

**SPEEDY
VISE**
pag. 13. 2

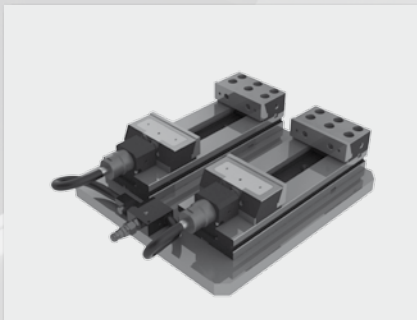
Pneumatic quick clamping equipment



SCV
pag. 13. 5

Pneumatic/hydraulic
self centering vises

New



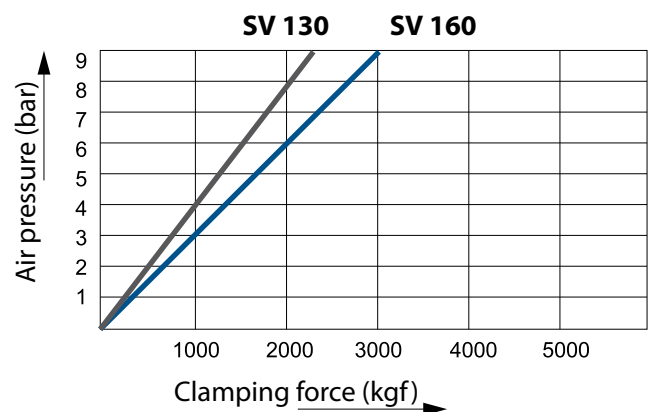
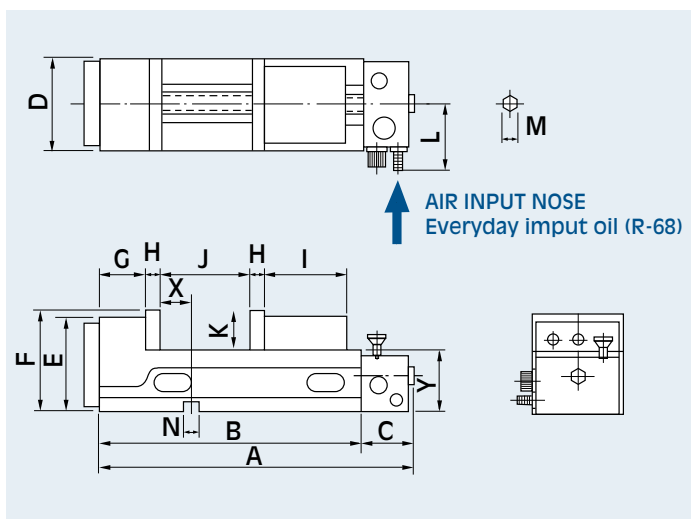
TC HYDRO SET
pag. 13. 15

Set of modular clamping equipment
with hydraulic clamping unit

most suitable for mass production on machine centre

FEATURES

1. Robust construction of one piece casting of fixed jaw and vise bed.
2. Rigid and high tensile casting of ductile iron FCD60JIS (equal to GGG60) with 60 kg/mm² or 80.000 psi tensile strength.
3. Most suitable for mass production and to be used on machine centres, milling machines, drilling machines and special purpose machines.
4. Most compact pneumatic mechanism design. No oil, just joint the air supply will do.
5. Most compact in total length of vise with max clamping capacity.
6. Safety locking mechanism for unexpected termination of air supply. After pneumatic clamping, the workpiece will be clamped firmly even without the air supply.
7. Easy and simple ON-OFF switch control for pneumatic operation. The optional electric control for automatic and FMS system is available.
8. Safety protection max. pneumatic clamping stroke is 4 mm.
(Adjust the stroke at 2 mm for a better power capacity)
9. Rapid ON-OFF only 1,5 sec.
10. Multiply pneumatic Quick Vise set up available with only one source of air supply (optional).
11. Free adjusting of max. pneumatic clamping pressure (see graphs) using the air regulator placed nearby the pressure control gauge
12. Vise bed flame hardened to HRC 45°.
13. Down trust "semi-spherical segment" mechanism eliminates jaw lifting and workpiece.

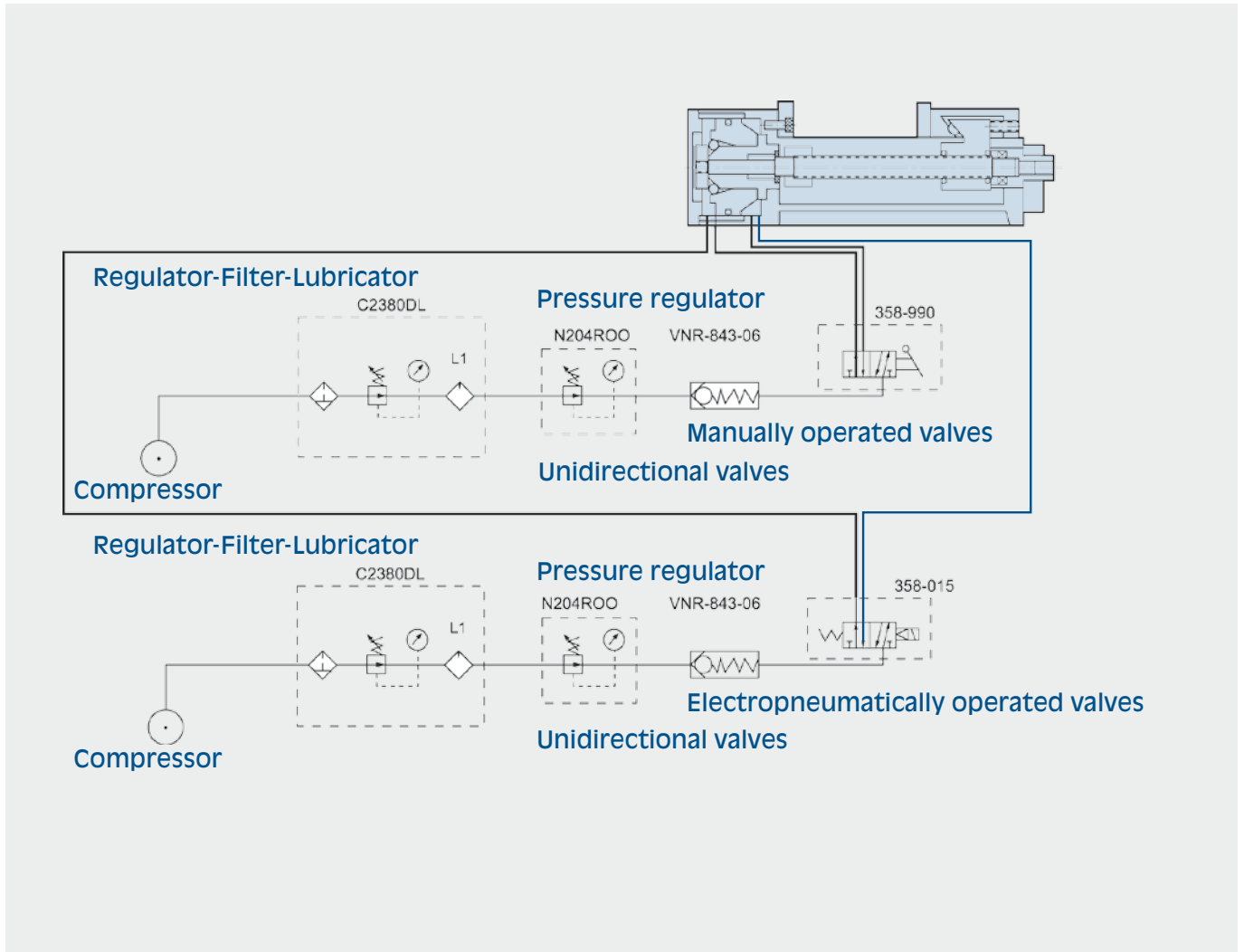


Code	type	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	J mm	K mm	L mm	M mm	N mm	X mm	Y mm
77 58 91 21	SV 130	507	405	102	131	152	155	100	15	115	0-140	55	95	14	18	65	100
77 58 92 21	SV 160	534	432	102	161	160	163	115	15	130	0-150	58	105	14	18	65	105

most suitable for mass production on machine centre

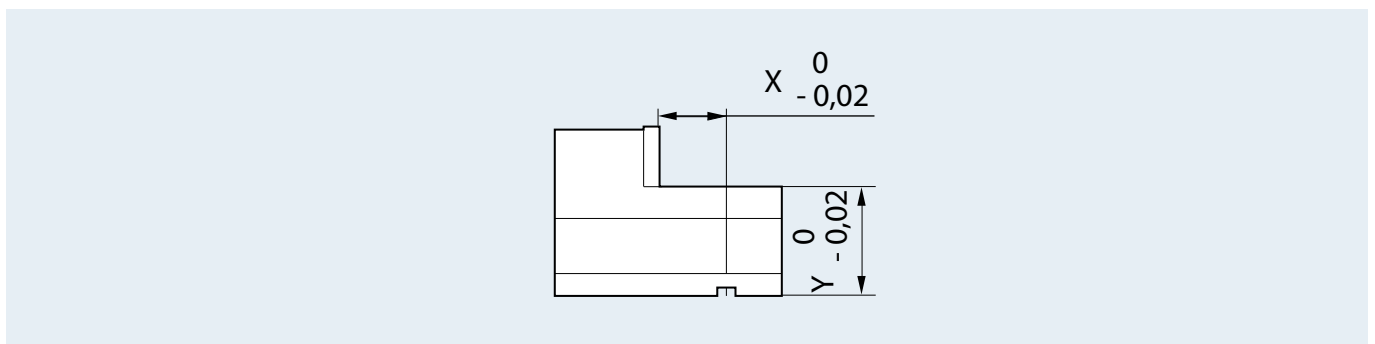


ALWAYS USE FILTERED COMPRESSED AIR. FOR FILTER-LUBRICATOR SEE PAG. 0.38



Code	type	power kN	air pressure bar	stroke mm	net weight kg	weight kg
77 58 91 21	SV 130	16	1,5 - 7	0 - 3	40	42
77 58 92 21	SV 160	21	1,5 - 7	0 - 4	52	55

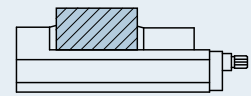
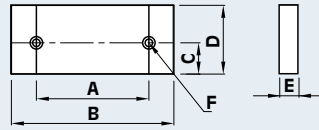
Tolerances



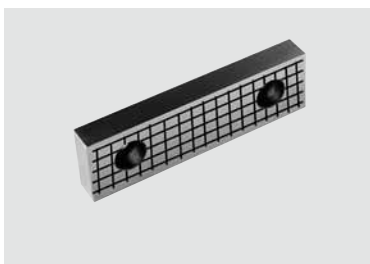
accessories



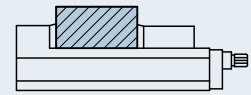
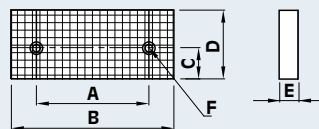
Pair of smooth jaws
(HRC 55°-58°)



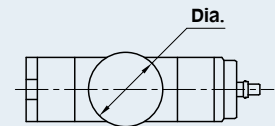
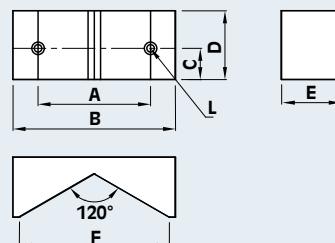
Code	for type	A mm	B mm	C mm	D mm	E mm	F mm
58 91 41 19	SV 130		130	25	55	15	M10x20L
58 92 41 19	SV 160		160	25	58	15	M10x20L



Pair of grooved jaws
(HRC 55°-58°)



Code	for type	A mm	B mm	C mm	D mm	E mm	F mm
58 91 42 19	SV 130	90	130	25	55	15	M10x20L
58 92 42 19	SV 160	90	160	25	58	15	M10x20L

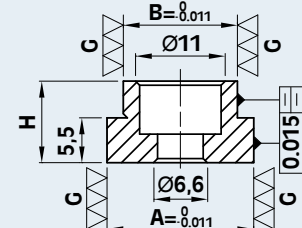
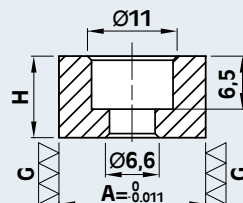


Pair of V jaws
(HRC 55°-58°)

Code	for type	A mm	B mm	C mm	D mm	E mm	F mm	L mm	dia. mm
58 91 44 19	SV 130	90	130	25	55	48	120	M10x16L	100-230
58 92 44 19	SV 160	90	160	25	58	48	120	M10x16L	100-230

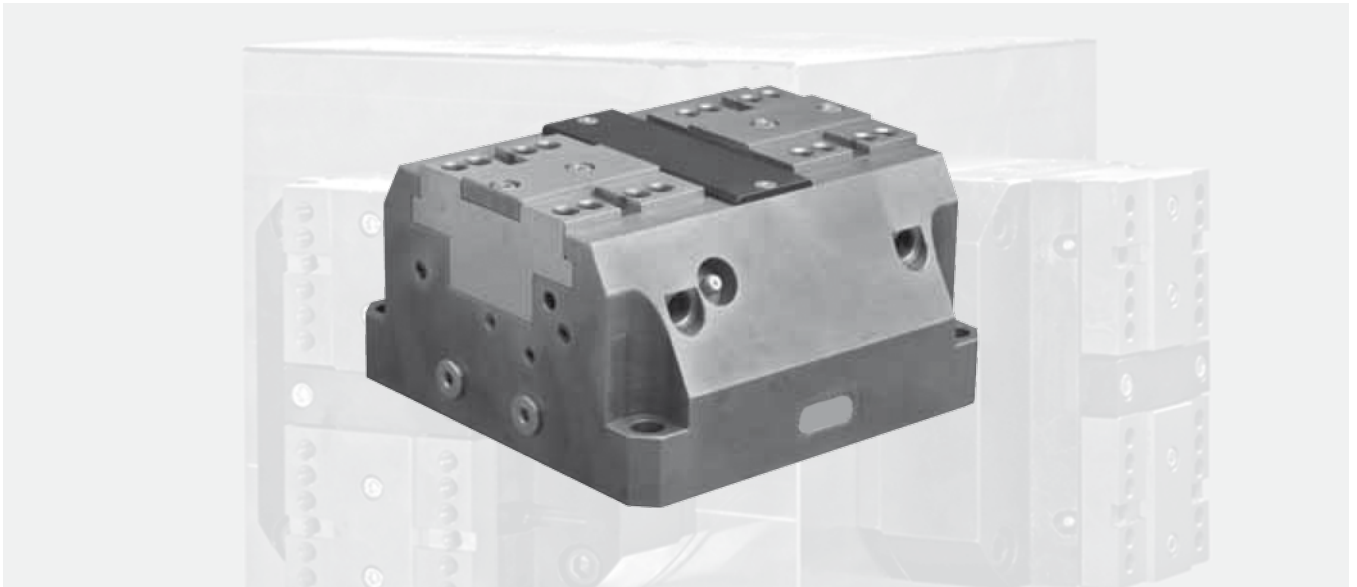


Pair of positioning keys



Code	for type	A mm	B mm	H mm	L mm
58 90 13 92	SV 130	18	12	10	25
58 90 13 93		18	14	10	25
58 90 13 94		18	16	10	25
58 90 13 96		18	20	10	25
58 90 13 97	SV 160	18	22	10	25
58 90 13 95		18	18	10	22

Clamping force blocks, pneumatic-hydraulic, centric clamping SCV-N

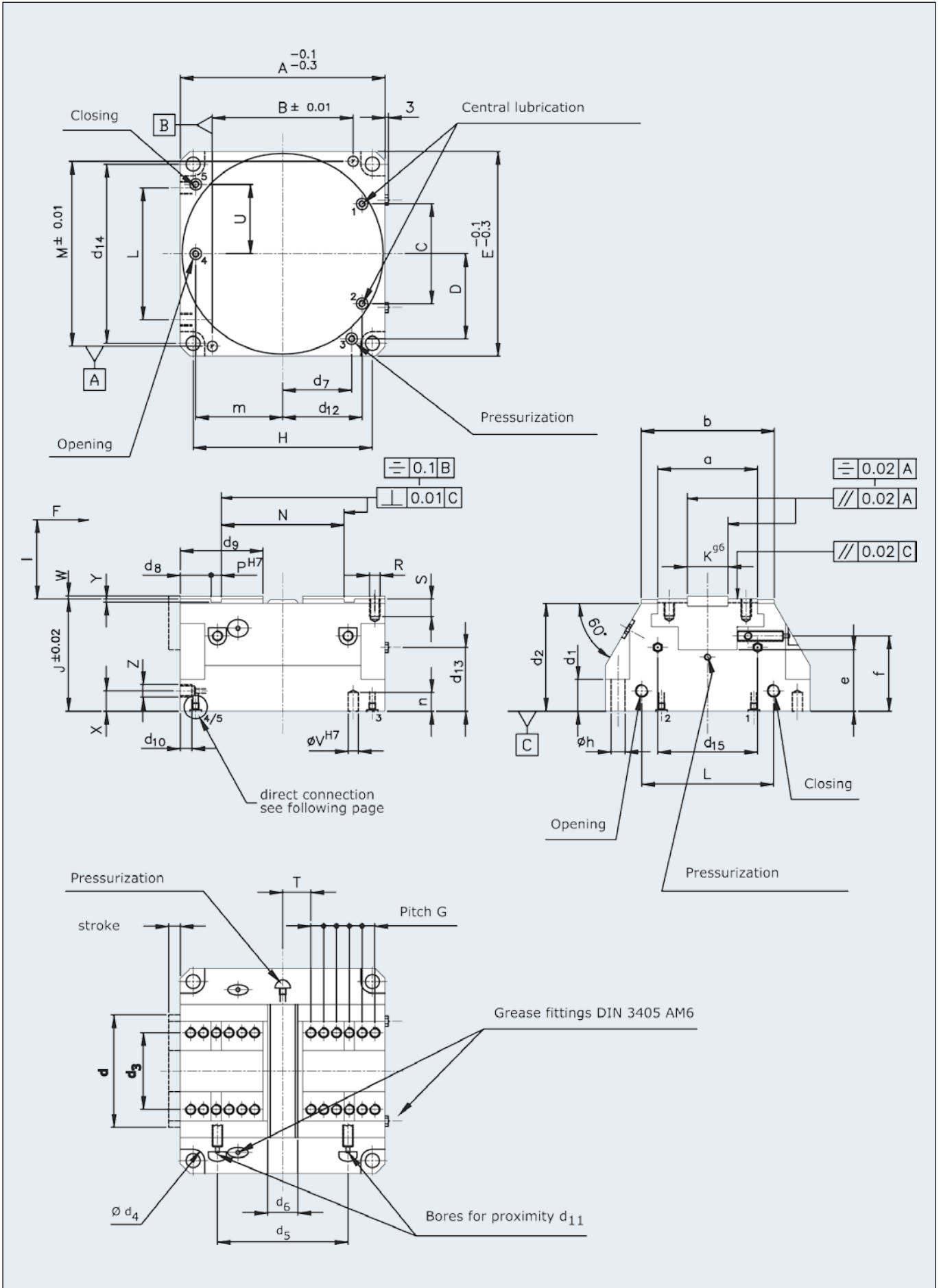


TECHNICAL DATA

- **Operating pressure range:** 9 bar with air (6 bar per SCV 250)
max 60 bar with olio
- **Repeatability accuracy:**

SCV 66... 100	= 0,01 mm
SCV 160... 200	= 0,02 mm
SCV 250	= 0,03 mm over 100 cycles
- **Operating temperature range:** from 5 °C to 60 °C
- **Operating principle:** wedge and piston design with mechanically restricted guidance
- **Stroke range:** from 4 to 30 mm
- **Mounting:** by means of bores for H7 pins
- **Housing material:** hardened steel
- **Material for functional parts:** hardened steel
- **Actuation:** filtered hydraulic oil (10 µm) , viscosity 46 mm²/s a 40 °C
ISO VG max 60 °C; compressed air (10 µm), dry or lubricated
- **Connections:** sides-bases
- **Maintenance:** relubrified every 100.000 cycles when used in handling.
When used in machining centers for tool clamping,
lubricate every 5.000 cycles

Clamping force blocks, pneumatic-hydraulic, centric clamping SCV-N



PNEUMATIC

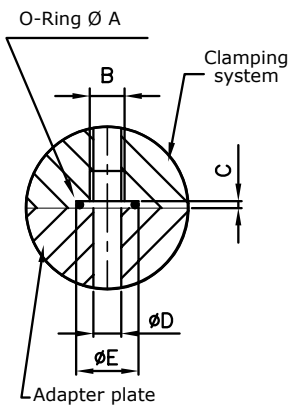
Type	A	B	C	D	E	G	H	L	M	P	R	S	U	V	Z	X	Y	W	J	K	a	b
SCV 66	66	42	34	29.5	66	5x3	54	37	59	4	M4	6.5	18.5	4	M5	15	2.7	1.8	53	14	30	43
SCV 100	102	64	50	45	102	7x4	80	63	90	6	M6	9	31	6	M5	20	2.7	1.8	71.5	20	47	66
SCV 160	160	110	78	55	160	10x5	140	103	140	8	M8	13	51.5	8	1/8	16	3.2	1.8	88.5	32	78	104
SCV 200	200	130	106	65	200	10x7	164	128	186	8	M8	13	64	8	1/8	18	4	2.3	93.5	40	102	140
SCV 250	254	156	124	79	254	12x7	202	159	232	10	M10	18	79.5	10	1/8	18	4	2.3	103	50	125	170

Type	d	d ₁	d ₂	d ₃	d ₄	d ₅	d ₆	d ₇	d ₉	d ₁₀	d ₁₁	d ₁₂	d ₁₃	d ₁₄	d ₁₅	e	f	Vers. 1			Vers. 2		
																		T	N	d ₈	T	N	d ₈
SCV 66	38	26	49.5	24	11	/	12	19.5	26.3	6	/	23	16	54	34	30	/	10.2	26.4	15.8	/	/	/
SCV 100	58	34	68	35	13.5	55	19	31	41	6	M5	37	15	80	51	38	47.5	14.5	51	19.5	15	52	19
SCV 160	91	25	84.8	60	18	102	24	70	67.5	9	M8	62	49.5	140	78	47.5	58.5	18.8	89.6	27.2	19	90	27
SCV 200	118	35	89.5	74	19	110	27	87	85.5	9	M8	91.5	54	164	106	51	74	20	92	46	20	92	46
SCV 250	142	45	98.8	90	19	150	35	109	108.5	9	M8	119	58	202	124	55	81	32.5	103	65.5	25	112	61

code	Type	h	l	m	n	Gripping force at 9 bar (N)		Approx. time (sec.)		Air consumption for double stroke (cm ³)	Stroke for jaw (mm)		Mass vice (kg)	Max finger length	
						Vers 1	Vers 2	opening	closing		Vers 1	Vers 2		Vers 1	Vers 2
30301004	SCV 66 P	6.5	10	25	7.5	4500		0.1	0.1	30	2		1.5	60	
30301005	SCV 100 P	8.5	16	31.5	12	7600		0.2	0.2	135	6		4.5	150	
30301006	SCV 160 P	11	25	52	14	20000		0.4	0.4	500	8		14	200	
30301007	SCV 200P	13	32	66	14	21000		0.85	0.85	685	10		23	280	
30301008	SCV 250P	13	40	88.5	18	21000*		1	1	1420	15		35	500	
30303005	SCV 100 P	8.5	16	31.5	12		19000	0.2	0.2	135		2	4.5		60
30303006	SCV 160 P	11	25	52	14		46000	0.4	0.4	500		3	14		60
30303007	SCV 200P	13	32	66	14		52000	0.85	0.85	685		4	23		95
30303008	SCV 250P	13	40	88.5	18		55000*	1	1	1420		5	35		145

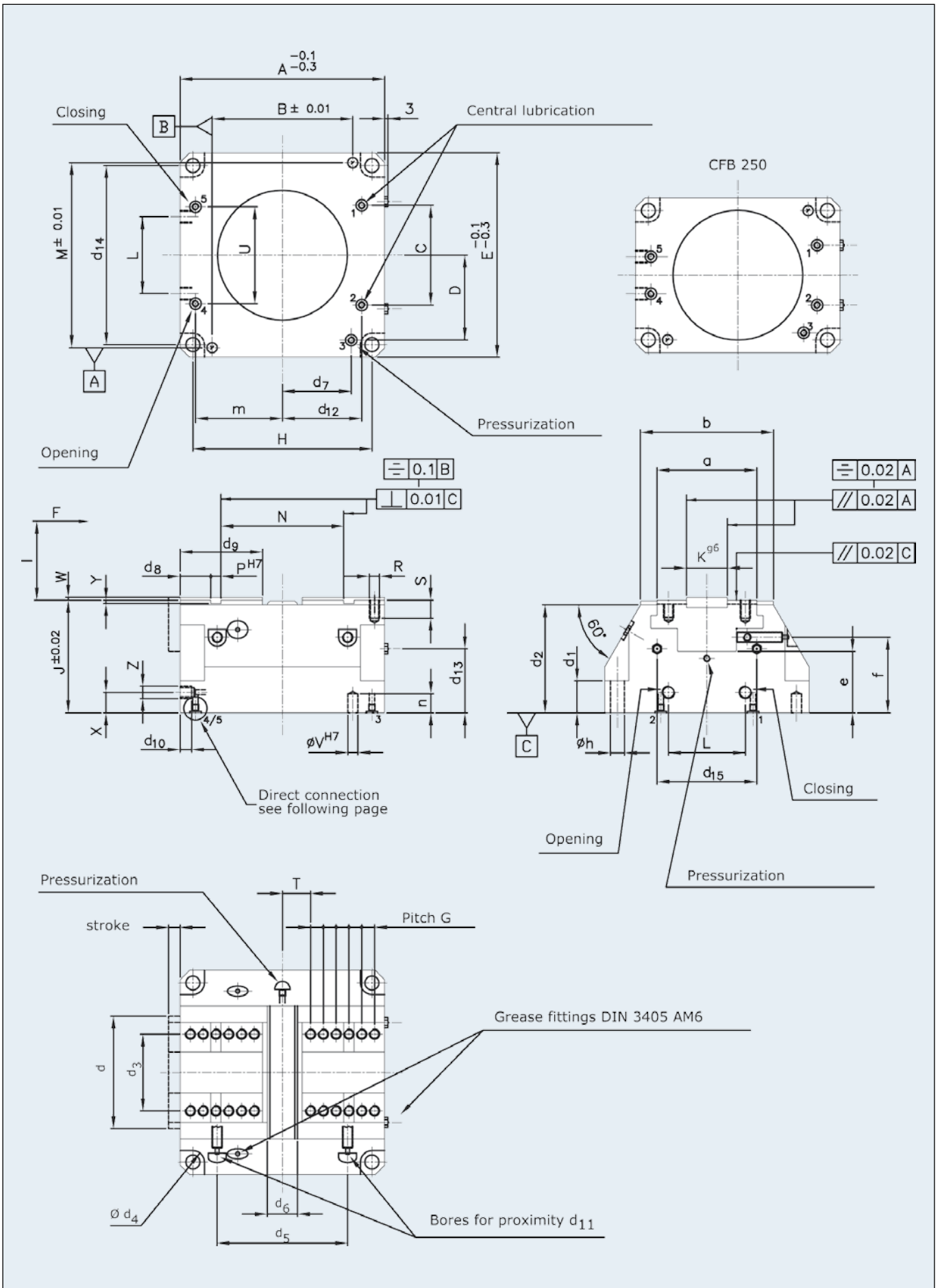
- The gripping force is the arithmetic sum of the individual forces created at the fingers at "l" distance at 9 bar
 * Gripping force at 6 bar

Hose-free direct connection



Type	Hole 4 and 5 Actuation					Hole 3 Pressurization					Hole 1 and 2 Central lubrication				
	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
SCV 66	Ø4x1	M3	0.7	2.5	6	Ø3.5x1	M3	0.7	2.5	5.5	Ø3.5x1	M3	0.7	2.5	5.5
SCV 100	Ø6x1.5	M5	1	4	9	Ø5x1.5	M4	1	3.5	8	Ø5x1.5	M4	1	3.5	8
SCV 160	Ø6x1.5	M5	1	4	9	Ø5x1.5	M4	1	3.5	8	Ø5x1.5	M4	1	3.5	8
SCV 200	Ø7x1.5	M6	1	5	10	Ø6x1.5	M5	1	4	9	Ø6x1.5	M5	1	4	9
SCV 250	Ø7x1.5	M6	1	5	10	Ø6x1.5	M5	1	4	9	Ø6x1.5	M5	1	4	9

Clamping force blocks, pneumatic-hydraulic, centric clamping SCV-N



HYDRAULIC

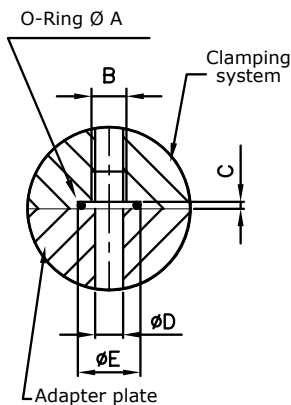
Type	A	B	C	D	E	G	H	L	M	P	R	S	U	V	Z	X	Y	W	J	K	a	b
SCV66	66	42	34	28	66	5x3	54	27	59	4	M4	6.5	35	4	1/8	15	2.7	1.8	53	14	30	43
SCV 100	102	64	51	44.5	102	7x4	80	34	90	6	M6	9	34	6	1/8	20	2.7	1.8	71.5	20	47	66
SCV 160	160	110	78	55	160	10x5	140	42	140	8	M8	13	42	8	1/8	16	3.2	1.8	88.5	32	78	104
SCV 200	200	130	106	65	200	10x7	164	70	186	8	M8	13	70	8	1/8	18	4	2.3	93.5	40	102	140
SCV 250	254	156	124	79	210	12x7	202	96	189	10	M10	18	96	10	1/8	18	4	2.3	103	50	125	170

Type	d	d ₁	d ₂	d ₃	d ₄	d ₅	d ₆	d ₇	d ₉	d ₁₀	d ₁₁	d ₁₂	d ₁₃	d ₁₄	d ₁₅	e	f	Vers. 1			Vers. 2		
																		T	N	d ₈	T	N	d ₈
SCV66	38	26	49.5	24	11	/	12	19	26.3	8	/	25	16	54	34	30	/	10.2	26.4	15.8	/	/	/
SCV 100	58	34	68	35	13.5	55	19	31	41	8	M5	37.2	15	80	51	38	47.5	14.5	51	19.5	15	52	19
SCV 160	91	25	84.8	60	18	102	24	70	67.5	9	M8	62	49.5	140	78	47.5	58.5	18.8	89.6	27.2	19	90	27
SCV 200	118	35	89.5	74	19	110	27	87	85.5	9	M8	91.5	54	164	106	51	74	20	92	46	/	/	/
SCV 250	142	45	98.8	90	19	150	35	109	108.5	9	M8	119	58	189	124	55	81	32.5	103	65.5	/	/	/

code	Type	h	l	m	n	Gripping force at 9 bar (N)		Approx. time (sec.)		Air consumption for double stroke (cm ³)	Stroke for jaw (mm)		Mass vice (kg)	Max finger lenght	
						Vers 1	Vers 2	opening	closing		Vers 1	Vers 2		Vers 1	Vers 2
30302004	SCV 66 H	6.5	10	25	7.5	4500		0.5	0.5	10	2		1.5	60	
30302005	SCV 100 H	8.5	16	40	12	8000		1	1	33	6		4.9	150	
30302006	SCV 160 H	11	25	68	14	20000		1.5	1.5	105	8		14.5	200	
30302007	SCV 200 H	13	32	88	14	50000		2.3	2.3	240	10		24	95	
30302008	SCV 250 H	13	40	115	18	60000		3	3	440	15		35	140	
30304005	SCV 100 H	8.5	16	40	12		19000	1	1	33		2	4.9		60
30304006	SCV 160 H	11	25	68	14		46000	1.5	1.5	105		3	14.5		60

-The gripping force is the arithmetic sum of the individual forces created at the fingers at "l" distance at 60 bar

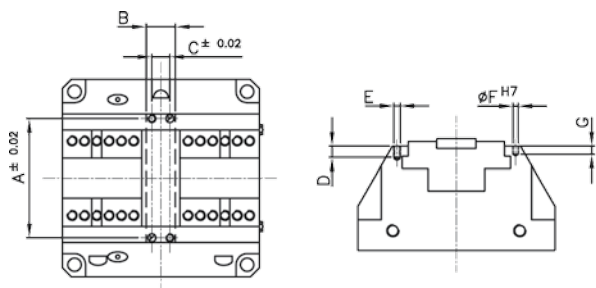
Hose-free direct connection



Type	Hole 4 and 5 Actuation					Hole 3 Pressurization					Hole 1 and 2 Central lubrication				
	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
SCV66	Ø5x1.5	M4	1	3.5	8	Ø2.5x1.5	M3	1	2.5	5.5	Ø2.5x1.5	M3	1	2.5	5.5
SCV100	Ø6x1.5	M5	1	4	9	Ø5x1.5	M4	1	3.5	8	Ø5x1.5	M4	1	3.5	8
SCV160	Ø7x1.5	M6	1	5	10	Ø5x1.5	M4	1	3.5	8	Ø5x1.5	M4	1	3.5	8
SCV200	Ø7x1.5	M6	1	5	10	Ø6x1.5	M5	1	4	9	Ø6x1.5	M5	1	4	9
SCV250	Ø7x1.5	M6	1	5	10	Ø6x1.5	M5	1	4	9	Ø6x1.5	M5	1	4	9

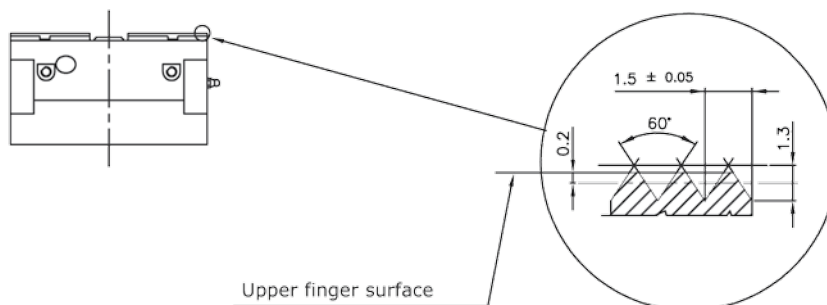
Clamping force blocks, pneumatic-hydraulic, centric clamping SCV-N

Centering - code BC

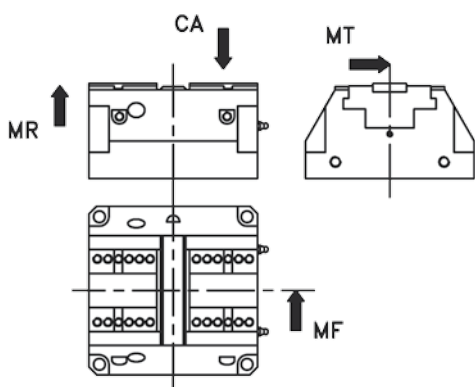


Cod.	A	B	C	D	E	F	G
SCV 66	37.4	12	5	4	M2.5	3	3
SCV 100	58	19	9	5	M3	4	4
SCV 160	94	23.6	10	7	M4	5	7
SCV 200	126	27	12	9	M5	5	7
SCV 250	155	35	14	12	M6	6	9

Version with serrated fingers - code D

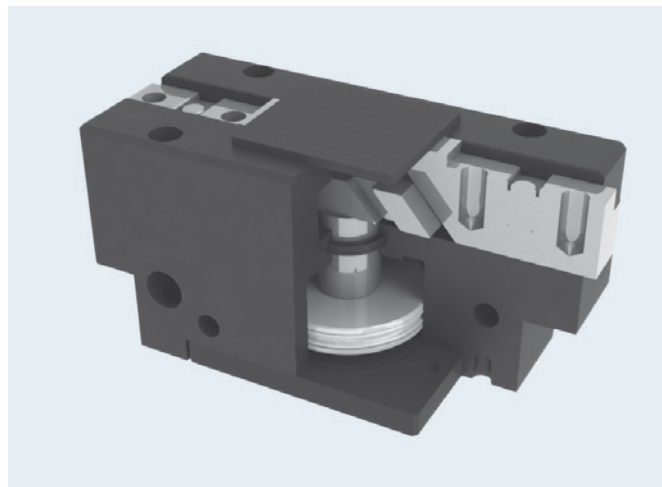
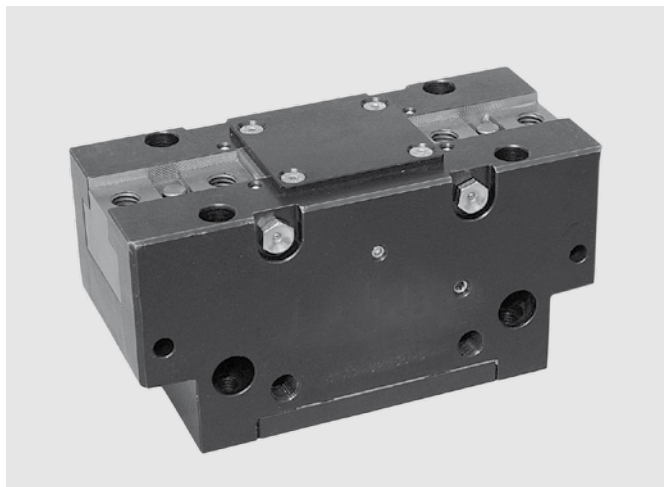


Load data



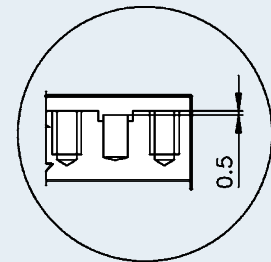
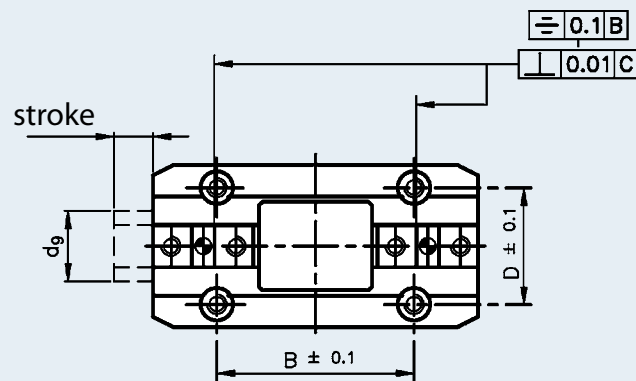
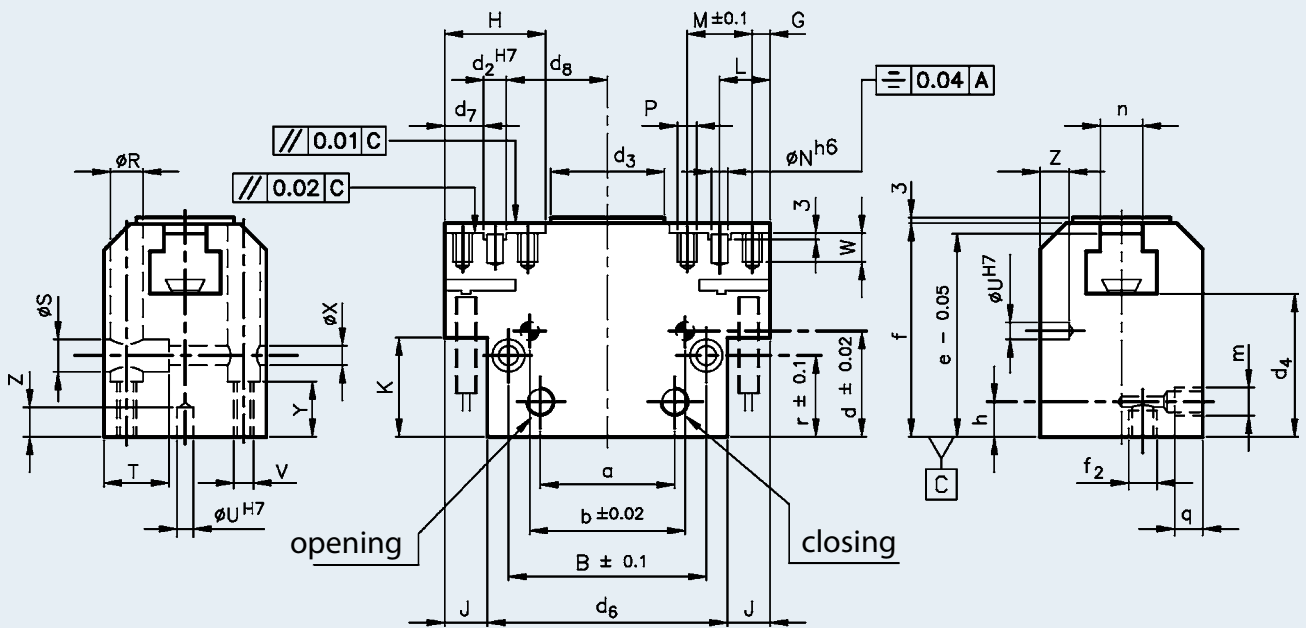
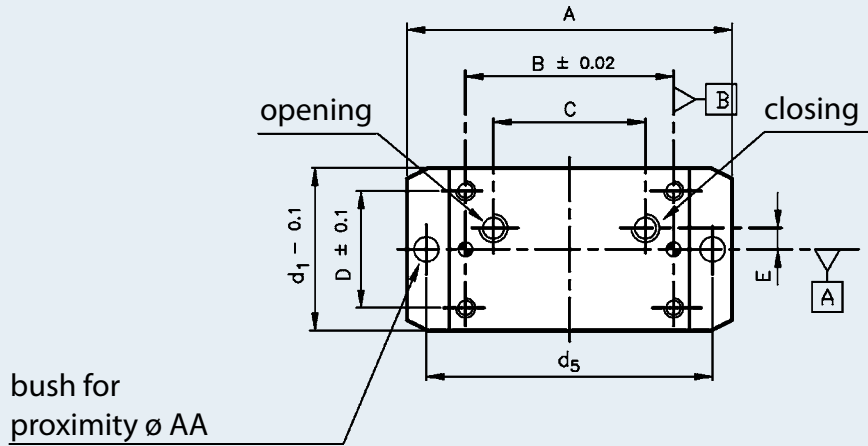
Type	CA (N)	MR (Nm)	MF (Nm)	MT (Nm)
SCV 66	500	25	25	60
SCV 100	2500	70	120	140
SCV 160	18000	100	250	200
SCV 200	22000	120	250	240
SCV 250	24500	140	250	270

Self centering vise hydraulic "Long stroke" SCV LSH



TECHNICAL DATA

- Operating pressure range: max 45 bar with oil
- Repeatability accuracy: from cod. 30 10 10 37 to 30 10 10 39 = 0,02 mm with 100 cycles
from cod. 30 10 10 40 to 30 10 10 42 = 0,03 mm with 100 cycles
- Operating temperature range: da 5 °C a 60 °C
- Operating principle: wedge and piston design with mechanically restricted guidance
- Stroke range: from 6 to 72 mm
- Mounting: by means of bores for H7 pins
- Housing material: hardened steel
- Material for functional parts: hardened steel
- Actuation: filtered hydraulic oil (10 mm) , viscosity 46 mm²/s a 40 °C
ISO VG max 60 °C; compressed air (10 mm), dry or lubricated
- Connections: sides-bases
- Maintenance: relubrified via lubrication-nipples every 5.000 cycles for tool clamping, every 100.000 in handling
- Options:
 - proxy switch adjustment
 - serrated fingers
 - spring-packaged pressure plate



SCV LSH (Hydraulic)

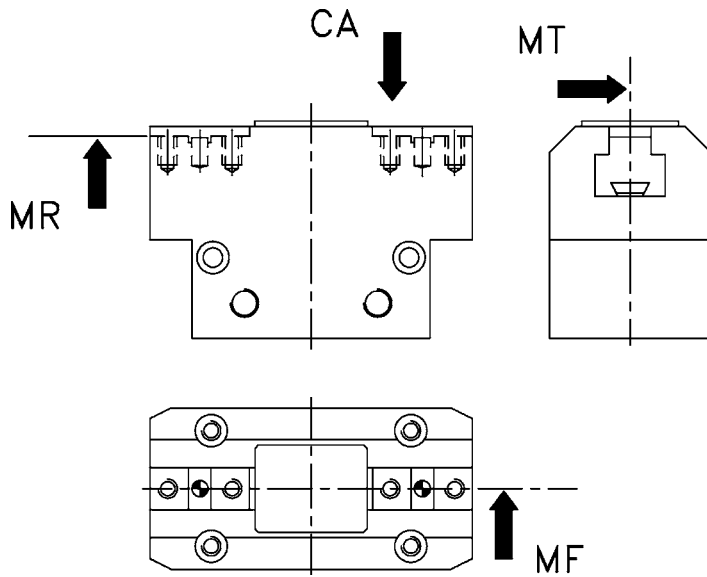
Code	A	B	C	D	E	G	H	L	M	N	P	R	S	T	U	V	Z	Y	X	W	J
30 10 10 37	100	66	44	38	13	6	32	16	20	6	M6	9.5	11	19	5	M6	6	15	6.5	10	10
30 10 10 38	125	82	56	45	14	8.5	40	20.5	24	6	M8	11	14	25	6	M8	8	15	9	12	12.5
30 10 10 39	160	100	70	56	12	9	50	25	32	8	M10	11	14	31	6	M8	10	19	9	15	17.5
30 10 10 40	180	120	76	60	14	9.5	55	27.5	36	10	M10	14	17	45	8	M10	10	20	11	16	20
30 10 10 41	200	130	80	68	18	11	62	31	40	12	M12	17	19	50	10	M12	12	24	13	20	22.5
30 10 10 42	250	164	112	90	28	17	80	41	48	12	M12	19	25	56	12	M16	16	30	17	22	25

Code	K	a	b	d	d ₁	d ₂	d ₃	d ₄	d ₅	d ₆	d ₇	d ₈	d ₉	e	f	f ₁	f ₂	h	m	n	Max fing. leng.
30 10 10 37	21	40	48	24	50	8	34	39	89	80	12	30	25	57	60	M3	1/8	15	1/8	15	60
30 10 10 38	24	52	62	27	60	8	43	44	112	100	16.5	38	30	64	68	M3	1/8	15	1/8	18	75
30 10 10 39	29	66	76	32	72	10	56	51	144	125	20	50	38	77	81	M3	1/8	18	1/8	22	80
30 10 10 40	32	72	94	38	80	12	66	62	162	140	21.5	56.5	40	94	98	M4	1/8	20	1/8	26	80
30 10 10 41	34	76	100	42	90	14	74	70	180	155	24	62	46	108	112	M5	1/8	22	1/8	30	90
30 10 10 42	50	104	124	56	120	16	88	88	224	200	33	76	55	128	136	M6	1/4	30	1/4	36	90

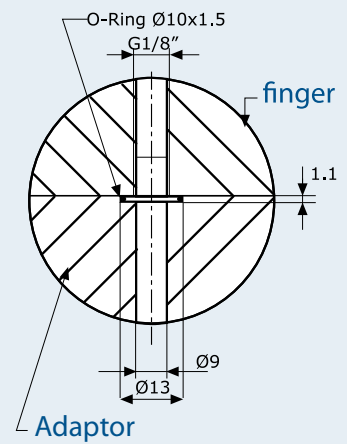
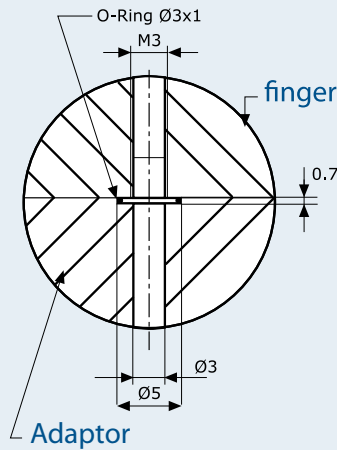
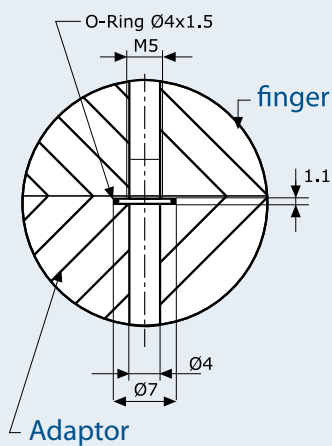
Code	r	q	AA	Stroke for jaw (mm)	Gripping force at 45 bar (N)	work piece mass (kg)	Approx time (sec)		Oil consumption for double stroke (cm ³)	Mass vice kg
							open.	clos.		
30 10 10 37	20	8.5	Ø6.5 M8	10	3010	12.2	0.3	0.35	26	1.8
30 10 10 38	25	8.5	Ø6.5 M8	13	4360	21.3	0.35	0.4	57	2.9
30 10 10 39	27	8.5	Ø6.5 M8	16	8470	33.6	0.4	0.45	101	5.4
30 10 10 40	28	8.5	M8 M12	20	10660	42.6	0.5	0.55	146	8.5
30 10 10 41	32	8.5	M8 M12	25	25410	51.4	0.65	0.75	237	11.5
30 10 10 42	48	12.5	M8 M12	30	25820	82.5	1.1	1.35	411	24.5

- Workpiece weight value at $\mu = 0.1$ e $f_s = 2$. In case of form fit clamping these values may be higher. Gripping force is an arithmetic sum of the individual forces occurring at fingers, distance 15mm at 6MPa.

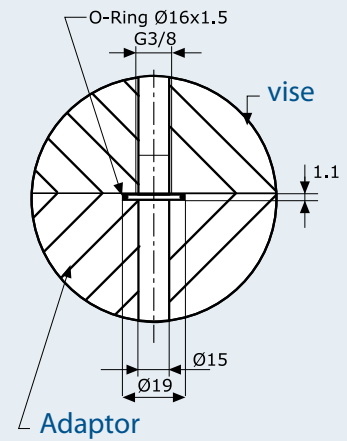
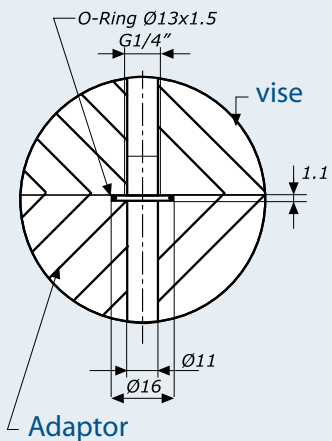
MAX. ADM. FORCES AND MOMENTS OF FINGERS



Code	CA (N)	M (Nm)	MF (Nm)	MT (Nm)
30 10 10 37	2200	100	55	55
30 10 10 38	6000	105	80	70
30 10 10 39	10000	110	90	90
30 10 10 40	12000	125	110	110
30 10 10 41	15000	160	150	150
30 10 10 42	20000	300	220	220



DIRECT CONNECTION WITHOUT HOSE

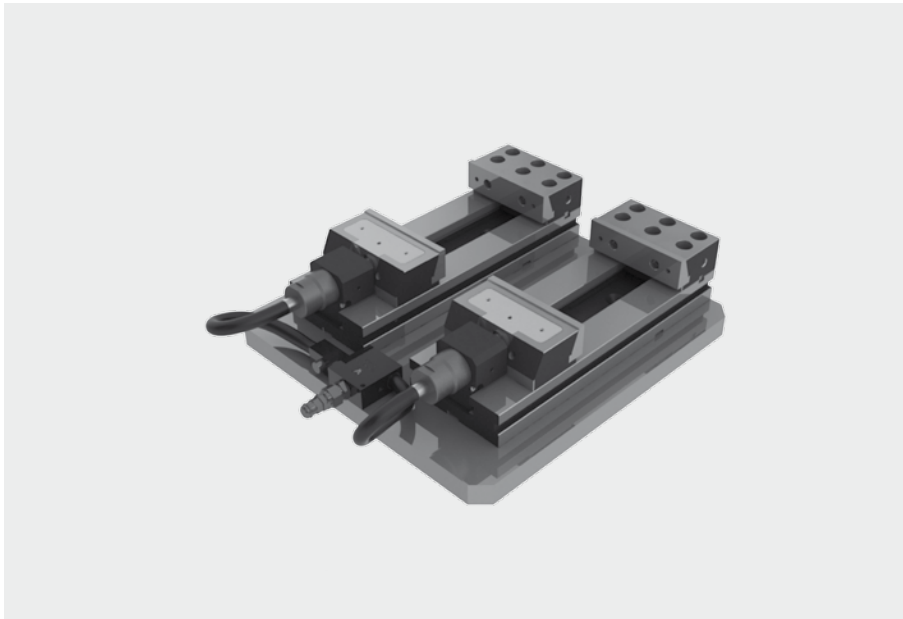


set of modular clamping equipment with hydraulic clamping unit

TC HYDRO

SET TC HYDRO - DUO

Modular clamping equipment with hydraulic clamping unit with: SUBPLATE, 2 TC VISES, SEQUENCE VALVES, CONNECTING PIPES and MANIFOLD.



Code	Type
33 58 02 27	TC H DUO 150x200
33 58 02 28	TC H DUO 150x250
33 58 02 29	TC H DUO 150x300

SET TC HYDRO - TETRA

Modular clamping equipment with hydraulic clamping unit with: SUBPLATE, 4 TC VISES, SEQUENCE VALVES, CONNECTING PIPES and MANIFOLD.



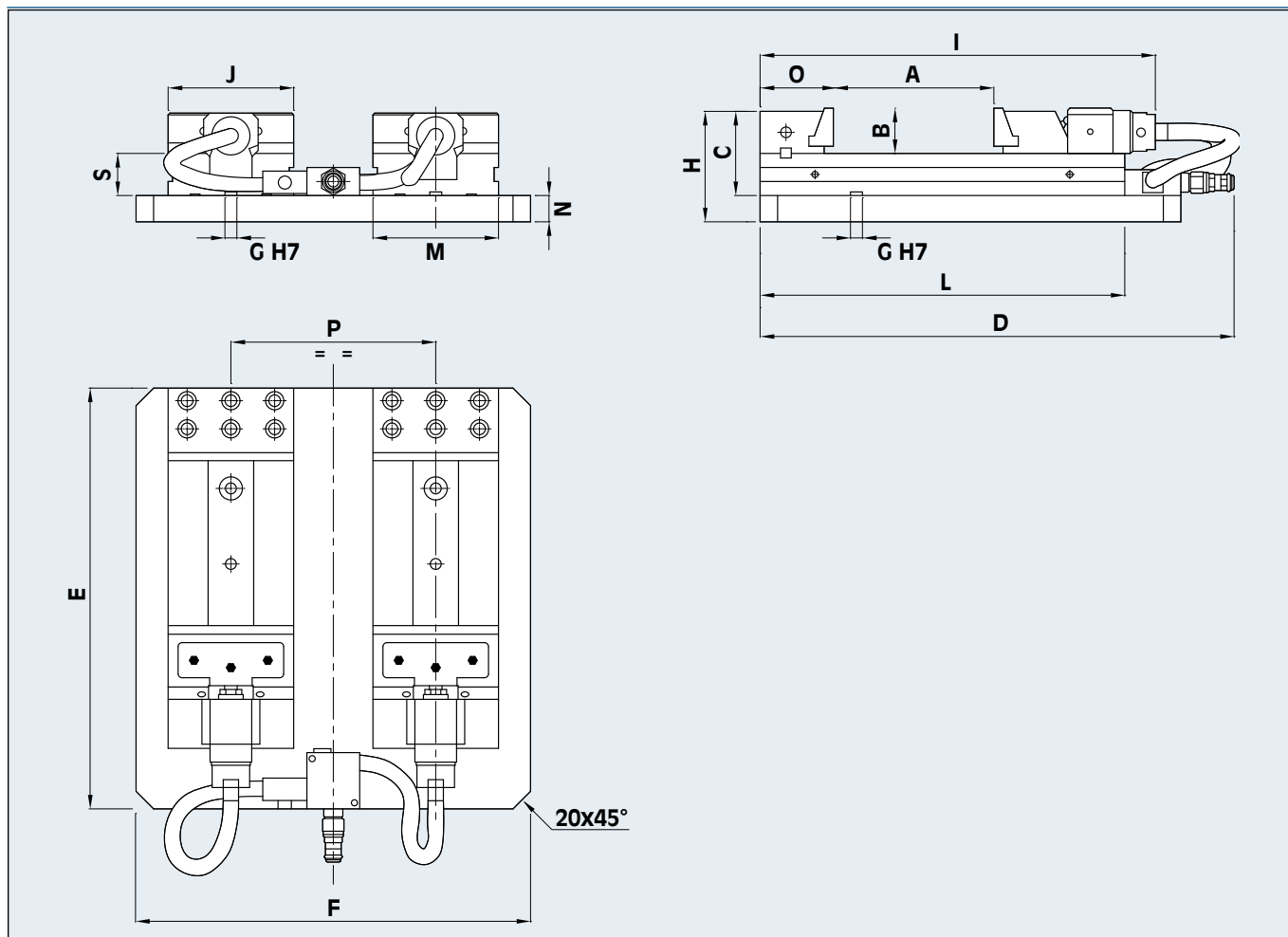
Code	type
33 58 02 47	TC H TETRA 150x200
33 58 02 48	TC H TETRA 150x250
33 58 02 49	TC H TETRA 150x300

SET TC HYDRO - ESA

Modular clamping equipment with hydraulic clamping unit with: SUBPLATE, 6 TC VISES, SEQUENCE VALVES, CONNECTING PIPES and MANIFOLD.



Code	Type
33 58 02 67	TC H ESA 150x200
33 58 02 68	TC H ESA 150x250
33 58 02 69	TC H ESA 150x300



Code	type	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	J mm	L mm	M mm	N mm	O mm	P mm	S mm	weight kg
33 58 02 27	TC H DUO 150x200	200	50	98	550	480	450	18	128	481	150	413	150	30	85	230	48	108
33 58 02 28	TC H DUO 150x250	250	50	98	600	530	450	18	128	531	150	463	150	30	85	230	48	118
33 58 02 29	TC H DUO 150x300	300	50	98	650	580	450	18	128	588	150	520	150	30	85	230	48	128
33 58 02 47	TC H TETRA 150x200	200	50	98	550	480	900	18	138	481	150	413	150	40	85	230	48	249
33 58 02 48	TC H TETRA 150x250	250	50	98	600	530	900	18	138	531	150	463	150	40	85	230	48	271
33 58 02 49	TC H TETRA 150x300	300	50	98	650	580	900	18	138	588	150	520	150	40	85	230	48	295
33 58 02 67	TC H ESA 150x200	200	50	98	550	480	1370	18	138	481	150	413	150	40	85	230	48	378
33 58 02 68	TC H ESA 150x250	250	50	98	600	530	1370	18	138	531	150	463	150	40	85	230	48	411
33 58 02 69	TC H ESA 150x300	300	50	98	650	580	1370	18	138	588	150	520	150	40	85	230	48	448



Air/oil foot pump

Code

71 66 03 05



Air/oil manual pump

Code

71 66 03 15



Pressure - gauge

Code

51 43 12 51

Working example

