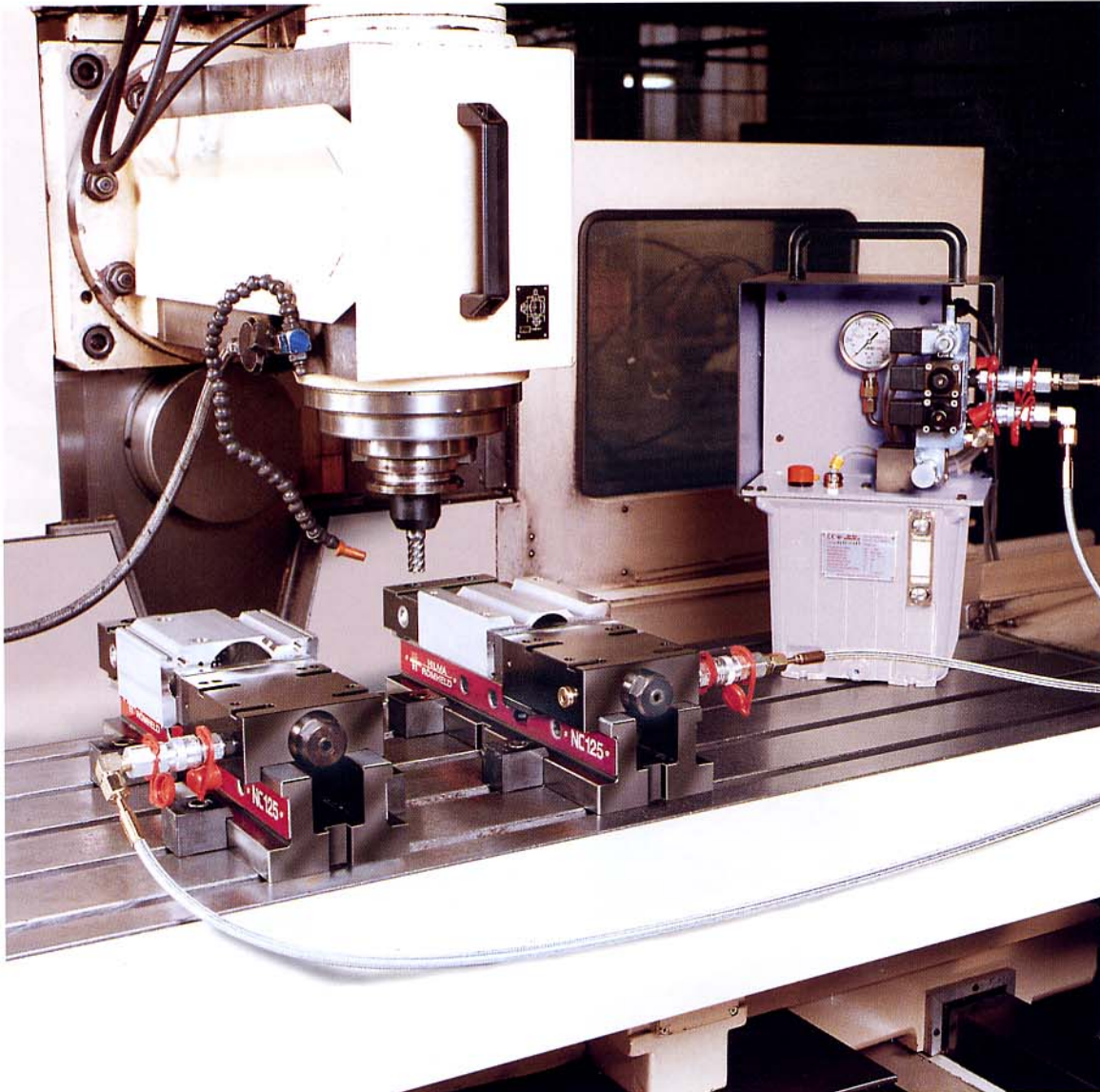


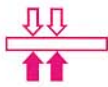
NC Machine vices, hydraulically operated



Hydraulically operated machine vices for NC applications allow medium and large batches of workpieces to be clamped in a safe and cost effective manner. These vices are operated using a separate hydraulic pump unit.

The clamping range is manually adjusted using the crank handle. Clamping and unclamping is made either by a hand- or foot-operated switch of the hydraulic pump unit or automatically by NC control. The slide opens by spring power.

- ◆ Extremely short clamping and unclamping cycles, reduction of non-productive times
- ◆ Hydraulic stroke between 5 and 7 mm, adjustable space for workpiece load / unload
- ◆ Ideal for short operating cycles, medium and large batches, clamping of several long workpieces, automatic clamping by NC control for roughing and finishing operations
- ◆ Perfectly safe clamping by preselecting the clamping force, which can then be monitored by the machine safety system



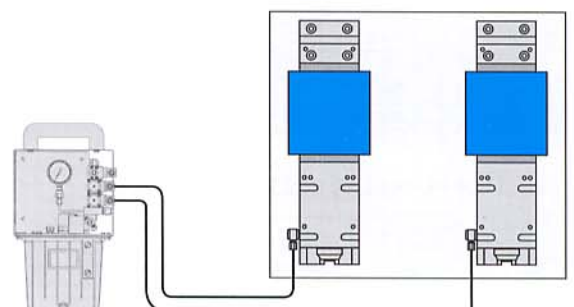
**HILMA
RÖMHELD**

Clamping with system



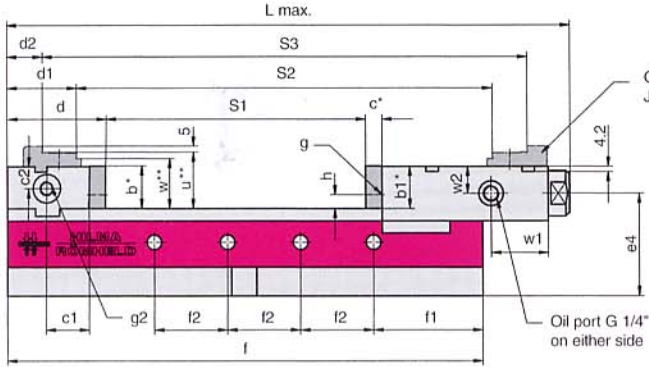
1. Hydraulic stroke between 5 and 7 mm, adjustable space for workpiece load / unload
2. Keyways and threaded holes on slide and fixed jaw for accommodating standard jaws and special jaws when the clamping range is to be extended
3. Standard version with keyways in longitudinal direction and across the length for quick positioning and locating
4. Oil port G 1/4" on either side
5. Clamping edge for clamping claws
6. Max. operating pressure: 350 bar
7. Mounting holes for workpiece stop on either side

Example of installation with 2 single-acting circuits: the vices can be individually clamped and unclamped.

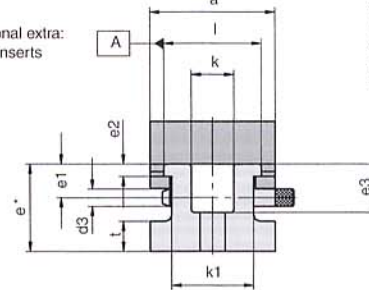


2.3080

Technical data

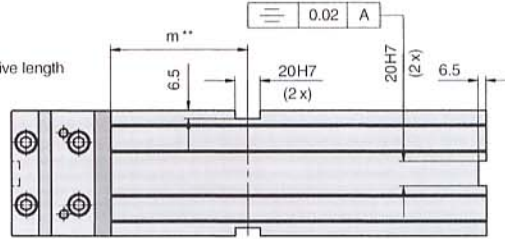
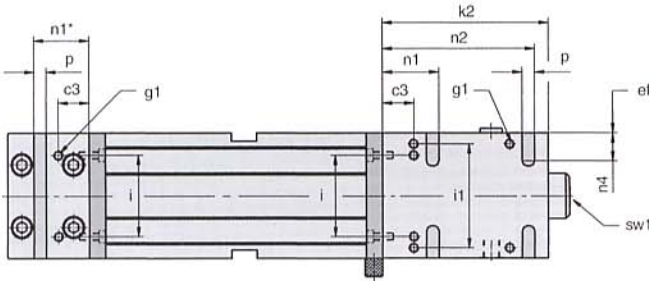


Optional extra:
Jaw inserts



Scope of supply:
reversible
standard jaws,
plain / serrated,
crank handle,
operating
instructions

* = Tolerance ± 0.01 mm
** = Tolerance ± 0.02 mm



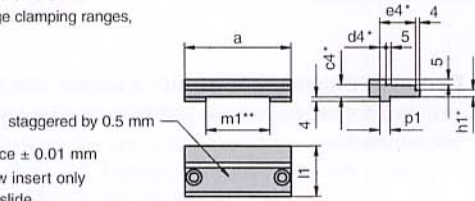
Part no.	Type	Jaw width		Clamping force		Power stroke		Clamping width			Overall length	Weight
		a	b	kN	bar	mm	cm ³	S1	S2	S3		
9.3082.0203	NC 100 H	100	34	25	350	5	5	209	334	390	456	18.5
9.3083.0203	NC 125 H	125	45	40	350	5	7	228	366	434	518	31.5
9.3084.0203	NC 160 H	160	54	63	350	7	14	314	508	578	675	58.5

Dimensions in mm												
a	b	b1	c	c1	c2	c3	d	d1	d2	d3	e	e1
100	34	33.5	13	35	17.5	25	80	56	28	12	70	27
125	45	44	15	36	23	30	100	69	35	16	82	33
160	54	53	18	50	27	45	120	72	37	20	95	38

Part no.	Type	e2	e3	e4	f	f1	f2	g	g1	g2	h	i	i1	k	k1	k2	l	m	n1	n2	n4	p	sw1	t	u	w	w1	w2
9.3082.0203	NC 100 H	10	39	82	380	87	58	M 6x8	M 8x12	M 12x18	11	65	83	34	65.5	133	78g6	110	45	122	22	10H7	8	24	45	40	41	21.5
9.3083.0203	NC 125 H	13	49	98	430	105	60	M 8x10	M 10x13	M 12x18	14	80	104	45	84.5	147	98g6	115	56	132	31	12H7	8	27	58	53	27	30
9.3084.0203	NC 160 H	15	57	115	550	120	80	M 10x11	M 12x16	M 20x27	17	100	130	60	104.5	189	125g6	155	73	171	37	18H7	10	27	70	65	57	32

Step jaw inserts

for extra-large clamping ranges,
with screws.

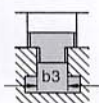


* = Tolerance ± 0.01 mm
** = step jaw insert only
for the slide

for fixed jaw	for slide	Dimensions in mm							
Part no.	Part no.	a	c4	d4	e4	h1	f1	m1	p1
9.3284.0201	9.3284.1201	100	11.5	6	34	6.5	48	60	10h6
9.3284.0301	9.3284.1301	125	14	6	40	9	58	65	12h6
9.3284.0401	9.3284.1401	160	17	8	43	12	64	88	18h6

Set of key blocks DIN 6323

Part no.	Keyway b3 in the bed
9.3917.4121	14h6
9.3917.4141	18h6

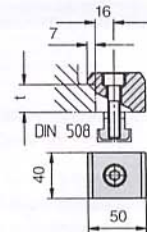


For exact adjustment of the
universal NC machine vice,
the key blocks are simply inserted
in the keyway on the machine
bed.

Set of clamping claws, with screws

For safe fastening on the machine bed.

Part no. for a set of 4	Keyway mm	t mm	Screw
9.3777.2011	14	24	M 12x45 DIN 912
9.3777.3011	14	27	M 12x45 DIN 912
9.3777.3021	18	27	M 16x50 DIN 912



Hydro unit for NC machine vice

on request



1-circuit design, for simultaneous clamping and
unclamping of one or several machine vices.
Delivered with one plug-in remote control unit.

2-circuit design, for two separately activated
circuits (pendulum machining).
Delivered with two plug-in remote control units.

Basic hydro unit without directional valves
and without plug-in remote control units.
The machine vices are externally controlled
using hand valves.

Subject to change without notice. Printed in Germany