 / 58 kgs	730 x 260 x 190	72 / 82 kgs	750 x 430 x 290
52130407	PHV-200	62KN (6076 kgf)	72KN (7056 kgf)	90 / 102 kgs	860 x 380 x 280	117 / 131 kgs	860 x 520 x 310
52130408	PHV-250	72KN (7056 kgf)	82KN (8036 kgf)	140 / 160 kgs	960 x 450 x 300	172 / 200 kgs	900 x 560 x 350



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



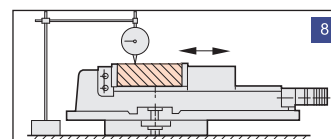
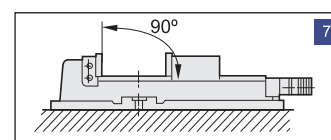
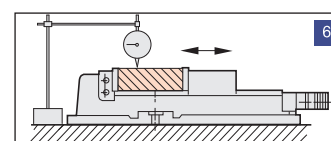
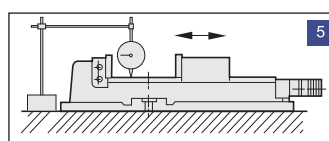
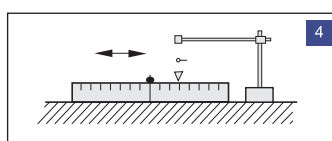
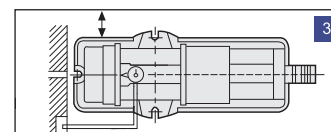
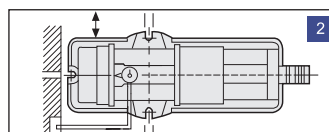
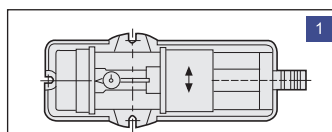
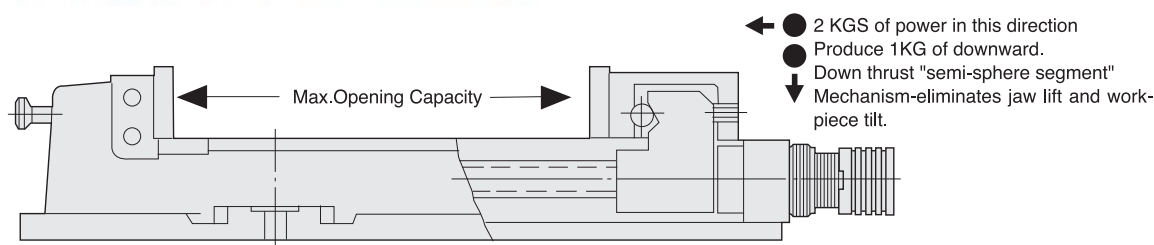
HYDRAULIC / MECHANICAL POWER VISES – W/ LARGE OPENING

FEATURES:

- Mechanical / hydraulic spindle without original clutch mechanism.
- Clamping system: mechanical / hydraulic.
- Rigid material-vise body of Ductile iron FCD60 JIS (equal to GGG 60) with 60 kgs/mm² or 80,000 psi tensile strength.
- Down thrust "Semi-sphere segment" mechanism-eliminates jaw life and work tilt.
- Vise bed flame hardened to HRC 45° and up takes up wear and maintain accuracy for long.
- Max. opening capacity particular suitable large workpiece.



PATENTED



TEST ITEM	JIS GRADE 1	GUARANTEED
1. Both jaw plate parallel.	0.020 / 100 mm	0.020 / 100 mm
2. Keyways on bottom of vise bed square to clamping surface of jaw plate.	0.020 / 100 mm	0.015 / 100 mm
3. Keyways on bottom of vise bed parallel to clamping surface of jaw plate.	0.020 / 100 mm	0.015 / 100 mm
4. Swivel base parallel	0.020 / 100 mm	0.015 / 100 mm
5. Surface of vise bed parallel to bottom of vise body.	0.020 / 100 mm	0.010 / 100 mm
6. Top of rectangular test block clamped tightly by jaw parallel to bottom of vise.	0.030 / 100 mm	0.020 / 100 mm
7. Clamping surface of jaw plate perpendicular to vise bed, the angle always being less than 90°.	0.050 / 100 mm	0.030 / 100 mm
8. Top of rectangular test block clamped tightly by jaw parallel to bottom of swivel base.	0.040 / 100 mm	0.030 / 100 mm

STANDARD ACCESSORIES:

- Handle x 1 pcs
- Guide key x 2 pcs
- M6 x 10L x 2 pcs

OPTIONAL ACCESSORIES:

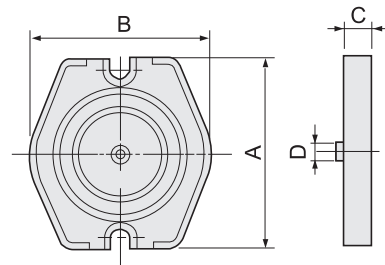
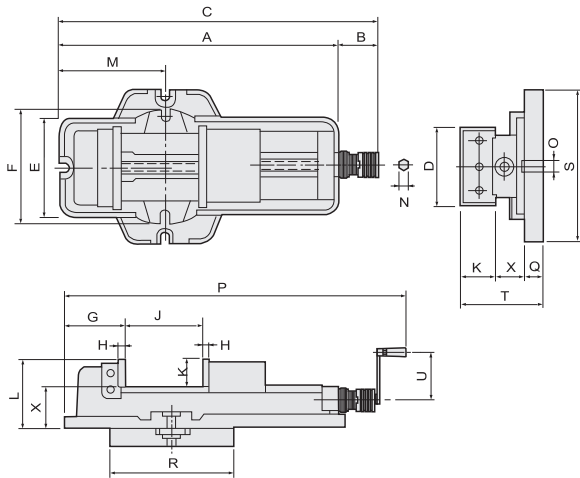
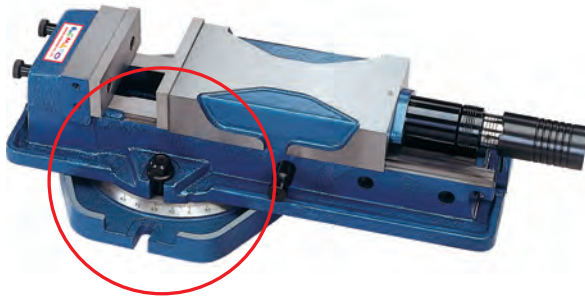
- Special application jaw plates (Page B133~B134)
- Swivel base (SB-cast iron)



SWIVEL BASES (CAST IRON) – OPTIONAL



✓ SWIVEL BASE (CAST IRON)



STANDARD ACCESSORIES:

- T-Bolts x 2pcs
- 5/8" nuts x 2pcs

UNIT: mm

ITEM NO.	SB	A	B	C	D	N.W.
52130426	160	340	320	39	16	15 kgs
52130427	200	400	360	46	18	23 kgs
52130428	250	460	420	50	18	32 kgs

UNIT: mm

ITEM NO.	MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q
52130419	PLV-160	625	150	775	160	205	240	125	15	0-335	58	140	208	14	16	845	39
52130420	PLV-200	700	150	850	200	240	280	150	18	0-360	63	163	265	14	18	915	46
52130421	PLV-250	810	150	960	250	290	320	180	21	0-380	80	190	320	14	18	1020	50

UNIT: mm

ITEM NO.	MODEL	R	S	T	U	PRESSURE	N.W./ G.W.	SHIPMENT SIZE	N.W./ G.W.	WISE WITH SWIVEL BASE
52130419	PLV-160	320	340	179	125	52KN (5096 kgf)	54 / 57 kgs	840 x 260 x 180	72 / 85 kgs	900 x 430 x 290
52130420	PLV-200	365	400	205	125	62KN (6076 kgf)	90 / 102 kgs	1010 x 380 x 280	113 / 130 kgs	1010 x 520 x 310
52130421	PLV-250	420	460	238	125	67KN (6566 kgf)	140 / 160 kgs	1110 x 450 x 300	172 / 200 kgs	1110 x 560 x 350

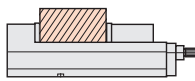
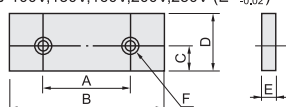
B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



SPECIAL APPLICATION JAW PLATES

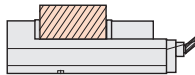
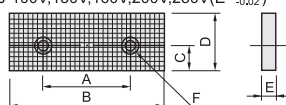
UNIT: mm

(HARDENED HRC55°~58°)
PJ-100S, 130S, 160S, 200S, 250S
PJ-100V, 130V, 160V, 200V, 250V (E=0.02)



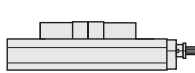
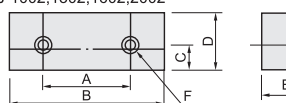
ITEM NO.	PJ	A	B	C	D	E	F
52130429S/V	100	60	100	22	48	15	M10 x 20L
52130430S/V	130	90	130	25	55	15	M10 x 20L
52130431S/V	160	90	160	25	58	15	M10 x 20L
52130432S/V	200	120	200	28	63	18	M12 x 25L
52130433S/V	250	160	250	35	80	21	M12 x 25L

(HARDENED HRC55°~58°)
RJ-100S, 130S, 160S, 200S, 250S
RJ-100V, 130V, 160V, 200V, 250V (E=0.02)



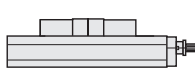
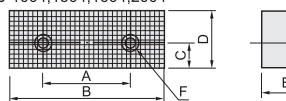
ITEM NO.	PJ	A	B	C	D	E	F
52130434S/V	100	60	100	22	48	15	M10 x 20L
52130435S/V	130	90	130	25	55	15	M10 x 20L
52130436S/V	160	90	160	25	58	15	M10 x 20L
52130437S/V	200	120	200	28	63	18	M12 x 25L
52130438S/V	250	160	250	35	80	21	M12 x 25L

(HARDENED HRC55°~58°)(FOR DAV)
PJ-1001, 1301, 1601, 2001
PJ-1002, 1302, 1602, 2002



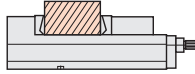
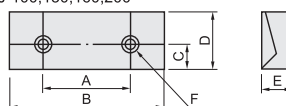
ITEM NO.	PJ	A	B	C	D	E	F
52130439	1001	60	100	22	48	48	M10 x 50L
52130440	1301	90	130	25	55	48	M10 x 50L
52130441	1601	90	160	25	58	48	M10 x 50L
52130442	2001	120	200	28	63	63	M12 x 65L
52130443	1002	60	100	22	63	48	M10 x 50L
52130444	1302	90	130	25	73	48	M10 x 50L
52130445	1602	90	160	25	73	48	M10 x 50L
52130446	2002	120	200	28	102	63	M12 x 65L

(HARDENED HRC55°~58°)(FOR DAV)
RJ-1003, 1303, 1603, 2003
RJ-1004, 1304, 1604, 2004



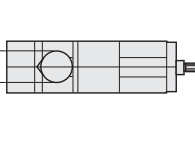
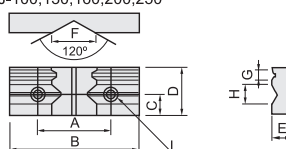
ITEM NO.	PJ	A	B	C	D	E	F
52130447	1003	60	100	22	48	48	M10 x 50L
52130448	1303	90	130	25	55	48	M10 x 50L
52130449	1603	90	160	25	58	48	M10 x 50L
52130450	2003	120	200	28	63	63	M12 x 65L
52130451	1004	60	100	22	63	48	M10 x 50L
52130452	1304	90	130	25	73	48	M10 x 50L
52130453	1604	90	160	25	73	48	M10 x 50L
52130454	2004	120	200	28	102	63	M12 x 65L

(HARDENED HRC55°~58°)
DJ-100, 130, 160, 200



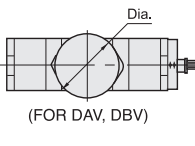
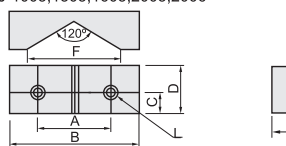
ITEM NO.	PJ	A	B	C	D	E	F
52130455	100	60	100	22	48	32	M10 x 20L
52130456	130	90	130	25	55	32	M10 x 20L
52130457	160	90	160	25	58	32	M12 x 20L
52130458	200	120	200	28	65	32	M12 x 25L

(HARDENED HRC55°~58°)
CJ-100, 130, 160, 200, 250



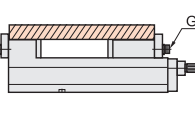
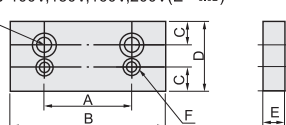
ITEM NO.	CJ	A	B	C	D	E	F	G	H	L	DIA.
52130459	100	60	100	22	48	24	55		25	M10 x 16L	40-100
52130460	130	90	130	25	55	24	55	12	25	M10 x 16L	40-100
52130461	160	90	160	25	58	30	55	12	25	M10 x 16L	40-100
52130462	200	120	200	28	63	36	70	12	30	M12 x 16L	50-140
52130463	250	160	250	35	80	36	70	12	30	M12 x 16L	50-140

(HARDENED HRC55°~58°)
CJ-1005, 1305, 1605, 2005, 2006



ITEM NO.	CJ	A	B	C	D	E	F	L	DIA.
52130464	1005	60	100	22	48	42	94	M10 x 16L	100-180
52130465	1305	90	130	25	55	48	120	M10 x 16L	100-230
52130466	1605	90	160	25	58	48	120	M10 x 16L	100-230
52130467	2005	120	200	28	63	48	120	M12 x 16L	110-220
52130468	2006	120	200	28	63	63	184	M12 x 16L	220-340

(HARDENED HRC55°~58°)
LJ-100S, 130S, 160S, 200S
LJ-100V, 130V, 160V, 200V (E=0.02)

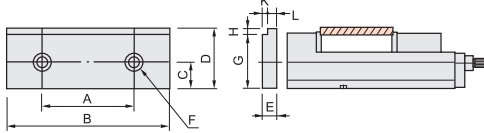


ITEM NO.	LJ	A	B	C	D	E	F	G
52130469S/V	100	60	100	22	63	21	M10 x 25L	M12 x 45L
52130470S/V	130	90	130	25	69	23	M10 x 30L	M12 x 45L
52130471S/V	160	90	160	25	73	23	M10 x 30L	M14 x 55L
52130472S/V	200	120	200	28	88	30	M12 x 35L	M16 x 65L



SPECIAL APPLICATION JAW PLATES

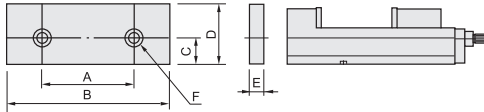
(HARDENED HRC55°~58°)
SJ-100S, 130S, 160S, 200S, 250S, SJ-100V, 130V, 160V, 200V, 250V (E, L, G = 0.02)



UNIT: mm

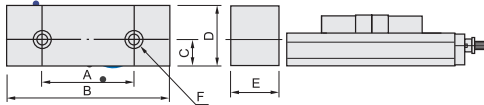
ITEM NO.	SJ	A	B	C	D	E	F	G	H	K	L
52130473	100	60	100	22	48	15	M10 x 20L	43	5	5	10
52130474	130	90	130	25	55	15	M10 x 20L	50	5	5	10
52130475	160	90	160	25	58	15	M10 x 20L	53	5	5	10
52130476	200	120	200	28	63	18	M12 x 25L	58	5	5	13
52171471	250	160	250	35	80	21	M12 x 25L	75	10	5	18

SOFT JAW (WITHOUT HARDENED & GROUND)
FJ-1001, 1002, 1003 FJ-1301, 1302, 1303
FJ-1601, 1602, 1603 FJ-2001, 2002, 2003



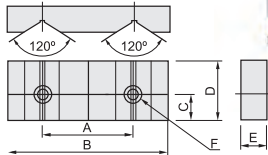
ITEM NO.	PJ	A	B	C	D	E	F
52130477	1001	60	100	22	48	15	M10 x 20L
52130478	1002	60	100	22	63	21	M10 x 25L
52130479	1003	60	100	22	73	23	M10 x 30L
52130480	1301	90	130	25	55	15	M10 x 20L
52130481	1302	90	130	25	73	23	M10 x 25L
52130482	1303	90	130	25	103	30	M10 x 35L
52130483	1601	90	160	25	58	15	M10 x 20L
52130484	1602	90	160	25	73	23	M10 x 25L
52130485	1603	90	160	25	103	30	M10 x 35L
52130486	2001	120	200	28	63	18	M12 x 25L
52130487	2002	120	200	28	103	30	M12 x 35L
52130488	2003	120	200	28	123	36	M12 x 45L

SOFT JAW (WITHOUT HARDENED & GROUND)
FJ-1004, 1005 FJ-1304, 1305 FJ-1604, 1605 FJ-2004, 2005



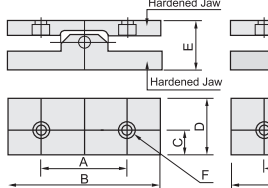
ITEM NO.	FJ	A	B	C	D	E	F
52130489	1004	60	100	22	48	48	M10 x 20L
52130490	1005	60	100	22	63	48	M10 x 20L
52130491	1304	90	130	25	63	48	M10 x 20L
52130492	1305	90	130	25	73	48	M10 x 20L
52130493	1604	90	160	25	63	48	M10 x 20L
52130494	1605	90	160	25	73	48	M10 x 20L
52130495	2004	120	200	28	63	63	M12 x 25L
52130496	2005	120	200	28	102	63	M12 x 25L

DOUBLE V JAW VJ-100, 130, 160, 200

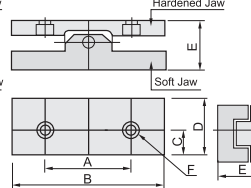


PATENTED
(HARDENED HRC55°~58°)

BALANCE JAW
(HARDENED HRC55°~58°)
TJ-100, 130, 160, 200

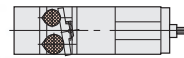


BALANCE JAW
(SOFT JAW PLATE)
TJ-100F, 130F, 160F, 200F

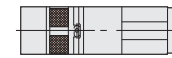


Soft Jaw Plate Without Hardened & Ground.

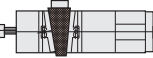
1Pc double v jaw+1 set balance jaw plates,
it can be do 2 different size parts



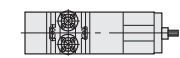
1 Pcs flat jaw plate+1set balance jaw plates,
it can be do 2 different clearance parts



2Sets balance jaw plates (hardened)
it can be do angle part

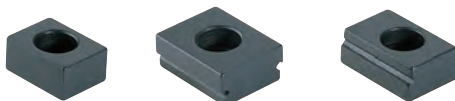
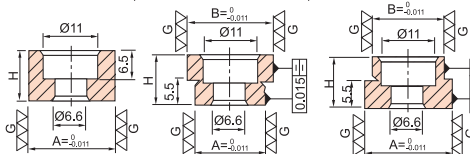


2 Set balance jaw plates (soft)
it can be do 2 irregular parts



ITEM NO.	MODEL	A	B	C	D	E	F	REMARK
52130497	VJ-100	60	100	22	48	24	M10 x 20L	ø10-65 mm
52130498	VJ-130	90	130	25	55	24	M10 x 20L	ø10-65 mm
52130499	VJ-160	90	160	25	58	24	M10 x 20L	ø10-65 mm
52130500	VJ-200	120	200	28	63	30	M12 x 25L	ø25-85 mm
52130501	TJ-100	60	100	22	48	48	M10 x 20L	18°
52130502	TJ-130	90	130	25	55	55	M10 x 20L	13°
52130503	TJ-160	90	160	25	58	58	M10 x 20L	11°
52130504	TJ-200	120	200	28	63	63	M12 x 25L	9°
52130505	TJ-100F	60	100	22	48	48	M10 x 25L	18°
52130506	TJ-130F	90	130	25	55	55	M10 x 20L	13°
52130507	TJ-160F	90	160	25	58	58	M10 x 20L	11°
52130508	TJ-200F	120	200	28	63	63	M12 x 25L	9°

STEP GUIDE KEY (HARDENED HRC 55°~58°)



ITEM NO.	MODEL	A	B	H	L
52130509	KA16 x 12	16	12	10	25
52130510	KA16 x 14	16	14	10	25
52130511	KA16 x 18	16	18	10	25
52130512	KA16 x 20	16	20	10	25
52130513	KA16 x 22	16	22	10	25
52130514	KA18 x 12	18	12	10	25
52130515	KA18 x 14	18	14	10	25
52130516	KA18 x 16	18	16	10	25
52130517	KA18 x 20	18	20	10	25
52130518	KA18 x 22	18	22	10	25
52130519	KA12 x 12	12	12	8	22
52130520	KA14 x 14	14	14	10	22
52130521	KA16 x 16	16	16	10	22
52130522	KA18 x 18	18	18	10	22
52130523	KA20 x 20	20	20	10	22
52130524	KA22 x 22	22	22	12	25



B4 - VISES, TABLES, BLOCKS

TOOLS OF WORKHOLDING&PRECISION TOOLS FOR MILLS&VMCS

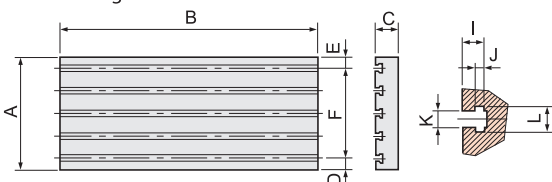
B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



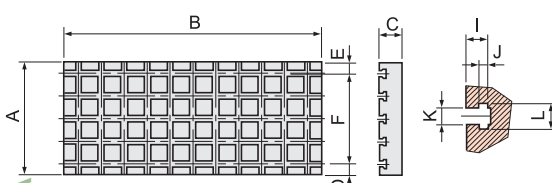
SUB TABLES

FEATURES:

- Both ground & paralleled within 0.010 / 500 mm.
- Material: FCD-60 ductile iron (high tensile casting), tempered.
- Please fill in D.E.F.K. PITCH dimension when ordering.
- Annealing.



▲ ST SERIES

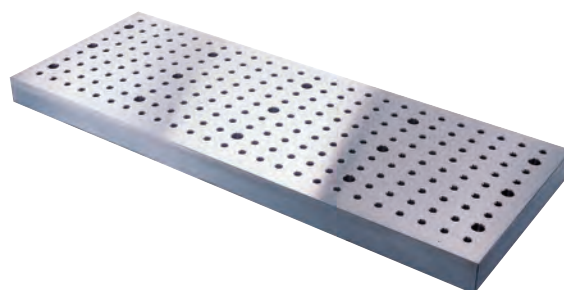


▲ SC SERIES

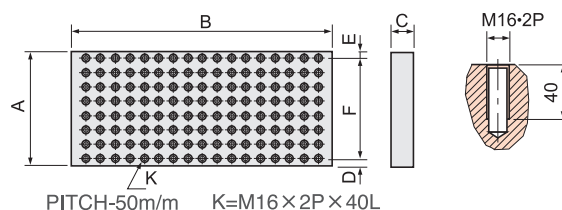
SPECIAL SIZES BY REQUEST
T-SLOTS ACCORDING TO ISO STANDARD

UNIT: mm

ITEM NO.	MODEL	A	B	C
52130525	ST-300 x 600 x 70	300	600	70
52130526	ST-350 x 800 x 75	350	800	75
52130527	ST-400 x 950 x 75	400	950	75
52130528	ST-410 x 900 x 75	410	900	75
52130529	ST-450 x 900 x 75	450	900	75
52130530	ST-500 x 1000 x 75	500	1000	75
52130531	ST-510 x 850 x 75	510	850	75
52130532	ST-510 x 1000 x 75	510	1000	75
52130533	ST-510 x 1200 x 75	510	1200	75
52130534	ST-510 x 1300 x 75	510	1300	75
52130535	ST-550 x 1200 x 75	550	1200	75
52130536	ST-600 x 1200 x 75	600	1200	75
52130537	ST-600 x 1500 x 80	600	1500	80
52130538	ST-650 x 1600 x 80	650	1600	80
52130539	ST-650 x 1700 x 80	650	1700	80
52130540	ST-700 x 1700 x 80	700	1700	80
52130541	ST-800 x 2300 x 85	800	2300	85
52130542	ST-850 x 2100 x 85	850	2100	85
52130543	ST-850 x 2300 x 85	850	2300	85
52130544	ST-900 x 2400 x 85	900	2400	85
52130545	SC-300 x 600 x 70	300	600	70
52130546	SC-350 x 800 x 75	350	800	75
52130547	SC-400 x 950 x 75	400	950	75
52130548	SC-410 x 900 x 75	410	900	75
52130549	SC-450 x 900 x 75	450	900	75
52130550	SC-500 x 1000 x 75	500	1000	75
52130551	SC-510 x 850 x 75	510	850	75
52130552	SC-510 x 1000 x 75	510	1000	75
52130553	SC-510 x 1200 x 75	510	1200	75
52130554	SC-510 x 1300 x 75	510	1300	75
52130555	SC-550 x 1200 x 75	550	1200	75
52130556	SC-600 x 1200 x 75	600	1200	75
52130557	SC-600 x 1500 x 80	600	1500	80



▼ SH SERIES



PITCH-50m/m K=M16×2P×40L

UNIT: mm

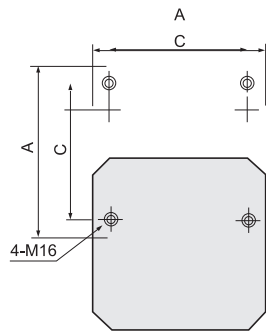
ITEM NO.	MODEL	A	B	C
52130558	SC-650 x 1600 x 80	650	1600	80
52130559	SC-650 x 1700 x 80	650	1700	80
52130560	SC-700 x 1700 x 80	700	1700	80
52130561	SC-800 x 2300 x 85	800	2300	85
52130562	SC-850 x 2100 x 85	850	2100	85
52130563	SC-850 x 2300 x 85	850	2300	85
52130564	SC-900 x 2400 x 85	900	2400	85
52130565	SH-300 x 600 x 70	300	600	70
52130566	SH-350 x 800 x 75	350	800	75
52130567	SH-400 x 950 x 75	400	950	75
52130568	SH-410 x 900 x 75	410	900	75
52130569	SH-450 x 900 x 75	450	900	75
52130570	SH-500 x 1000 x 75	500	1000	75
52130571	SH-510 x 850 x 75	510	850	75
52130572	SH-510 x 1000 x 75	510	1000	75
52130573	SH-510 x 1200 x 75	510	1200	75
52130574	SH-510 x 1300 x 75	510	1300	75
52130575	SH-550 x 1200 x 75	550	1200	75
52130576	SH-600 x 1200 x 75	600	1200	75
52130577	SH-600 x 1500 x 80	600	1500	80
52130578	SH-650 x 1600 x 80	650	1600	80
52130579	SH-650 x 1700 x 80	650	1700	80
52130580	SH-700 x 1700 x 80	700	1700	80
52130581	SH-800 x 2300 x 85	800	2300	85
52130582	SH-850 x 2100 x 85	850	2100	85
52130583	SH-850 x 2300 x 85	850	2300	85
52130584	SH-900 x 2400 x 85	900	2400	85
52130585	SH-340 x 510 x 30	340	510	30
52130586	SH-340 x 660 x 30	340	660	30
52130587	SH-405 x 600 x 35	405	600	35
52130588	SH-405 x 780 x 35	405	780	35
52130589	SH-495 x 720 x 40	495	720	40
52130590	SH-495 x 940 x 40	495	940	40



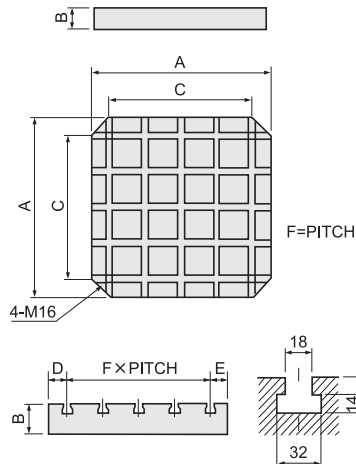
SUB TABLES

FEATURES:

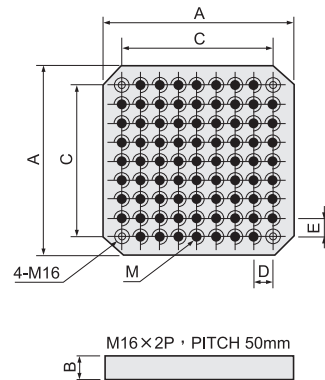
- Both ground & paralleled within 0.010 / 500 mm.
- Material: FCD-60 ductile iron (high tensile casting), tempered.
- Please fill in D.E.F.K.PITCH dimension when ordering.
- Annealing.



◀ SP SERIES



◀ SL SERIES



◀ SM SERIES

◀ SPECIAL SIZES BY REQUEST

UNIT: mm

ITEM NO.	MODEL	A	B	C	D	E	F	K
52130591	SP-300 x 300 x 40	300	40	240	-	-	-	-
52130592	SP-400 x 400 x 40	400	40	320	-	-	-	-
52130593	SP-500 x 500 x 40	500	40	400	-	-	-	-
52130594	SP-600 x 600 x 45	600	45	500	-	-	-	-
52130595	SP-630 x 630 x 40	630	40	500	-	-	-	-
52130596	SL-400 x 400 x 70	400	70	320	50	-	100	18
52130597	SL-500 x 500 x 70	500	70	400	50	-	100	18
52130598	SL-630 x 630 x 70	630	70	500	50	-	100	18
52130599	SL-800 x 800 x 70	800	70	700	50	-	100	18
52130600	SM-300 x 300 x 40	300	40	240	50	50	-	-
52130601	SM-400 x 400 x 40	400	40	320	50	50	-	-
52130602	SM-500 x 500 x 40	500	40	400	50	50	-	-
52130603	SM-600 x 600 x 45	600	45	500	50	50	-	-
52130604	SM-630 x 630 x 40	630	40	500	50	50	-	-
52130605	SM-400 x 400 x 70	400	70	320	50	50	-	-
52130606	SM-500 x 500 x 70	500	70	400	50	50	-	-
52130607	SM-630 x 630 x 70	630	70	500	50	50	-	-
52130608	SM-800 x 800 x 70	800	70	700	50	50	-	-



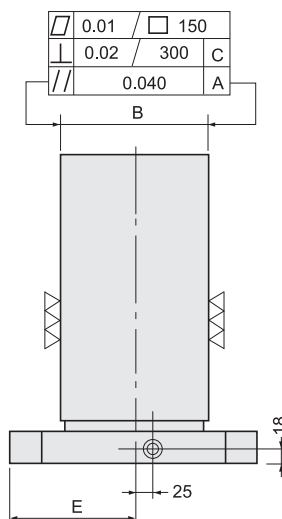
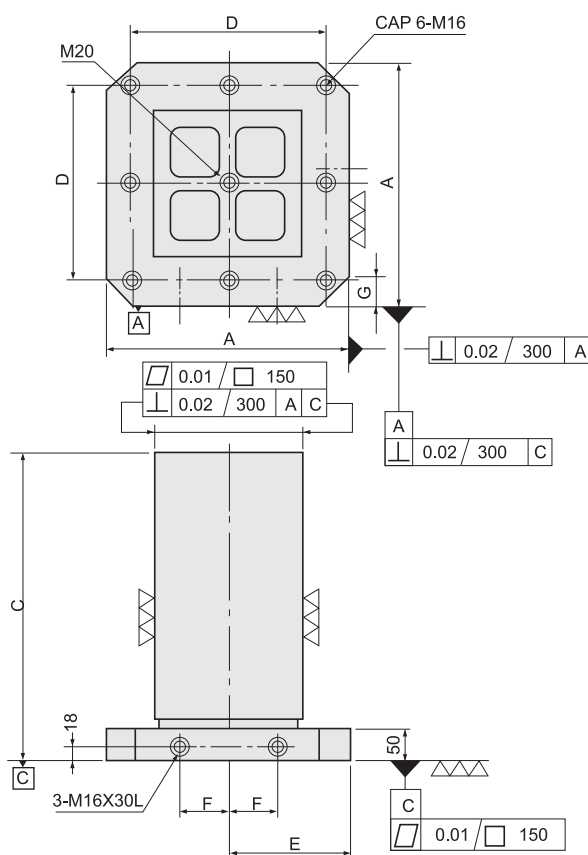
B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



JIG BLOCKS (PLAIN, 4-FACE)

FEATURES:

- Material: FCD-60 ductile iron.
- Heat-treatment-Annealing.
- One piece casting of bed and column.



▲ SJB SERIES

◀ SPECIAL SIZES BY REQUEST

UNIT:mm

ITEM NO.	MODEL	A	B	C	D	E	F	G	N.W. (kgs)
52130609	SJB-400 x 250 x 500B	400	250	500	320	200	55	50	195
52130610	SJB-500 x 300 x 600B	500	300	600	400	250	75	60	315
52130611	SJB-500 x 350 x 550B	500	350	550	400	250	75	60	317
52130612	SJB-630 x 350 x 700B	630	350	700	500	315	100	65	453
52130613	SJB-630 x 400 x 700B	630	400	700	500	315	100	65	500
52130614	SJB-630 x 500 x 700B	630	500	700	500	315	100	65	595
52130615	SJB-800 x 550 x 850B	800	550	850	640	400	135	80	811



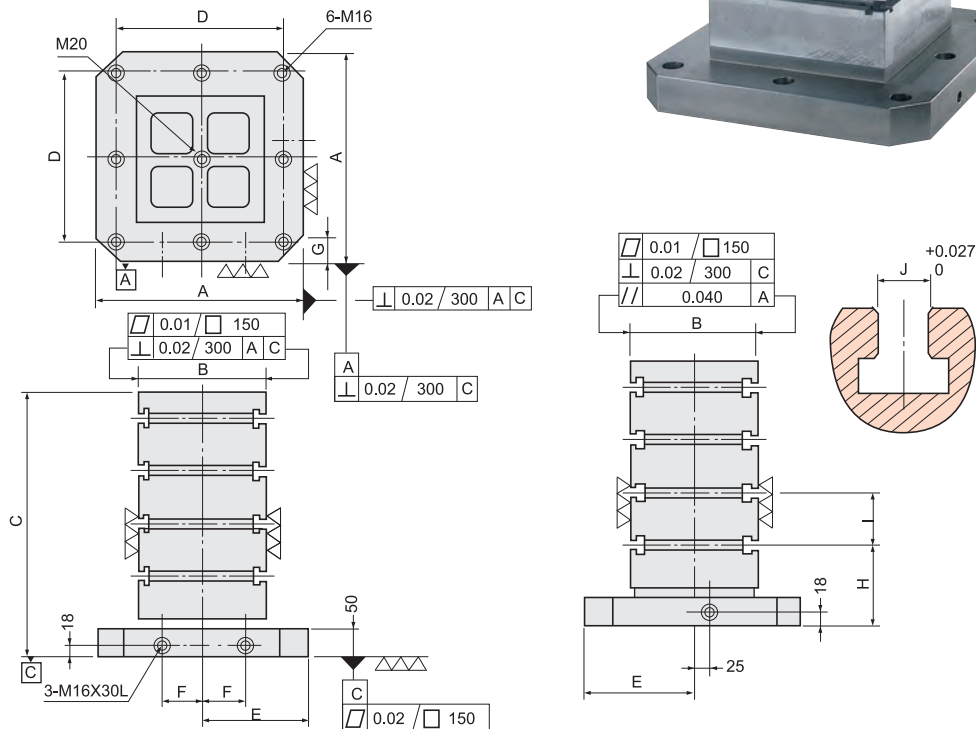
JIC BLOCKS (T-SLOTS, 4-FACE)

FEATURES:

- Material: FCD-60 ductile iron.
- Heat-treatment-Annealing.
- One piece casting of bed and column.

➤ SJB-T SERIES (14 mm T-SLOT)

➤ SJB-T SERIES (18 mm T-SLOT)



< SPECIAL SIZES BY REQUEST

UNIT:mm

ITEM NO.	MODEL	A	B	C	D	E	F	G	H	I	J	N.W. (kgs)
52130616	SJB-400 x 250 x 500T	400	250	500	320	200	55	50	100	100 x 4	14	177
52130617	SJB-500 x 300 x 600T	500	300	600	400	250	75	60	100	100 x 5	14	290
52130618	SJB-500 x 350 x 550T	500	350	550	400	250	75	60	150	100 x 4	14	291
52130619	SJB-630 x 350 x 700T	630	350	700	500	315	100	65	150	125 x 5	14	428
52130620	SJB-630 x 400 x 700T	630	400	700	500	315	100	65	150	125 x 5	14	470
52130621	SJB-630 x 500 x 700T	630	500	700	500	315	100	65	150	125 x 5	14	560
52130622	SJB-800 x 550 x 850T	800	550	850	640	400	135	80	150	150 x 5	14	770
52130623	SJB-400 x 250 x 500L	400	250	500	320	200	55	50	100	100 x 4	18	174
52130624	SJB-500 x 300 x 600L	500	300	600	400	250	75	60	100	100 x 5	18	287
52130625	SJB-500 x 350 x 550L	500	350	550	400	250	75	60	150	100 x 4	18	286
52130626	SJB-630 x 350 x 700L	630	350	700	500	315	100	65	150	125 x 5	18	423
52130627	SJB-630 x 400 x 700L	630	400	700	500	315	100	65	150	125 x 5	18	465
52130628	SJB-630 x 500 x 700L	630	500	700	500	315	100	65	150	125 x 5	18	552
52130629	SJB-800 x 550 x 850L	800	550	850	640	400	135	80	150	150 x 5	18	764



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



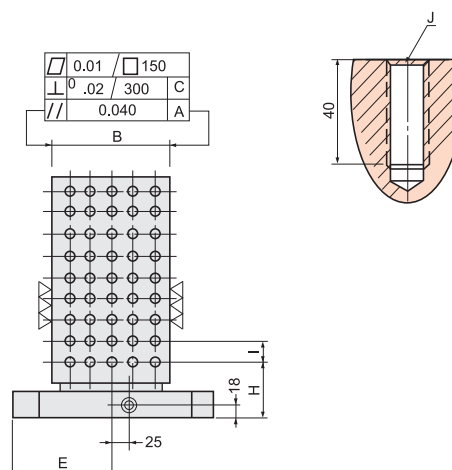
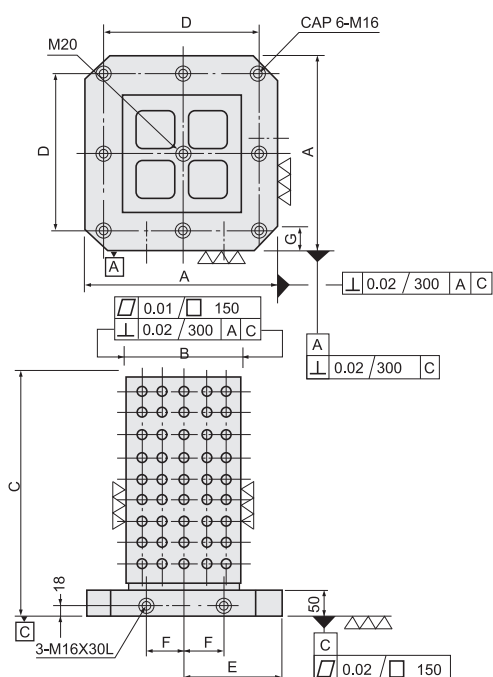
JIC BLOCKS (TAPPED HOLES, 4-FACE)

FEATURES:

- Material: FCD-60 ductile iron.
- Heat-treatment-annealing.
- One piece casting of bed and column.

➤ SJB-M SERIES (12 mm TAPPED HOLES)

➤ SJB-H SERIES (16 mm TAPPED HOLES)



UNIT:mm

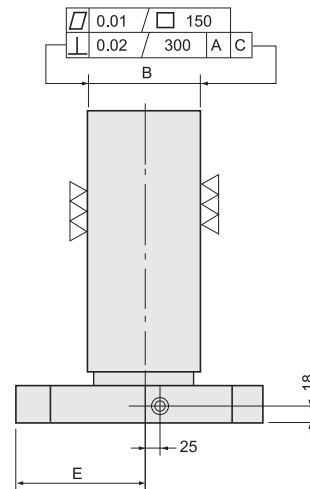
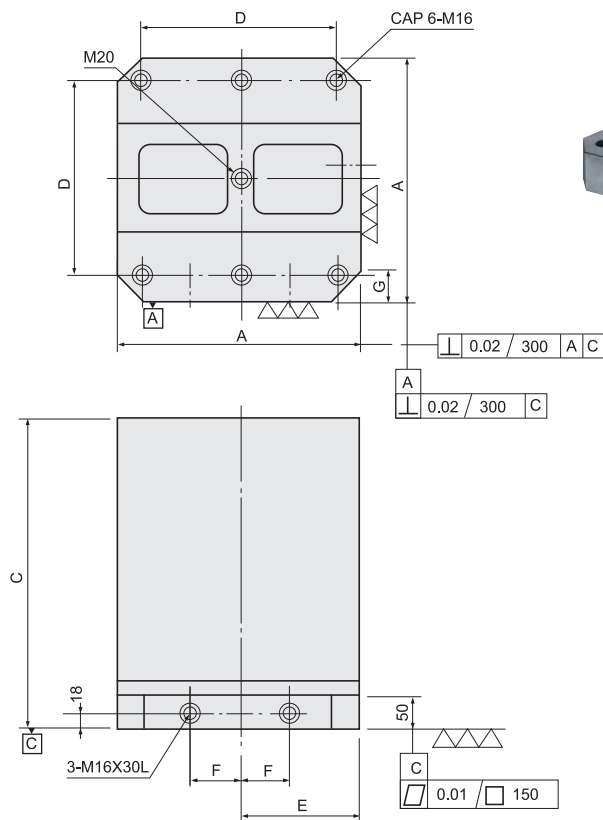
ITEM NO.	MODEL	A	B	C	D	E	F	G	H	I	J	N.W. (kgs)
52130630	SJB-400 x 250 x 500M	400	250	500	320	200	55	50	125	50	M12-4 x 8 x 4	193
52130631	SJB-500 x 300 x 600M	500	300	600	400	250	75	60	125	50	M12-5 x10 x 4	294
52130632	SJB-500 x 350 x 550M	500	350	550	400	250	75	60	125	50	M12-6 x 9 x 4	312
52130633	SJB-630 x 350 x 700M	630	350	700	500	315	100	65	125	50	M12-6 x12 x 4	438
52130634	SJB-630 x 400 x 700M	630	400	700	500	315	100	65	125	50	M12-7 x12 x 4	460
52130635	SJB-630 x 500 x 700M	630	500	700	500	315	100	65	125	50	M12-9 x12 x 4	570
52130636	SJB-800 x 550 x 850M	800	550	850	640	400	135	80	125	50	M12-10 x15 x4	780
52130637	SJB-400 x 250 x 500H	400	250	500	320	200	55	50	125	50	M16-4 x 8 x 4	189
52130638	SJB-500 x 300 x 600H	500	300	600	400	250	75	60	125	50	M16-5 x10 x 4	290
52130639	SJB-500 x 350 x 550H	500	350	550	400	250	75	60	125	50	M16-6 x 9 x 4	308
52130640	SJB-630 x 350 x 700H	630	350	700	500	315	100	65	125	50	M16-6 x12 x 4	433
52130641	SJB-630 x 400 x 700H	630	400	700	500	315	100	65	125	50	M16-7 x12 x 4	455
52130642	SJB-630 x 500 x 700H	630	500	700	500	315	100	65	125	50	M16-9 x12 x 4	465
52130643	SJB-800 x 550 x 850H	800	550	850	640	400	135	80	125	50	M16-10 x15 x4	776



JIG BLOCKS (PLAIN, 2-FACE)

FEATURES:

- Material: FCD-60 ductile iron.
- Heat-treatment-annealing.
- One piece casting of bed and column.



▲ SJB-P SERIES

UNIT: mm

ITEM NO.	MODEL	A	B	C	D	E	F	G	N.W. (kgs)
52130644	SJB-400 x 150 x 500P	400	150	500	320	200	55	50	218
52130645	SJB-500 x 200 x 600P	500	200	600	400	250	75	60	320
52130646	SJB-630 x 250 x 700P	630	250	700	500	315	100	65	578
52130647	SJB-800 x 300 x 800P	800	300	800	640	400	135	80	776



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



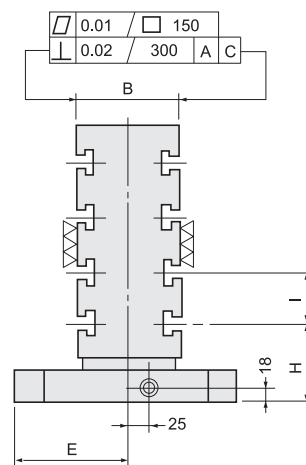
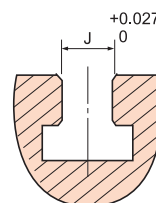
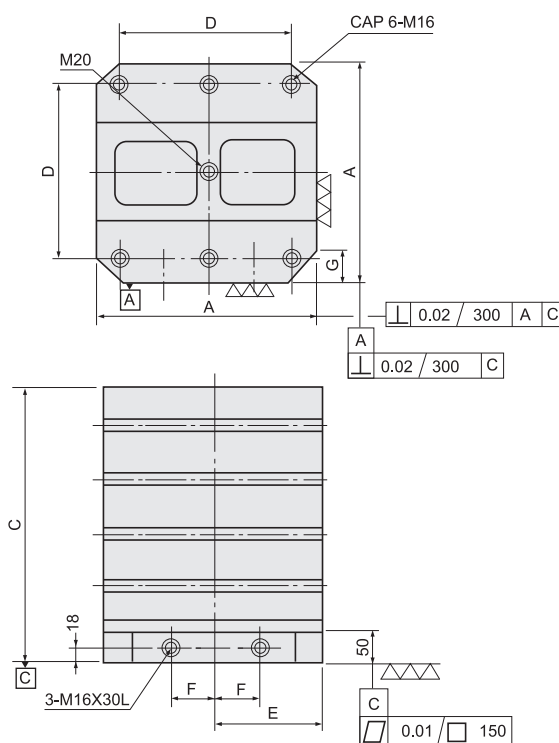
JIG BLOCKS (T-SLOTS, 2-FACE)

FEATURES:

- Material: FCD-60 ductile iron.
- Heat-treatment-Annealing.
- One piece casting of bed and column.

➤ SJB-R SERIES (14 mm T-SLOT)

➤ SJB-S SERIES (18 mm T-SLOT)



< SPECIAL SIZES BY REQUEST

UNIT:mm

ITEM NO.	MODEL	A	B	C	D	E	F	G	H	I	J	N.W. (kgs)
52130648	SJB-400 x 150 x 500R	400	150	500	320	200	55	50	100	100 x 4	14	204
52130649	SJB-500 x 200 x 600R	500	200	600	400	250	75	60	100	100 x 5	14	312
52130650	SJB-630 x 250 x 700R	630	250	700	500	315	100	65	150	125 x 5	14	560
52130651	SJB-800 x 300 x 800R	800	300	800	640	400	135	80	150	150 x 5	14	752
52130652	SJB-400 x 150 x 500S	400	150	500	320	200	55	50	100	100 x 4	18	198
52130653	SJB-500 x 200 x 600S	500	200	600	400	250	75	60	100	100 x 5	18	304
52130654	SJB-630 x 250 x 700S	630	250	700	500	315	100	65	150	125 x 5	18	550
52130655	SJB-800 x 300 x 800S	800	300	800	640	400	135	80	150	150 x 5	18	740



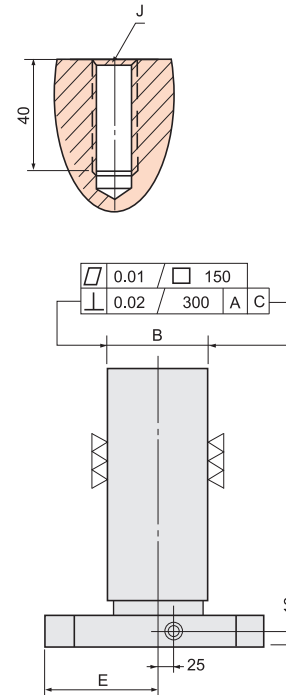
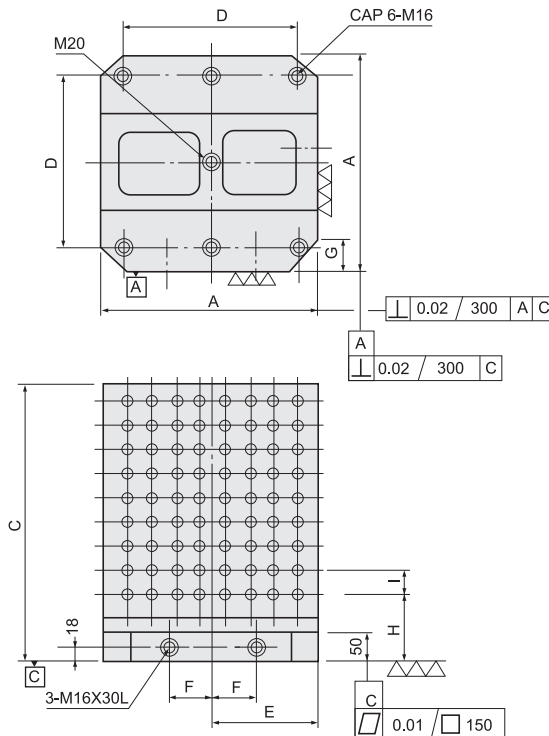
JIG BLOCKS (TAPPED HOLES, 2-FACE)

FEATURES:

- Material: FCD-60 ductile iron.
- Heat-treatment-annealing.
- One piece casting of bed and column.

➤ SJB-U SERIES (M12 TAPPED HOLES)

➤ SJB-V SERIES (M16 TAPPED HOLES)



UNIT: mm

ITEM NO.	MODEL	A	B	C	D	E	F	G	H	I	J	N.W. (kgs)
52130656	SJB-400 x 150 x 500U	400	150	500	320	200	55	50	125	50	M12-7 x 8 x 2	206
52130657	SJB-500 x 200 x 600U	500	200	600	400	250	75	60	125	50	M12-9 x 10 x 2	320
52130658	SJB-630 x 250 x 700U	630	250	700	500	315	100	65	125	50	M12-11 x 12 x 2	568
52130659	SJB-800 x 300 x 800U	800	300	800	640	400	135	80	125	50	M12-15 x 14 x 2	762
52130660	SJB-400 x 150 x 500V	400	150	500	320	200	55	50	125	50	M16-7 x 8 x 2	204
52130661	SJB-500 x 200 x 600V	500	200	600	400	250	75	60	125	50	M16-9 x 10 x 2	315
52130662	SJB-630 x 250 x 700V	630	250	700	500	315	100	65	125	50	M16-11 x 12 x 2	562
52130663	SJB-800 x 300 x 800V	800	300	800	640	400	135	80	125	50	M16-15 x 14 x 2	755



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



JIG BLOCKS (FRAMED, 2-FACE)

FEATURES:

- Material/Finish:
Material: cast iron FC300 (JIS) / GG30 (DIN).
Heat treated (Normalized).
- Application: horizontal machining center.
- Features: modular quick-change system,
simple 3 point mounting.
- Eye bolt, top cover & side covers included.

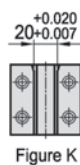
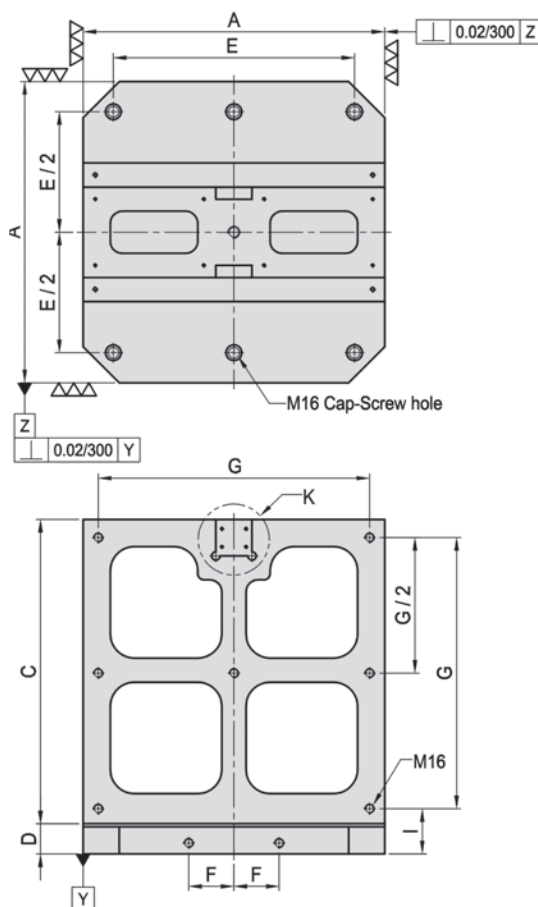
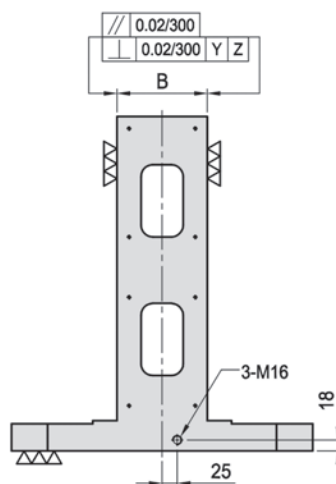


Figure K



UNIT: mm

ITEM NO.	A	B	C	D	E	F	G	I	MOUNTING HOLES	kgs
52172104	400	130	400	50	320	55	350	70	4	121
52172105	500	150	500	55	400	75	450	75	6	215
52172106	630	220	630	60	500	100	580	80	6	340
52172107	800	250	800	60	640	135	750	80	6	500

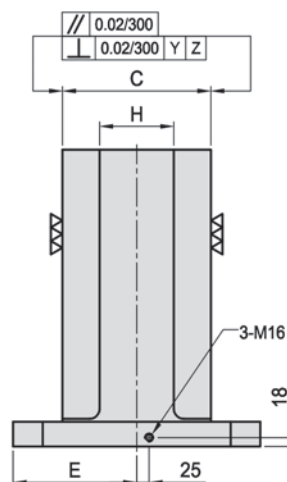
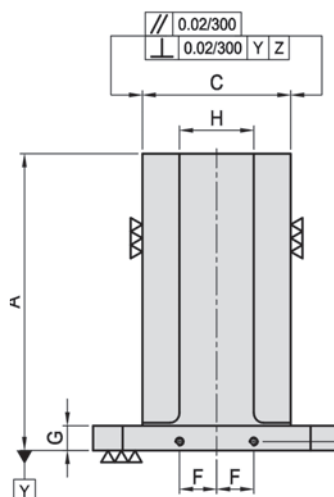
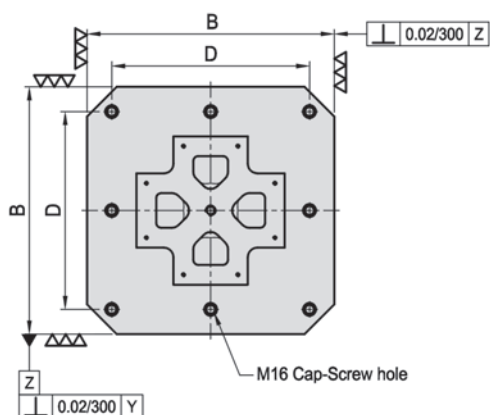
- Special design welcome!



CROSS TOOLING COLUMNS

FEATURES:

- Material / finish:
Material: Cast iron FC300 (JIS) / GG30 (DIN).
Heat treated (Normalized).
- Applicationed: Horizontal machining center.
- Ready to accept a hole pattern for your special jig.
- Eye bolt & top cover included.



UNIT: mm

ITEM NO.	MODEL	A	B	C	D	E	F	G	H	MOUNTING HOLES	WEIGHT (kgs)
52171472	BP29-400400-0500	500	400	250	320	200	55	50	125	4	166
52171473	BP29-400400-0650	650	400	250	320	200	55	50	125	4	203
52171474	BP29-500500-0600	600	500	300	400	250	75	50	150	8	264
52171475	BP29-500500-0750	750	500	300	400	250	75	50	150	8	310
52171476	BP29-630630-0700	700	630	350	500	315	100	50	200	8	402
52171477	BP29-630630-0850	850	630	350	500	315	100	50	200	8	457
52171478	BP29-800800-0800	800	800	500	640	400	135	50	300	8	698
52171479	BP29-800800-1000	1000	800	500	640	400	135	50	300	8	811



B4 - VISES, TABLES, BLOCKS

TOOLS OF WORKHOLDING&PRECISION TOOLS FOR MILLS&VMCS

B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



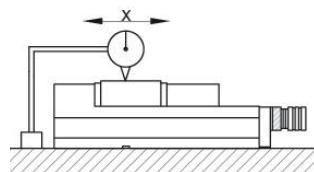
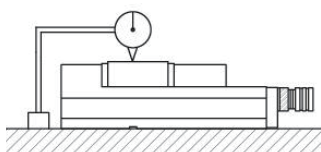
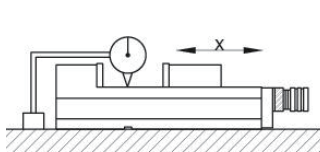
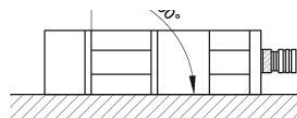
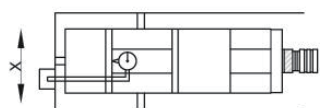
MC HYDRAULIC LOCKVISES



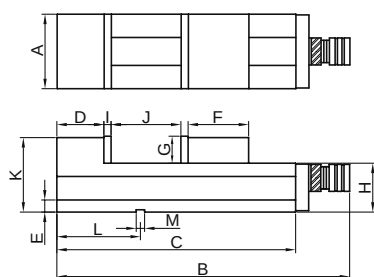
★ VISE CAN SIDE-LOCK TO WORK

FEATURES:

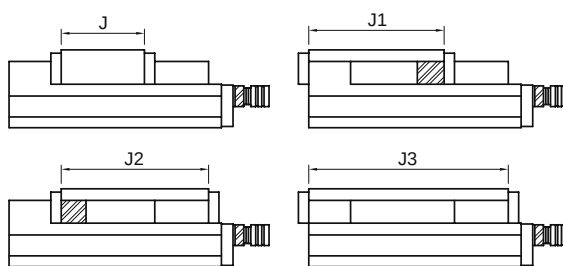
- Down thrust with " semi-sphere " to prevent workpiece lift.
- Mechanical / Hydraulic. Two operate methods.
- Vise body is made of ductile iron FCD-60.
- Vise bed hardened to HRC45° and maintain accuracy for long.
- Vise bed height-size and the guide block side are all made with full control, can 2, 3, or 4 vises to perform a job at a time.
- Vise have 4 ways of clamping. For you to choice.



HYDRAULIC SYSTEM



MECHANICAL SYSTEM



★ Down thrust with "semi-sphere" to prevent workpiece lift.

Standard Accessories:

1. Handle x 1pc.
2. Guide key x 2pcs / M6 x 12L x 2pcs.
3. Vise locked block x 4pcs.
4. Screw 16M x 75L x 4pcs.
5. T-Type Screw 16M x 4pcs.
6. Washer 16M x 4pcs.

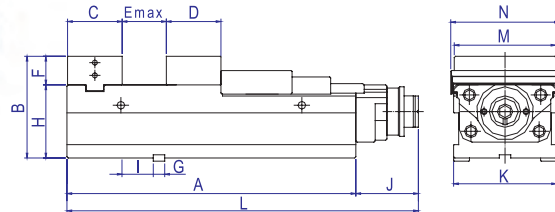
Optional Accessories: Special Application Jaw Plates

UNIT: mm

ITEM NO.	A	B	C	D	E	F	G	H	I	J	J1	J2	J3	K	L	M	NM	CLAMPING FORCE
52172108	102	475	340	65	25	102	47	85	15	125	125-190	125-230	125-320	130	125	16	27 kgs	3000 kgf
52172109	132	558	423	70	25	110	54	95	15	200	200-260	200-300	200-410	147	165	18	40 kgs	4400 kgf
52172110	162	632	497	85	25	130	57	105	15	240	240-315	240-360	240-470	160	165	18	60 kgs	5000 kgf
52172111	162	692	557	85	25	130	57	105	15	300	300-375	300-420	300-530	160	165	18	65 kgs	5000 kgf
52172112	202	710	570	90	25	139	62	110	18	300	300-375	300-425	300-560	170	190	18	80 kgs	7000 kgf



MC POWER VISES



UNIT: mm

ITEM NO.	A	B	C	D	E max	F	G	H	I	J	K	L	M	N	N.W. (kgs)
52172457	365	145	78	74	205	45	18	100	57	98.5	126	463.5	125	135	35
52172458	455	160	86	86	275	45	18	115	49	98.5	162	553.5	160	171	59
52172459	505	180	100	100	300	55	18	125	66	98.5	202	603.5	200	211	35



Clamping Force Setter

Clamping Force Table

UNIT: kgf

ITEM NO. / SETTING	0	1	2	3	4
52172457	500	1600	2800	3600	4500
52172458	500	1800	3200	4600	6000
52172459	500	2200	3800	5500	7000

STANDARD ACCESSORY



Eye Bolts



Wrench



Slide Cover



Positioning Block



Clamps



T-Nut & Screw



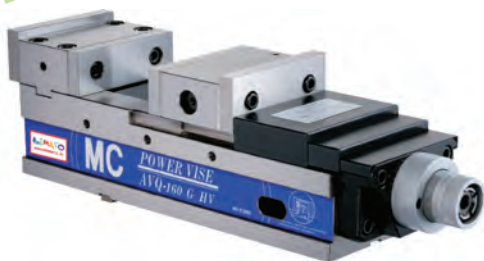
Handle Set



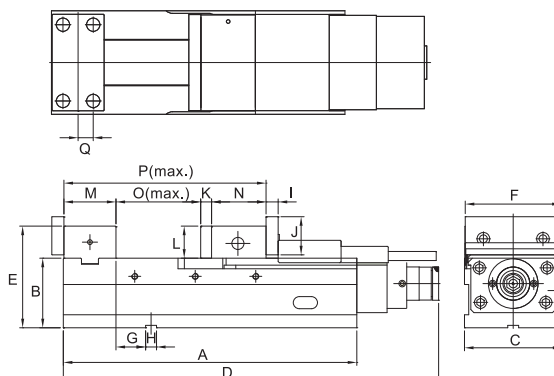
B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



AVQ-MC MECHANICAL LONG POWER VISES



- Jaw opening:
AVQ-100G/HV, Max. 140 mm
AVQ-125G/HV, Max. 201 mm
AVQ-160G/HV, Max. 295 mm
AVQ-200G/HV, Max. 320 mm
- Bed height: tolerance 0.01 mm or less
- Distance from keyway to fixed jaw: tolerance 0.01 mm or less
- Distance of AVQ, AFP and AVL from keyway to stationary Jaw is the same.
- Clamping force can be freely adjusted with the guidance of graduation lines.



- Clamping pressure:
AVQ-100G/HV, Max. 4500 kg/cm²
AVQ-125G/HV, Max. 5000 kg/cm²
AVQ-160G/HV, Max. 5500 kg/cm²
AVQ-200G/HV, Max. 6500 kg/cm²

UNIT: mm

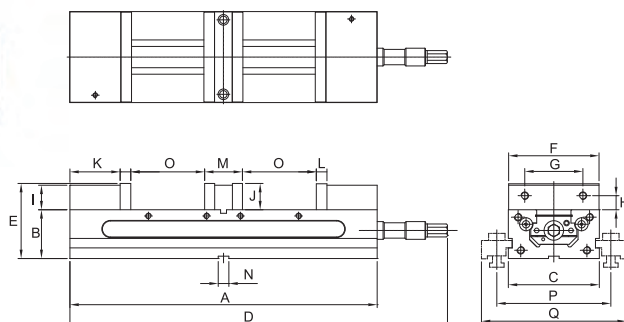
ITEM NO.	MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	WEIGHT (kgs)
52130675	AVQ-100G	324	85	104	428	130	102	32	18	17	55	15	45	73	86.5	140	315	20	30
52130676	AVQ-125G	390	100	127	495	153	124.7	57	18	20	63	15	53	78	87.5	201	380	22.5	46
52130677	AVQ-160G	485	115	161	605	168	159.2	49	18	20	63	18	53	86	80	295	476	25	71
52130678	AVQ-200G	535	120	202	655	178	199.5	66	18	20	73	18	58	101	95	320	526	31	100
52130679	AVQ-100HV	324	85	104	428	130	102	32	18	17	55	15	45	73	86.5	140	315	20	30
52130680	AVQ-125HV	390	100	127	495	153	124.7	57	18	20	63	15	53	78	87.5	201	380	22.5	46
52130681	AVQ-160HV	485	115	161	605	168	159.2	49	18	20	63	18	53	86	80	295	476	25	71
52130682	AVQ-200HV	535	120	202	655	178	199.5	66	18	20	73	18	58	101	95	320	526	31	100



TLD-LOCKWELL DOUBLE STATION VISES



- Productivity-multiple parts work-holding for better spindle utilization and reduced tool change time.
- Accuracy-repeatable clamping to ± 0.015 mm.
- Durability-80000PSI (FCD 60) ductile iron.
- Clamping force equalization and anti-lift mechanism.
- The TLD features the ability to clamp dissimilar sized parts and provides preloading ability in the front or back jaw.
- Double clamp saet: U.S.A. patent no. 5374040.



UNIT: mm

ITEM NO.	MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	WEIGHT (kgs)
52130692	TLD-40G	405	63.5	104	459	101.5	102	63.5	17.5	33	38	69	15	55	18	90	143	195	20
52130694	TLD-60G	520	82.55	154	536	127.05	152	98.4	23.8	41.5	44.5	86.5	18	66	18	125	193	245	52
52130693	TLD-40HV	405	63.5	104	459	101.5	102	63.5	17.5	33	38	69	15	55	18	90	143	195	20
52130695	TLD-60HV	520	82.55	154	536	127.05	152	98.4	23.8	41.5	44.5	86.5	18	66	18	125	193	245	52



COMPACT MECHANICAL MILLING VISES – FOR VMCs

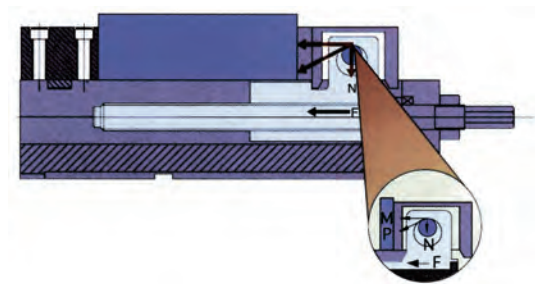
FEATURES:

- The unique anti-lift mechanism features the elimination of workpiece lift and jaw tilt.
- Large jaw clamping capacity.
- The height of jaw plates is 30% higher than those of other vises of same size.
- Chip covers protect leadscrew from damage.
- Thrust bearing eliminates friction and increases clamping pressure.
- The material of vise body is FCD. 55kg/cm² (80,000 psi). Ductile iron, and the slide ways are hardened to HRC 45° minimum. Rigid construction to ensure the least deflection after clamping.



ANTI-LIFT MECHANISM

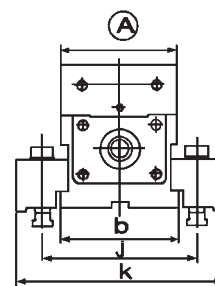
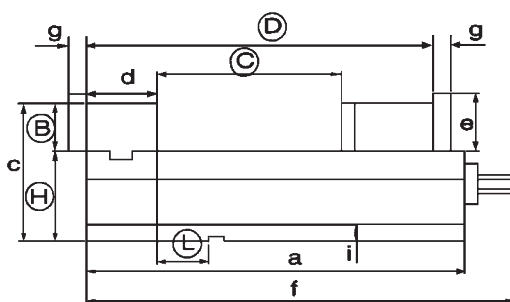
Lift can be controlled to the maximum of 0.015 mm(0.0006")



THE FEATURES OF G TYPE MACHINE VISE:

- Can be used on machining center. Processes 2 to 3 workpiece at the same time, reduces the processing time and difficulties.
- The whole vise is precisely ground and "H & L" tolerance is within +0.002/mm (+ 0.0008"), therefore several vises can be lined up for production.

▲ Taiwan Patent No. 66913



UNIT: mm

ITEM NO.	MODEL	(A)	(B)	(C)	(D)	a	b	c	d	e	f	g	i	j	k	(H)	(L)	KEY WAY	WEIGHT (kgs)
52130669	AVL-100G	102	45	140	315	324	104	130	73	55	426	17	18	142	194	85 ±0.02	31.5 ±0.02	18	27
52130670	AVL-125G	125	53	203	382	385	127	153	78	63	557	20	18	164	216	100 ±0.02	57 ±0.02	18	45
52130671	AVL-160G	160	53	275	465	480	162	168	86	63	665	20	21	199	252	115 ±0.02	49 ±0.02	18	75
52130672	AVL-100HV	102	45	140	315	324	104	130	73	55	426	17	18	142	194	85 ±0.02	31.5 ±0.02	18	27
52130673	AVL-125HV	125	53	203	382	385	127	153	78	63	557	20	18	164	216	100 ±0.02	57 ±0.02	18	45
52130674	AVL-160HV	160	53	275	465	480	162	168	86	63	665	20	21	199	252	115 ±0.02	49 ±0.02	18	75

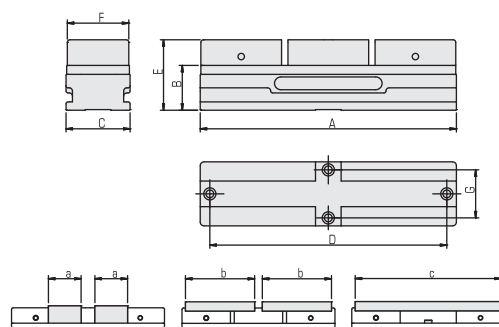
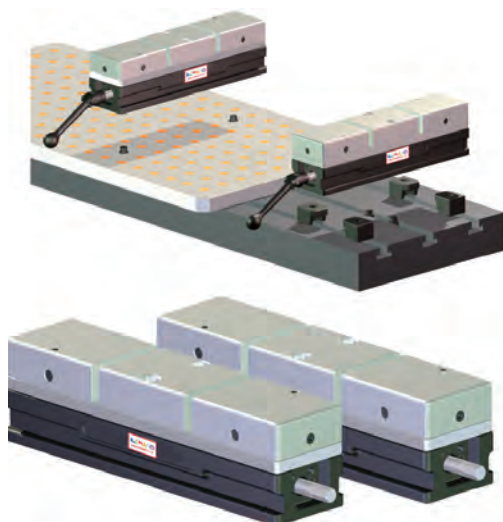
- HV version is vises that can be set-up on side mounting. Both sides of vises are precision ground.



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



LOCKWELL ALUMINUM VISES

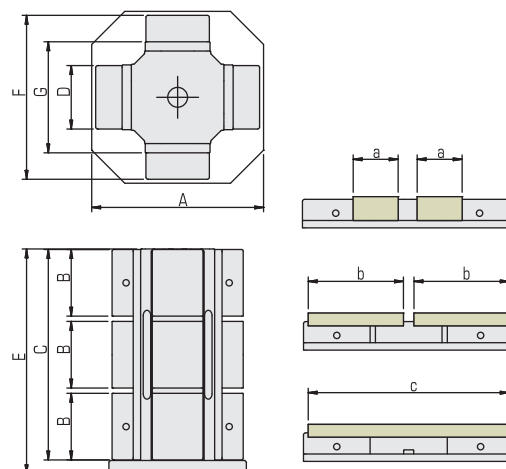
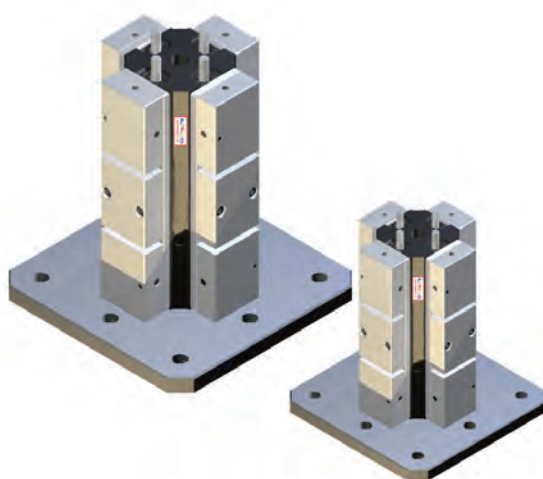


UNIT: mm

ITEM NO.	MODEL	SIZE	A	B	C	D	E	F	G	a	b	c
52171480	ADS-1040	100	400	70	100	370	110	96	75	85	180	380
52171481	ADS-1550	150	500	84	150	460	134	121	110	112	225	480



TAMBSTONE ALUMINUM VISES



UNIT: mm

ITEM NO.	MODEL	SIZE	A	B	C	D	E	F	G	a	b	c
52171482	ADS-1040-4B	100	260	126	398	96	425	248	168	85	180	380
52171483	ADS-1550-4B	150	320	157.5	498	121	530	310	210	112	225	480



FLEXIBLE BALANCE GRIPPER JAW MACHINE VISES

FEATURES:

- Super-low designed both of stationary jaw and movable jaw is suitable for clamping thinner workpiece to increase heavy duty cutting capacity and precision of processing.
- Movable jaw is designed by balance mechanism, and there are many kinds of gripper onto the jaw in order to suit the repairment for various workpieces and difficult clamping shapes.
- Balance jaw is designed by balance mechanism, its function is able to clamp easily slanting or not smooth surface for rough material, casting material and slanting rough surface after processed by sawing machine.
- Regarding irregular, round, elliptic, rectangular, irregular-curved, step workpieces and slanting workpieces of difficult shapes of gripper to perform well-done the clamping.
- There are three types of vise you can choose according to different clamping forces: mechanical type (VCV), power type (VQV) and hydraulic type (VHV).

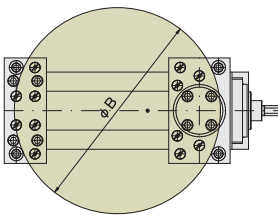


Figure-1, 2

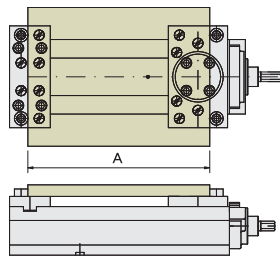


Figure-3, 13

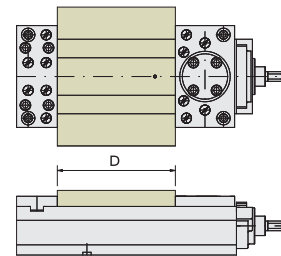


Figure-4

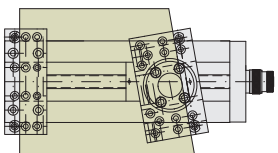


Figure-5, 12

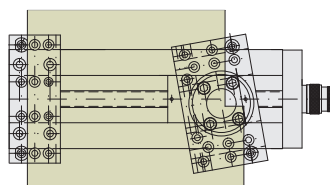


Figure-6, 14

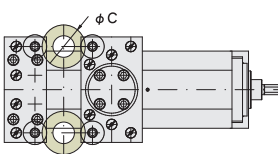


Figure-7

UNIT: mm

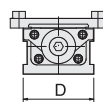
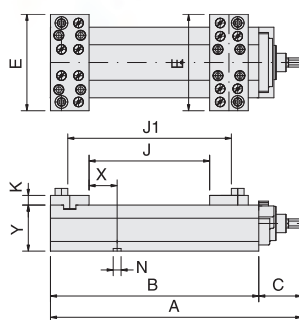
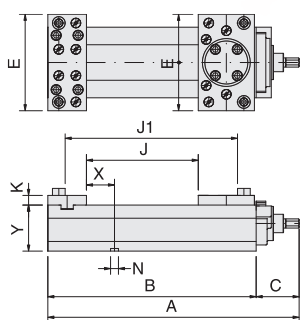
MODEL	A	øB	øC	D
100	0-220	80-250	-	0-150
130	0-320	90-350	0-90	0-210
160	0-380	90-420	0-90	0-280
200	0-460	120-500	0-120	0-320



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



FMS COMPACT MACHINE VISES (VCV)



STANDARD ACCESSORIES:

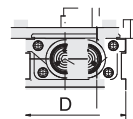
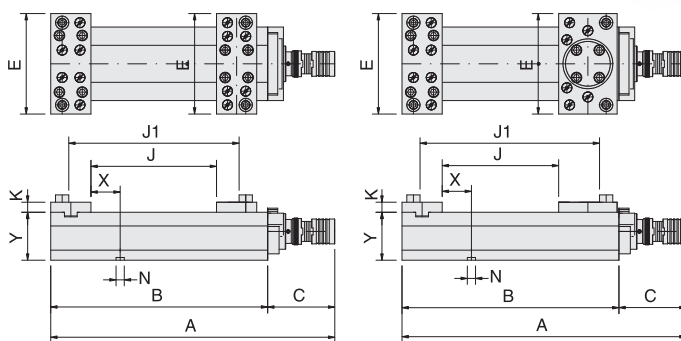
- Gripper x 4pcs(FB-519F)
- Handle x 1pc
- Guide key x 2pcs
(M6 x 10L x 2pcs)
- Vise locked block x 4pcs

UNIT: mm

ITEM NO.	MODEL	A	B	C	D	E	J	J1	K	N	X	Y	N.W.	G.W.	SHIPMENT SIZE
52171484	VCV-100V-FB	398	300	98	101	160	0-100	0-220	17	18	51	85	17.5 kgs	19.5 kgs	590 × 175 × 185
52171485	VCV-130V-FB	508	410	98	131	190	0-180	0-320	17	18	60	95	31.5 kgs	33.5 kgs	665 × 190 × 125
52171486	VCV-160V-FB	573	475	98	161	220	0-220	0-380	22	18	64	105	49.5 kgs	52.5 kgs	760 × 190 × 215
52171487	VCV-200V-FB	653	555	98	201	260	0-250	0-460	22	18	90	110	77.0 kgs	80.0 kgs	820 × 230 × 220
52171488	VCV-100V-FM	398	300	98	101	160	0-150	0-220	17	18	51	85	16.5 kgs	18.5 kgs	590 × 175 × 185
52171489	VCV-130V-FM	508	410	98	131	190	0-210	0-320	17	18	60	95	30.5 kgs	32.5 kgs	665 × 190 × 125
52171490	VCV-160V-FM	573	475	98	161	220	0-280	0-380	22	18	64	105	47.0 kgs	50.0 kgs	760 × 190 × 215
52171491	VCV-200V-FM	653	555	98	201	260	0-320	0-460	22	18	90	110	73.5 kgs	76.5 kgs	820 × 230 × 220



FMS COMPACT MECHANICAL / HYDRAULIC VISES (VHV)



STANDARD ACCESSORIES:

- Gripper x 4pcs(FB-519F)
- Handle x 1pc
- Guide key x 2pcs
(M6 x 10L x 2pcs)
- Vise locked block x 4pcs

UNIT: mm

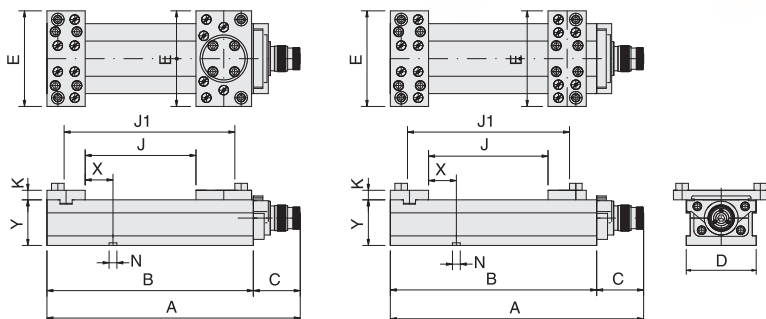
ITEM NO.	MODEL	A	B	C	D	E	J	J1	K	N	X	Y	LIMIT PRESSURE	N.W. (kgs)	G.W. (kgs)	SHIPMENT SIZE
52171492	VHV-130V-FB	545	410	135	131	190	0-180	0-320	17	18	60	95	72KN (7056 kgf)	33.5	35.5	665 x 190 x 225
52171493	VHV-160V-FB	610	475	135	161	220	0-220	0-380	22	18	64	105	77KN (7546 kgf)	51.5	54.5	760 x 190 x 215
52171494	VHV-200V-FB	690	555	135	201	260	0-250	0-460	22	18	90	110	82KN (8036 kgf)	80.0	83.0	820 x 230 x 220
52171495	VHV-130V-FM	545	410	135	131	190	0-210	0-320	17	18	60	95	72KN (7056 kgf)	32.5	34.5	665 x 190 x 225
52171496	VHV-160V-FM	610	475	135	161	220	0-280	0-380	22	18	64	105	77KN (7546 kgf)	49.0	52.0	760 x 190 x 215
52171497	VHV-200V-FM	690	555	135	201	260	0-320	0-460	22	18	90	110	82KN (8036 kgf)	76.5	79.5	820 x 230 x 220



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



FMS COMPACT POWER VISES (VQV)



STANDARD ACCESSORIES:

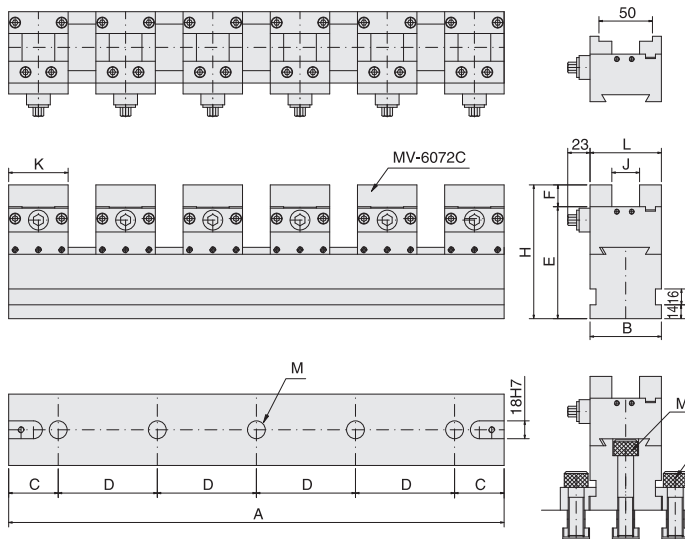
- Gripper x 4pcs(FB-519F)
- Handle x 1pc
- Guide key x 2pcs
(M6 x 10L x 2pcs)
- Vise locked block x 4pcs

UNIT: mm

ITEM NO.	MODEL	A	B	C	D	E	J	J1	K	N	X	Y	LIMIT PRESSURE	N.W. (kgs)	G.W. (kgs)	SHIPMENT SIZE
52171498	VQV-100V-FB	406	300	106	101	160	0-100	0-220	22	18	51	85	41KN (4018 kgf)	18.5	20.5	590 x 175 x 185
52171499	VQV-130V-FB	516	410	106	131	190	0-180	0-320	22	18	60	95	45KN (4410 kgf)	33.5	35.5	665 x 190 x 225
52171500	VQV-160V-FB	581	475	106	161	220	0-220	0-380	22	18	64	105	54KN (5296 kgf)	51.5	54.5	760 x 190 x 215
52171501	VQV-200V-FB	661	555	106	201	260	0-250	0-460	22	18	90	110	66KN (6466 kgf)	80.0	83.0	820 x 230 x 220
52171502	VQV-100V-FM	406	300	106	101	160	0-150	0-220	22	18	51	85	41KN (4018 kgf)	17.5	19.5	590 x 175 x 185
52171503	VQV-130V-FM	516	410	106	131	190	0-210	0-320	22	18	60	95	45KN (4410 kgf)	32.5	34.5	665 x 190 x 225
52171504	VQV-160V-FM	581	475	106	161	220	0-280	0-380	22	18	64	105	54KN (5296 kgf)	49.0	52.0	760 x 190 x 215
52171505	VQV-200V-FM	661	555	106	201	260	0-320	0-460	22	18	90	110	66KN (6466 kgf)	76.5	79.5	820 x 230 x 220



FLEXIBLE VISES – 6072C



STANDARD ACCESSORIES:

- Vise x 4-8 pcs (MV-6072C)
- Handle x 1pc (HA-10)
- Guide key x 18 mm x 2pcs (M6 x 10L x 2pcs)
- Socket cap screw (M16 x 80L x 3-7pcs)
- T-nut (M16 x 3-7pcs)

OPTIONAL ACCESSORIES:

- Vise locked block x 4pcs (M16 x 50L x 4pcs)
- Wheel handle x 1pc (HA-50)
- Stopper (ST-05) (M5 x 6L x 1pc)

UNIT: mm

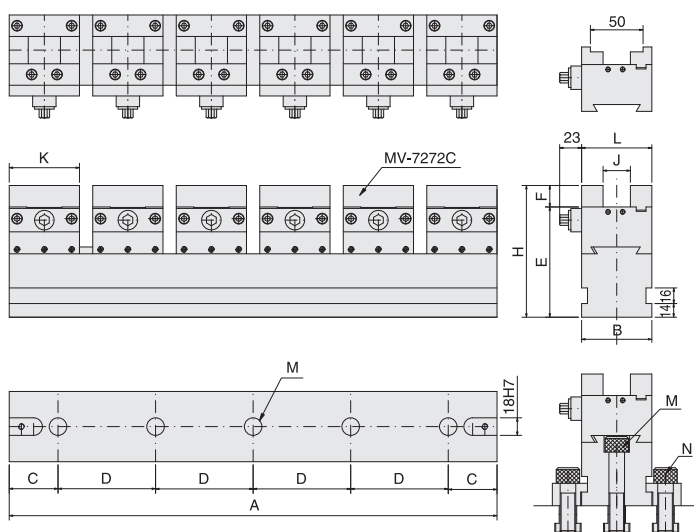
ITEM NO.	MODEL	A	B	C	D	E	F	H	J	K	L	M (Standard)	N (Optional)	MV- 6072C	N.W. (kgs)
52171506	MV-6072C-300	300	72	50	100	113	22	135	0-25	60	72	M16x80Lx3	M16x50Lx4	4pcs	17.2
52171507	MV-6072C-400	400	72	50	100	113	22	135	0-25	60	72	M16x80Lx4	M16x50Lx4	5pcs	22.4
52171508	MV-6072C-500	500	72	50	100	113	22	135	0-25	60	72	M16x80Lx5	M16x50Lx4	6pcs	27.7
52171509	MV-6072C-600	600	72	50	100	113	22	135	0-25	60	72	M16x80Lx6	M16x50Lx4	7pcs	32.7
52171510	MV-6072C-700	700	72	50	100	113	22	135	0-25	60	72	M16x80Lx7	M16x50Lx4	8pcs	38.0
52171511	MV-6072CS-300	300	72	50	100	113	22	135	0-50	60	72	M16x80Lx3	M16x50Lx4	4pcs	17.2
52171512	MV-6072CS-400	400	72	50	100	113	22	135	0-50	60	72	M16x80Lx4	M16x50Lx4	5pcs	22.4
52171513	MV-6072CS-500	500	72	50	100	113	22	135	0-50	60	72	M16x80Lx5	M16x50Lx4	6pcs	27.7
52171514	MV-6072CS-600	600	72	50	100	113	22	135	0-50	60	72	M16x80Lx6	M16x50Lx4	7pcs	32.7
52171515	MV-6072CS-700	700	72	50	100	113	22	135	0-50	60	72	M16x80Lx7	M16x50Lx4	8pcs	38.0



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



FLEXIBLE VISES – 7272C



STANDARD ACCESSORIES:

- Vise x 3-8 pcs(MV-7272C)
- Handle x 1pc(HA-10)
- Guide key x 18 mm x 2pcs (M6 x 10L x 2pcs)
- Socket cap screw(M16 x 80L x 3-7pcs)
- T-nut (M16 x 3-7pcs)

OPTIONAL ACCESSORIES:

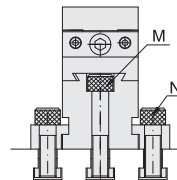
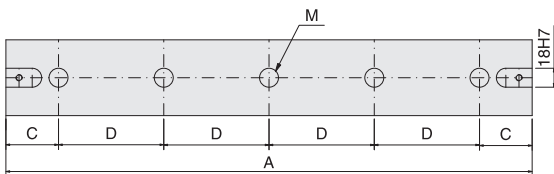
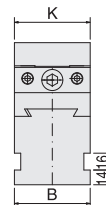
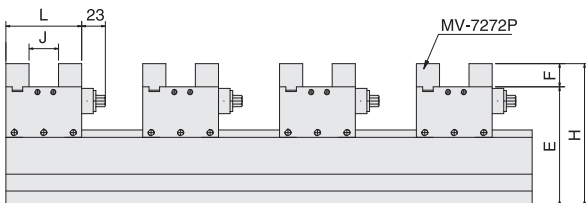
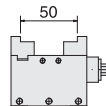
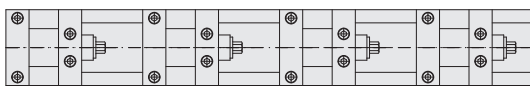
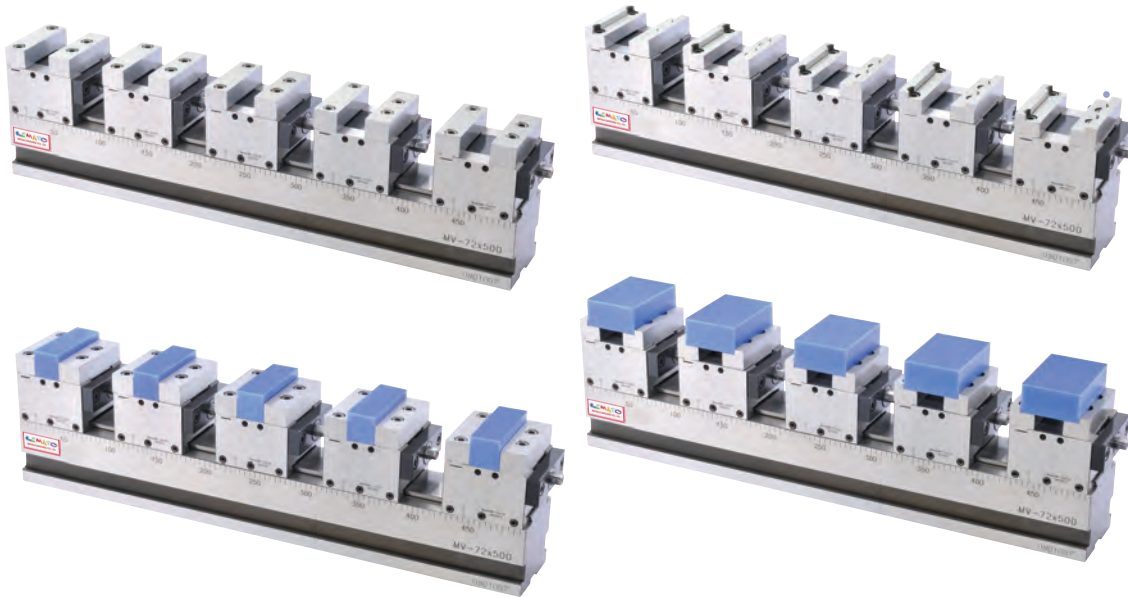
- Vise locked block x 4pcs (M16 x 50L x 4pcs)
- Wheel handle x 1pc (HA-50)
- Stopper (ST-05) (M5 x 6L x 1pc)

UNIT:mm

ITEM NO.	MODEL	A	B	C	D	E	F	H	J	K	L	M (Standard)	N (Optional)	MV- 6072C	N.W. (kgs)
52171516	MV-7272C-300	300	72	50	100	113	22	135	0-25	72	72	M16x80Lx3	M16x50Lx4	3pcs	16.6
52171517	MV-7272C-400	400	72	50	100	113	22	135	0-25	72	72	M16x80Lx4	M16x50Lx4	4pcs	22.2
52171518	MV-7272C-500	500	72	50	100	113	22	135	0-25	72	72	M16x80Lx5	M16x50Lx4	6pcs	29.8
52171519	MV-7272C-600	600	72	50	100	113	22	135	0-25	72	72	M16x80Lx6	M16x50Lx4	7pcs	35.2
52171520	MV-7272C-700	700	72	50	100	113	22	135	0-25	72	72	M16x80Lx7	M16x50Lx4	8pcs	40.8
52171521	MV-7272CS-300	300	72	50	100	113	22	135	0-50	72	72	M16x80Lx3	M16x50Lx4	3pcs	16.6
52171522	MV-7272CS-400	400	72	50	100	113	22	135	0-50	72	72	M16x80Lx4	M16x50Lx4	4pcs	22.2
52171523	MV-7272CS-500	500	72	50	100	113	22	135	0-50	72	72	M16x80Lx5	M16x50Lx4	6pcs	29.8
52171524	MV-7272CS-600	600	72	50	100	113	22	135	0-50	72	72	M16x80Lx6	M16x50Lx4	7pcs	35.2
52171525	MV-7272CS-700	700	72	50	100	113	22	135	0-50	72	72	M16x80Lx7	M16x50Lx4	8pcs	40.8



FLEXIBLE VISES – 7272P



STANDARD ACCESSORIES:

- Yes vise x 3-8 pcs (MV-7272P)
- Handle x 1 pc (HA-10)
- Guide key x 18 mm x 2pcs (M6 x 10L x 2pcs)
- Socket cap screw (M16 x 80L x 3-7pcs)
- T-nut (M16 x 3-7pcs)

Optional Accessories:

- Vise locked block x 4pcs (M16 x 50L x 4pcs)
- Wheel handle x 1 pc (HA-50)
- Stopper (ST-05) (M5 x 6L x 1pc)

UNIT: mm

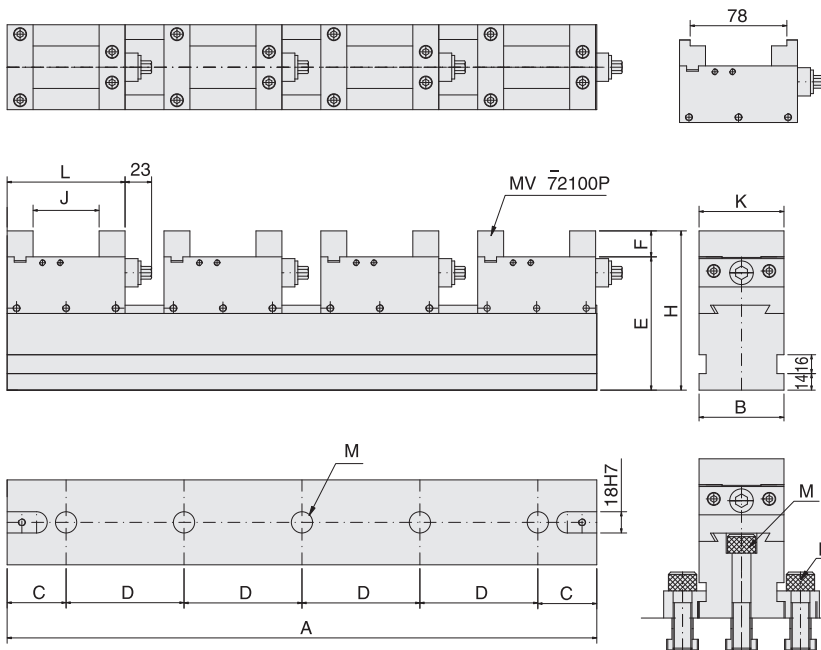
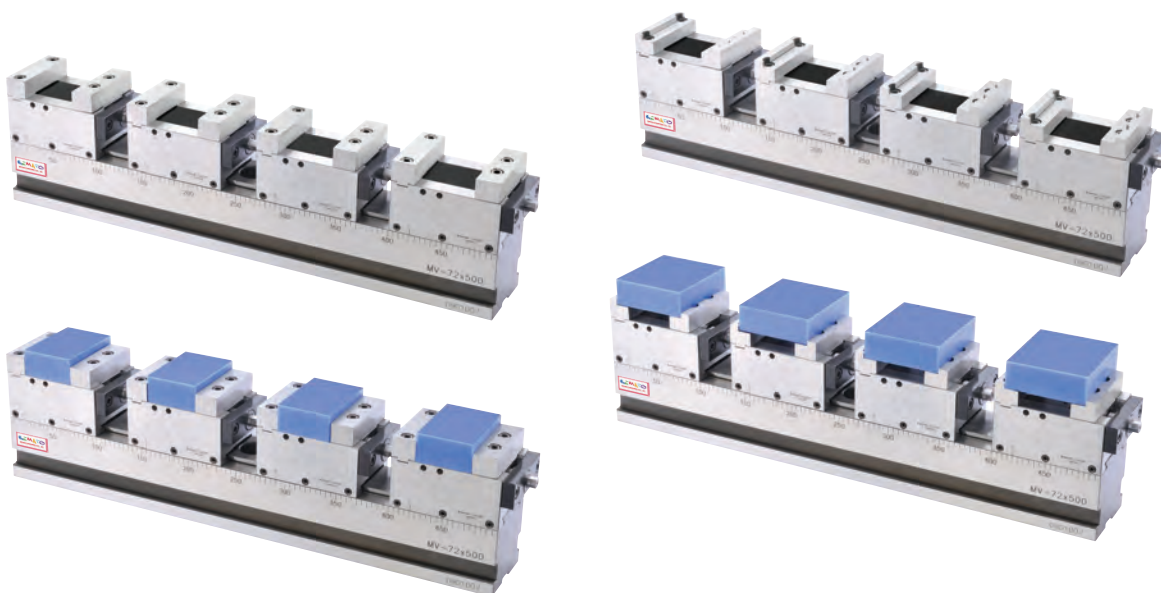
ITEM NO.	MODEL	A	B	C	D	E	F	H	J	K	L	M (Standard)	N (Optional)	MV- 7272P	N.W. (kgs)
52171526	MV-7272P-300	300	72	50	100	113	22	135	0-25	72	72	M16x80Lx3	M16x50Lx4	3pcs	16.6
52171527	MV-7272P-400	400	72	50	100	113	22	135	0-25	72	72	M16x80Lx4	M16x50Lx4	4pcs	22.2
52171528	MV-7272P-500	500	72	50	100	113	22	135	0-25	72	72	M16x80Lx5	M16x50Lx4	6pcs	29.8
52171529	MV-7272P-600	600	72	50	100	113	22	135	0-25	72	72	M16x80Lx6	M16x50Lx4	7pcs	35.2
52171530	MV-7272P-700	700	72	50	100	113	22	135	0-25	72	72	M16x80Lx7	M16x50Lx4	8pcs	40.8
52171531	MV-7272PS-300	300	72	50	100	113	22	135	0-50	72	72	M16x80Lx3	M16x50Lx4	3pcs	16.6
52171532	MV-7272SP-400	400	72	50	100	113	22	135	0-50	72	72	M16x80Lx4	M16x50Lx4	4pcs	22.2
52171533	MV-7272PS-500	500	72	50	100	113	22	135	0-50	72	72	M16x80Lx5	M16x50Lx4	6pcs	29.8
52171534	MV-7272SP-600	600	72	50	100	113	22	135	0-50	72	72	M16x80Lx6	M16x50Lx4	7pcs	35.2
52171535	MV-7272PS-700	700	72	50	100	113	22	135	0-50	72	72	M16x80Lx7	M16x50Lx4	8pcs	40.8



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



FLEXIBLE VISES – 72100P



STANDARD ACCESSORIES:

- Vise x 2-5 pcs (MV-72100P)
- Handle x 1pc (HA-10)
- Guide key x 18 mm x 2pcs (M6 x 10L x 2pcs)
- Socket cap screw (M16 x 80L x 3-7pcs)
- T-nut (M16 x 3-7pcs)

Optional Accessories:

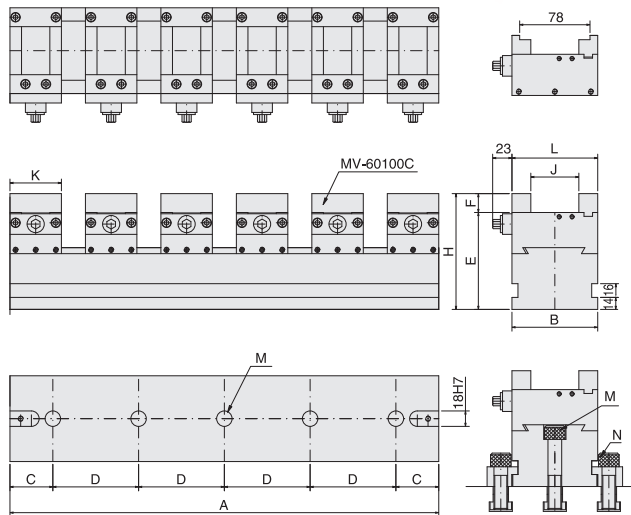
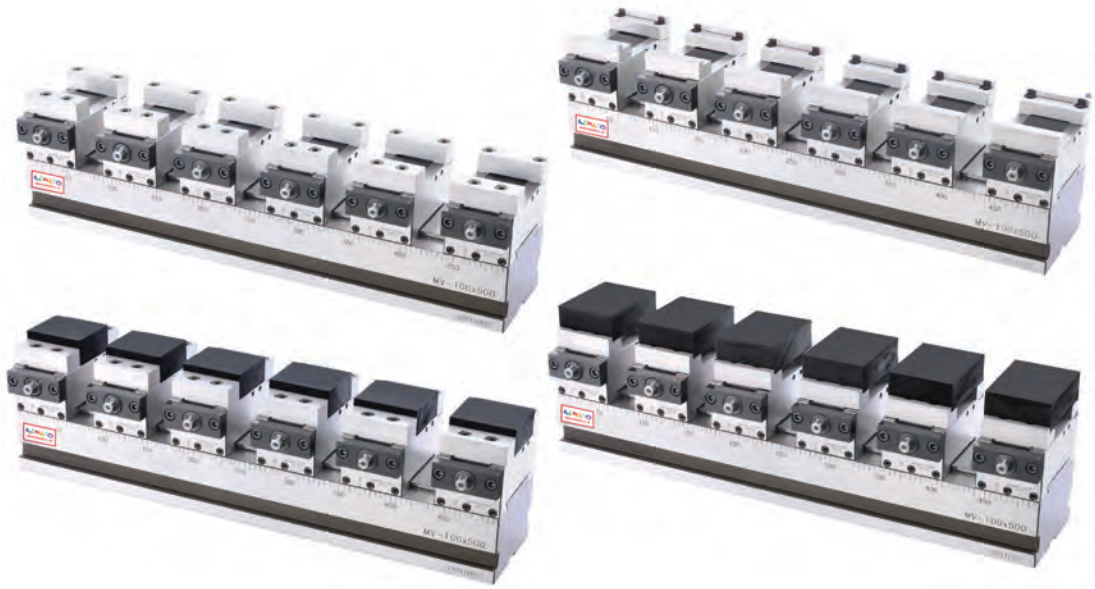
- Vise locked block x 4pcs (M16 x 50L x 4pcs)
- Wheel handle x 1pc (HA-50)
- Stopper (ST-05) (M5 x 6L x 1pc)

UNIT: mm

ITEM NO.	MODEL	A	B	C	D	E	F	H	J	K	L	M (Standard)	N (Optional)	MV- 72100P	N.W. (kgs)
52171536	MV-72100P-300	300	72	50	100	113	22	135	0-52	72	100	M16x80Lx3	M16x50Lx4	2pcs	15.6
52171537	MV-72100P-400	400	72	50	100	113	22	135	0-52	72	100	M16x80Lx4	M16x50Lx4	3pcs	21.7
52171538	MV-72100P-500	500	72	50	100	113	22	135	0-52	72	100	M16x80Lx5	M16x50Lx4	4pcs	27.8
52171539	MV-72100P-600	600	72	50	100	113	22	135	0-52	72	100	M16x80Lx6	M16x50Lx4	4pcs	31.2
52171540	MV-72100P-700	700	72	50	100	113	22	135	0-52	72	100	M16x80Lx7	M16x50Lx4	5pcs	37.3
52171541	MV-72100PS-300	300	72	50	100	113	22	135	0-78	72	100	M16x80Lx3	M16x50Lx4	2pcs	15.6
52171542	MV-72100PS-400	400	72	50	100	113	22	135	0-78	72	100	M16x80Lx4	M16x50Lx4	3pcs	21.7
52171543	MV-72100PS-500	500	72	50	100	113	22	135	0-78	72	100	M16x80Lx5	M16x50Lx4	4pcs	27.8
52171544	MV-72100PS-600	600	72	50	100	113	22	135	0-78	72	100	M16x80Lx6	M16x50Lx4	4pcs	31.2
52171545	MV-72100PS-700	700	72	50	100	113	22	135	0-78	72	100	M16x80Lx7	M16x50Lx4	5pcs	37.3



FLEXIBLE VISES – 60100C



STANDARD ACCESSORIES:

- Vise x 4-8 pcs (MV-60100C)
- Handle x 1pc (HA-10)
- Guide key x 18 mm x 2pcs (M6 x 10L x 2pcs)
- Socket cap screw (M16 x 80L x 3-7pcs)
- T-nut (M16 x 3-7pcs)

OPTIONAL ACCESSORIES:

- Vise locked block x 4pcs (M16 x 50L x 4pcs)
- Wheel handle x 1pc (HA-50)
- Stopper (ST-05) (M5 x 6L x 1pc)

UNIT: mm

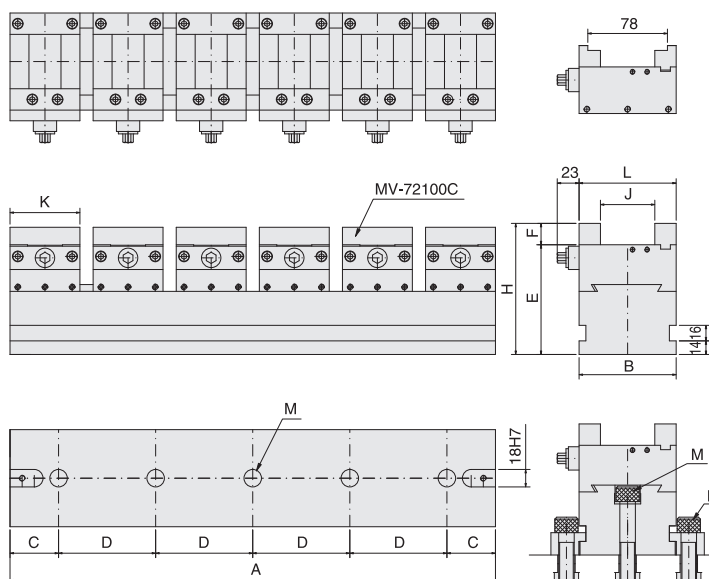
ITEM NO.	MODEL	A	B	C	D	E	F	H	J	K	L	M (Standard)	N (Optional)	MV- 6072C	N.W. (kgs)
52171546	MV-60100C-300	300	100	50	100	113	22	135	0-52	60	100	M16x80Lx3	M16x50Lx4	4pcs	18.8
52171547	MV-60100C-400	400	100	50	100	113	22	135	0-52	60	100	M16x80Lx4	M16x50Lx4	5pcs	24.5
52171548	MV-60100C-500	500	100	50	100	113	22	135	0-52	60	100	M16x80Lx5	M16x50Lx4	6pcs	30.1
52171549	MV-60100C-600	600	100	50	100	113	22	135	0-52	60	100	M16x80Lx6	M16x50Lx4	7pcs	35.6
52171550	MV-60100C-700	700	100	50	100	113	22	135	0-52	60	100	M16x80Lx7	M16x50Lx4	8pcs	41.2
52171551	MV-60100CS-300	300	100	50	100	113	22	135	0-78	60	100	M16x80Lx3	M16x50Lx4	4pcs	18.8
52171552	MV-60100CS-400	400	100	50	100	113	22	135	0-78	60	100	M16x80Lx4	M16x50Lx4	5pcs	24.5
52171553	MV-60100CS-500	500	100	50	100	113	22	135	0-78	60	100	M16x80Lx5	M16x50Lx4	6pcs	30.1
52171554	MV-60100CS-600	600	100	50	100	113	22	135	0-78	60	100	M16x80Lx6	M16x50Lx4	7pcs	35.6
52171555	MV-60100CS-700	700	100	50	100	113	22	135	0-78	60	100	M16x80Lx7	M16x50Lx4	8pcs	41.2



B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



FLEXIBLE VISES – 72100C



STANDARD ACCESSORIES:

- Vise x 3-8 pcs (MV-72100C)
- Handle x 1pc (HA-10)
- Guide key x 18 mm x 2pcs (M6 x 10L x 2pcs)
- Socket cap screw (M16 x 80L x 3-7pcs)
- T-nut (M16 x 3-7pcs)

OPTIONAL ACCESSORIES:

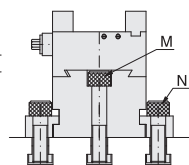
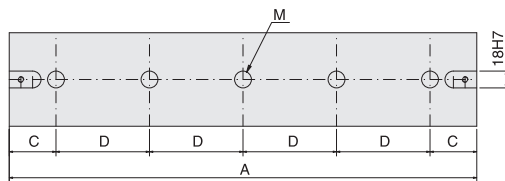
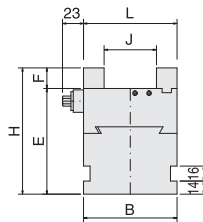
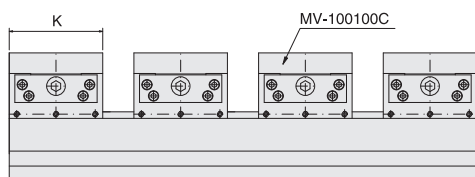
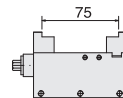
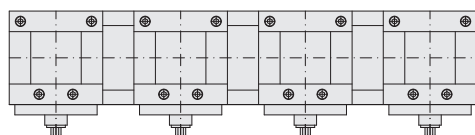
- Vise locked block x 4pcs (M16 x 50L x 4pcs)
- Wheel handle x 1pc (HA-50)
- Stopper (ST-05) (M5 x 6L x 1pc)

UNIT: mm

ITEM NO.	MODEL	A	B	C	D	E	F	H	J	K	L	M (Standard)	N (Optional)	MV- 6072C	N.W. (kgs)
52171556	MV-72100C-300	300	100	50	100	113	22	135	0-52	72	100	M16x80Lx3	M16x50Lx4	3pcs	18.2
52171557	MV-72100C-400	400	100	50	100	113	22	135	0-52	72	100	M16x80Lx4	M16x50Lx4	4pcs	24.3
52171558	MV-72100C-500	500	100	50	100	113	22	135	0-52	72	100	M16x80Lx5	M16x50Lx4	6pcs	32.9
52171559	MV-72100C-600	600	100	50	100	113	22	135	0-52	72	100	M16x80Lx6	M16x50Lx4	7pcs	38.8
52171560	MV-72100C-700	700	100	50	100	113	22	135	0-52	72	100	M16x80Lx7	M16x50Lx4	8pcs	44.9
52171561	MV-72100CS-300	300	100	50	100	113	22	135	0-78	72	100	M16x80Lx3	M16x50Lx4	3pcs	18.2
52171562	MV-72100CS-400	400	100	50	100	113	22	135	0-78	72	100	M16x80Lx4	M16x50Lx4	4pcs	24.3
52171563	MV-72100CS-500	500	100	50	100	113	22	135	0-78	72	100	M16x80Lx5	M16x50Lx4	6pcs	32.9
52171564	MV-72100CS-600	600	100	50	100	113	22	135	0-78	72	100	M16x80Lx6	M16x50Lx4	7pcs	38.8
52171565	MV-72100CS-700	700	100	50	100	113	22	135	0-78	72	100	M16x80Lx7	M16x50Lx4	8pcs	44.9



FLEXIBLE VISES – 100100C



STANDARD ACCESSORIES:

- Vise x 2-6 pcs (MV-100100C)
- Handle x 1 pc (HA-10)
- Guide key x 18 mm x 2 pcs (M6 x 10L x 2 pcs)
- Socket cap screw (M16 x 80L x 3-7 pcs)
- T-nut (M16 x 3-7 pcs)

OPTIONAL ACCESSORIES:

- Vise locked block x 4 pcs (M16 x 50L x 4 pcs)
- Wheel handle x 1 pc (HA-50)
- Stopper (ST-05) (M5 x 6L x 1 pc)

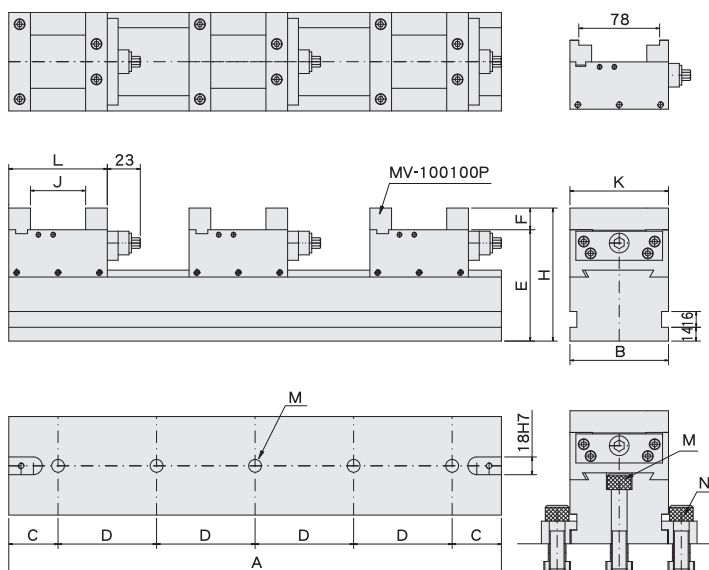
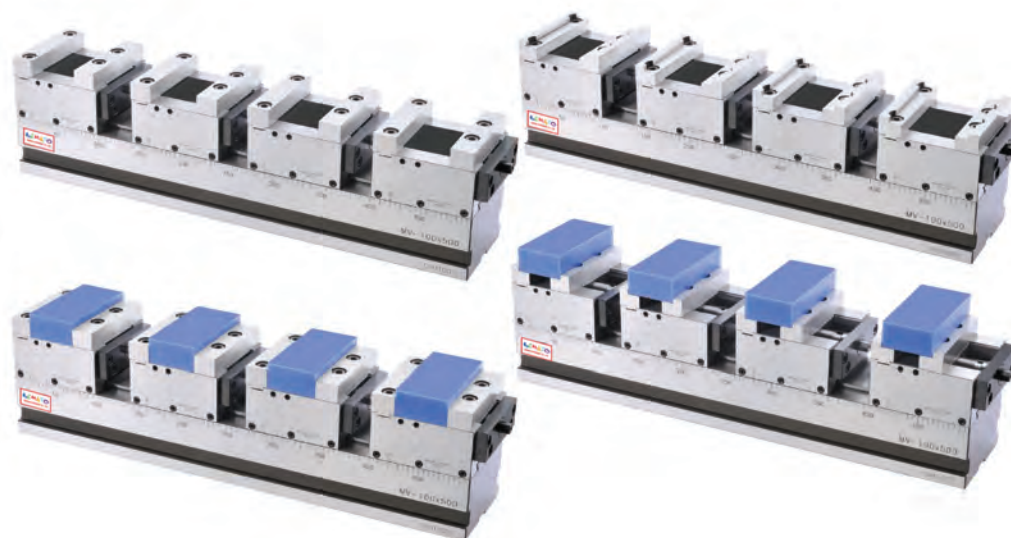
UNIT: mm

ITEM NO.	MODEL	A	B	C	D	E	F	H	J	K	L	M (Standard)	N (Optional)	MV- 100100C	N.W. (kgs)
52171566	MV-100100C-300	300	100	50	100	113	22	135	0-50	100	100	M16x80Lx3	M16x50Lx4	2pcs	22.3
52171567	MV-100100C-400	400	100	50	100	113	22	135	0-50	100	100	M16x80Lx4	M16x50Lx4	3pcs	30.8
52171568	MV-100100C-500	500	100	50	100	113	22	135	0-50	100	100	M16x80Lx5	M16x50Lx4	4pcs	39.6
52171569	MV-100100C-600	600	100	50	100	113	22	135	0-50	100	100	M16x80Lx6	M16x50Lx4	5pcs	47.9
52171570	MV-100100C-700	700	100	50	100	113	22	135	0-50	100	100	M16x80Lx7	M16x50Lx4	6pcs	56.0
52171571	MV-100100CS-300	300	100	50	100	113	22	135	0-75	100	100	M16x80Lx3	M16x50Lx4	2pcs	22.3
52171572	MV-100100CS-400	400	100	50	100	113	22	135	0-75	100	100	M16x80Lx4	M16x50Lx4	3pcs	30.8
52171573	MV-100100CS-500	500	100	50	100	113	22	135	0-75	100	100	M16x80Lx5	M16x50Lx4	4pcs	39.6
52171574	MV-100100CS-600	600	100	50	100	113	22	135	0-75	100	100	M16x80Lx6	M16x50Lx4	5pcs	47.9
52171575	MV-100100CS-700	700	100	50	100	113	22	135	0-75	100	100	M16x80Lx7	M16x50Lx4	6pcs	56.0

B “ TOOLS OF WORKHOLDING & PRECISION TOOLS FOR MILLS & VMCS



FLEXIBLE VISES – 100100P



STANDARD ACCESSORIES:

- Vise x 2-5 pcs (MV-100100P)
- Handle x 1pc (HA-10)
- Guide key x 18mm x 2pcs (M6 x 10L x 2pcs)
- Socket cap screw (M16 x 80L x 3-7pcs)
- T-nut (M16 x 3-7pcs)

OPTIONAL ACCESSORIES:

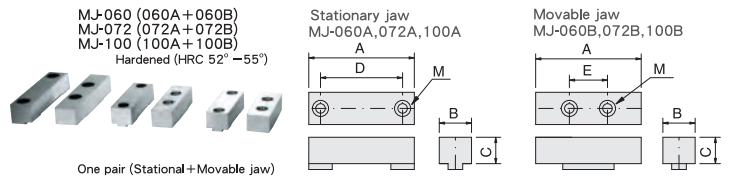
- Vise locked block x 4pcs (M16 x 50L x 4pcs)
- Wheel handle x 1pc (HA-50)
- Stopper (ST-05) (M5 x 6L x 1pc)

UNIT: mm

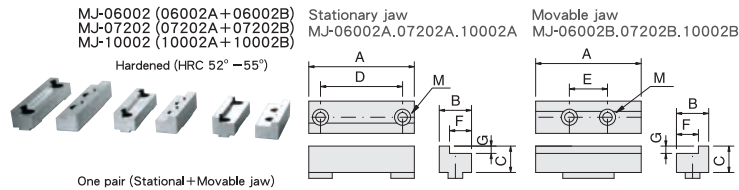
ITEM NO.	MODEL	A	B	C	D	E	F	H	J	K	L	M (Standard)	N (Optional)	MV- 6072C	N.W. (kgs)
52171576	MV-100100P-300	300	100	50	100	113	22	135	0-50	100	100	M16x80Lx3	M16x50Lx4	2pcs	22.3
52171577	MV-100100P-400	400	100	50	100	113	22	135	0-50	100	100	M16x80Lx4	M16x50Lx4	3pcs	30.8
52171578	MV-100100P-500	500	100	50	100	113	22	135	0-50	100	100	M16x80Lx5	M16x50Lx4	4pcs	39.6
52171579	MV-100100P-600	600	100	50	100	113	22	135	0-50	100	100	M16x80Lx6	M16x50Lx4	4pcs	47.9
52171580	MV-100100P-700	700	100	50	100	113	22	135	0-50	100	100	M16x80Lx7	M16x50Lx4	5pcs	56.0
52171581	MV-100100PS-300	300	100	50	100	113	22	135	0-78	100	100	M16x80Lx3	M16x50Lx4	2pcs	22.3
52171582	MV-100100PS-400	400	100	50	100	113	22	135	0-78	100	100	M16x80Lx4	M16x50Lx4	3pcs	30.8
52171583	MV-100100PS-500	500	100	50	100	113	22	135	0-78	100	100	M16x80Lx5	M16x50Lx4	4pcs	39.6
52171584	MV-100100PS-600	600	100	50	100	113	22	135	0-78	100	100	M16x80Lx6	M16x50Lx4	4pcs	47.9
52171585	MV-100100PS-700	700	100	50	100	113	22	135	0-78	100	100	M16x80Lx7	M16x50Lx4	5pcs	56.0



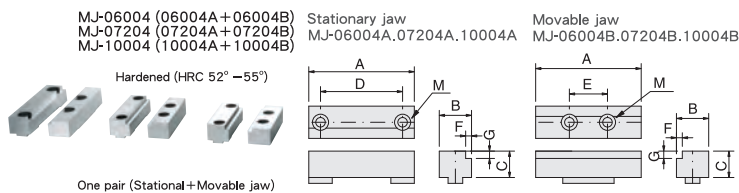
JAW DIMENSIONS



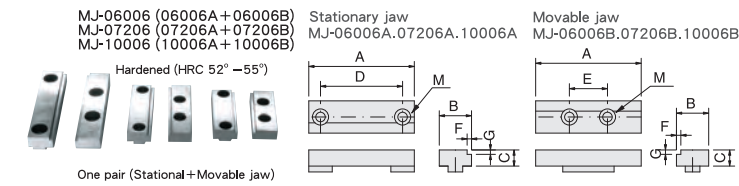
ITEM NO.	MODEL	A	B	C	D	E	M
52172083	MJ-060	60	22	18	47	24	M6X25L
52172084	MJ-072	72	22	18	56	26	M6X25L
52172085	MJ-100	100	23	18	76	26	M6X30L



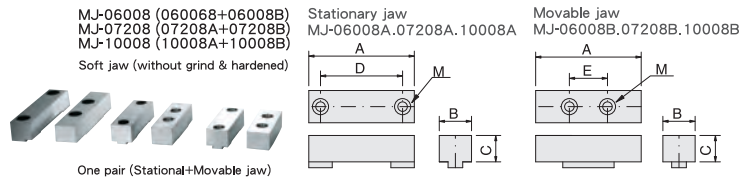
ITEM NO.	MODEL	A	B	C	D	E	F	G	M
52172086	MJ-06002	60	22	18	47	24	15	5	M6X25L
52172087	MJ-07202	72	22	18	56	26	15	5	M6X25L
52172088	MJ-10002	100	23	18	76	26	15	5	M6X30L



ITEM NO.	MODEL	A	B	C	D	E	F	G	M
52172089	MJ-06004	60	22	18	47	24	4	4	M6X25L
52172090	MJ-07204	72	22	18	56	26	4	4	M6X25L
52172091	MJ-10004	100	23	18	76	26	4	4	M6X30L

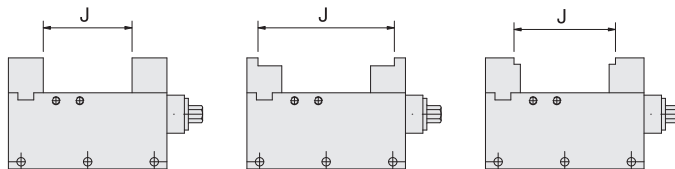


ITEM NO.	MODEL	A	B	C	D	E	F	G	M
52172092	MJ-06006	60	22	11	47	24	3	3	M6X25L
52172093	MJ-07206	72	22	11	56	26	3	3	M6X25L
52172094	MJ-10006	100	23	12	76	26	3	3	M6X30L



ITEM NO.	MODEL	A	B	C	D	E	M
52172095	MJ-06008	60	22	18	47	24	M6X25L
52172096	MJ-07208	72	22	18	56	26	M6X25L
52172097	MJ-10008	100	23	18	76	36	M6X30L

V JAW OPENING CAPACITY



OPENING:

	MJ-060	MJ-06002	MJ-06004	MJ-06006
MV-6072C	0-25	0-50	0-33	0-31
MV-60100C	0-52	0-78	0-60	0-58
	MJ-072	MJ-07202	MJ-07204	MJ-07206
MV-7272C	0-25	0-50	0-33	0-31
MV-7272P	0-25	0-50	0-33	0-31
MV-72100P	0-52	0-78	0-60	0-58
MV-72100C	0-52	0-78	0-60	0-58
	MJ-100	MJ-10002	MJ-10004	MJ-10006
MV-100100C	0-50	0-75	0-58	0-56
MV-100100P	0-50	0-75	0-58	0-56

Standard Accessories:

Bolts (M16×80L)
T-Nut (M16×3-7 pcs)

Guide key
18 mm
(M6×10L)

Handle (10 mm)
Model : HA-10

Optional Accessories:

Vise locked block
Model : VL-16
(M16×50L)

Wheel handle
Model : HA-50

Stopper
Model : ST-05
(M5×6L)



Q'ty : 3~7 pcs



Q'ty : 2 pcs



Q'ty : 1 pc



Q'ty : 4 sets



Q'ty : 1 pc



Q'ty : 1 pc

