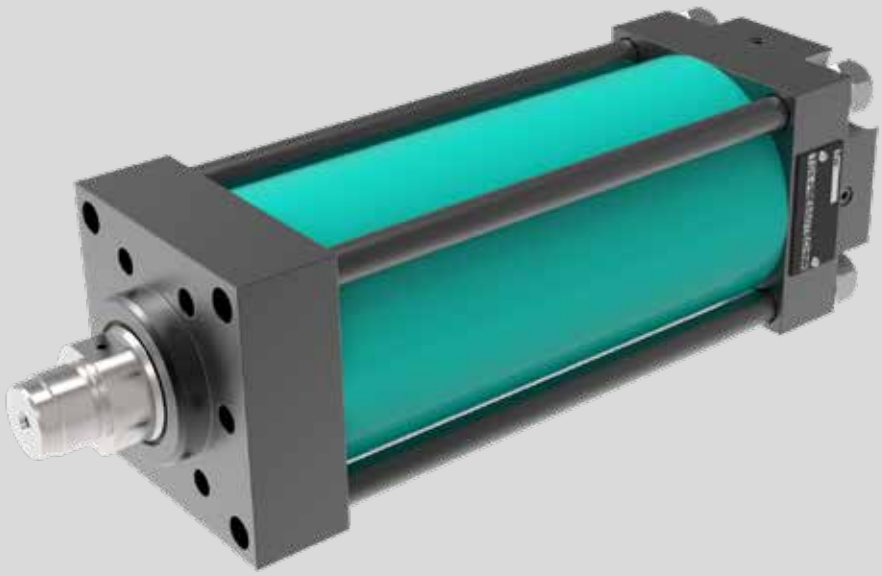
TOX® PRESSOTECHNIK

TOX®-Hydraulic Cylinder Type HZO

Data sheet 10.17
2022/05



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Find your local contact at: tox-pressotechnik.com

TOX®-Hydraulic Cylinder HZO

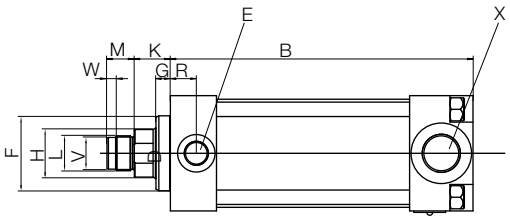
The hydraulic working cylinder

For pure hydraulic operations the TOX®-Hydraulic cylinder HZO is the perfect solution. It has a compact design and provides special seals for oil-oil operation.

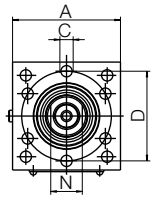
The piston can be used with an oil pressure of max. 250 bar for approach- and return stroke. When using heavy tools the maximum allowable return force of the working piston needs to be obtained.

Advantages:

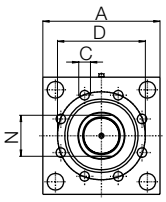
- Compact and short design
- Single-bearing working piston
- Fixed stop in approach stroke
- 10 million cycles within 12 months without work shift restrictions
- Options: elastomer cushioning for approach stroke (FUD) and travel transducer (ZKW)
- Also available in special colours, different mounting versions and with other connection angles



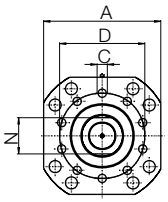
HZO 02 - HZO 29



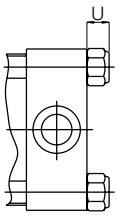
HZO 48



HZO 74



HZO 29 - HZO 74



Type	Version	Total stroke	Max. pressure force at 250 bar oil pressure	Max. allowable return stroke force kN	Ø Piston front	Ø Piston hydraulic
HZO 02.101. 50	101	50	23	9	16	35
HZO 02.101.100	101	100	23	9	16	35
HZO 02.101.150	101	150	23	9	16	35
HZO 02.101.200	101	200	23	9	16	35
HZO 05.101. 50	101	50	48	20	25	50
HZO 05.101.100	101	100	48	20	25	50
HZO 05.101.150	101	150	48	20	25	50
HZO 05.101.200	101	200	48	20	25	50
HZO 07.101. 50	101	50	76	25	35	63
HZO 07.101.100	101	100	76	25	35	63
HZO 07.101.150	101	150	76	25	35	63
HZO 07.101.200	101	200	76	25	35	63
HZO 11.101. 50	101	50	108	25	35	75
HZO 11.101.100	101	100	108	25	35	75
HZO 11.101.150	101	150	108	25	35	75
HZO 11.101.200	101	200	108	25	35	75
HZO 19.101. 50	101	50	192	40	50	100
HZO 19.101.100	101	100	192	40	50	100
HZO 19.101.150	101	150	192	40	50	100
HZO 19.101.200	101	200	192	40	50	100
HZO 29.101. 50	101	50	300	110	55	125
HZO 29.101.100	101	100	300	110	55	125
HZO 29.101.150	101	150	300	110	55	125
HZO 29.101.200	101	200	300	110	55	125
HZO 48.101. 50	101	50	492	245	80	160
HZO 48.101.100	101	100	492	245	80	160
HZO 48.101.150	101	150	492	245	80	160
HZO 48.101.200	101	200	492	245	80	160
HZO 74.101. 50	101	50	770	245	100	200
HZO 74.101.100	101	100	770	245	100	200
HZO 74.101.150	101	150	770	245	100	200
HZO 74.101.200	101	200	770	245	100	200

Dimensions in mm

Type	A	B	C	D	E	F_{f7}	G	H	K	L	M	N	W	V_{g6}	R	U	X
HZO 02.101. 50	55	160	6xM6x12	42	G1/8	32	9.5	16	27	M12x1.5	12	14	4	10	10	–	G1/4
HZO 02.101.100	55	210	6xM6x12	42	G1/8	32	9.5	16	27	M12x1.5	12	14	4	10	10	–	G1/4
HZO 02.101.150	55	260	6xM6x12	42	G1/8	32	9.5	16	27	M12x1.5	12	14	4	10	10	–	G1/4
HZO 02.101.200	55	310	6xM6x12	42	G1/8	32	9.5	16	27	M12x1.5	12	14	4	10	10	–	G1/4
HZO 05.101. 50	65	190	6xM8x12	54	G3/8	40	10.0	25	25	M16x1.5	15	19	4	14	14	–	G1/2
HZO 05.101.100	65	240	6xM8x12	54	G3/8	40	10.0	25	25	M16x1.5	15	19	4	14	14	–	G1/2
HZO 05.101.150	65	290	6xM8x12	54	G3/8	40	10.0	25	25	M16x1.5	15	19	4	14	14	–	G1/2
HZO 05.101.200	65	340	6xM8x12	54	G3/8	40	10.0	25	25	M16x1.5	15	19	4	14	14	–	G1/2
HZO 07.101. 50	80	210	6xM8x16	65	G3/8	52	10.0	35	25	M24x1.5	19	30	6	22	18	–	G3/4
HZO 07.101.100	80	260	6xM8x16	65	G3/8	52	10.0	35	25	M24x1.5	19	30	6	22	18	–	G3/4
HZO 07.101.150	80	310	6xM8x16	65	G3/8	52	10.0	35	25	M24x1.5	19	30	6	22	18	–	G3/4
HZO 07.101.200	80	360	6xM8x16	65	G3/8	52	10.0	35	25	M24x1.5	19	30	6	22	18	–	G3/4
HZO 11.101. 50	90	210	6xM10x16	68	G3/8	52	10.0	35	25	M24x1.5	19	30	6	22	18	–	G3/4
HZO 11.101.100	90	260	6xM10x16	68	G3/8	52	10.0	35	25	M24x1.5	19	30	6	22	18	–	G3/4
HZO 11.101.150	90	310	6xM10x16	68	G3/8	52	10.0	35	25	M24x1.5	19	30	6	22	18	–	G3/4
HZO 11.101.200	90	360	6xM10x16	68	G3/8	52	10.0	35	25	M24x1.5	19	30	6	22	18	–	G3/4
HZO 19.101. 50	125	235	6xM16x25	100	G1/2	75	10.0	50	28	M30x2	25	41	7	26	24	–	G1
HZO 19.101.100	125	285	6xM16x25	100	G1/2	75	10.0	50	28	M30x2	25	41	7	26	24	–	G1
HZO 19.101.150	125	335	6xM16x25	100	G1/2	75	10.0	50	28	M30x2	25	41	7	26	24	–	G1
HZO 19.101.200	125	385	6xM16x25	100	G1/2	75	10.0	50	28	M30x2	25	41	7	26	24	–	G1
HZO 29.101. 50	160	298	6xM20x30	115	G3/4	80	15.0	55	47	M39x2	35	50	–	–	27	22	G1
HZO 29.101.100	160	348	6xM20x30	115	G3/4	80	15.0	55	47	M39x2	35	50	–	–	27	22	G1
HZO 29.101.150	160	398	6xM20x30	115	G3/4	80	15.0	55	47	M39x2	35	50	–	–	27	22	G1
HZO 29.101.200	160	448	6xM20x30	115	G3/4	80	15.0	55	47	M39x2	35	50	–	–	27	22	G1
HZO 48.101. 50	200	300	8xM20x30	150	G3/4	125	25.0	80	60	M64x2	60	70	–	–	27	30	G1
HZO 48.101.100	200	350	8xM20x30	150	G3/4	125	25.0	80	60	M64x2	60	70	–	–	27	30	G1
HZO 48.101.150	200	400	8xM20x30	150	G3/4	125	25.0	80	60	M64x2	60	70	–	–	27	30	G1
HZO 48.101.200	200	450	8xM20x30	150	G3/4	125	25.0	80	60	M64x2	60	70	–	–	27	30	G1
HZO 74.101. 50	275	366	10xM24x40	200	G3/4	150	25.0	100	65	M64x2	60	85	–	–	38	30	G1
HZO 74.101.100	275	416	10xM24x40	200	G3/4	150	25.0	100	65	M64x2	60	85	–	–	38	30	G1
HZO 74.101.150	275	466	10xM24x40	200	G3/4	150	25.0	100	65	M64x2	60	85	–	–	38	30	G1
HZO 74.101.200	275	516	10xM24x40	200	G3/4	150	25.0	100	65	M64x2	60	85	–	–	38	30	G1

Dimensions in mm

Pneumatic connection sizes

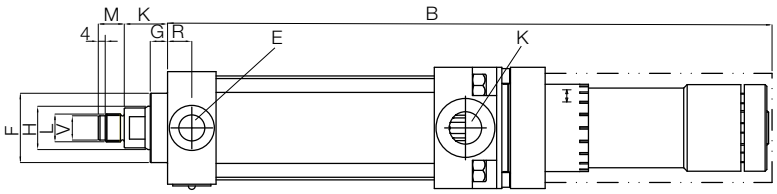
Connection	Nominal sizes/Inside-Ø hose
G1/4“	7 - 8 mm
G3/8“	8 - 9 mm
G1/2“	10 - 11 mm
G3/4“	19 - 20 mm
G1“	25 mm
G1 1/2“	38 mm

Note: For a trouble-free operation, the connection size and nominal size must be maintained throughout the compressed air supply.

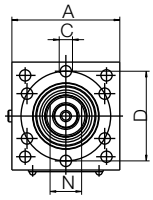
TOX®-Hydraulic Cylinder HZO

The hydraulic working cylinder with total stroke adjustment, type 151

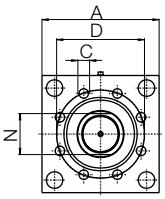
For special forming and joining applications a version with total stroke adjustment (type 151) is available. There the stroke is adjustable continuously, which is ideal for any e.g. using tools without constructive stop.



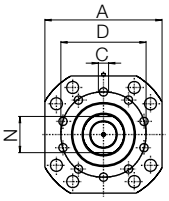
HZO 02 - HZO 29



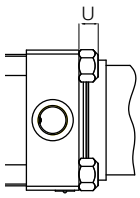
HZO 48



HZO 74



HZO 29 - HZO 74



Type	Version	Total stroke	Max. pressure force at 250 bar oil pressure	Max. allowable return stroke force kN	Ø Piston front	Ø Piston hydraulic	Ø Piston back (at version 151 with total stroke adjustment)
HZO 02.151. 50	151	50	18	9	16	35	16
HZO 02.151.100	151	100	18	9	16	35	16
HZO 02.151.150	151	150	18	9	16	35	16
HZO 02.151.200	151	200	18	9	16	35	16
HZO 05.151. 50	151	50	38	20	25	50	22
HZO 05.151.100	151	100	38	20	25	50	22
HZO 05.151.150	151	150	38	20	25	50	22
HZO 05.151.200	151	200	38	20	25	50	22
HZO 07.151. 50	151	50	61	25	35	63	28
HZO 07.151.100	151	100	61	25	35	63	28
HZO 07.151.150	151	150	61	25	35	63	28
HZO 07.151.200	151	200	61	25	35	63	28
HZO 11.151. 50	151	50	88	25	35	75	32
HZO 11.151.100	151	100	88	25	35	75	32
HZO 11.151.150	151	150	88	25	35	75	32
HZO 11.151.200	151	200	88	25	35	75	32
HZO 19.151. 50	151	50	153	40	50	100	45
HZO 19.151.100	151	100	153	40	50	100	45
HZO 19.151.150	151	150	153	40	50	100	45
HZO 19.151.200	151	200	153	40	50	100	45
HZO 29.151. 50	151	50	252	110	55	125	50
HZO 29.151.100	151	100	252	110	55	125	50
HZO 29.151.150	151	150	252	110	55	125	50
HZO 29.151.200	151	200	252	110	55	125	50
HZO 48.151. 50	151	50	411	245	80	160	65
HZO 48.151.100	151	100	411	245	80	160	65
HZO 48.151.150	151	150	411	245	80	160	65
HZO 48.151.200	101	200	411	245	80	160	65
HZO 74.151. 50	101	50	577	245	100	200	100
HZO 74.151.100	101	100	577	245	100	200	100
HZO 74.151.150	101	150	577	245	100	200	100
HZO 74.151.200	101	200	577	245	100	200	100

Dimensions in mm

Type	A	B	C	D	E	F_{f7}	G	H	K	L	M	N	W	V_{g6}	R	U	X
HZO 02.151. 50	55	328	6xM6x12	42	G1/8	32	9.5	16	27	M12x1.5	12	14	4	10	10	–	G1/4
HZO 02.151.100	55	478	6xM6x12	42	G1/8	32	9.5	16	27	M12x1.5	12	14	4	10	10	–	G1/4
HZO 02.151.150	55	628	6xM6x12	42	G1/8	32	9.5	16	27	M12x1.5	12	14	4	10	10	–	G1/4
HZO 02.151.200	55	778	6xM6x12	42	G1/8	32	9.5	16	27	M12x1.5	12	14	4	10	10	–	G1/4
HZO 05.151. 50	65	349	6xM8x12	54	G3/8	40	10.0	25	25	M16x1.5	15	19	4	14	14	–	G1/2
HZO 05.151.100	65	506.5	6xM8x12	54	G3/8	40	10.0	25	25	M16x1.5	15	19	4	14	14	–	G1/2
HZO 05.151.150	65	656.5	6xM8x12	54	G3/8	40	10.0	25	25	M16x1.5	15	19	4	14	14	–	G1/2
HZO 05.151.200	65	806.5	6xM8x12	54	G3/8	40	10.0	25	25	M16x1.5	15	19	4	14	14	–	G1/2
HZO 07.151. 50	80	373.5	6xM8x16	65	G3/8	52	10.0	35	25	M24x1.5	19	30	6	22	18	–	G1/2
HZO 07.151.100	80	517	6xM8x16	65	G3/8	52	10.0	35	25	M24x1.5	19	30	6	22	18	–	G1/2
HZO 07.151.150	80	667	6xM8x16	65	G3/8	52	10.0	35	25	M24x1.5	19	30	6	22	18	–	G1/2
HZO 07.151.200	80	817	6xM8x16	65	G3/8	52	10.0	35	25	M24x1.5	19	30	6	22	18	–	G1/2
HZO 11.151. 50	90	373	6xM10x16	68	G3/8	52	10.0	35	25	M24x1.5	19	30	6	22	18	–	G1/2
HZO 11.151.100	90	523	6xM10x16	68	G3/8	52	10.0	35	25	M24x1.5	19	30	6	22	18	–	G1/2
HZO 11.151.150	90	675	6xM10x16	68	G3/8	52	10.0	35	25	M24x1.5	19	30	6	22	18	–	G1/2
HZO 11.151.200	90	823	6xM10x16	68	G3/8	52	10.0	35	25	M24x1.5	19	30	6	22	18	–	G1/2
HZO 19.151. 50	125	418	6xM16x25	100	G1/2	75	10.0	50	28	M30x2	25	41	7	26	24	–	G1
HZO 19.151.100	125	568	6xM16x25	100	G1/2	75	10.0	50	28	M30x2	25	41	7	26	24	–	G1
HZO 19.151.150	125	718	6xM16x25	100	G1/2	75	10.0	50	28	M30x2	25	41	7	26	24	–	G1
HZO 19.151.200	125	868	6xM16x25	100	G1/2	75	10.0	50	28	M30x2	25	41	7	26	24	–	G1
HZO 29.151. 50	160	498	6xM20x30	115	G3/4	80	15.0	55	47	M39x2	35	50	–	–	27	22	G1
HZO 29.151.100	160	648	6xM20x30	115	G3/4	80	15.0	55	47	M39x2	35	50	–	–	27	22	G1
HZO 29.151.150	160	798	6xM20x30	115	G3/4	80	15.0	55	47	M39x2	35	50	–	–	27	22	G1
HZO 29.151.200	160	948	6xM20x30	115	G3/4	80	15.0	55	47	M39x2	35	50	–	–	27	22	G1
HZO 48.151. 50	200	505	8xM20x30	150	G3/4	125	25.0	80	60	M64x2	60	70	–	–	27	30	G1
HZO 48.151.100	200	655	8xM20x30	150	G3/4	125	25.0	80	60	M64x2	60	70	–	–	27	30	G1
HZO 48.151.150	200	805	8xM20x30	150	G3/4	125	25.0	80	60	M64x2	60	70	–	–	27	30	G1
HZO 48.151.200	200	955	8xM20x30	150	G3/4	125	25.0	80	60	M64x2	60	70	–	–	27	30	G1
HZO 74.151. 50	275	612	10xM24x40	200	G3/4	150	25.0	100	65	M64x2	60	85	–	–	38	30	G1
HZO 74.151.100	275	762	10xM24x40	200	G3/4	150	25.0	100	65	M64x2	60	85	–	–	38	30	G1
HZO 74.151.150	275	912	10xM24x40	200	G3/4	150	25.0	100	65	M64x2	60	85	–	–	38	30	G1
HZO 74.151.200	275	1062	10xM24x40	200	G3/4	150	25.0	100	65	M64x2	60	85	–	–	38	30	G1

Dimensions in mm

Pneumatic connection sizes

Connection	Nominal sizes/Inside-Ø hose
G1/4“	7 - 8 mm
G3/8“	8 - 9 mm
G1/2“	10 - 11 mm
G3/4“	19 - 20 mm
G1“	25 mm
G1 1/2“	38 mm

Note: For a trouble-free operation, the connection size and nominal size must be maintained throughout the compressed air supply.

TOX®-Powerpackage special versions

TOX®-Powerpackage ZLM for use in the food industry

With the exception of line-Q, all TOX®-Powerpackages are available with food grade oil and grease lubrication. Both lubricants are certified according to USDA-H11 and are used wherever there is a chance of occasional, technically unavoidable contact between foodstuffs and lubricant.

TOX®-Powerpackages are used in industrial food manufacturing, processing, filling and packaging machines, as well as in the pharmaceutical and cosmetics industry.

Compatible with:
All TOX®-Powerpackages (without line-Q)

Order no.
S 1.32.6 - **ZLM**
- **ZLM**: Food-grade version
- S 1.32.6: Order no. of TOX®-Powerpackage

TOX®-Powerpackage in anti-rust version ZRO

With the exception of line-Q, all TOX®-Powerpackages can be supplied with rust protection. All individual parts are either plasma nitrided, galvanised or primed and painted. These devices are particularly suitable for use in the food and packaging industries.

Compatible with:
All TOX®-Powerpackages (without line-Q)

Order no.
S 1.32.6 - **ZRO**
- **ZRO**: Anti-rust version
- S 1.32.6: Order no. of TOX®-Powerpackage

On request, we can provide TOX®-Powerpackages as stainless steel version. Please contact us!