



Advantages:

- ✓ With thread- and flange connection
- ✓ Long standard stroke
- ✓ Pull rod resistant to damage
- ✓ Installation position independent
- ✓ With integrated scraper edge
- ✓ Massive clamping arms possible



Generally

Description:

These swing clamps are pull cylinders in which the rotary movement of the piston is generated by applying pressure to the inside of the cylinder (swing stroke).

After the swing strike (swivel movement) has been completed, the actual clamping stroke is initiated. Swivel- and clamping stroke result in the total stroke.

The swing clamps are offered as plate-mounted and plug-in types and can be operated by using the sideways threaded connections as well as via drilled channels.

Recommendations for use:

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

When installing the clamping cylinder, the flange surfaces should be adjusted to the height of the workpiece.

These swing clamps are particularly suitable where no - or only low - lateral forces are to be generated.

The actual clamping point should be approx. 3mm before start and end 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 1 second. Otherwise, a throttling should be provided, preferably in the "B" channel. This can be done by restrictor plates, flow control- or throttle valves.

With these swing clamps the required pressure (force) is generated inside of the pull bar. This pull bar is sealed, hardened and chrome-plated. In the case of external damage, however, the function is still guaranteed and there are no leaks. This means that the Clamp can also be used in environments, where flying sparks and other abrasive conditions prevail.

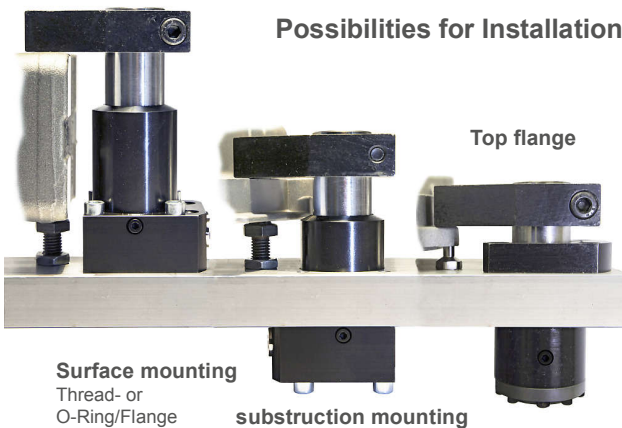
Due to the large diameter of the pull bar and the associated solid clamping arms, the bending of the moving parts is considerably reduced.

This means that less lateral forces are generated and the force generated by the cylinder, depending on the length of the clamping arm, is transmitted with less loss of force.

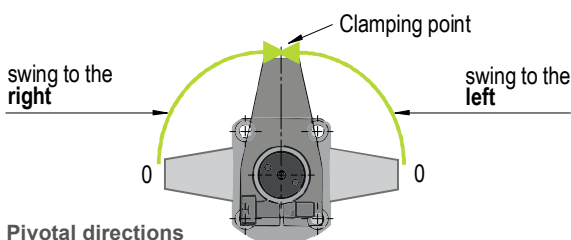
Installation possibilities:

In the *surface-mounted* version, these clamping elements can be used both, through *drilled channels*, as a base and surface-mounted plate version, and also as operated via the threaded connections.

With the *plug-in or flange-top* version, only the drilled channels can be used.



General Data	Unit	Value
Min. working pressure	[bar]	20
Max. testing pressure	[bar]	250
Max. temperature	[°C]	80
Clamping stroke	[mm]	25



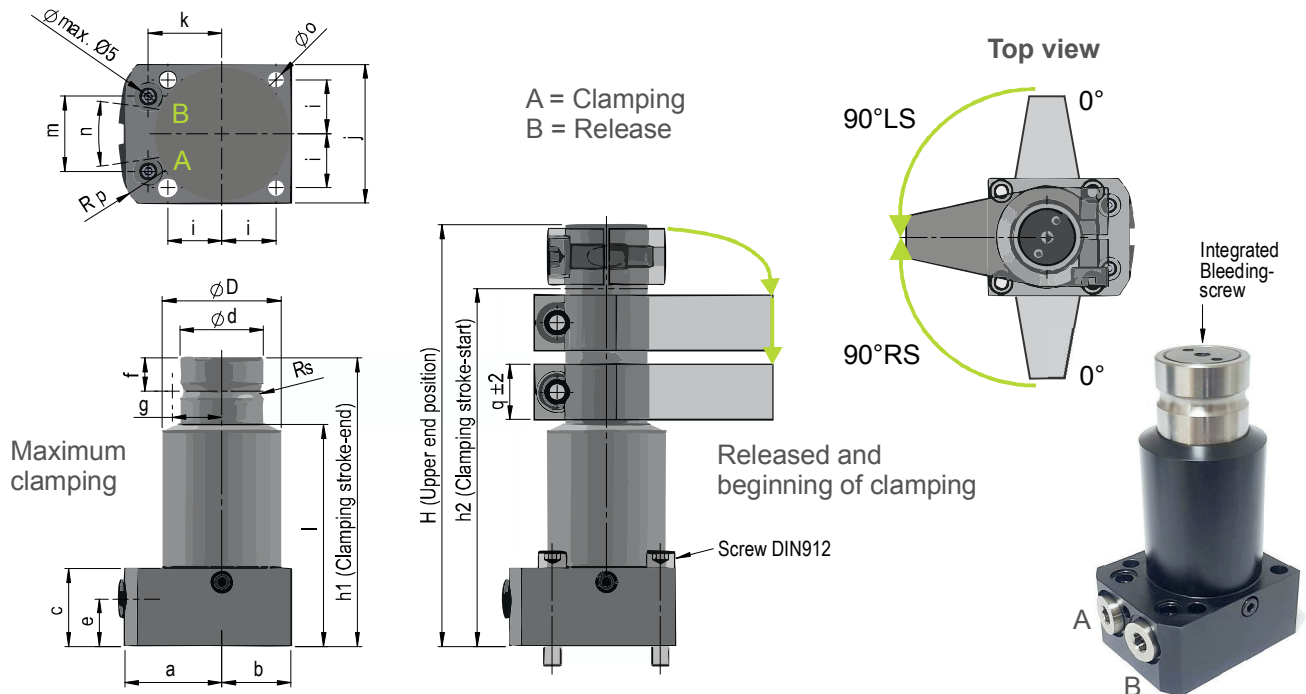
Contact

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

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

➔ Dimensions

Details: plate-mounted type



For size 1 - „n“ is the angle. For size 2-3 it is the gap between both ports.

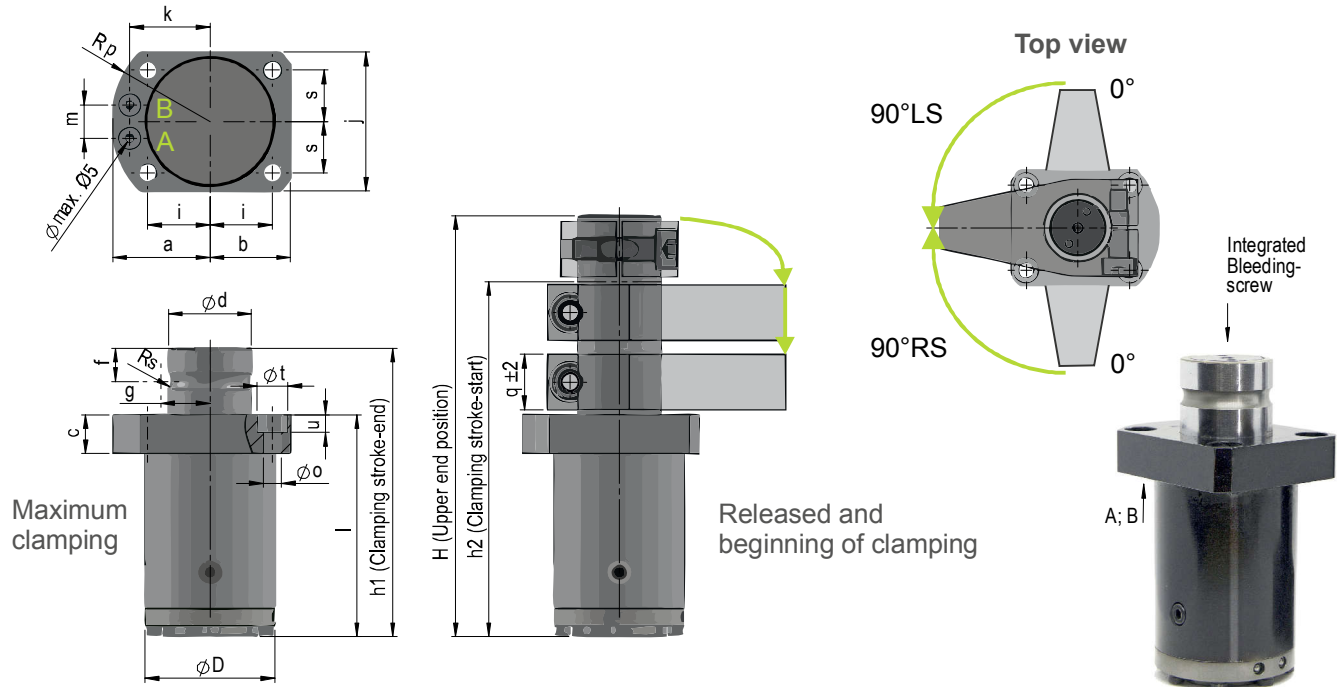
When delivered, the upper flange connections are closed.

If the substruction version is required, seals and screws must be replaced.

Size	Unit	1	2	3
Pull force at 250 bar	[kN]	6,67	12,64	17,59
Pull force at 100 bar	[kN]	2,67	5,05	7,03
Max. Volume flow	[l/min]	3,00	4,00	5,00
D	[mm]	42,8	56,8	71,8
d	[mm]	30	40	48
Clamping stroke	[mm]	25	25	25
Total stroke	[mm]	48	55	57
a	[mm]	35	47	55
b	[mm]	25	33	40
c	[mm]	28	28	28
e	[mm]	17	14	14
f	[mm]	12	14,5	18
g	[mm]	17,8	23	28
h1	[mm]	104	120	134
h2	[mm]	129	145	159
H	[mm]	152	175	191
i	[mm]	19,5	26	32
j	[mm]	50	66	78
k	[mm]	26,5	34	41
l	[mm]	80	90	96
m	[mm]	27	28	34
n	[°; mm]	16°	24	24
o	[mm]	6,4	8,5	10,5
Rp	[mm]	39,5	52	59
q	[mm] +/- 2	20	25	32
Rs	[mm]	4	5	6
A; B	["]	G1/8	G1/4	G1/4
Part numbers				
0° swing angle		ISCC-IP-N-1-001	ISCC-IP-N-2-001	ISCC-IP-N-3-001
90° swing to the right		ISCC-IP-R-1-001	ISCC-IP-R-2-001	ISCC-IP-R-3-001
90° swing to the left		ISCC-IP-L-1-001	ISCC-IP-L-2-001	ISCC-IP-L-3-001

➔ Dimensions

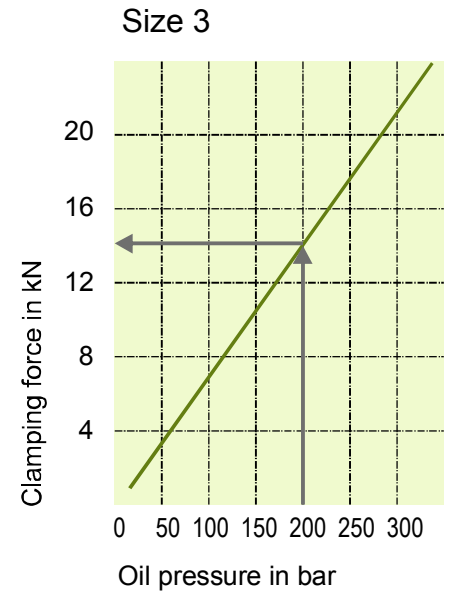
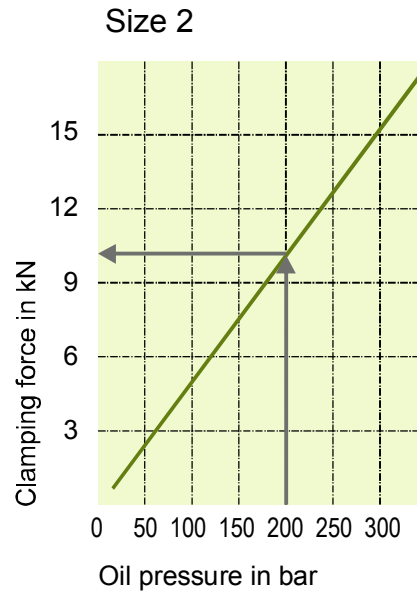
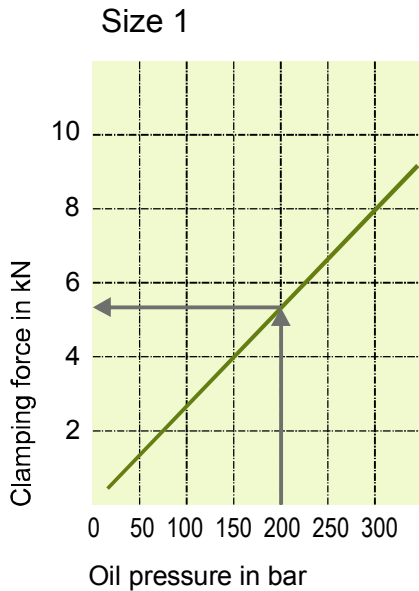
Details: Plug-In type



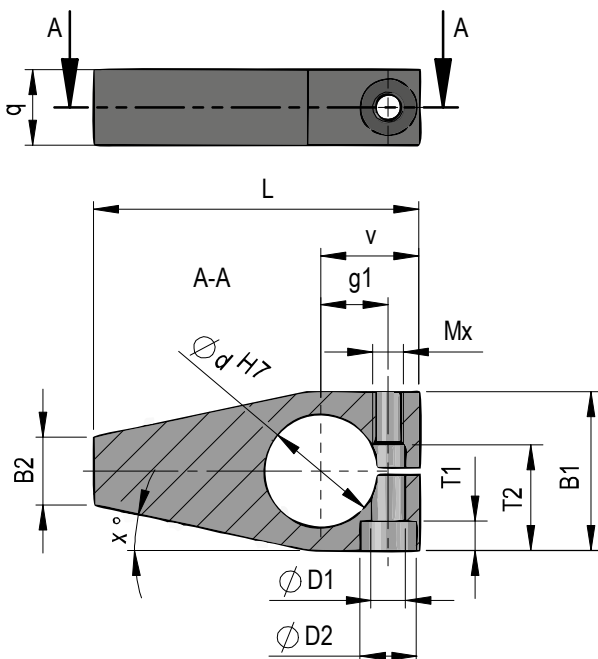
Size	Unit	1	2	3
Pull force at 250 bar	[kN]	6,67	12,64	17,59
Pull force at 100 bar	[kN]	2,67	5,05	7,03
Max. Volume flow	[l/min]	3,00	4,00	5,00
D	[mm]	46,8	59,8	71,8
d	[mm]	30	40	48
Clamping stroke	[mm]	25	25	25
Total stroke	[mm]	48	55	57
a	[mm]	35	43	47,5
b	[mm]	29	38	42
c	[mm]	14	16	18
e	[mm]	17	14	14
f	[mm]	12	14,5	18
g	[mm]	17,8	23	28
h1	[mm]	104	120	134
h2	[mm]	129	145	159
H	[mm]	152	175	191
i	[mm]	22,5	29	31,5
j	[mm]	50	66	78
k	[mm]	29	36	41
l	[mm]	80	90	96
m	[mm]	12	20	28
s	[mm]	18,5	24	29
o	[mm]	6,4	8,6	10,6
u	[mm]	6,4	8,6	10,6
q	[mm] +/- 2	20	25	32
Rs	[mm]	4	5	6
t	[mm]	11	15	18
Rp	[mm]	35,5	46,5	53
Part numbers				
0° swing angle		ISCC-IP-N-1-002	ISCC-IP-N-2-002	ISCC-IP-N-3-002
90° swing to the right		ISCC-IP-R-1-002	ISCC-IP-R-2-002	ISCC-IP-R-3-002
90° swing to the left		ISCC-IP-L-1-002	ISCC-IP-L-2-002	ISCC-IP-L-3-002

Technical Data

Pull force



Standard-Clamping arm



Size	Unit	1	2	3
Part number		ISCC-IP-S1-1	ISCC-IP-S2-1	ISCC-IP-S3-1
d	[mm]	30	40	48
B1	[mm]	42	54	64
B2	[mm]	18	22	24
q	[mm]	20	25	32
g1	[mm]	17,8	23,2	28,2
L	[mm]	86	110	130
v	[mm]	26	35	40
Mx	[mm]	M8	M10	M12
D1	[mm]	8,5	10,5	12,5
D2	[mm]	15	18	20
T1	[mm]	7,8	10,6	12,6
T2	[mm]	28	36	44
x	[mm]	12°	12°	15°

The Standard-Clamping arm is delivered incl. Clamping screw

Material: C60, brushed

Notes



Venting:

The B-port can be vented by using the threaded pin, integrated in the pull rod.

The A-port can be vented by using the integrated INOSOL bleeding screw, in the threaded connection.

For venting, both connections have to be loosened by half a turn.

A sintered filter is integrated to vent the housing.

Application::

The clamping elements can only be operated hydraulically.

We recommend hydraulic oil acc. to DIN 51524.

Safety note:

There is a risk of crushing during operation. The accident prevention regulations are therefore mandatory.