



Advantages:

- ✓ Mechanically insensitive
- ✓ Low required space
- ✓ Simple Clamping Arm
- ✓ Manifold- and cartridge types
- ✓ No interference contour during loading and unloading
- ✓ Wobble-free and precise guidance



Generally

Description:

These swing clamps are pull cylinders in which by pressurization on the piston rod side, the rotational movement of the piston is generated (swing stroke). After the pivoting movement is completed, the actual clamping stroke is initiated. Pivoting- and clamping stroke result in the total stroke.

For easier production of own clamping arms, tapered sleeves are offered.

The designs are also named as upper assembly- and cartridge versions.

Recommendations for use:

Hydraulic swing clamps are used to clamp workpieces those are requiring a high degree of freedom during loading and unloading.

When installing the clamping cylinders, the flange surfaces should be adapted to the height of the workpiece.

These compact swing clamps are particularly suitable where no lateral forces are shall be introduced.

The actual clamping point should be in the middle of the clamping stroke.

If customer-supplied clamping arms are used, they should be equipped with a thrust bolt or hardened on the clamping / support surface.

Swing clamps can generate high forces. Workpieces and devices must be designed for such loads.

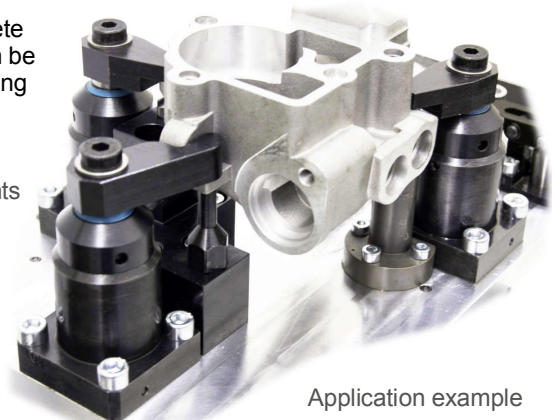
The cycle times for clamping and releasing should each not be less than **0.6** seconds. Otherwise, a throttling should be provided, preferably in the "B" channel. This can be done by restrictor plates, flow control- or throttle valves.

Function:

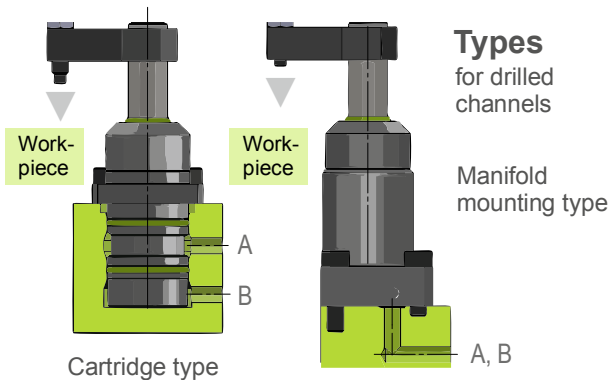
A part of the total stroke is needed for pivoting movement. The total stroke, minus the swing stroke, gives the effective clamping stroke. Likewise, clamping elements without swiveling movement are available.

Here, the complete piston stroke can be used as a clamping stroke.

Single-acting clamping elements on request!



Application example

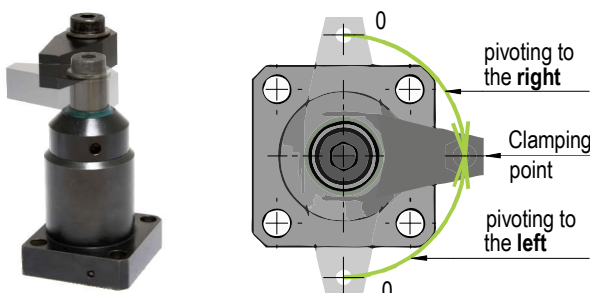


Types

for drilled channels

Manifold mounting type

General Data	Unit	Value
Min. working pressure	[bar]	5
Max. testing pressure	[bar]	250
Max. temperature	[°C]	80
Max. volume flow	[l/min]	5



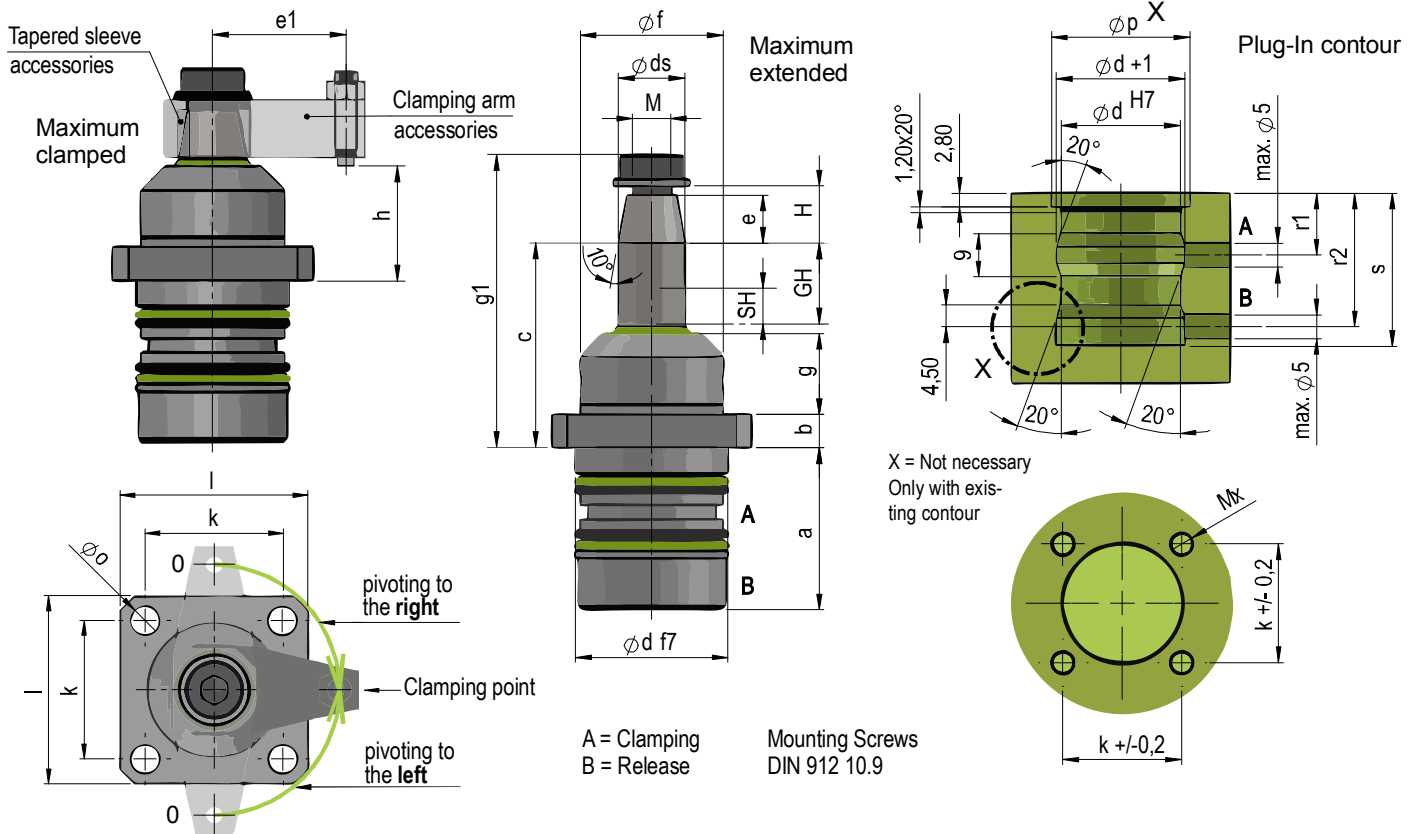
Contact

iNOSOL GmbH
Frankfurter Str. 18
35315 Homberg/Ohm (Germany)

web: www.inosol.solutions
email: info@inosol.solutions
tel.: (+49) 6633 / 368 95 25

Cartridge Type

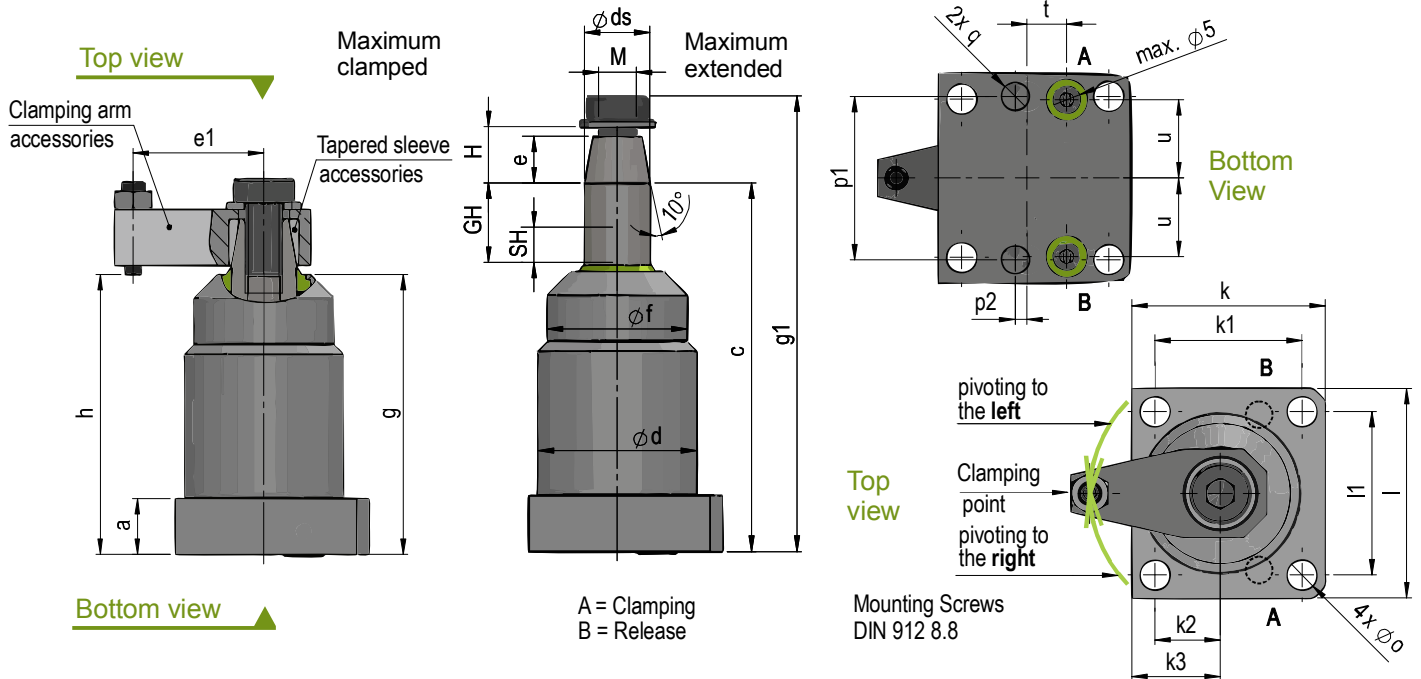
Details



Size	Unit	1	2	3
Cylinder force at 200 bar	[kN]	2,83	3,20	6,59
Cylinder force at 100 bar	[kN]	1,41	1,60	3,30
Max. Volume flow	[l/min]	3,00	3,60	4,60
Piston-Ø	[mm]	18,00	20,00	26,00
ds = Rod-Ø	[mm]	12,00	14,00	16,00
SH = Clamping stroke	[mm]	7,00	7,50	7,50
GH = Complete stroke	[mm]	17	17	20
a	[mm]	32	34	40,5
b	[mm]	6	7	10
c	[mm]	44	43	54,5
d	[mm]	25	32	40
e	[mm]	8	10	14
e1 (Standard Clamping arm)	[mm]	27	28	36,5
f	[mm]	26	30	36
g	[mm]	17	17	21,5
g1	[mm]	59,5	65	76
h (ca.)	[mm]	15,5	15,5	15,5
k	[mm]	25	31	36,5
l	[mm]	34	42	48
o (Mx)	[mm]	5,5 (M5)	6,5 (M6)	6,6 (M6)
p (not necessary. Only for comparison while exchng.)	[mm]	29	36	44
r1	[mm]	13	13	14
r2	[mm]	28	28	31
s	[mm]	32,5	34,5	40,5
M	[mm]	M6	M8	M10
H	[mm]	10	13	14
0° pivoting angle	Part Number	ISCC1N-001	ISCC2N-001	ISCC3N-001
90° pivotal movement to the right		ISCC1R-001	ISCC2R-001	ISCC3R-001
90° pivotal movement to the left		ISCC1L-001	ISCC2L-001	ISCC3L-001

Manifold mounting type

Details

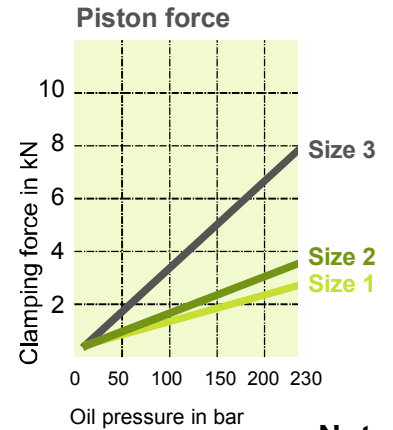
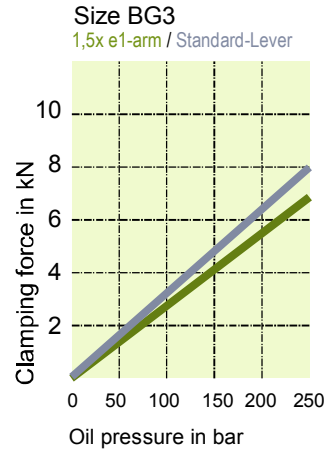
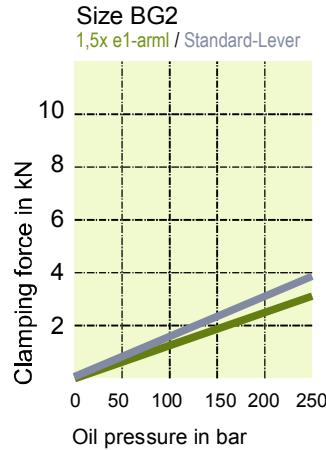
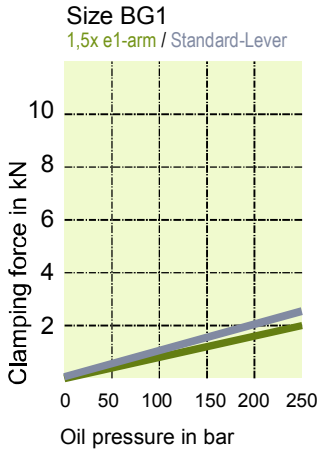


Size	Unit	1	2	3
Cylinder force at 200 bar	[kN]	2,83	3,20	6,59
Cylinder force at 100 bar	[kN]	1,41	1,60	3,30
Max. Volume flow	[l/min]	3,00	3,60	4,60
Piston-Ø	[mm]	18,00	20,00	26,00
ds = Rod-Ø	[mm]	12,00	14,00	16,00
SH = Clamping stroke	[mm]	7,00	7,50	7,50
GH = Complete stroke	[mm]	17	17	20
a	[mm]	12	12	15
c	[mm]	76	79	95
d	[mm]	28	34	40
e	[mm]	8	10	12
e1 (Standard Clamping Arm)	[mm]	27	28	36,5
f	[mm]	26	30	36
g	[mm]	57	60	72
g1	[mm]	91,6	97,6	116,6
h (ca.)	[mm]	57	60	65
k	[mm]	34,5	41,5	52
k1	[mm]	25,5	31,5	38
k2	[mm]	10	14	16
k3	[mm]	14,5	19	23
l	[mm]	40	45	58
l1	[mm]	31	35	44
o (Mx)	[mm]	5,5 (M5)	6,5 (M6)	8,5 (M8)
p1	[mm]	32	35	44
p2	[mm]	1,5	0	0
q (Pin hole; d x t)	[mm]	Ø6x9	Ø6x9	Ø8x12
t	[mm]	7,5	8,5	10
u	[mm]	15	16,8	20
M		M6	M8	M10
H	[mm]	10	13	14

0° Pivoting Angle	Part Number	ISCC1N-002	ISCC2N-002	ISCC3N-002
90° pivoting to the right		ISCC1R-002	ISCC2R-002	ISCC3R-002
90° pivoting to the left		ISCC1L-002	ISCC2L-002	ISCC3L-002

Technical Data

Forces



Note



Installation note:

To protect the internal guiding mechanism, it is recommended, during assembly and disassembly of the clamping arm, to hold it against with an open-end wrench while the fastening screw is tightened.

Security note:

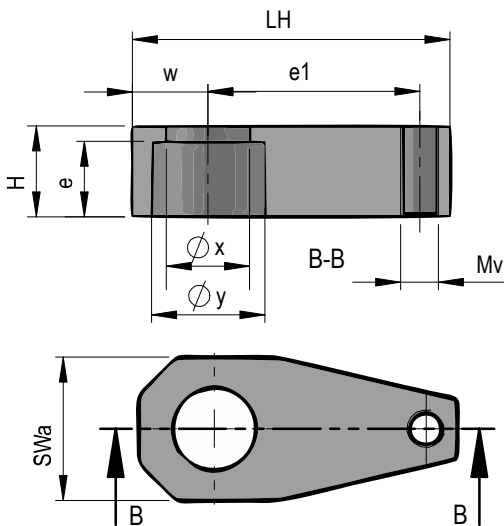
There is a risk of crushing during operation. The accident prevention regulations must therefore be adhered to.

Note for use:

The clamping elements are only hydraulically operated. We recommend as medium Hydraulic oils according to DIN 51524.

Accessories

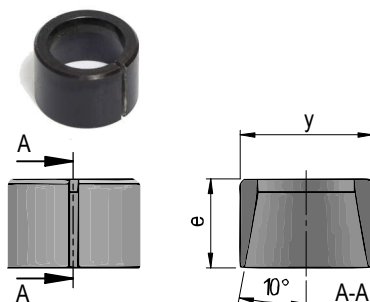
Clamping arm



Size	Unit	1	2	3
For part number		ISCC1...	ISCC2...	ISCC3...
LH	[mm]	40	42	55
H	[mm]	10	13	14
e	[mm]	8	10	12
e1	[mm]	27	28	36,5
Mv *		M5	M6	M8
SWa	[mm]	17	19	24
x	[mm]	9,5	11	12,5
y	[mm]	13	15	17
Without thread	P/N	2017010	2019010	2024010
With thread *	P/N	2017011	2019011	2024011

Material: C45, brushed

Tapered Sleeve



Size	Unit	1	2	3
For part number		ISCC1...	ISCC2...	ISCC3...
e	[mm]	8	10	12
y	[mm]	13	15	17
Part number		1013003	1015003	1017003

Material: 42CrMo4, brushed