

# HYDRAULIC CLAMPING TECHNOLOGY

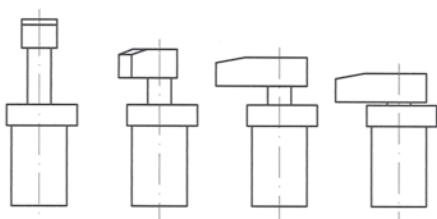
## Hydraulic swing clamps | double acting

Hydraulic swing clamps are particularly designed for applications which require high clamping forces and easy loading of workpieces in confined spaces.

### Standard version

Double acting swing clamps

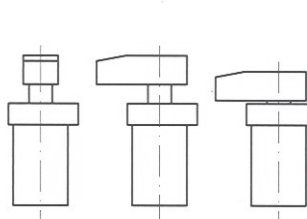
Cylinder with helical pivoting. The cylinder swing around 90° with swivel stroke and continue to the vertical clamping stroke. Complete stroke = swivel stroke + clamping stroke. Available in block-, screw-in-, top flange- and base flange version.



### Compact version

Double acting swing clamps

Cylinder with rotation in a plane. The cylinder swing around 90° without stroke movement, continue to the vertical clamping stroke. Complete stroke = clamping stroke. Available in top flange-, base flange- and block version



	Model no.		Pressure range		stroke [mm]	Clamping force	
	swivel right	swivel left	min [bar]	max [bar]		min [kN]	max [kN]
	<b>screw-in version standard</b>						
	726D25221-2	727D25221-2	100	250	10	1,9	4,8
	726D32321-2	727D32321-2	100	250	11	3,4	8,5
	726D40341-2	727D40341-2	100	250	12	5	12,5
	<b>block-version standard</b>						
	726D25222-2	727D25222-2	100	250	10	1,9	4,8
	726D32322-2	727D32322-2	100	250	11	3,4	8,5
	726D40342-2	727D40342-2	100	250	12	5	12,5
	<b>bottom-flange-version standard</b>						
	726D32243-2	727D32243-2	30	250	12	1	8
	726D32373-2	727D32373-2	30	250	25	1	8
	726D50293-2	727D50293-2	30	250	15	1,9	16
	726D50393-2	727D50393-2	30	250	25	1,9	16
	<b>top-flange-version standard</b>						
	726D32244-2	727D32244-2	30	250	12	1	8
	726D32374-2	727D32374-2	30	250	25	1	8
	726D50294-2	727D50294-2	30	250	15	1,9	16
	726D50394-2	727D50394-2	30	250	25	1,9	16
	<b>block-version compact</b>						
	726D25082-5	727D25082-5	30	250	8	0,5	4
	726D32122-5	727D32122-5	30	250	12	1,0	8
	726D50122-5	727D50122-5	30	250	12	1,9	16
	726D63122-5	727D63122-5	30	250	12	2,9	24
	<b>base-flange-version compact</b>						
	726D25083-5	727D25083-5	30	250	8	0,5	4
	726D32123-5	727D32123-5	30	250	12	1,0	8
	726D50123-5	727D50123-5	30	250	12	1,9	16
	726D63123-5	727D63123-5	30	250	12	2,9	24
	<b>top-flange-version compact</b>						
	726D25084-5	727D25084-5	30	250	8	0,5	4
	726D32124-5	727D32124-5	30	250	12	1,0	8
	726D50124-5	727D50124-5	30	250	12	1,9	16
	726D63124-5	727D63124-5	30	250	12	2,9	24

# HYDRAULIC CLAMPING TECHNOLOGY

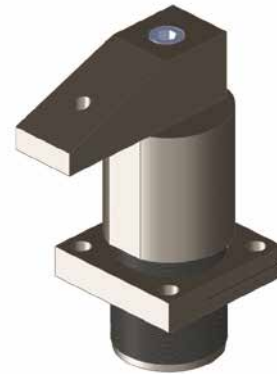
## Hydraulic swing clamps – Standard version

### Swing clamp-screw-in version

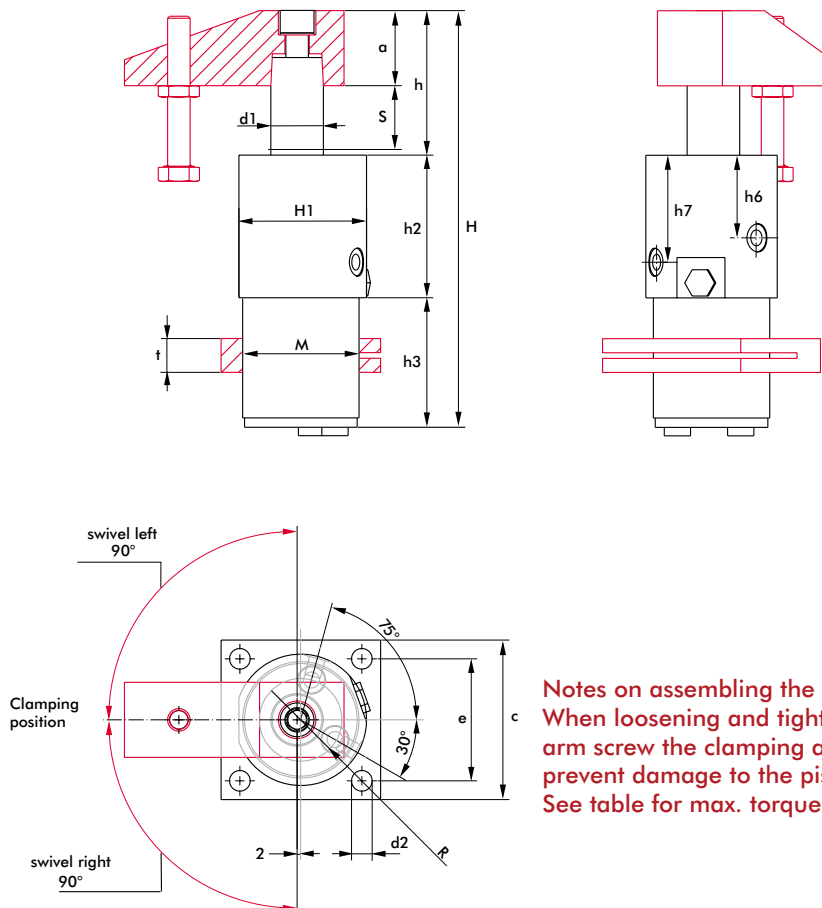
- Double acting version
- More accessories under accessories standard

### Technical note:

- Clamping must be accomplished in the vertical stroke range.
- The clamping arm cannot be impeded during swivel.
- The cycle time for a clamping or a unclamping stroke should not fall under 1,5 s. If necessary, the oil flow must be reduced. Observe the max. permitted oil flow.



Model no.		operating pressure		Clamping force	volume flow	stroke		Oil consumption		Connection	Weight
swivel right	swivel left	min. [bar]	max. [bar]	at 100 bar [kN]	max. [l/min]	complete stroke [mm]	clamping stroke [mm]	clamping [cm³]	unclamping [cm³]	G	[kg]
726D25221-2	727D25221-2	100	250	1,9	0,26	27	10	6,4	13,3	4x G1/8	1,85
726D32321-2	727D32321-2	100	250	3,4	0,53	31	11	13,2	24,9	4x G1/8	2,6
726D40341-2	727D40341-2	100	250	5,0	0,87	34	12	21,8	42,7	4x G1/8	3,5



**Notes on assembling the clamping arm**  
 When loosening and tightening the clamping arm screw the clamping arm must be fixed to prevent damage to the piston guide.  
 See table for max. torque for arm screw.

Model no.		a	c	d1	d2	e	f	H	H1	h	h2	h3	h6	h7	M	R	t	max. torque
swivel right	swivel left	[mm]																[Nm]
726D25221-2	727D25221-2	25	65	18	9	50	23	173	53	55	61	57	35,5	44,5	48x1,5	29	12	30
726D32321-2	727D32321-2	30	70	22	9	56	27	199	61,5	64	70	65	46	57	52x1,5	34	15	45
726D40341-2	727D40341-2	40	85	28	11	65	31	222	68	77	76	69	44	57	62x1,5	44	18	80

# HYDRAULIC CLAMPING TECHNOLOGY

## Hydraulic swing clamps – Standard version

### Swing clamp-block version

- Double acting version

### Optional

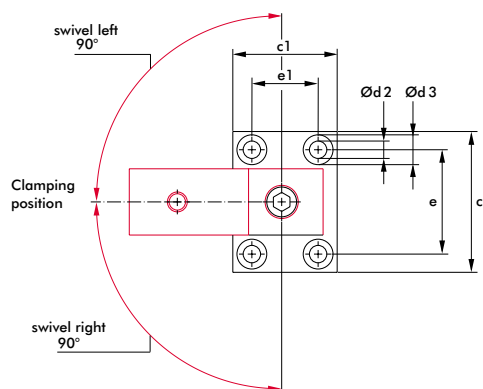
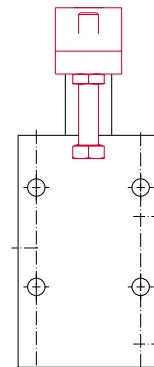
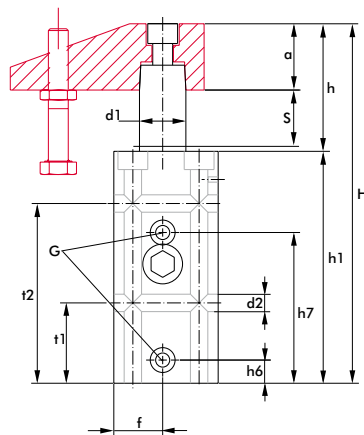
- Position control (E)
- More accessories under accessories standard

### Technical note:

- Clamping must be accomplished in the vertical stroke range.
- The clamping arm cannot be impeded during swivel.
- The cycle time for a clamping or a unclamping stroke should not fall under 1,5 s. If necessary, the oil flow must be reduced. Observe the max. permitted oil flow.



Model no.		operating pressure		Clamping force	Volume flow	Stroke		Oil consumption		Connection	Weight
swivel right	swivel left	min. [bar]	max. [bar]	at 100 bar [kN]	max. [l/min]	complete stroke [mm]	clamping stroke [mm]	clamping [cm³]	unclamping [cm³]	G	[kg]
726D25222-2	727D25222-2	100	250	1,9	0,26	27	10	6,4	13,3	2x G1/8	2,2
726D32322-2	727D32322-2	100	250	3,4	0,53	31	11	13,2	24,9	2x G1/8	3,5
726D40342-2	727D40342-2	100	250	5	0,87	34	12	21,8	42,7	2x G1/8	4,9



**Notes on assembling the clamping arm**  
 When loosening and tightening the clamping arm screw the clamping arm must fixed to prevent damage to the piston guide.  
 See table for max. torque for arm screw.

Model no.		a	c	c1	d1	d2	d3	e	e1	f	H	h	h1	h6	h7	t1	t2	max. Torque	
swivel right	swivel left	[mm]																	[Nm]
726D25222-2	727D25222-2	25	65	45	18	8,5	13,5	50	30	20,5	165	55	110	10	70,5	35	85	30	
726D32322-2	727D32322-2	30	75	55	22	10,5	18	55	35	25,5	194	64	130	12,5	79	45,5	100,5	45	
726D40342-2	727D40342-2	40	85	63	28	10,5	18	63	40	29,5	217	77	140	14	91	48,5	108,5	80	

# HYDRAULIC CLAMPING TECHNOLOGY

## Hydraulic swing clamps – Standard version

### Swing clamp-base flange version

- Double acting version

### Optional

- Piston with indexing for high repeat accuracy
- Other angle of rotation 0°, 45°, 60°
- Bigger stroke
- More accessories under accessories standard

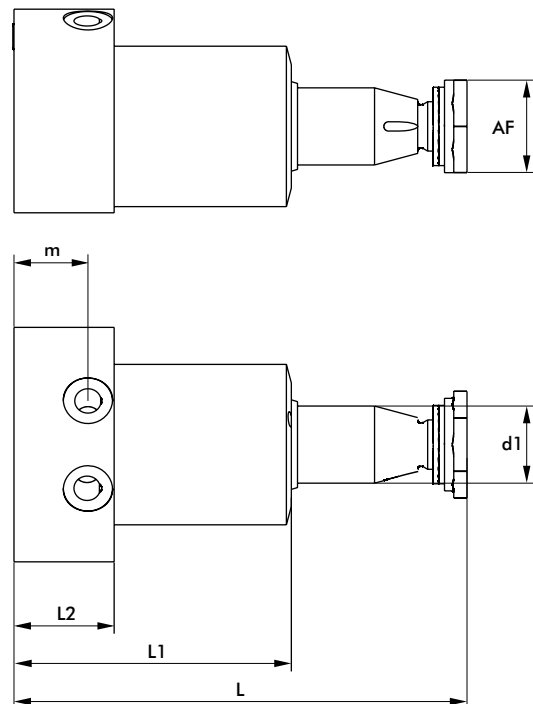
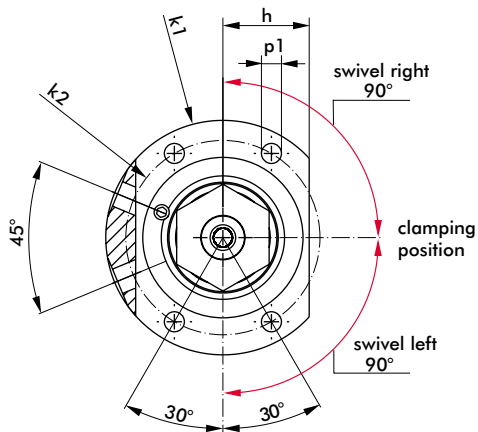
### Technical note:

- Clamping must be accomplished in the vertical stroke range.
- The clamping arm cannot be impeded during swivel.
- The cycle time for a clamping or a unclamping stroke should not fall under 1,5 s. If necessary, the oil flow must be reduced. Observe the max. permitted oil flow.



Model no.		operating pressure		Clamping force	Volume flow	Stroke		Oil consumption		Connection	Weight
swivel right	swivel left	min. [bar]	max. [bar]	at 100 bar [kN]	max. [l/min]	complete stroke [mm]	clamping stroke [mm]	clamping [cm³]	unclamping [cm³]	G	[kg]
726D32243-2	727D32243-2	30	250	3,2	0,9	24	12	11,1	22,6	G1/8	1,9
726D32373-2	727D32373-2	30	250	3,2	0,9	37	25	27,0	55,9	G1/8	2,2
726D50293-2	727D50293-2	30	250	6,4	2,0	29	15	17,4	35,6	G1/4	4,6
726D50393-2	727D50393-2	30	250	6,4	2,0	39	25	36,9	76,6	G1/4	5,3

**Notes on assembling the clamping arm**  
When loosening and tightening the clamping arm screw the clamping arm must fixed to prevent damage to the piston guide.



Model no.		Piston	d1	D	e	f	h	k1	k2	L	L1	L2	m	p1	AF
swivel right	swivel left	Ø						[mm]							
726D32243-2	727D32243-2	32	25	52	M16x1,5	6	28	76	63	147	90	32,5	24	6,5	22
726D32373-2	727D32373-2	32	25	52	M16x1,5	6	28	76	63	176	106	32,5	24	6,5	30
726D50293-2	727D50293-2	50	36	72	M24x1,5	10	38	110	90	176,5	106,5	42	29	10,5	40
726D50393-2	727D50393-2	50	36	72	M24x1,5	10	38	110	90	201,5	121,5	42	29	10,5	46

# HYDRAULIC CLAMPING TECHNOLOGY

## Hydraulic swing clamps – Standard version

### Swing clamp-top flange version

- Double acting version

### Optional

- Position control
- Piston with indexing for high repeat accuracy
- Other angle of rotation 0°, 45°, 60°
- Bigger stroke
- More accessories under accessories standard

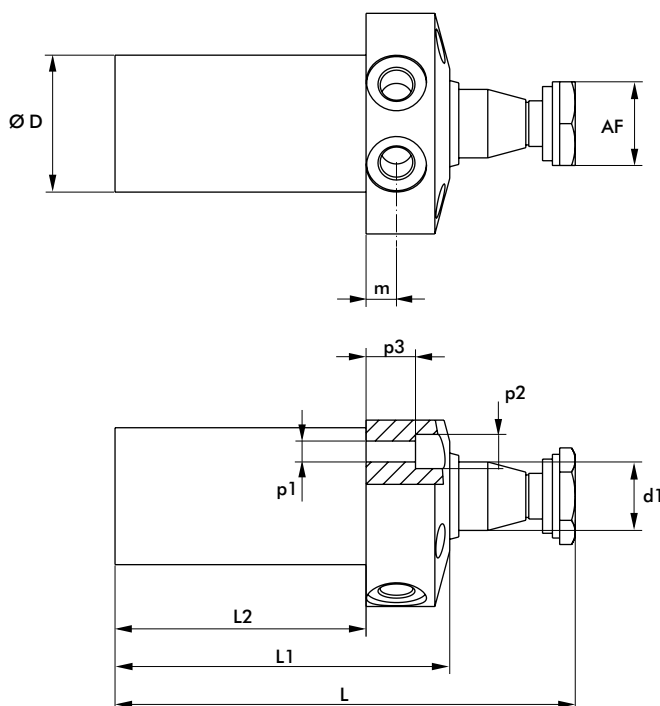
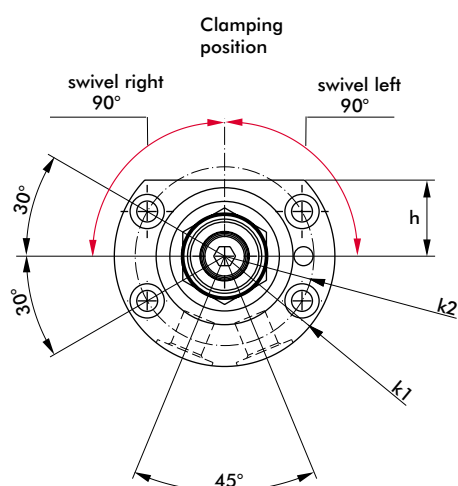
### Technical note:

- Clamping must be accomplished in the vertical stroke range.
- The clamping arm cannot be impeded during swivel.
- The cycle time for a clamping or a unclamping stroke should not fall under 1,5 s. If necessary, the oil flow must be reduced. Observe the max. permitted oil flow.



Model no.		operating pressure		Clamping force	Volume flow	Stroke		Oil consumption		Connection	Weight
swivel right	swivel left	min. [bar]	max. [bar]	at 100 bar [kN]	max. [l/min]	complete stroke [mm]	clamping stroke [mm]	clamping [cm³]	unclamping [cm³]	G	[kg]
726D32244-2	727D32244-2	30	250	3,2	0,9	24	12	11,1	22,6	G1/8	1,7
726D32374-2	727D32374-2	30	250	3,2	0,9	37	25	27,0	55,9	G1/8	2
726D50294-2	727D50294-2	30	250	6,4	2,0	29	15	17,4	35,6	G1/4	4
726D50394-2	727D50394-2	30	250	6,4	2,0	39	25	36,9	76,6	G1/4	4,5

Notes on assembling the clamping arm  
When loosening and tightening the clamping arm screw the clamping arm must fixed to prevent damage to the piston guide.



Model no.		piston	d1	D	e	f	h	k1	k2	L	L1	L2	m	p1	p2	p3	AF
swivel right	swivel left	Ø															
726D32244-2	727D32244-2	32	25	52	M16x1,5	6	28	76	63	146,5	89,5	63,5	11	6,5	10,5	16	30
726D32374-2	727D32374-2	32	25	52	M16x1,5	6	28	76	63	175,5	105,5	79,5	11	6,5	10,5	16	30
726D50294-2	727D50294-2	50	36	72	M24x1,5	10	38	110	90	176	106	78	11	10,5	17	11	40
726D50394-2	727D50394-2	50	36	72	M24x1,5	10	38	110	90	201	121	93	11	10,5	17	11	40

# HYDRAULIC CLAMPING TECHNOLOGY

## Hydraulic swing clamps – compact version

### Swivel clamp-block version

- Double acting version
- Rotation in a plane – without swivel stroke

### Optional

- Piston with indexing for high repeat accuracy
- Other angle of rotation 0°, 45°, 60°
- Bigger stroke
- More accessories under accessories compact

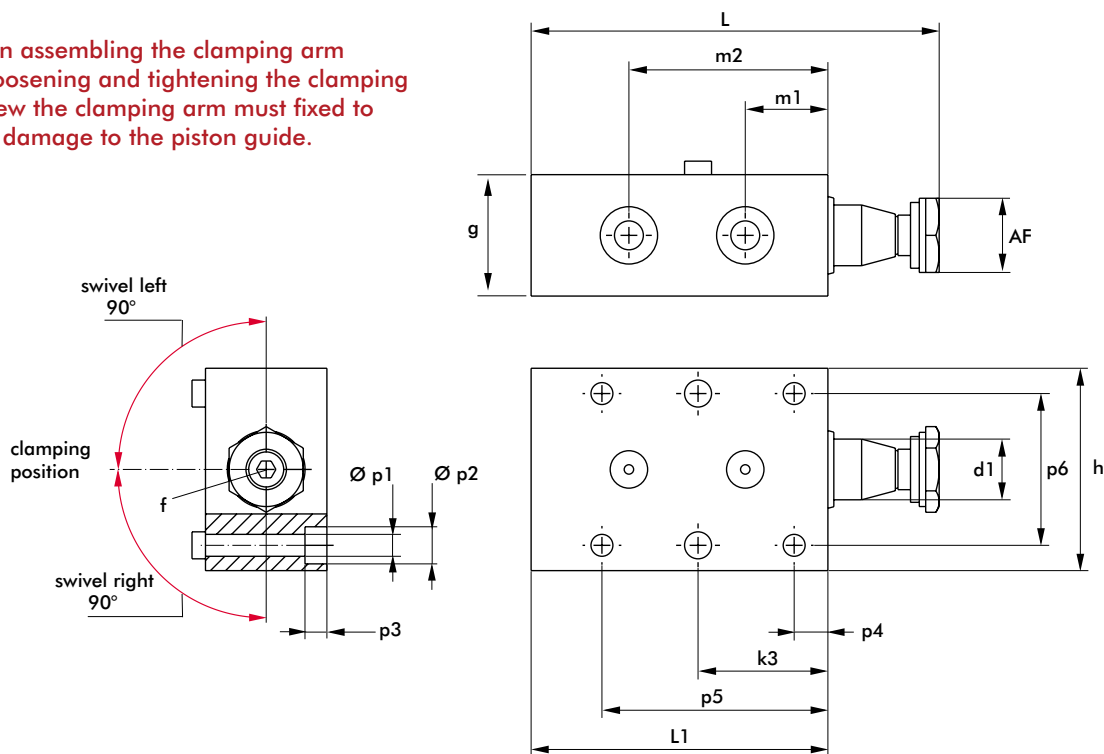
### Technical note:

- Clamping must be accomplished in the vertical stroke range.
- The clamping arm cannot be impeded during swivel.
- The cycle time for a clamping or a unclamping stroke should not fall under 1,5 s. If necessary, the oil flow must be reduced. Observe the max. permitted oil flow.



Model no.		operating pressure		Clamping force	Volume flow	Stroke		Oil consumption		Connection	Weight
swivel right	swivel left	min. [bar]	max. [bar]	at 100 bar [kN]	max. [l/min]	complete stroke [mm]	clamping stroke [mm]	clamping [cm³]	unclamping [cm³]	G	[kg]
726D25082-5	727D25082-5	30	250	1,6	0,4	8	8	5,3	7,4	G1/8	1.8
726D32122-5	727D32122-5	30	250	3,2	0,9	12	12	15,0	21,0	G1/4	3
726D50122-5	727D50122-5	30	250	6,4	2,0	12	12	41,0	53,0	G1/4	7
726D63122-5	727D63122-5	30	250	9,6	3,0	12	12	74,0	88,0	G1/4	15

**Notes on assembling the clamping arm**  
When loosening and tightening the clamping arm screw the clamping arm must fixed to prevent damage to the piston guide.



Model no.		piston	d1	e	f	g	h	k3	L	L1	L3	m1	m2	p1	p2	p3	p4	p5	p6	AF
swivel right	swivel left	Ø							[mm]											
726D25082-5	727D25082-5	25	18	M12x1,5	5	36	60	38,5	121	88	48,5	24.5	59	6,5	11	6.5	10	67	45	22
726D32122-5	727D32122-5	32	25	M16x1,5	6	52	75	44,5	152	107	59,5	28	68,5	8,5	14	8	12	77	58	30
726D50122-5	727D50122-5	50	36	M24x1,5	10	72	96	60	195	142	75	34	94	10,5	17	11	15	105	76	40
726D63122-5	727D63122-5	63	42	M30x1,5	12	85	116	70	218	161	85	40	107	13	20	13	20	120	92	46

# HYDRAULIC CLAMPING TECHNOLOGY

## Hydraulic swing clamps – compact version

### Swing clamp-base flange version

- Double acting version
- Rotation in a plane – without swivel stroke

### Optional

- Piston with indexing for high repeat accuracy
- Other angle of rotation 0°, 45°, 60°
- Bigger stroke
- More accessories under accessories compact

### Technical note:

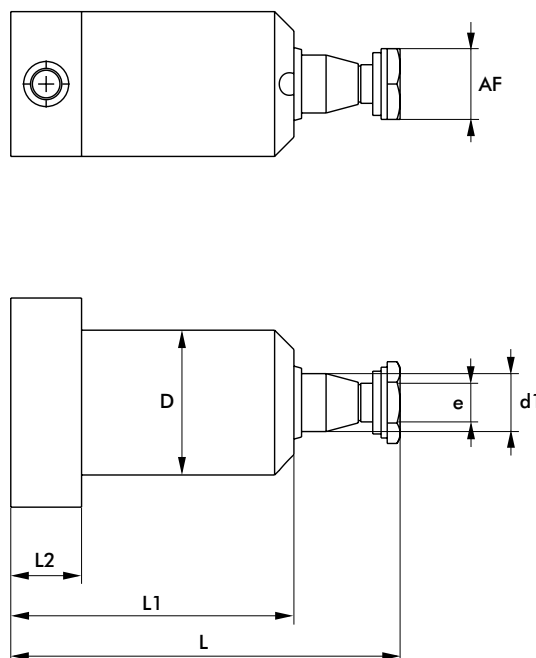
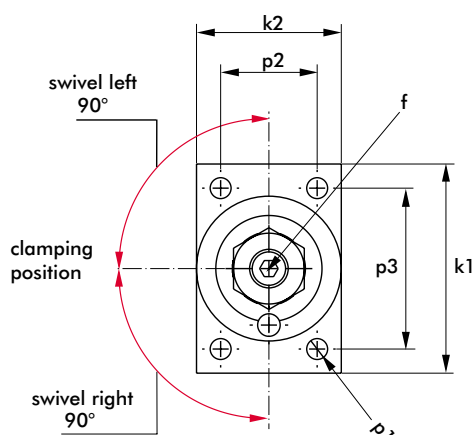
- Clamping must be accomplished in the vertical stroke range.
- The clamping arm cannot be impeded during swivel.
- The cycle time for a clamping or a unclamping stroke should not fall under 1,5 s. If necessary, the oil flow must be reduced. Observe the max. permitted oil flow.



Model no.		operating pressure		Clamping force	Volume flow	Stroke		Oil consumption		Connection	Weight
swivel right	swivel left	min. [bar]	max. [bar]	at 100 bar [kN]	max. [l/min]	complete stroke [mm]	clamping stroke [mm]	clamping [cm³]	unclamping [cm³]	G	[kg]
726D25083-5	727D25083-5	30	250	1,6	0,4	8	8	5,3	7,4	G1/8	1,8
726D32123-5	727D32123-5	30	250	3,2	0,9	12	12	15,0	21,0	G1/8	3
726D50123-5	727D50123-5	30	250	6,4	2,0	12	12	41,0	53,0	G1/4	7
726D63123-5	727D63123-5	30	250	9,6	3,0	12	12	74,0	88,0	G1/4	15

### Notes on assembling the clamping arm

When loosening and tightening the clamping arm screw the clamping arm must be fixed to prevent damage to the piston guide.



Model no.		piston	d1	D	e	f	k1	k2	L	L1	L2	p1	p2	p3	AF
swivel right	swivel left	Ø					[mm]								
726D25083-5	727D25083-5	25	18	M45x1,5	M12x1,5	5	65	45	121	88	22	6,5	30	50	22
726D32123-5	727D32123-5	32	25	M60x1,5	M16x1,5	6	83	63	152	107	22	8,5	44	65	30
726D50123-5	727D50123-5	50	36	M80x2	M24x1,5	10	110	80	195	142	25	13	60	83	40
726D63123-5	727D63123-5	63	42	M95x2	M30x1,5	12	120	95	218	161	25	15	70	96	46

# HYDRAULIC CLAMPING TECHNOLOGY

## Hydraulic swing clamps – compact version

### Swing clamps-top flange version

- Double acting version
- Rotation in a plane-without swivel stroke

### Optional

- Position control(P/E/H)
- Piston with indexing for high repeat accuracy
- Other angle of rotation 0°, 45°, 60°
- Bigger stroke
- More accessories under accessories compact

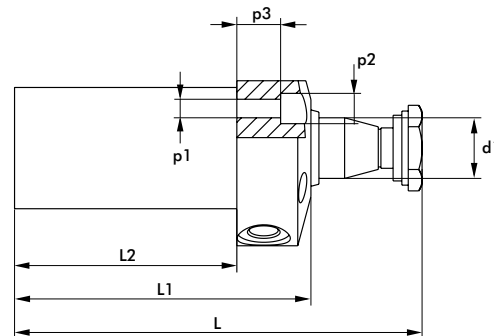
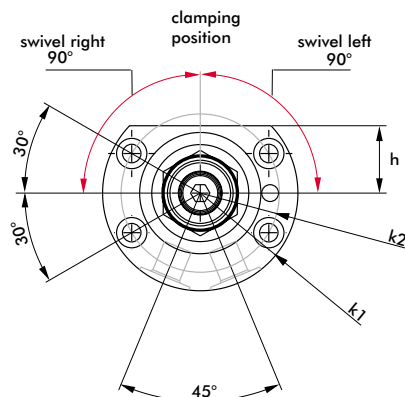
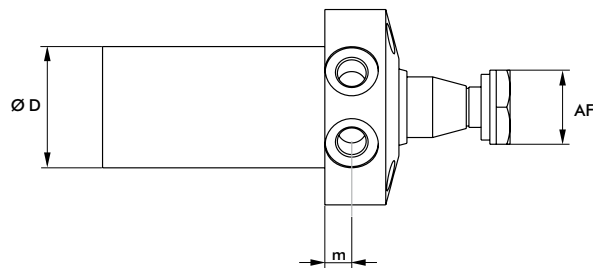
### Technical note:

- Clamping must be accomplished in the vertical stroke range.
- The clamping arm cannot be impeded during swivel.
- The cycle time for a clamping or a unclamping stroke should not fall under 1,5 s. If necessary, the oil flow must be reduced. Observe the max. permitted oilflow.



Model no.		operating pressure		Clamping force	Volume flow	Stroke		Oil consumption		Connection	Weight
swivel right	swivel left	min. [bar]	max. [bar]	at 100 bar [kN]	max. [l/min]	complete stroke [mm]	clamping stroke [mm]	clamping [cm³]	unclamping [cm³]	G	[kg]
726D25084-5	727D25084-5	30	250	1,6	0,4	8	8	5,3	7,4	G1/8	0,9
726D32124-5	727D32124-5	30	250	3,2	0,9	12	12	15,0	21,0	G1/8	2
726D50124-5	727D50124-5	30	250	6,4	2,0	12	12	41,0	53,0	G1/4	5
726D63124-5	727D63124-5	30	250	9,6	3,0	12	12	74,0	88,0	G1/4	7,7

**Notes on assembling the clamping arm**  
When loosening and tightening the clamping arm screw the clamping arm must fixed to prevent damage to the piston guide.



Model no.		piston	d1	D	e	f	h	K1	K2	L	L1	L2	m	p1	p2	p3	AF
swivel right	swivel left	Ø						[mm]									
726D25084-5	727D25084-5	25	18	36	M12x1,5	5	20	58	47	121	88	66	8	5,5	9	13	22
726D32124-5	727D32124-5	32	25	52	M16x1,5	6	28	76	63	152	107	81	11	6,5	10,5	16	30
726D50124-5	727D50124-5	50	36	72	M24x1,5	10	38	110	90	195	142	114	11	10,5	17	11	40
726D63124-5	727D63124-5	63	42	85	M30x1,5	12	45	125	105	218	161	131	12	10,5	17	12	46

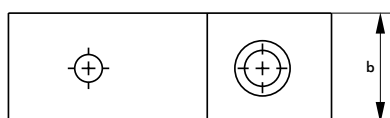
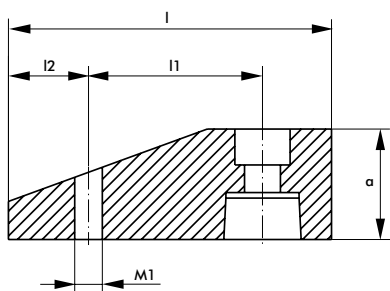


# HYDRAULIC CLAMPING TECHNOLOGY

## Hydraulic swing clamps – accessories Standard

### Clamping arm-standard

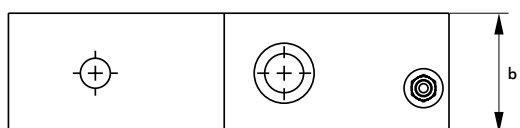
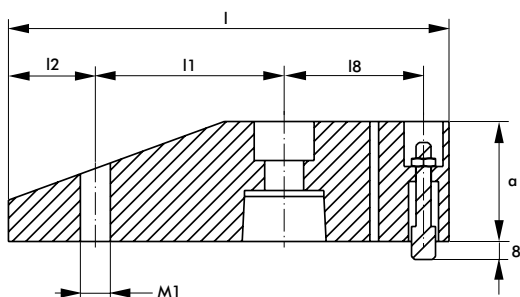
Model no.	a	b	l	l1 [mm]	l2	M1	max. torque [Nm]
728Z25SP0-1	25	25	88	51	19,5	M12	30
728Z32SP0-1	30	30	97	57	19,5	M12	45
728Z40SP0-1	40	40	117	63	29	M12	80



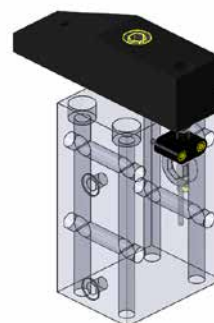
Notes on assembling the clamping arm  
When loosening and tightening the clamping arm screw the clamping arm must be fixed to prevent damage to the piston guide.  
See table for max. torque for arm screw.

### Clamping arm for position control

Model no.	a	b	l	l1 [mm]	l2	l8	M1	max. torque [Nm]
793S01AS2-1	25	25	116,5	51	19,5	37,5	M12	30
793S02AS2-1	30	30	127,5	57	19,5	42,5	M12	45
793S03AS2-1	40	40	147	63	29	46,5	M12	80



Scope of delivery:  
The highlighted parts belong to the package.  
The sensor is not part of the package.



Notes on assembling the clamping arm  
When loosening and tightening the clamping arm screw the clamping arm must be fixed to prevent damage to the piston guide.  
See table for max. torque for arm screw.

# HYDRAULIC CLAMPING TECHNOLOGY

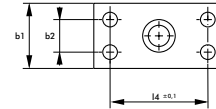
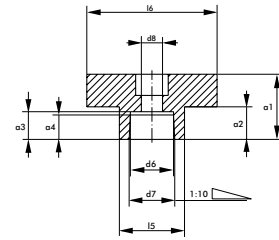
## Hydraulic swing clamps – accessories Standard

### Safe connection

The adaptors were developed to ensure a safe connection between your own manufactured clamping arms and the piston rods of the swivel clamping cylinder.

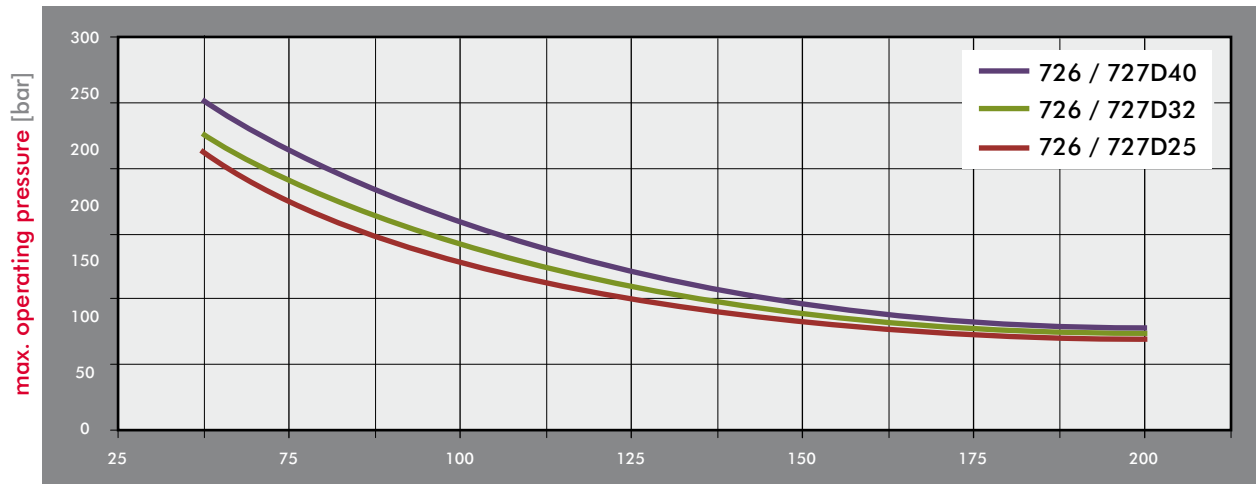
### Important note

Please ensure that the distance of the clamping point of your own manufactured clamping arm is identical with the dimension l1 in the tables . If dimension l1 and/or the weight is increased, the operating pressure must be reduced in accordance with the diagrams shown below.



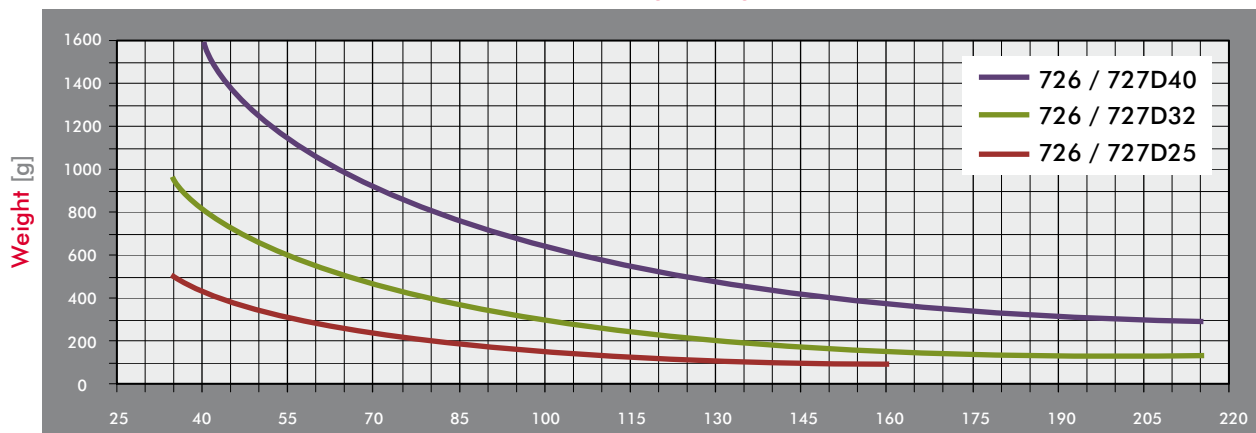
Model no.	a1	a2	a3	a4	b1	b2	Ød5	Ød6	Ød7	Ød8	l4	l5	l6	max. weight [Nm]
	[mm]													
728Z25AD0-1	25	12	11,5	10	25	14	5,5	17	18	11	45	30	360	0,3
728Z32AD0-1	30	15	12	10	30	16	9	21	22	11	46	30	60	0,5
728Z40AD0-1	40	20	17	15	40	20	9	26,5	28	13	60	40	60	1,1

Guide line length/pressure



clamping arm length L1 [mm]

Guide line weight/ length



clamping arm length L1 [mm]

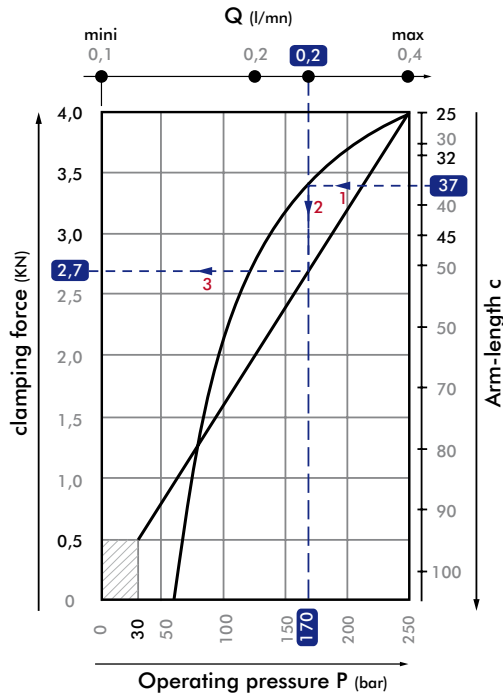
# HYDRAULIC CLAMPING TECHNOLOGY

## Hydraulic swing clamps – accessories compact

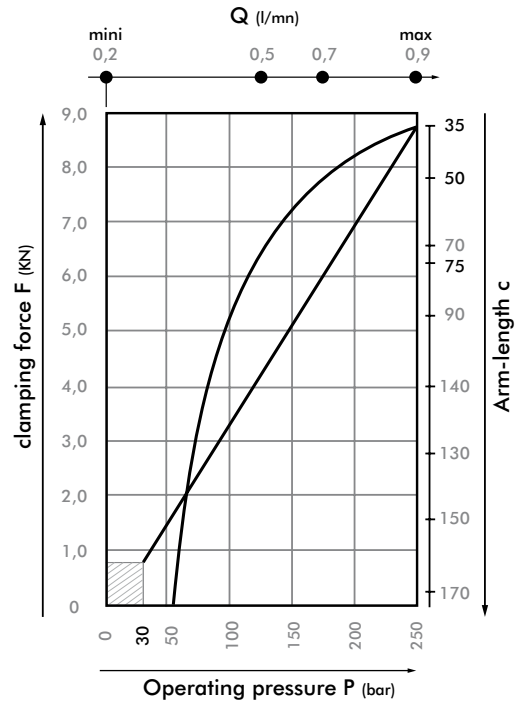
### Selection chart for special clamping arms and settings for the hydraulic system

With help of the following charts you can identify the correct settings for your hydraulic system. E.g.: Swing clamp with piston  $\varnothing$  25 mm and clamping arm effective length  $c=37$  mm: max. pressure=170 bar, max. clamping force 2,7 kN

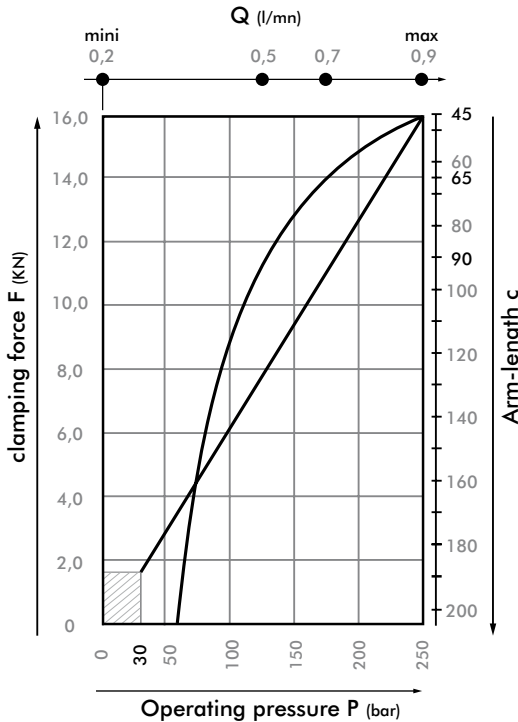
Clamping arm 728Z25SPB...



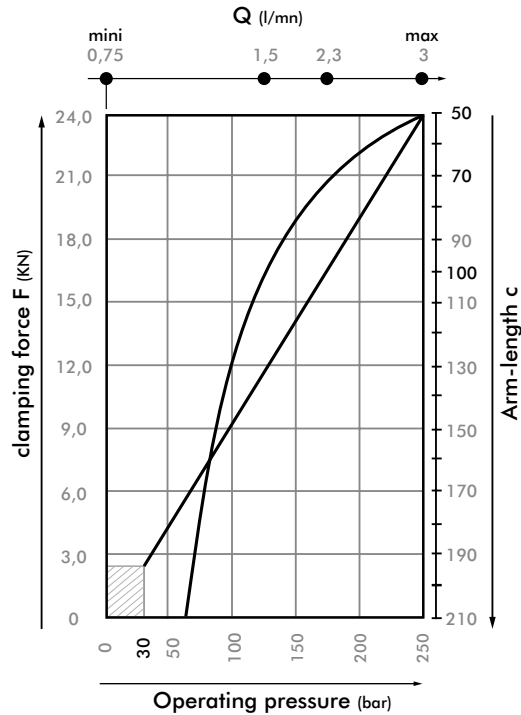
Clamping arm 728Z32SPB...



Clamping arm 728Z50SPB...



Clamping arm 728Z63SPB...

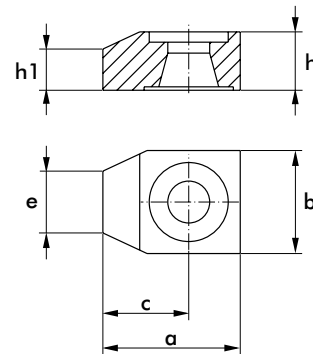


# HYDRAULIC CLAMPING TECHNOLOGY

Hydraulic swing clamps – accessories compact

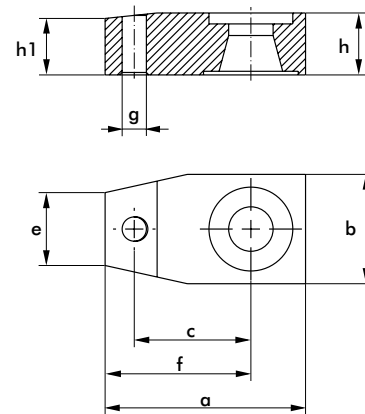
## Clamping arm short size BC

Model no.	a	b	c	e	h	h1
	[mm]					
728Z25SPBC-1	40	30	25	18	17	12
728Z32SPBC-1	55	40	35	23	23	16,5
728Z50SPBC-1	72	55	44,5	30	30	20
728Z63SPBC-1	85	70	50	36	33	20



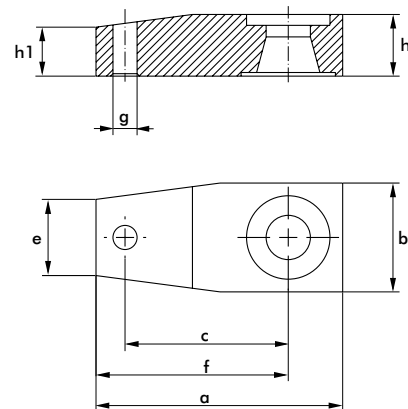
## Clamping arm middle size BM

Model no.	a	b	c	e	f	g	h	h1
	[mm]							
728Z25SPBM-1	55	30	32	20	4	M8	17	15,5
728Z32SPBM-1	85	40	50	21	65	M12	23	21,5
728Z50SPBM-1	108	55	65	35	80,5	M16	30	25
728Z63SPBM-1	125	70	70	43	90	M20	33	30,5



## Clamping arm long size BL

Model no.	a	b	c	e	f	g	h	h1
	[mm]							
728Z25SPBL-1	68	30	45	21	53	M8	17	13,5
728Z32SPBL-1	110	40	75	24	90	M12	23	17
728Z50SPBL-1	134	55	90	40	106,5	M16	30	22
728Z63SPBL-1	155	70	100	50	120	M20	33	27



## Contact bolt

Model no.	a	b	c	r	AF
	[mm]				
728Z25SPVB-1	M8	10	10	20	13
728Z32SPVB-1	M12	12	10	45	19
728Z50SPVB-1	M16	20	10	60	24
728Z63SPVB-1	M20	25	10	80	30

