

HYDRAULIC CLAMPING TECHNOLOGY

Hydraulic screw-in cylinder | double acting

Operating pressure max. 350 bar/min 100 bar

These hydraulic screw-in cylinder are double acting. They can be used in clamping fixtures for positioning, clamping and gripping of workpieces. Such cylinder should be used if rapid and precise stroke speeds are required or when high retraction forces are needed.

Technical characteristics

- Hydraulic ports at the cylinder bottom
- External thread along the whole housing
- Glide ring seal with high wear resistance
- No stick-slip-effect
- Double piston-rod seal
- An extended piston rod guide assures high stability when transversal forces occur
- Piston rod with internal thread

CUSTOMER DESIGNED Models

If you need a special cylinder for your application – customer designed Models are available. PLEASE LET US KNOW!

Recommended accessories (separate Order)

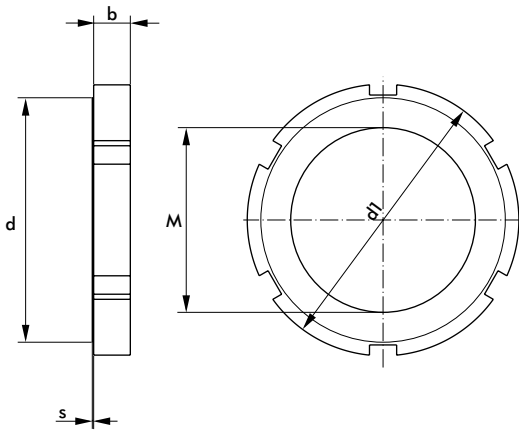
- Groove nut DIN 1804
- 2 x straight screw connection D8S-R1/4



Model no.	Clamping force at 100 bar		Repair kit	Piston Ø [mm]	Stroke* S [mm]	Piston surface area		Oil consumption/ stroke		Connection G	Weight ~ [kg]
	forward stroke [kN]	backstroke [kN]				max. forward [cm ²]	back [cm ²]	forward [cm ³]	back [cm ³]		
721D25501-1	4,8	2,8	720V25-0002	25	50	4,90	2,90	24,50	14,50	G1/4	2,5
721D32501-1	7,9	4,8	720V32-0002	32	50	8,04	4,90	40,20	24,50	G1/4	2,90
721D40501-1	12,3	7,5	720V40-0002	40	50	12,56	7,66	62,80	38,30	G1/4	3,50
721D50501-1	19,3	11,4	720V50-0001	50	50	19,63	11,59	98,15	57,95	G1/4	4,50

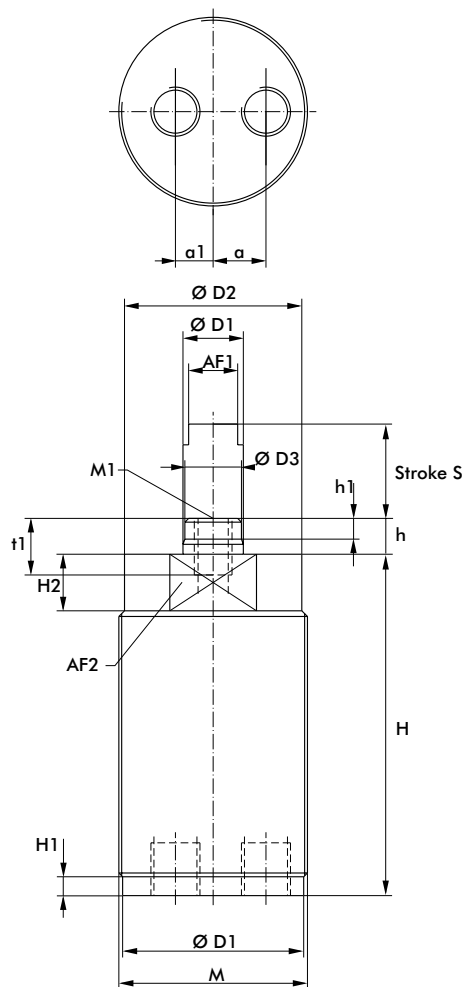
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Accessories groove nut DIN 1804

Order no. M	b	d [mm]	d1	s
M50x1,5N	13	67	75	0,5
M56x1,5N	13	70	80	0,5
M68x1,5N	14	90	100	0,5
M80x2N	16	105	175	1



Model no.	a	a1	D	D1	D2	D3	H	H1	H2	h	h1	M	M1	AF1	AF2	t
[mm]																
721D25501-1	14	10	48	16	47	15	133,5	5	15	9,5	5,5	M50x1,5	M10	13	41	20
721D32501-1	17	10	54	20	52	19	138	5	15	10	7	M56x1,5	M12	17	46	24
721D40501-1	22,5	5	65	25	64	24	144	5	15	11	8	M68x1,5	M16	21	55	32
721D50501-1	28	-	76	32	76	31	145,5	5	15	12	8	M80x2	M20	27	65	38

HYDRAULIC CLAMPING TECHNOLOGY

Hydraulic short stroke cylinder | double acting

Operating pressure max. 350 bar/min 100 bar

These double action hydraulic short-stroke cylinders are primarily used for operating double action hydraulic punching, notching and cutting units. Furthermore, they can be used as clamping cylinders. The double action version allows rapid stroke speeds. The cylinders are mounted to the hydraulic punching units with the help of mounting flanges. Adequate mounting flanges available on request.

Technical characteristics

- Optimal piston rod guide; hardened piston rod for protection against corrosion and wear and for better gliding.
- Fine-grinded, polished slide faces for the lip seal and the piston rod improve the service life and the function of the seals.
- Lateral oil ports, additional advance stroke connection on the cylinder base

CUSTOMER DESIGNED Models

If you need a special cylinder for your application – customer designed Models are available. PLEASE LET US KNOW!

Included accessories

2 x reducing nipples GWR-3/8-1/4 (only 725D80151-1)

Recommended accessories (separate Order)

2 x straight screw connectors D8S-R1/4

Mounting flange

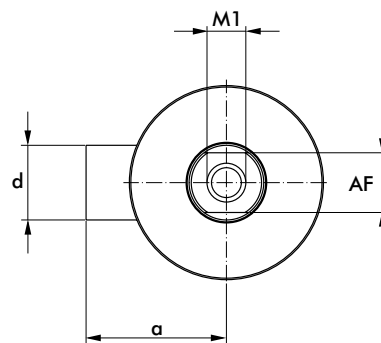
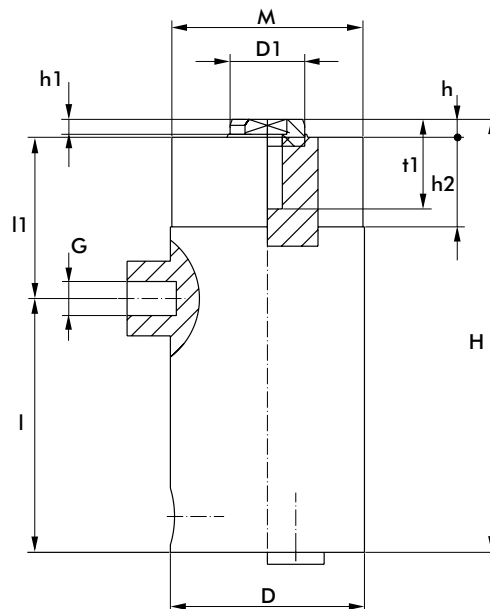
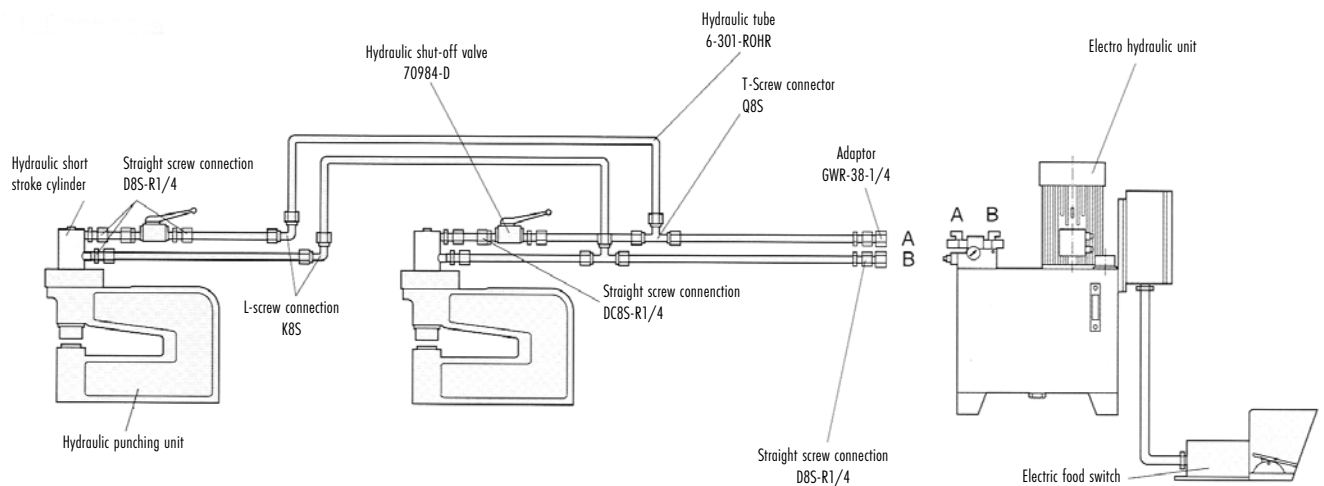
Grooved or hexagonal nut (see page 20 and 24)



Model no.	Clamping force at 100 bar		Repair kit	Piston Ø [mm]	Stroke* S [mm]	Piston surface area		Oil consumption/ stroke		Connection G 2x	Weight ~ [kg]
	forward stroke	back stroke				forward stroke	back stroke	forward stroke	back stroke		
	[kN]	[kN]				[cm ²]	[cm ²]	[cm ³]	[cm ³]		
725D35151-2	9,6	6,5	720V35-0001	35	15	9,62	6,47	14,40	9,70	G1/4	1,9
725D50151-2	19,6	14,7	720V50-0005-2	50	15	19,63	14,72	29,50	22,10	G1/4	3,0
725D63171-1	31,2	22,7	720V63-0001	63	17	31,17	23,13	53,00	39,30	G1/4	4,5
725D80151-1	50,3	37,7	720V80-0001	80	15	50,26	37,69	75,40	56,60	G3/8	10,0

HYDRAULIC CLAMPING TECHNOLOGY

Hydraulic short stroke cylinder | double acting



Model no.	a	d	D	D1	h	hi	h2	H	l	l1	M	M1	AF	t1
[mm]														
725D35151-2	40	25	50	20	9	7	30	159	88	52	M48x1,5	M10	17	25
725D50151-2	-	-	84	25	9	7	30	137	90	47	M64x1,5	M12	20	25
725D63171-1	-	-	97	32	9	7	32	150	96	45	M80x2	M16	27	30
725D80151-1	65	28	105	40	9	7	29,5	183,5	105	72,5	M80x2	M16	36	31

HYDRAULIC CLAMPING TECHNOLOGY

Hydraulic screw-in cylinder | single acting

Operating pressure max. 350 bar/min 100 bar

These hydraulic screw-in cylinder are single acting and with spring retraction. They can be used in clamping fixtures for positioning, clamping and gripping of workpieces.

Technical characteristics

- Only suitable for operating pressures starting from 100 bar
- Use for pipe connections and for integrated oil supply (sealing on the cylinder's base with a seal which is delivered with the unit)
- External thread along the whole length of the housing
- Narrow distances between the cylinders are possible when the cylinders are mounted in groups
- Spring retraction
- Slide ring seals with high wear resistance
- No stick-slip effect
- Piston rods with internal thread on all Models starting from Model 721E16121-1 onwards

CUSTOMER DESIGNED Models

If you need a special cylinder for your application – customer designed Models are available. PLEASE LET US KNOW!



Included accessories

DELFIN seal ring

Recommended accessories (separate Order)

- Hexagonal nut DIN 936
- Groove nut DIN 1804
- Straight screw-connection D8S-R1/8
- Straight screw-connection D8S-R1/4

Important Note

The maximum spring retraction force has been taken into account in the clamping force values diagram.

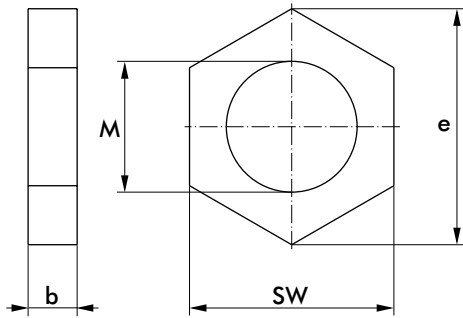
The operating pressure should not exceed 150 bar if the piston is actuated without a counter force.

Model no.	Clamping force		Repair kit	Piston Ø	Stroke* S max.	Piston- surface area	Oil con- sumption/ stroke	Spring retracting force min	Connection G	Weight ~
	at 100 bar	at 350 bar								
	[kN]	[kN]		[mm]	[mm]	[cm ²]	[cm ³]	[N]		[kg]
721E08101-1	0,4	1,4	-	8	10	0,5	0,5	39	-	0,03
721E12101-1	1,0	3,7	720V12-0001	12	10	1,13	1,13	25	G1/8	0,25
721E16121-1	1,9	6,7	720V16-0001	16	12	2,01	2,41	60	G1/8	0,32
721E20161-1	2,8	9,8	720V20-0001	20	16	3,14	5,02	62	G1/4	0,4
721E20401-1	2,7	9,4	720V20-0001	20	40	3,14	12,57	66	G1/4	0,6
721E25161-1	4,6	16,2	720V25-0003	25	16	4,91	7,85	117	G1/4	0,6
721E25401-1	4,6	15,9	720V25-0003	25	40	4,91	19,63	115	G1/4	0,9
721E32161-1	7,8	27,3	720V32-0003	32	16	8,04	12,87	98	G1/4	0,95
721E40161-1	12,2	42,8	720V40-0003	40	16	12,57	20,11	201	G1/4	1,45
721E40401-1	12	42,1	720V40-0003	40	40	12,57	50,28	280	G1/4	2,4
721E50251-1	19,1	66,7	720V50-0002	50	25	19,63	49,09	239	G1/4	3,3

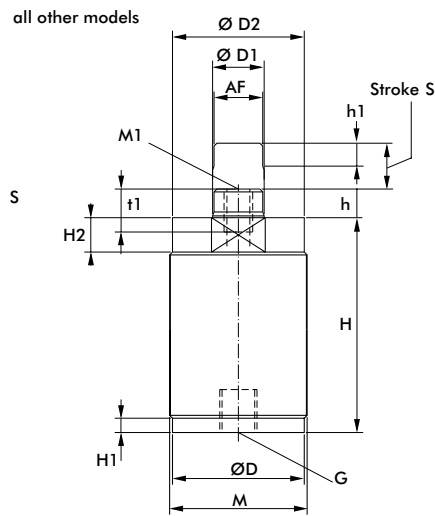
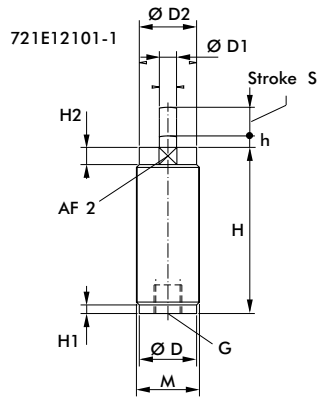
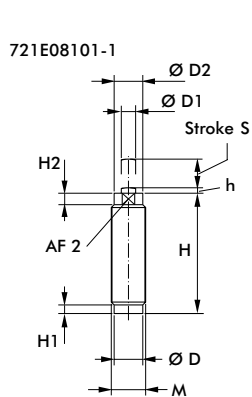
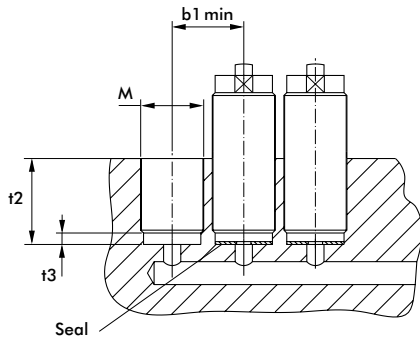
HYDRAULIC CLAMPING TECHNOLOGY

Hydraulic screw-in cylinder | single acting

Accessories hexagonal nut DIN 936



Model no. M	b	e [mm]	AF
M22x1,5	10	35,72	32
M27x1,5	12	45,63	41
M33x1,5	14	55,8	50
M38x1,5	16	66,96	60
M48x1,5	18	83,9	75
M56x1,5N	groove nut DIN 1804 (see page 24)		
M68x1,5N	groove nut DIN 1804 (see page 24)		



Model no.	b1	D	D1	D2	H	H1	H2	h	h1	M	M1	SW1	SW2	t1	t2	t3	max. torque [Nm]
[mm]																	
721E08101-1	15	10	5	10	42	3	4	1,9	-	M12x1,5	-	-	9	-	18	3	10
721E12101-1	25	20	6	20	58	3	6	4	-	M22x1,5	-	-	19	-	30	3	70
721E16121-1	30	24	10	25	75	3	6,5	7	5,5	M27x1,5	M5	8	22	10	36	3	130
721E20161-1	38	30	10	31	84,5	3	8	7	5,5	M33x1,5	M5	8	27	10	42	3	230
721E20401-1	38	30	10	31	140	3	8	7	5,5	M33x1,5	M5	8	27	10	42	3	230
721E25161-1	43	35	12	36	95	5	12	7	5,5	M38x1,5	M6	9	32	12	52	5	370
721E25401-1	43	35	12	36	137	5	12	7	5,5	M38x1,5	M6	9	32	12	52	5	370
721E32161-1	53	45	18	46	91	5	12	10	8	M48x1,5	M10	15	42	15	61	5	750
721E40161-1	61	53	22	54	99	5	12	10	8	M56x1,5	M12	19	50	18	71	5	1200
721E40401-1	61	53	22	54	173	5	12	10	8	M56x1,5	M12	19	50	18	71	5	1200
721E50251-1	73	65	32	65	116	5	15	10	8	M68x1,5	M20	27	60	30	85	5	2000

HYDRAULIC CLAMPING TECHNOLOGY

Hydraulic screw-in cylinder | single acting

Operating pressure max. 250 bar/min 100 bar

These hydraulic screw-in cylinder are single acting and with spring retraction. They can be used in clamping fixtures for positioning, clamping and gripping of workpieces. Flexible applicable because of the radial and axial ports.

Technical characteristics

- Suitable even for operating pressures under 100 bar
- 1 oil port radial, one axial
- External thread along the whole housing
- Spring retraction
- O-ring-seal
- Piston rod with internal thread

CUSTOMER DESIGNED Models

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Recommended accessories (separate Order)

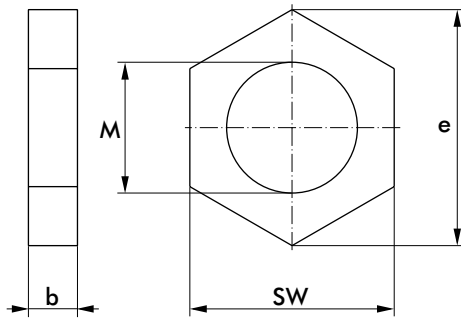
- Hexagonal nut DIN 936
- Straight screw-connection D8S-R1/8
- Straight screw-connection D8S-R1/4



Model no.	clamping force		Repair kit	Piston Ø [mm]	Stroke* S max. [mm]	Piston surface area [cm ²]	Oil con- sumption/ stroke [cm ³]	Spring retracting force min [N]	Connection G	Weight ~ [kg]
	at 100 bar [kN]	at 250 bar [kN]								
721E25155-1	4,7	11,6	720V25-0006-1	25	15	4,91	7,37	60	G1/8	0,6
721E25255-1	4,6	11,5	720V25-0006-1	25	25	4,91	12,28	70	G1/8	0,7
721E25405-1	4,6	11,4	720V25-0006-1	25	40	4,91	19,63	110	G1/8	0,9
721E38125-1	10,9	27,3	720V38-0001	38	12,5	11,34	14,18	200	G1/8	1,4
721E38255-1	10,9	27,1	720V38-0001	38	25	11,34	28,35	220	G1/8	1,8
721E38505-1	10,8	27	720V38-0001	38	50	11,34	56,7	280	G1/8	2,5
721E50255-1	19,1	47,7	720V50-0008	50,8	25	19,95	49,87	200	G1/4	3,4

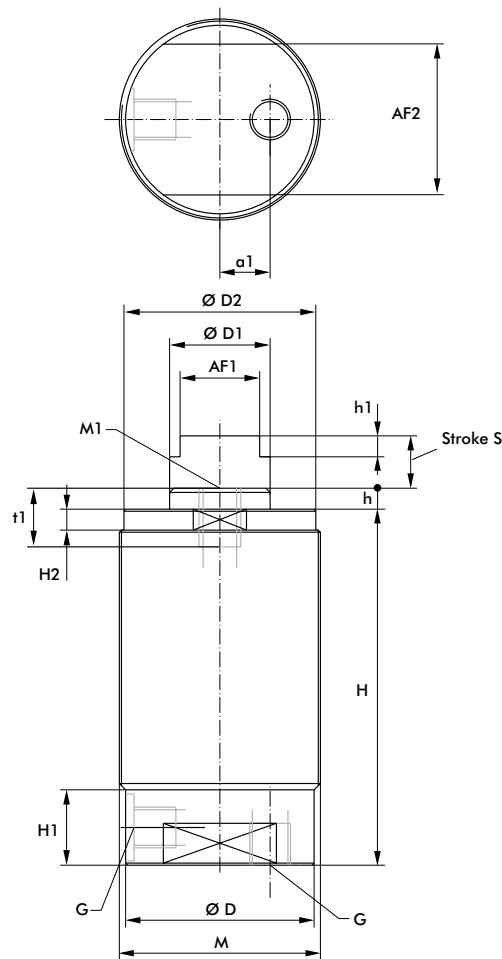
HYDRAULIC CLAMPING TECHNOLOGY

Hydraulic screw-in cylinder | single acting



Accessories hexagonal nut DIN 936

Order no. M	b	e [mm]	AF
M33x1,5	14	55,8	50
M48x1,5	18	83,9	75



Model no.	a1	D	D1	D2	H	H1	H2	h	h1	M	M1	AF1	AF2	t1
[mm]														
721E25155-1	7	30	14	30	80	21	5	5	5	M33x1,5	M8	11	24	10
721E25255-1	7	30	14	30	98	21	5	5	5	M33x1,5	M8	11	24	10
721E25405-1	7	30	14	30	126	21	5	5	5	M33x1,5	M8	11	24	10
721E38125-1	12	45	24	45,8	85	19	5	5	5	M48x1,5	M10	19	36	14
721E38255-1	12	45	24	45,8	122,5	19	5	5	5	M48x1,5	M10	19	36	14
721E38505-1	12	45	24	45,8	177	19	5	5	5	M48x1,5	M10	19	36	14
721E50255-1	-	60	36	-	107	22	-	5	5	M64x1,5	M16	30	50	20