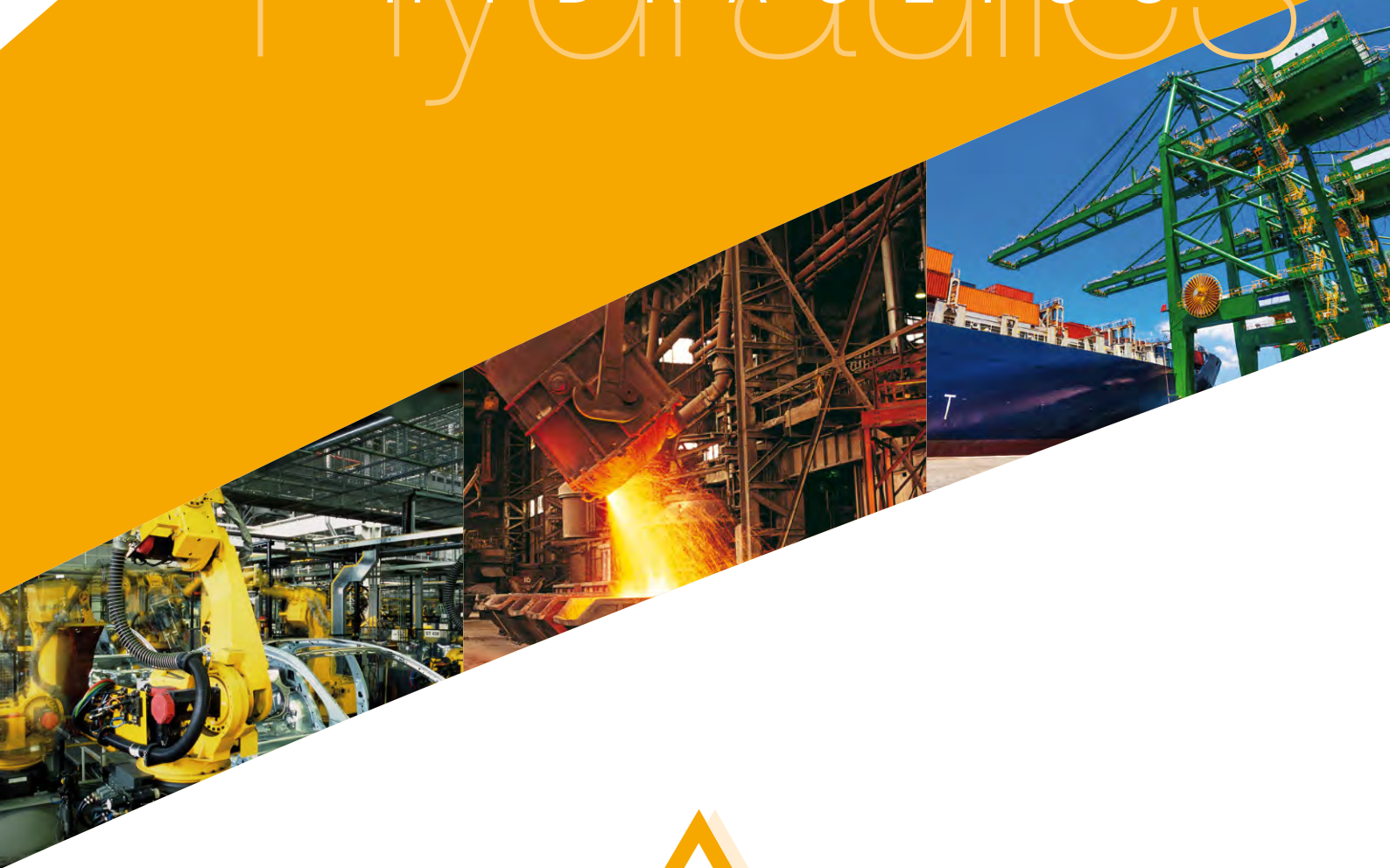


HYDRAULICS



aircontrol
www.aircontrol-metals.com

GUARANTEES FROM A LEADING... ***BUT DIFFERENT COMPANY***

Companies tend to communicate values such as “excellence”, “quality”, “commitment”, “honesty” or “customer service”...

At AirControl we sincerely believe that it should not be necessary to highlight them, because they should always be present at any company.

We want you to know us beyond our excellence, quality, commitment, honesty and customer service, we are **AirControl**, we are **approachable** and **interactive** in our customer relations. We are **defiant** in the face of any challenge, **agile** and **surprising** when presenting solutions.

Given that we have been surprising people since 1962, we consider ourselves to be **leaders** in the manufacture of special products, tailor-made products, created to solve specific problems. We are **rigorous**, both in terms of the manufacturing process and in terms of our company organisation, and possess extensive quality controls.

We are **youthful**: our team, our style and corporate identity, our way of working and dealing with our customers. But above all, we are **people**, just like you. We are clear that when dealing with companies, we are above all dealing with people. We want our customers to really notice that they matter to us, that we are close, from the start of a project to its after-sale service.



8 reasons to place your trust in AirControl

- The breadth and depth of our experience enables us to tackle any project.
- We are consultants, in addition to manufacturers and distributors. We can provide our customers with **advice**, with the aim of always offering **the most efficient technical and economic solution**.
- We have **full control** over design and production processes.
- We are not part of an international group. We are an **independent brand**, and this enables us to make our own decisions and which provides us with **greater flexibility**.
- We advocate **direct and fluid communication** with our customers.
- We work in **project groups**, to ensure that everyone who is involved in the supply chain is kept up to date at all times.
- We **only use high quality components**, and subject our suppliers to strict quality controls.
- Our success as a company is directly linked to the **success of our customers**.



Index

Hydraulic Cylinders

HR Series

ISO 6020/1



Page
5

HT Series

ISO 6020/2



Page
17

HV Series

ISO 3320



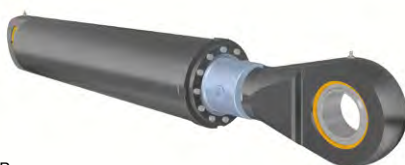
Page
33

Accessories



Page
39

Special Cylinders



Page
42

HR Series

Round Cylinders / ISO 6020/1 - 160 bar



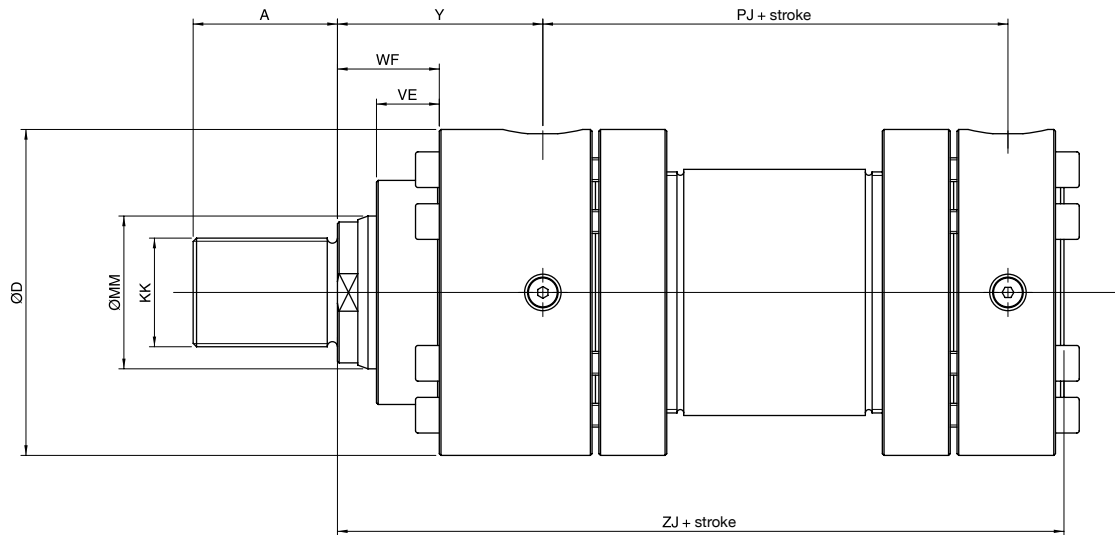
Technical characteristics

Standard	ISO 6020/1																							
Construction type	With flange and screws																							
Rated pressure	160 bar																							
Test pressure	240 bar																							
Ambient temperature	-20°C → +80°C																							
Fluid temperature	-20°C → +160°C with Viton seals																							
	-20°C → +80°C																							
	-20°C → +160°C with Viton seals																							
Fluid type	Mineral oil fluid - Other fluids on demand																							
Piston (mm)	25		32		40		50		63		80		100		125		160		200		250		320	
Piston Rod (mm)	14	18	18	22	22	28	28	36	36	45	45	56	56	70	70	90	90	110	110	140	140	180	180	220
Maximum speed (m/s) - standard seals	0,5								0,4															
Maximum speed (m/s) - low-friction seals	1																							

HR Series

ISO 6020/1 Hydraulic Cylinders

Basic design

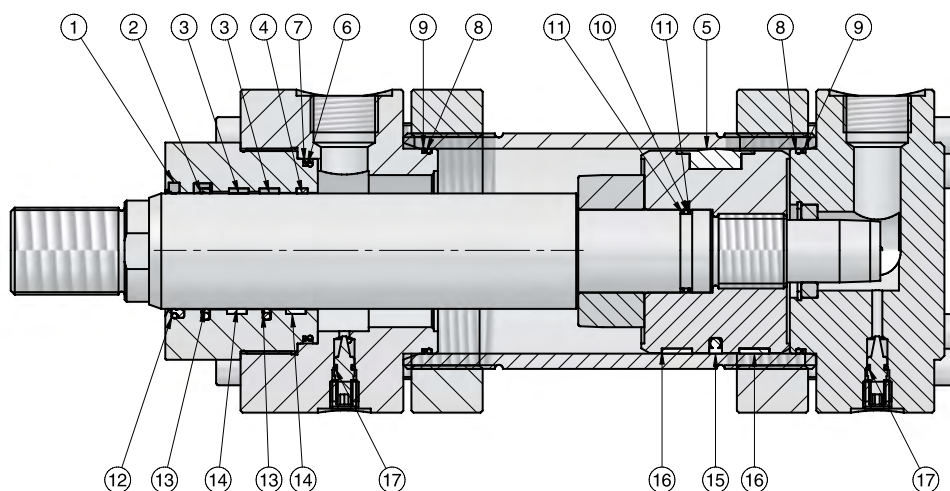


Ø	ØMM	ZJ	KK 6g	A máx.	Y	PJ	ØD máx.	VE máx.	WF
25	14	150	M12x1,25	16	58	77	56	15	28
	18		M12x1,25	16					
	18		M14x1,5	18					
32	18	170	M14x1,5	18	64	89	67	19	32
	22		M16x1,5	22					
	22		M16x1,5	22					
40	28	190	M16x1,5	22	71	97	78	19	32
	28		M20x1,5	28					
	28		M20x1,5	28					
50	36	205	M20x1,5	28	72	111	95	24	38
	36		M27x2	36					
	36		M27x2	36					
63	45	224	M27x2	36	82	117	116	29	45
	45		M33x2	45					
	45		M33x2	45					
80	56	250	M33x2	45	91	134	130	36	54
	56		M42x2	56					
	56		M42x2	56					
100	70	300	M42x2	56	108	162	158	37	57
	70		M48x2	63					
	70		M48x2	63					
125	90	325	M48x2	63	121	174	192	37	60
	90		M64x3	85					
	90		M64x3	85					
160	110	370	M64x3	85	143	191	238	41	66
	110		M80x3	95					
	110		M80x3	95					
200	140	450	M80x3	95	190	224	285	45	75
	140		M100x3	112					
	140		M100x3	112					
250	180	550	M100x3	112			365	64	96
	180		M125x4	125					
	180		M125x4	125					
320	220	660	M125x4	125			455	71	108
	220		M160x4	160					

HR Series

ISO 6020/1 Hydraulic Cylinders

Seal kit



Position	Description
1	Wiper
2	Rod seal
3	Piston-rod guide ring
4	Piston-rod guide ring
5	Piston seal
6	O-ring
7	Anti-extrusion seal
8	O-ring
9	Anti-extrusion seal
10	O-ring
11	Anti-extrusion seal
12	Wiper (low friction)
13	Rod seal (LF)
14	Piston-rod guide band (LF)
15	Piston seal (LF)
16	Piston-rod guide band (LF)
17	O-ring

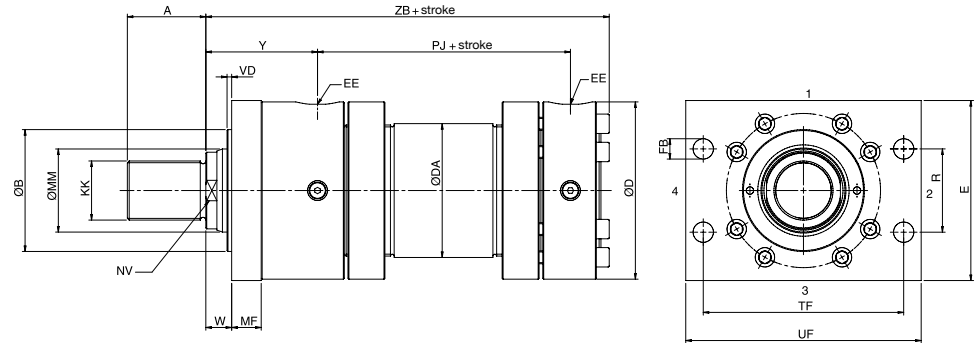
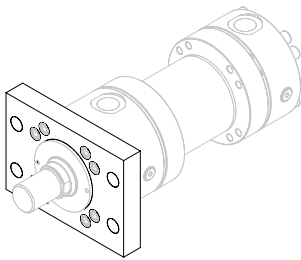
	KHR	***	***	*
	ISO 6020/1 Serie	Piston	Rod	Seal type
		025 = 25 mm	014 = 14 mm	0 = Standard, medium friction
		032 = 32 mm	018 = 18 mm	1 = Low friction
		040 = 40 mm	022 = 22 mm	2 = Low friction, high temperature
		050 = 50 mm	028 = 28 mm	
		063 = 63 mm	036 = 36 mm	
		080 = 80 mm	045 = 45 mm	
		100 = 100 mm	056 = 56 mm	
		125 = 125 mm	070 = 70 mm	
		160 = 160 mm	090 = 90 mm	
		200 = 200 mm	110 = 110 mm	
		250 = 250 mm	140 = 140 mm	
		320 = 320 mm	180 = 180 mm	
			220 = 220 mm	

HR Series

ISO 6020/1 Hydraulic Cylinders

Fixing accessories

Front rectangular flange mounting ISO MF1



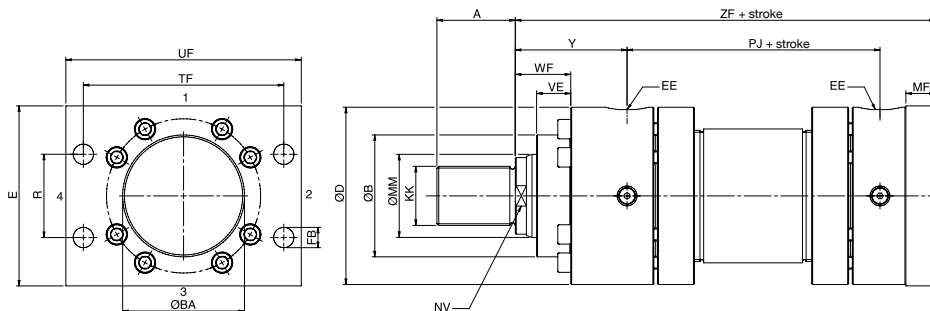
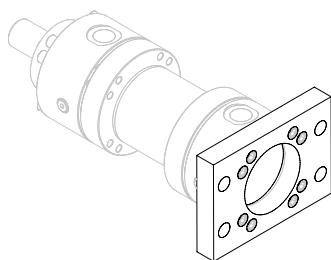
Ø	ØMM	A	B	ØD	ØDA	E	EE	FB	KK	MF	NV	PJ	R	TF	UF	VD	W	Y	ZB
25	14	16																	
	18	16	32	56	35	60	1/4"G	6,6	M12x1,25	12	12	77	28,7	69,2	85	3	16	58	155
32	18	18																	
	22	18	40	67	42	70	3/8"G	9	M14x1,5	16	15	89	35,2	85	105	3	16	64	176
40	22	22																	
	28	22	50	78	50	80	1/2"G	9	M16x1,5	16	17	97	40,6	98	115	3	16	71	198
50	28	28																	
	36	28	60	95	60	100	1/2"G	11	M20x1,5	20	22	111	48,2	116,4	140	4	18	72	213
63	36	36																	
	45	36	70	116	73	120	3/4"G	13,5	M27x2	25	28	117	55,5	134	160	4	20	82	234
80	45	45																	
	56	45	85	130	95	135	3/4"G	17,5	M33x2	32	36	134	63,1	152,5	185	4	22	91	260
100	56	56																	
	70	56	106	158	115	160	1"G	22	M42x2	32	46	162	76,5	184,8	225	5	25	108	310
125	70	63																	
	90	63	132	192	145	195	1"G	22	M48x2	32	60	174	90,2	217,1	255	5	28	121	335
		85							M64x3		75								

HR Series

ISO 6020/1 Hydraulic Cylinders

Fixing accessories

Rear rectangular flange mounting ISO MF2



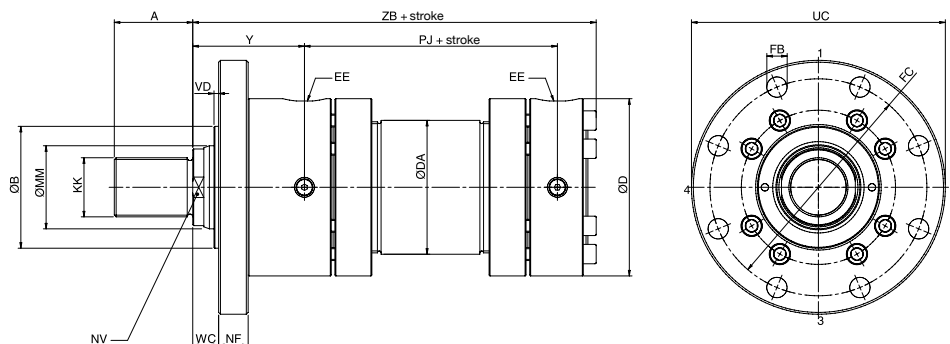
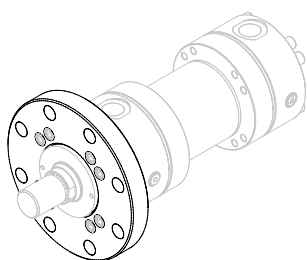
Ø	ØMM	A	ØB	ØBA	ØD	ØDA	E	EE	FB	KK	MF	NV	PJ	R	TF	UF	VE	WF	Y	ZF
25	14	16								M12x1,25		12								
	18	16	32	32	56	35	60	1/4"G	6,6	M12x1,25	12	15	77	28,7	69,2	85	15	28	58	162
32	18	18								M14x1,5		15								
	22	18	40	40	67	42	70	3/8"G	9	M14x1,5	16	17	89	35,2	85	105	19	32	64	186
40	22	22								M16x1,5		17								
	28	22	50	50	78	50	80	1/2"G	9	M16x1,5	16	22	97	40,6	98	115	19	32	71	206
50	28	28								M20x1,5		22								
	36	28	60	60	95	60	100	1/2"G	11	M20x1,5	20	28	111	48,2	116,4	140	24	38	72	225
63	36	36								M27x2		28								
	45	36	70	70	116	73	120	3/4"G	13,5	M27x2	25	36	117	55,5	134	160	29	45	82	249
80	45	45								M33x2		36								
	56	45	85	85	130	95	135	3/4"G	17,5	M33x2	32	46	134	63,1	152,5	185	36	54	91	282
100	56	56								M42x2		46								
	70	56	106	106	158	115	160	1"G	22	M42x2	32	60	162	76,5	184,8	225	37	57	108	332
125	70	63								M48x2		60								
	90	63	132	132	192	145	195	1"G	22	M48x2	32	75	174	90,2	217,1	255	37	60	121	357
		85								M64x3										

HR Series

ISO 6020/1 Hydraulic Cylinders

Fixing accessories

Front round flange mounting ISO MF3



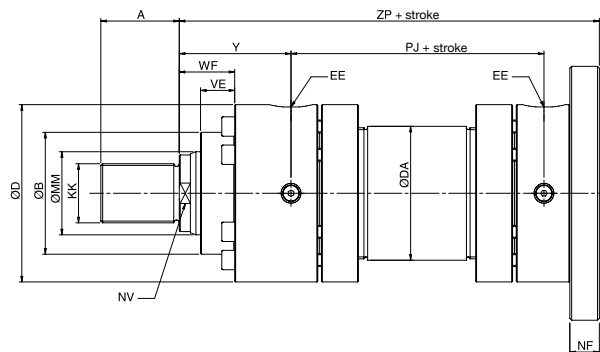
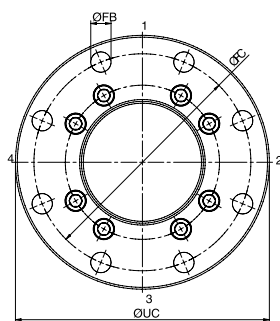
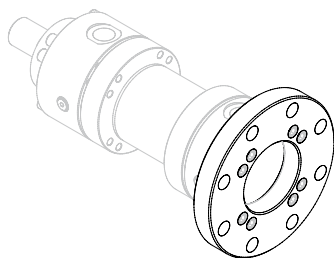
Ø	ØMM	A	B	ØD	ØDA	EE	FB	FC	KK	NF	NV	PJ	UC	VD	WC	Y	ZB
25	14	16							M12x1,25		12						
	18	16	32	56	35	1/4"G	6,6	75	M12x1,25	12	15	77	90	3	16	58	155
32	18	18							M14x1,5		15						
	22	18	40	67	42	3/8"G	9	92	M14x1,5	16	17	89	110	3	16	64	176
40	22	22							M16x1,5		17						
	28	22	50	78	50	1/2"G	9	106	M16x1,5	16	22	97	125	3	16	71	198
50	28	28							M20x1,5		22						
	36	28	60	95	60	1/2"G	11	126	M20x1,5	20	28	111	148	4	18	72	213
63	36	36							M27x2		28						
	45	36	70	116	73	3/4"G	13,5	145	M27x2	25	36	117	170	4	20	82	234
80	45	45							M33x2		36						
	56	45	85	130	95	3/4"G	17,5	165	M33x2	32	46	134	195	4	22	91	260
100	56	56							M42x2		46						
	70	56	106	158	115	1"G	22	200	M42x2	32	60	162	238	5	25	108	310
125	70	63							M48x2		60						
	90	63	132	192	145	1"G	22	235	M48x2	32	75	174	272	5	28	121	335
160	90	85							M64x3		75						
	110	85	160	232	185	1 1/4"G	22	280	M64x3	36	90	191	316	5	30	143	380
200	110	95							M80x3		90						
	140	95	200	285	230	1 1/4"G	26	340	M80x3	40	120	224	385	5	35	190	474
250	140	112							M100x3		120						
	180	112	250	365	298	1 1/2"G	33	420	M100x3	56	160	290	500	8	40	205	580
320	180	125							M125x4		160						
	220	125	320	450	368	1 1/2"G	39	520	M125x4	63	200	358	620	8	45	250	696
		160							M160x4								

HR Series

ISO 6020/1 Hydraulic Cylinders

Fixing accessories

Rear round flange mounting ISO MF4



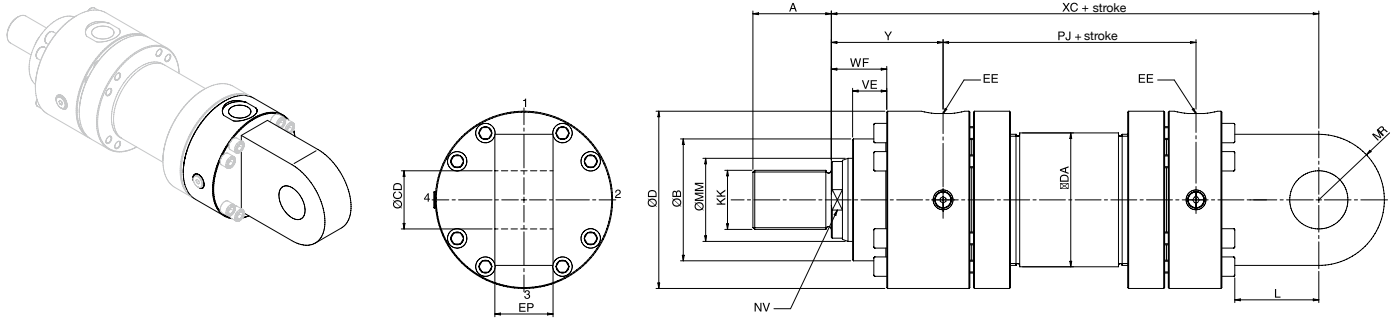
Ø	ØMM	A	B	ØD	ØDA	EE	FB	FC	KK	NF	NV	PJ	UC	VE	WF	Y	ZP
25	14	16							M12x1,25		12						
	18	16	32	56	35	1/4"G	6,6	75	M12x1,25	12	15	77	90	15	16	58	162
32	18	18							M14x1,5		15						
	18	18	40	67	42	3/8"G	9	92	M14x1,5	16	17	89	110	19	16	64	186
	22	22							M16x1,5		17						
40	22	22							M16x1,5		17						
	22	22	50	78	50	1/2"G	9	106	M16x1,5	16	22	97	125	19	16	71	206
	28	28							M20x1,5		22						
50	28	28							M20x1,5		22						
	28	28	60	95	60	1/2"G	11	126	M20x1,5	20	28	111	148	24	18	72	225
	36	36							M27x2		28						
63	36	36							M27x2		28						
	36	36	70	116	73	3/4"G	13,5	145	M27x2	25	36	117	170	29	20	82	249
	45	45							M33x2		36						
80	45	45							M33x2		36						
	45	45	85	130	95	3/4"G	17,5	165	M33x2	32	46	134	195	36	22	91	282
	56	56							M42x2		46						
100	56	56							M42x2		46						
	56	56	106	158	115	1"G	22	200	M42x2	32	60	162	238	37	25	108	332
	70	63							M48x2		60						
125	70	63							M48x2		60						
	63	63	132	192	145	1"G	22	235	M48x2	32	75	174	272	37	28	121	357
	85	85							M64x3		75						
160	85	85							M64x3		75						
	85	85	160	232	185	1 1/4"G	22	280	M64x3	36	90	191	316	41	30	143	406
	110	95							M80x3		90						
200	110	95							M80x3		90						
	110	95	200	285	230	1 1/4"G	26	340	M80x3	40	120	224	385	45	35	190	490
	140	112							M100x3		120						
250	140	112							M100x3		120						
	112	112	250	365	298	1 1/2"G	33	420	M100x3	56	160	290	500	64	40	205	606
	180	125							M125x4		160						
320	180	125							M125x4		160						
	220	160	320	450	368	1 1/2"G	39	520	M160x4	63	200	358	620	71	45	250	723

HR Series

ISO 6020/1 Hydraulic Cylinders

Fixing accessories

Eye mounting ISO MP3



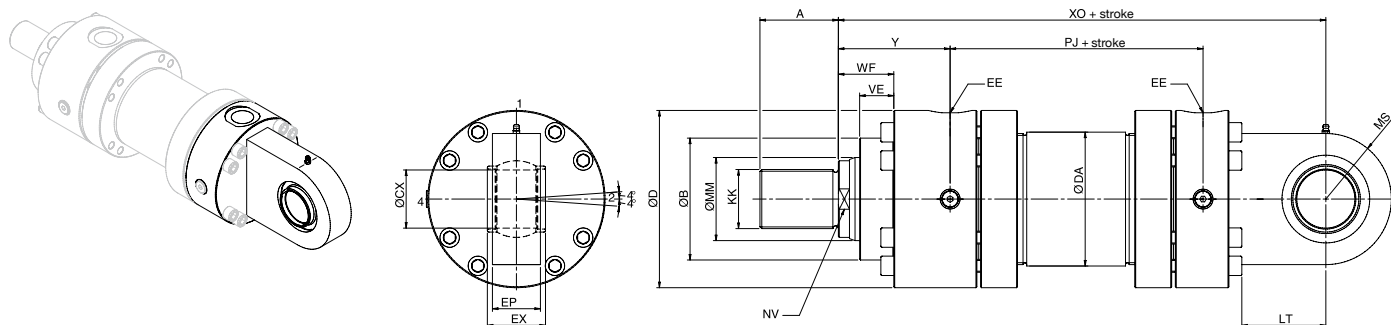
Ø	ØMM	A	B	ØD	ØDA	EE	CD	EP	KK	L	MR	NV	PJ	VE	WF	Y	XC
25	14	16							M12x1,25			12					
	18	16	32	56	35	1/4"G	12	12	M12x1,25	20	16	15	77	15	28	58	178
32	18	18							M14x1,5			15					
	22	18	40	67	42	3/8"G	16	16	M14x1,5	28	20	17	89	19	32	64	206
40	22	22							M16x1,5			17					
	28	22	50	78	50	1/2"G	20	20	M16x1,5	35	25	22	97	19	32	71	231
50	28	28							M20x1,5			22					
	36	28	60	95	60	1/2"G	25	25	M20x1,5	44	32	28	111	24	38	72	257
63	36	36							M27x2			28					
	45	36	70	116	73	3/4"G	32	32	M27x2	55	40	36	117	29	45	82	289
80	45	45							M33x2			36					
	56	45	85	130	95	3/4"G	40	40	M33x2	70	50	46	134	36	54	91	332
100	56	56							M42x2			46					
	70	56	106	158	115	1"G	50	50	M42x2	81	63	60	162	37	57	108	395
125	70	63							M48x2			60					
	90	63	132	192	145	1"G	63	63	M48x2	91	80	75	174	37	60	121	428
160	90	85							M64x3			75					
	110	85	160	232	185	1 1/4"G	80	80	M64x3	121	100	90	191	41	66	143	505
200	110	95							M80x3			90					
	140	95	200	285	230	1 1/4"G	100	100	M80x3	149	125	120	224	45	75	190	615
250	140	112							M100x3			120					
	180	112	250	365	298	1 1/2"G	125	125	M100x3	203	160	160	290	64	96	205	773
320	180	125							M125x4			160					
	220	125	320	450	368	1 1/2"G	160	160	M125x4	242	200	200	358	71	108	250	930

HR Series

ISO 6020/1 Hydraulic Cylinders

Fixing accessories

Spherical eye mounting ISO MP5



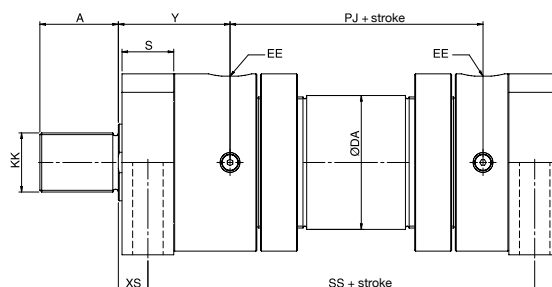
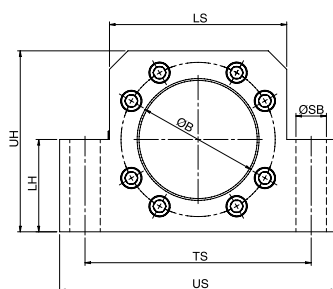
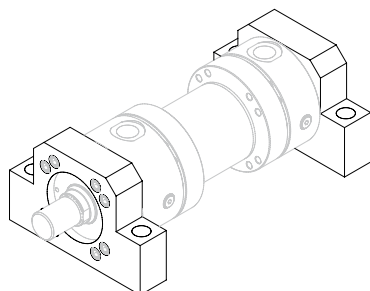
Ø	ØMM	A	CX	B	ØD	ØDA	EE	EX	EP	KK	LT	MS	NV	PJ	VE	WF	Y	XO
25	14	16								M12x1,25			12					
	18	16	12	32	56	35	1/4"G	12	10,6	M12x1,25	20	16	15	77	15	28	58	178
32	18	18								M14x1,5			15					
	22	18	16	40	67	42	3/8"G	16	14	M14x1,5	28	20	17	89	19	32	64	206
40	22	22								M16x1,5			17					
	28	22	20	50	78	50	1/2"G	20	18	M16x1,5	35	25	22	97	19	32	71	231
50	28	28								M20x1,5			22					
	36	28	25	60	95	60	1/2"G	25	22	M20x1,5	44	32	28	111	24	38	72	257
63	36	36								M27x2			28					
	45	36	32	70	116	73	3/4"G	32	27	M27x2	55	40	36	117	29	45	82	289
80	45	45								M33x2			36					
	56	45	40	85	130	95	3/4"G	40	35	M33x2	70	50	46	134	36	54	91	332
100	56	56								M42x2			46					
	70	56	50	106	158	115	1"G	50	40	M42x2	81	63	60	162	37	57	108	395
125	70	63								M48x2			60					
	90	63	63	132	192	145	1"G	63	52	M48x2	91	80	75	174	37	60	121	428
160	90	85								M64x3			75					
	110	85	80	160	232	185	1 1/4"G	80	66	M64x3	121	100	90	191	41	66	143	505
200	110	95								M80x3			90					
	140	95	100	200	285	230	1 1/4"G	100	84	M80x3	149	125	120	224	45	75	190	615
250	140	112								M100x3			120					
	180	112	125	250	365	298	1 1/2"G	125	102	M100x3	203	160	160	290	64	96	205	773
320	180	125								M125x4			160					
	220	125	160	320	450	368	1 1/2"G	160	130	M125x4	242	200	200	358	71	108	250	930

HR Series

ISO 6020/1 Hydraulic Cylinders

Fixing accessories

Foot mounting ISO MS2



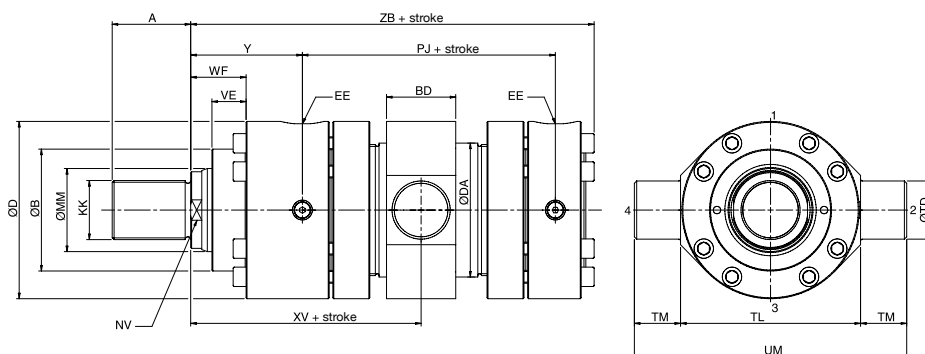
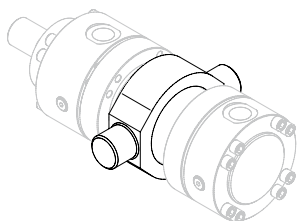
Ø	ØMM	A	ØB	ØDA	EE	KK	LH	LS	PJ	S	ØSB	SS	TS	UH	US	XS	Y
25	14	16				M12x1,25											
	18	16	32	35	1/4"G	M12x1,25	32	56	77	20	9	142	63	83	92	58	58
32	18	18				M14x1,5											
	22	18	40	42	3/8"G	M14x1,5	38	67	89	25	11	163	75	99	110	64	64
40	22	22				M16x1,5											
	28	22	50	50	1/2"G	M16x1,5	43	78	97	25	11	183	90	122	120	71	71
50	28	28				M20x1,5											
	36	28	60	60	1/2"G	M20x1,5	52	95	111	32	14	199	105	145	145	72	72
63	36	36				M27x2											
	45	36	70	73	3/4"G	M27x2	62	116	117	32	18	211	120	170	180	82	82
80	45	45				M33x2											
	56	45	85	95	3/4"G	M33x2	70	130	134	40	22	236	135	199	210	91	91
100	56	56				M42x2											
	70	56	106	115	1"G	M42x2	82	158	162	50	26	293	160	240	250	108	108
125	70	63				M48x2											
	90	63	132	145	1"G	M48x2	100	192	174	56	33	321	195	295	300	121	121
160	90	85				M64x3											
	110	85	160	185	1 1/4"G	M64x3	119	238	191	60	33	364	240	321	350	143	143
200	110	95				M80x3											
	140	95	200	230	1 1/4"G	M80x3	145	285	224	72	39	447	295	455	415	190	190
		112				M100x3											

HR Series

ISO 6020/1 Hydraulic Cylinders

Fixing accessories

Intermediate trunnion ISO MT4



Ø	ØMM	A	B	ØD	ØDA	BD	EE	KK	NV	PJ	ØTD	TL	TM	UM	VE	WF	Y	XV _(min)	ZB
25	14	16						M12x1,25	12										
	18	16	32	56	35	20	1/4"G	M12x1,25	15	77	12	63	10	83	15	28	58	107	135
32	18	18						M14x1,5	15										
	22	18	40	67	42	25	3/8"G	M14x1,5	17	89	16	75	12	99	19	32	64	120	153
40	22	22						M16x1,5	17										
	28	22	50	78	50	30	1/2"G	M16x1,5	22	97	20	90	16	122	19	32	71	135	148
50	28	28						M20x1,5	22										
	36	28	60	95	60	35	1/2"G	M20x1,5	28	111	25	105	20	145	24	38	72	145	183
63	36	36						M27x2	28										
	45	36	70	116	73	45	3/4"G	M27x2	36	117	32	120	25	170	29	45	82	165	199
80	45	45						M33x2	36										
	56	45	85	130	95	50	3/4"G	M33x2	46	134	40	135	32	199	36	54	91	178	225
100	56	56						M42x2	46										
	70	56	106	158	115	60	1"G	M42x2	60	162	50	160	40	240	37	57	108	215	270
125	70	63						M48x2	60										
	90	63	132	192	145	75	1"G	M48x2	75	174	63	195	50	295	37	60	121	240	295
160	90	85						M64x3	75										
	110	85	160	232	185	90	1 1/4"G	M64x3	90	191	80	240	63	321	41	66	143	280	334
200	110	95						M80x3	90										
	140	95	200	285	230	110	1 1/4"G	M80x3	120	224	100	295	80	455	45	75	190	350	414
250	140	112						M100x3	120										
	180	112	250	365	298	135	1 1/2"G	M100x3	160	290	125	370	100	570	64	96	205	395	495
320	180	125						M125x4	160										
	220	125	320	450	368	175	1 1/2"G	M125x4	200	358	160	470	125	720	71	108	250	495	608

HT Series

Cylinders with tie-rods / ISO 6020/2 - 160 bar



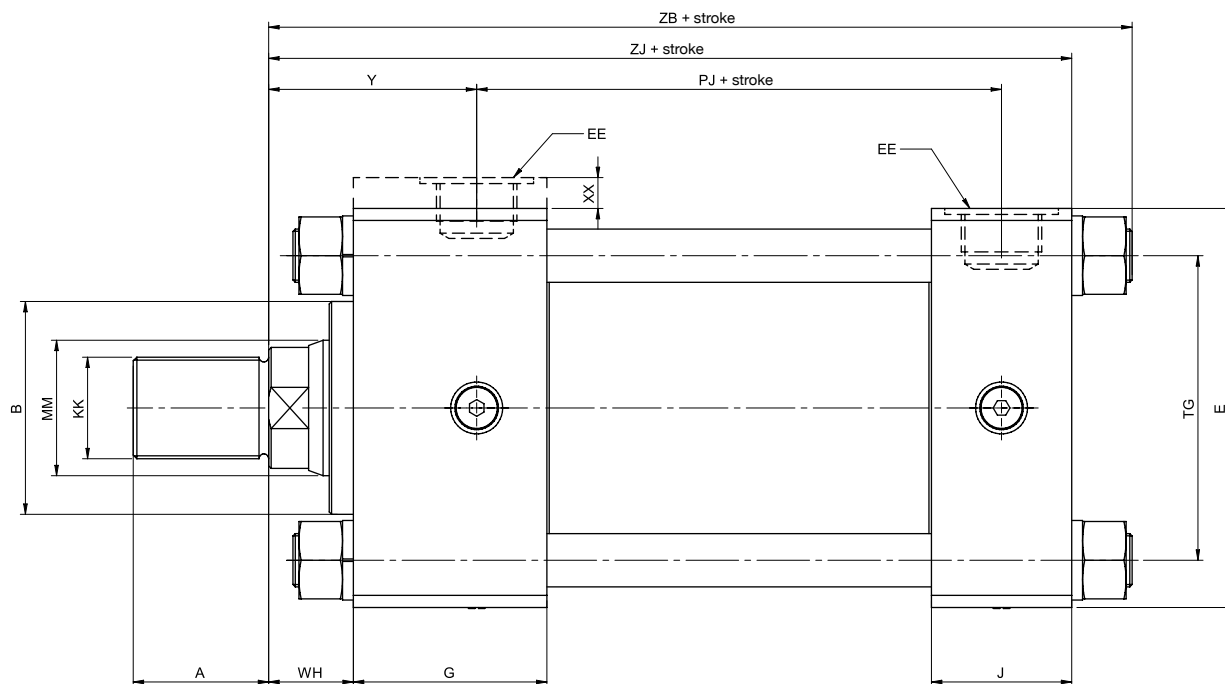
Technical characteristics

Standard	ISO 6020/2																			
Construction type	With tie-rods																			
Rated pressure	160 bar																			
Test pressure	240 bar																			
Ambient temperature	-20°C → +80°C																			
Fluid temperature	-20°C → +160°C with Viton seals																			
	-20°C → +80°C																			
Fluid	Mineral oil - Other fluids on demand																			
Piston (mm)	25		32		40		50		63		80		100		125		160		200	
Rod (mm)	12	18	14	22	18	28	22	36	28	45	36	56	45	70	56	90	70	110	90	140
Maximum speed (m/s) standard seals	0,5									0,4										
Maximum speed (m/s) low-friction seals	1																			

HT Series

ISO 6020/2 Hydraulic Cylinders

Basic model

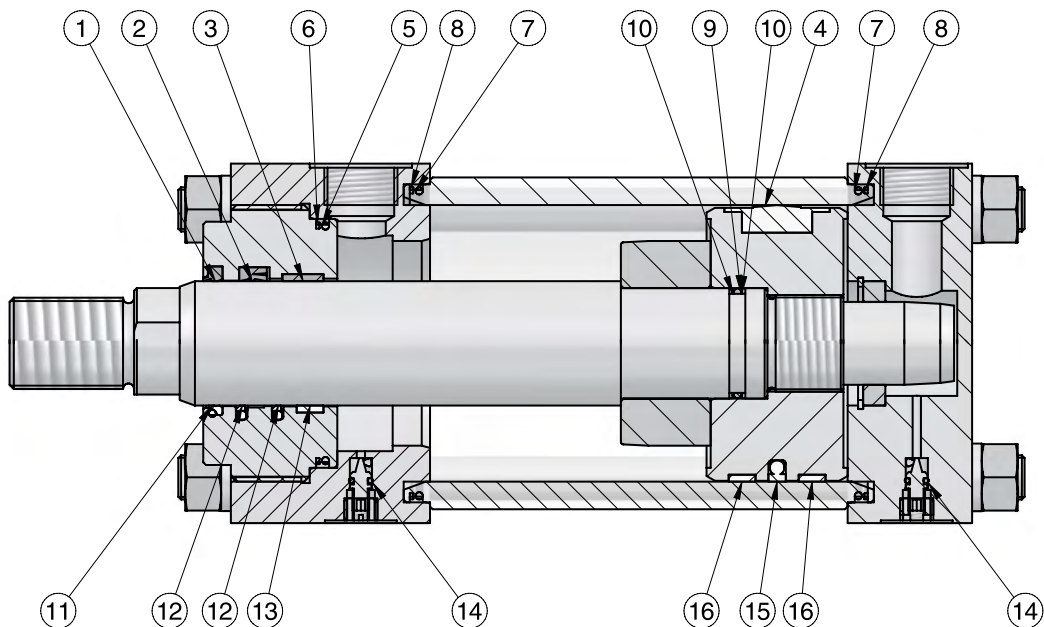


Ø	ØMM	A	B ¹⁹ Ø	XX	E	EE	G	J	KK	PJ	TG	WH	Y	ZB	ZJ
25	12	14	24	5	40	1/4"G	50	25	M10x1,25	54	28,3	15	50	121	114
	18	14	30						M10x1,25						
	18	18	30						M14x1,5						
32	14	16	26	5	45	1/4"G	50	25	M12x1,5	57	33,2	25	60	137	128
	22	16	34						M12x1,5						
	22	22	34						M16x1,5						
40	18	18	30	-	63	3/8"G	55	38	M14x1,5	74	41,7	25	62	166	153
	28	18	42						M14x1,5						
	28	28	42						M20x1,5						
50	22	22	34	-	75	1/2"G	60	38	M16x1,5	76	52,3	26	68	176	159
	36	22	50						M16x1,5						
	36	36	50						M27x2						
63	28	28	42	-	90	1/2"G	60	38	M20x1,5	80	64,3	33	71	185	168
	45	28	60						M33x2						
	45	45	60						M27x2						
80	36	36	50	-	115	3/4"G	70	45	M27x2	93	82,7	31	77	212	190
	56	36	72						M42x2						
	56	56	72						M33x2						
100	45	45	60	-	130	3/4"G	72	45	M33x2	101	96,9	35	82	225	203
	70	45	88						M48x2						
	63	63	88						M42x2						
125	56	56	72	-	165	1"G	80	58	M42x2	117	125,9	35	86	260	232
	90	56	108						M64x3						
	85	85	108						M48x2						
160	70	63	88	-	205	1"G	83	58	M48x2	130	154,9	32	86	279	245
	110	63	133						M80x3						
	95	95	133						M64x3						
200	90	85	108	-	245	1 1/4"G	101	76	M64x3	165	190,2	32	98	336	299
	140	85	163						M64x3						
	112	112	163						M100x3						

HT Series

ISO 6020/2 Hydraulic Cylinders

Seal kit



Position	Description
1	Wiper
2	Rod seal
3	Piston-rod guide ring
4	Piston seal
5	O-ring
6	Anti-extrusion seal
7	O-ring
8	Anti-extrusion seal
9	O-ring
10	Anti-extrusion seal
11	Wiper (low friction)
12	Rod seal (LF)
13	Piston-rod guide band (LF)
14	O-ring
15	Piston ring (LF)
16	Piston-rod guide band (LF)

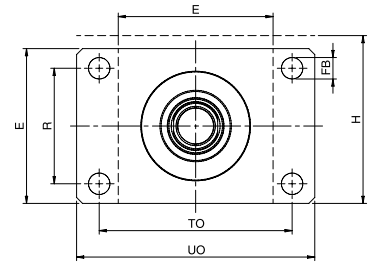
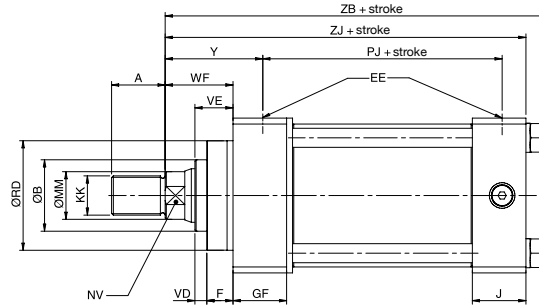
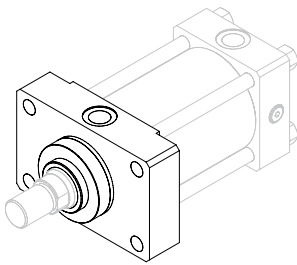
	KHT	***	***	*
	↓	↓	↓	↓
ISO 6020/2 Serie	Piston	Rod	Seal type	
	025 = 25 mm	014 = 14 mm	0 = Standard, medium friction	
	032 = 32 mm	018 = 18 mm	1 = Low friction	
	040 = 40 mm	022 = 22 mm	2 = Low friction, high temperature	
	050 = 50 mm	028 = 28 mm		
	063 = 63 mm	036 = 36 mm		
	080 = 80 mm	045 = 45 mm		
	100 = 100 mm	056 = 56 mm		
	125 = 125 mm	070 = 70 mm		
	160 = 160 mm	090 = 90 mm		
	200 = 200 mm	110 = 110 mm		
		140 = 140 mm		

HT Series

ISO 6020/2 Hydraulic Cylinders

Fixing accessories

Front rectangular flange mounting ISO ME5



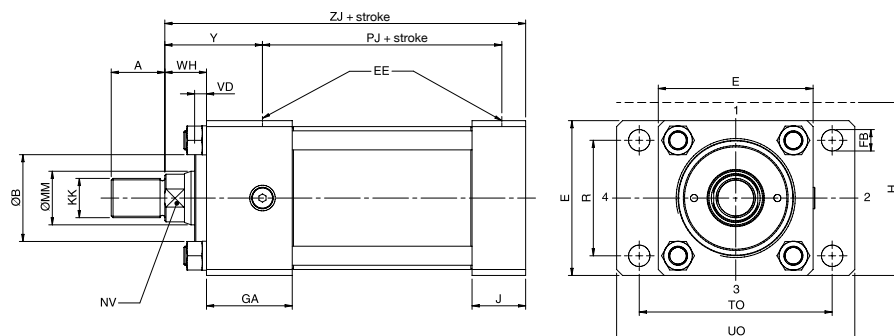
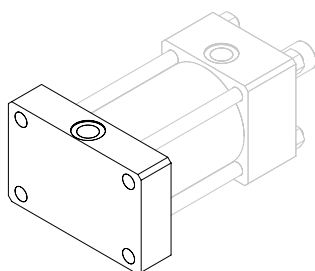
Ø	ØMM	A	B	E	EE	F	FB	GF	H	J	KK	NV	PJ	R	RD	TO	UO	VD	VE	WF	Y	ZB	ZJ
25	12	14	24	40	1/4"G	10	5,5	25	45	25	M10x1,25	10	53	27	38	51	65	6	16	25	50	121	114
	18	14	30								M10x1,25	15											
32	14	16	26	45	1/4"G	10	6,6	25	50	25	M14x1,5	12	56	33	42	58	70	12	22	35	60	136	128
	22	16	34								M12x1,5	18											
40	18	18	30	63	3/8"G	10	11	38		38	M16x1,5	15	73	41	62	87	110	12	22	35	62	163	153
	28	18	42								M14x1,5	22											
50	22	22	34	75	1/2"G	16	14	38		38	M20x1,5	18	74	52	74	105	130	9	25	41	67	173	159
	36	22	50								M16x1,5	30											
63	28	28	42	90	1/2"G	16	14	38		38	M27x2	22	80	65	75	117	145	13	29	48	71	182	168
	45	28	60								M20x1,5	36			88								
80	36	36	50	115	3/4"G	20	18	45		45	M33x2	30	93	83	82	149	180	9	29	51	77	209	190
	56	36	72								M27x2	46			105								
100	45	45	60	130	3/4"G	22	18	45		45	M42x2	36	101	97	92	162	200	10	32	57	82	222	203
	70	45	88								M33x2	60			125								
125	56	56	72	165	1"G	22	22	58		58	M48x2	46	117	126	105	208	250	10	32	57	86	257	232
	90	56	108								M42x2	80			150								
160	70	63	88	205	1"G	25	26	58		58	M64x3	60	130	155	125	253	300	7	32	57	86	277	245
	110	63	133								M48x2	100			170								
200	90	85	108	245	1 1/4"G	25	33	76		76	M80x3	80	165	190	150	300	360	7	32	57	98	334	299
	140	85	163								M64x3	120			210								

HT Series

ISO 6020/2 Hydraulic Cylinders

Fixing accessories

Rear rectangular flange mounting ISO ME6



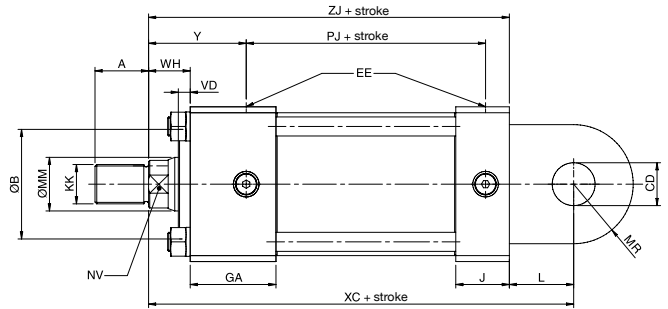
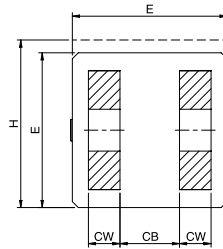
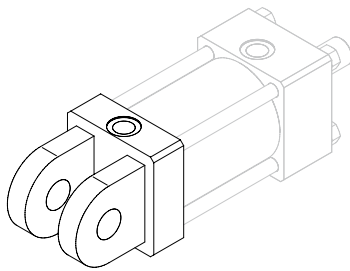
Ø	ØMM	A	B	E	EE	FB	GA	H	J	KK	NV	PJ	R	TO	UO	VD	WH	Y	ZJ
25	12	14	24	40	1/4"G	5,5	50	45	25	M10x1,25	10	53	27	51	65	6	15	50	114
	18	14	30							M10x1,25	15								
32	14	16	26	45	1/4"G	6,6	50	50	25	M12x1,5	12	56	33	58	70	12	25	60	128
	22	16	34							M12x1,5	18								
40	18	18	30	63	3/8"G	11	55		38	M14x1,5	15	73	41	87	110	12	25	62	153
	28	18	42							M14x1,5	22								
50	22	22	34	75	1/2"G	14	61		38	M16x1,5	18	74	52	105	130	9	25	67	159
	36	22	50							M16x1,5	30								
63	28	28	42	90	1/2"G	14	61		38	M20x1,5	22	80	65	117	145	13	32	71	168
	45	28	60							M20x1,5	36								
80	36	36	50	115	3/4"G	18	70		45	M27x2	30	93	83	149	180	9	31	77	190
	56	36	72							M27x2	46								
100	45	45	60	130	3/4"G	18	72		45	M33x2	36	101	97	162	200	10	35	82	203
	70	45	88							M33x2	60								
125	56	56	72	165	1"G	22	80		58	M42x2	46	117	126	208	250	10	35	86	232
	90	56	108							M42x2	80								
160	70	63	88	205	1"G	26	83		58	M48x2	60	130	155	253	300	7	32	86	245
	110	63	133							M48x2	100								
200	90	85	108	245	1 1/4"G	33	101		76	M64x3	80	165	190	300	360	7	32	98	299
	140	85	163							M64x3	120								
		112								M100x3									

HT Series

ISO 6020/2 Hydraulic Cylinders

Fixing accessories

Clevis mounting ISO MP1



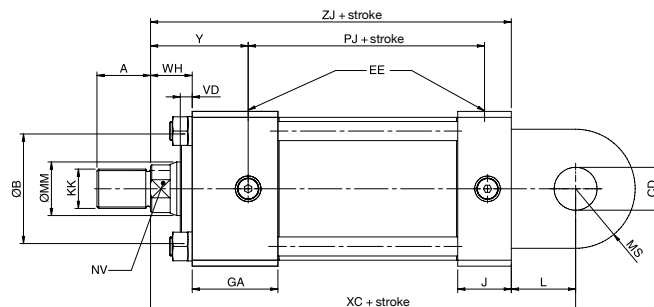
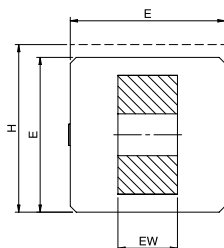
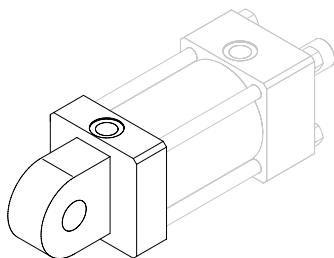
Ø	ØMM	A	B	CB	CD	CW	E	EE	GA	H	J	KK	L	MR	NV	PJ	VD	WH	XC	Y	ZJ
25	12	14	24	12	10	6	40	1/4"G	50	45	25	M10x1,25	13	12	10	53	6	15	127	50	114
	18	14	30									M10x1,25			15						
32	14	16	26	16	12	8	45	1/4"G	50	50	25	M14x1,5	19	17	12	56	12	25	147	60	128
	22	16	34									M12x1,5			18						
40	18	18	30	20	14	10	63	3/8"G	55		38	M16x1,5	19	17	15	73	12	25	172	62	153
	28	18	42									M14x1,5			22						
50	22	22	34	30	20	15	75	1/2"G	61		38	M20x1,5	32	29	18	74	9	25	191	67	159
	36	22	50									M16x1,5			30						
63	28	28	42	30	20	15	90	1/2"G	61		38	M27x2	32	29	22	80	13	32	200	71	168
	45	28	60									M20x1,5			36						
80	36	36	50	40	28	20	115	3/4"G	70		45	M33x2	39	34	30	93	9	31	229	77	190
	56	36	72									M27x2			46						
100	45	45	60	50	36	25	130	3/4"G	72		45	M42x2	54	44	36	101	10	35	257	82	203
	70	45	88									M33x2			60						
125	56	56	72	60	45	30	165	1"G	80		58	M48x2	57	53	46	117	10	35	289	86	232
	90	56	108									M42x2			80						
160	70	63	88	70	56	35	205	1"G	83		58	M64x3	63	59	60	130	7	32	308	86	245
	110	63	133									M48x2			100						
200	90	85	108	80	70	40	245	1 1/4"G	101		76	M80x3	82	78	80	165	7	32	381	98	299
	140	85	163									M64x3			120						

HT Series

ISO 6020/2 Hydraulic Cylinders

Fixing accessories

Eye mounting ISO MP3



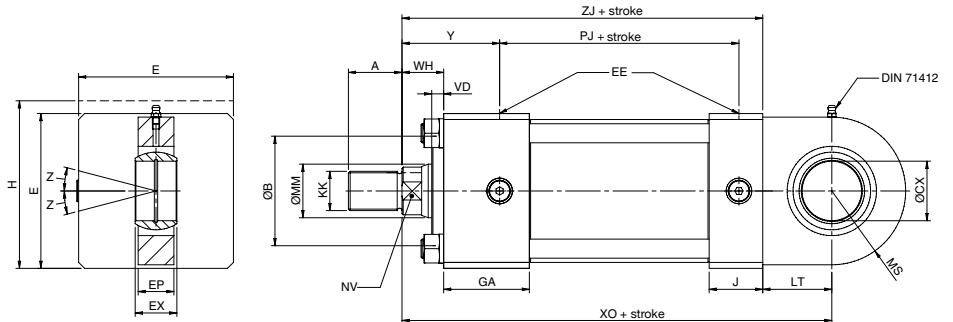
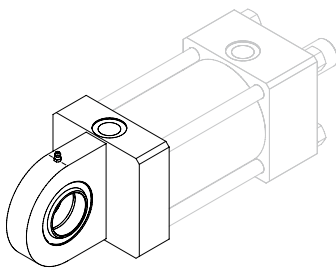
Ø	ØMM	A	B	CD	E	EE	EW	GA	H	J	KK	L	MS	NV	PJ	VD	WH	XC	Y	ZJ
25	12	14	24	10	40	1/4"G	12	50	45	25	M10x1,25	13	12	10	53	6	15	127	50	114
	18	14	30								M10x1,25			15						
32	14	16	26	12	45	1/4"G	16	50	50	25	M14x1,5	19	17	12	56	12	25	147	60	128
	22	16	34								M12x1,5			18						
40	18	18	30	14	63	3/8"G	20	55		38	M16x1,5	19	17	15	73	12	25	172	62	153
	28	18	42								M14x1,5			22						
50	22	22	34	20	75	1/2"G	30	61		38	M20x1,5	32	29	18	74	9	25	191	67	159
	36	22	50								M16x1,5			30						
63	28	28	42	20	90	1/2"G	30	61		38	M27x2	32	29	22	80	13	32	200	71	168
	45	28	60								M20x1,5			36						
80	36	36	50	28	115	3/4"G	40	70		45	M33x2	39	34	30	93	9	31	229	77	190
	56	36	72								M27x2			46						
100	45	45	60	36	130	3/4"G	50	72		45	M42x2	54	44	36	101	10	35	257	82	203
	70	45	88								M33x2			60						
125	56	56	72	45	165	1"G	60	80		58	M48x2	57	53	46	117	10	35	289	86	232
	90	56	108								M42x2			80						
160	70	63	88	56	205	1"G	70	83		58	M64x3	63	59	60	130	7	32	308	86	245
	110	63	133								M48x2			100						
200	90	85	108	70	245	1 1/4"G	80	101		76	M80x3	82	78	80	165	7	32	381	98	299
	140	85	163								M64x3			120						
		112									M100x3									

HT Series

ISO 6020/2 Hydraulic Cylinders

Fixing accessories

Spherical eye mounting ISO MP5



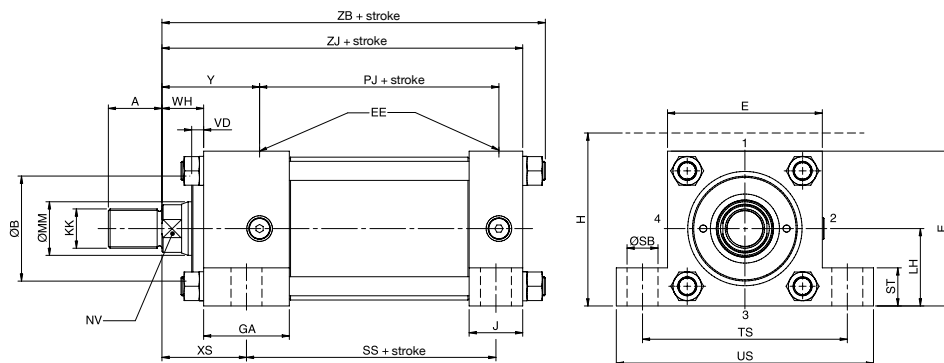
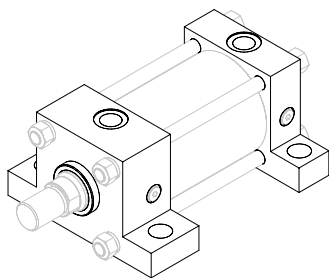
Ø	ØMM	A	B	CX	E	EE	EP	EX	GA	H	J	KK	LT	MS	NV	PJ	VD	WH	XO	Y	Z	ZJ
25	12	14	24	12	40	1/4"G	8	10	50	45	25	M10x1,25	16	20	10	53	6	15	130	50	4°	114
	18	14	30									M10x1,25			15							
32	14	16	26	16	45	1/4"G	11	14	50	50	25	M14x1,5	20	22,5	12	56	12	25	148	60	4°	128
	22	16	34									M12x1,5			18							
40	18	18	30	20	63	3/8"G	13	16	55		38	M16x1,5	25	29	15	73	12	25	178	62	4°	153
	28	18	42									M14x1,5			22							
50	22	22	34	25	75	1/2"G	17	20	61		38	M20x1,5	31	33	18	74	9	25	190	67	4°	159
	36	22	50									M16x1,5			30							
63	28	28	42	30	90	1/2"G	19	22	61		38	M27x2	38	40	22	80	13	32	206	71	4°	168
	45	28	60									M20x1,5			36							
80	36	36	50	40	115	3/4"G	23	28	70		45	M33x2	48	50	30	93	9	31	238	77	4°	190
	56	36	72									M27x2			46							
100	45	45	60	50	130	3/4"G	30	35	72		45	M42x2	58	62	36	101	10	35	261	82	4°	203
	70	45	88									M33x2			60							
125	56	56	72	60	165	1"G	38	44	80		58	M48x2	72	80	46	117	10	35	304	86	4°	232
	90	56	108									M42x2			80							
160	70	63	88	80	205	1"G	47	55	83		58	M64x3	92	100	60	130	7	32	337	86	4°	245
	110	63	133									M48x2			100							
200	90	85	108	100	245	1 1/4"G	57	70	101		76	M80x3	116	120	80	165	7	32	415	98	4°	299
	140	85	163									M64x3			120							

HT Series

ISO 6020/2 Hydraulic Cylinders

Fixing accessories

Foot mounting ISO MS2



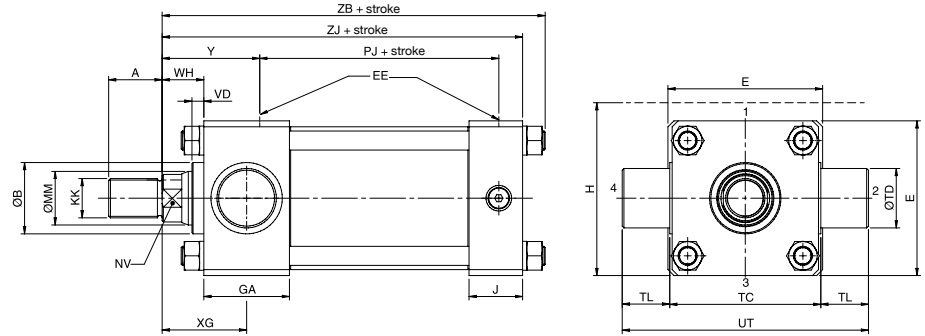
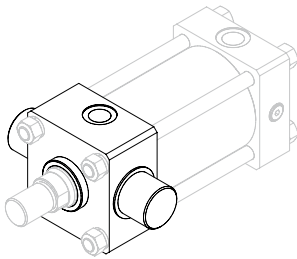
Ø	ØMM	A	B	E	EE	GA	H	J	KK	LH	NV	PJ	SB	SS	ST	TS	US	VD	WH	XS	Y	ZB	ZJ
25	12	14	24	40	1/4"G	50	45	25	M10x1,25	19	10	53	6,6	73	8,5	54	72	6	15	33	50	121	114
	18	14	30						M10x1,25														
32	14	16	26	45	1/4"G	50	50	25	M12x1,5	22	12	56	9	73	12,5	63	84	12	25	45	60	136	128
	22	16	34						M12x1,5														
40	18	18	30	63	3/8"G	55		38	M14x1,5	31	15	73	11	98	12,5	83	103	12	25	45	62	163	153
	28	18	42						M14x1,5														
50	22	22	34	75	1/2"G	61		38	M16x1,5	37	18	74	14	92	19	102	127	9	25	54	67	173	159
	36	22	50						M16x1,5														
63	28	28	42	90	1/2"G	61		38	M20x1,5	44	22	80	18	86	26	124	161	13	32	65	71	182	168
	45	28	60						M20x1,5														
80	36	36	50	115	3/4"G	70		45	M27x2	57	30	93	18	105	26	149	186	9	31	68	77	209	190
	56	36	72						M27x2														
100	45	45	60	130	3/4"G	72		45	M33x2	63	36	101	26	102	32	172	216	10	35	79	82	222	203
	70	45	88						M33x2														
125	56	56	72	165	1"G	80		58	M42x2	82	46	117	26	131	32	210	254	10	35	79	86	257	232
	90	56	108						M42x2														
160	70	63	88	205	1"G	83		58	M64x3	101	60	130	33	130	38	260	318	7	32	86	86	277	245
	110	63	133						M48x2														
200	90	85	108	245	1 1/4"G	101		76	M80x3	122	80	165	39	172	44	311	381	7	32	92	98	334	299
	140	85	163						M64x3														

HT Series

ISO 6020/2 Hydraulic Cylinders

Fixing accessories

Front trunnion ISO MT1



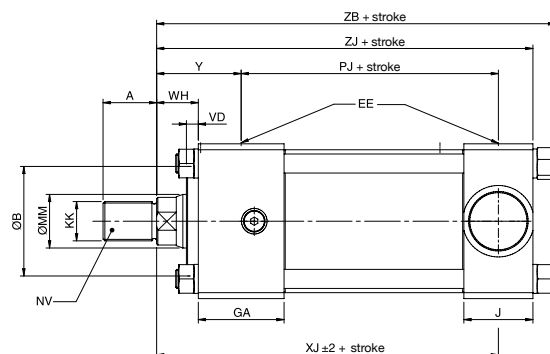
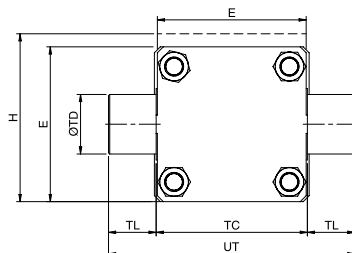
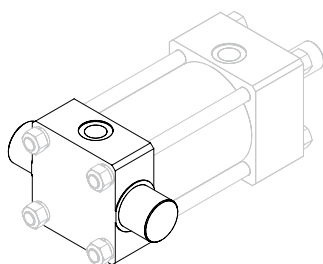
Ø	ØMM	A	B	E	EE	GA	H	J	KK	NV	PJ	TC	TD	TL	UT	VD	WH	XG	Y	ZB	ZJ
25	12	14	24	40	1/4"G	50	45	25	M10x1,25	10	53	38	12	10	58	6	15	44	50	121	114
	18	14	30						M10x1,25	15											
32	14	16	26	45	1/4"G	50	50	25	M14x1,5	12	56	44	16	12	68	12	25	54	60	136	128
	22	16	34						M12x1,5	18											
40	18	18	30	63	3/8"G	55		38	M16x1,5	15	73	63	20	16	95	12	25	57	62	163	153
	28	18	42						M14x1,5	22											
50	22	22	34	75	1/2"G	61		38	M20x1,5	18	74	76	25	20	116	9	25	64	67	173	159
	36	22	50						M16x1,5	30											
63	28	28	42	90	1/2"G	61		38	M27x2	22	80	89	32	25	139	13	32	70	71	182	168
	45	28	60						M20x1,5	36											
80	36	36	50	115	3/4"G	70		45	M33x2	30	93	114	40	32	178	9	31	76	77	209	190
	56	36	72						M27x2	46											
100	45	45	60	130	3/4"G	72		45	M42x2	36	101	127	50	40	207	10	35	71	82	222	203
	70	45	88						M33x2	60											
125	56	56	72	165	1"G	80		58	M48x2	46	117	165	63	50	265	10	35	75	86	257	232
	90	56	108						M42x2	80											
160	70	63	88	205	1"G	83		58	M64x3	60	130	203	80	63	329	7	32	75	86	277	245
	110	63	133						M48x2	100											
200	90	85	108	245	1 1/4"G	101		76	M80x3	80	165	241	100	80	401	7	32	85	98	334	299
	140	85	163						M64x3	120											

HT Series

ISO 6020/2 Hydraulic Cylinders

Fixing accessories

Rear trunnion ISO MT2



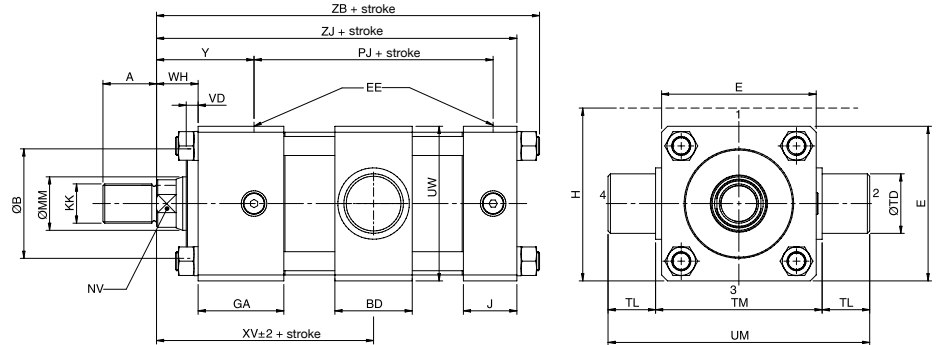
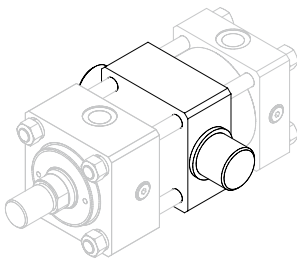
Ø	ØMM	A	B	E	EE	GA	H	J	KK	NV	PJ	TC	TD	TL	UT	VD	WH	XJ	Y	ZB	ZJ
25	12	14	24	40	1/4"G	50	45	25	M10x1,25	10	53	38	12	10	58	6	15	101	50	121	114
	18	14	30						M10x1,25	15											
32	14	16	26	45	1/4"G	50	50	25	M12x1,5	12	56	44	16	12	68	12	25	115	60	136	128
	22	16	34						M12x1,5	18											
40	18	18	30	63	3/8"G	55		38	M14x1,5	15	73	63	20	16	95	12	25	134	62	163	153
	28	18	42						M14x1,5	22											
50	22	22	34	75	1/2"G	61		38	M16x1,5	18	74	76	25	20	116	9	25	140	67	173	159
	36	22	50						M16x1,5	30											
63	28	28	42	90	1/2"G	61		38	M20x1,5	22	80	89	32	25	139	13	32	149	71	182	168
	45	28	60						M20x1,5	36											
80	36	36	50	115	3/4"G	70		45	M27x2	30	93	114	40	32	178	9	31	168	77	209	190
	56	36	72						M27x2	46											
100	45	45	60	130	3/4"G	72		45	M42x2	36	101	127	50	40	207	10	35	187	82	222	203
	70	45	88						M33x2	60											
125	56	56	72	165	1"G	80		58	M48x2	46	117	165	63	50	265	10	35	209	86	257	232
	90	56	108						M42x2	80											
160	70	63	88	205	1"G	83		58	M64x3	60	130	203	80	63	329	7	32	230	86	277	245
	110	63	133						M48x2	100											
200	90	85	108	245	1 1/4"G	101		76	M80x3	80	165	241	100	80	401	7	32	276	98	334	299
	140	85	163						M64x3	120											

HT Series

ISO 6020/2 Hydraulic Cylinders

Fixing accessories

Intermediate trunnion ISO MT4



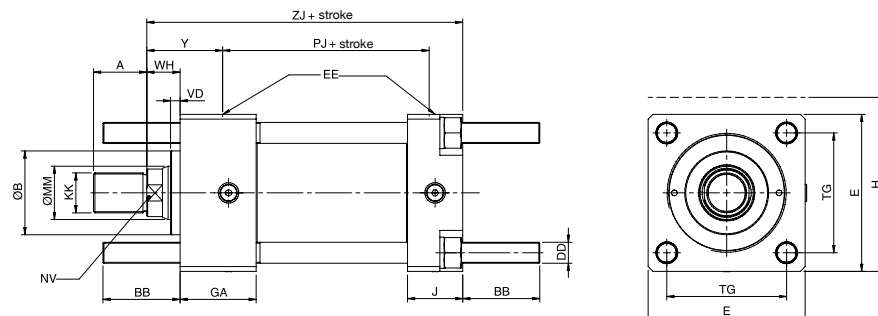
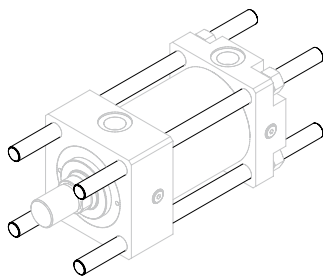
Ø	ØMM	A	B	BD	E	EE	GA	H	J	KK	NV	PJ	TD	TL	TM	UM	UW	VD	WH	XV _(min)	Y	ZB	ZJ
25	12	14	24	20	40	1/4"G	50	45	25	M10x1,25	10	53	12	10	48	68	45	6	15	77	50	121	114
	18	14	30							M10x1,25	15												
32	14	16	26	25	45	1/4"G	50	50	25	M14x1,5	12	56	16	12	55	79	50	12	25	90	60	136	128
	22	16	34							M12x1,5	18												
40	18	18	30	30	63	3/8"G	55		38	M16x1,5	15	73	20	16	76	108	70	12	25	97	62	163	153
	28	18	42							M14x1,5	22												
50	22	22	34	40	75	1/2"G	61		38	M20x1,5	18	74	25	20	89	129	83	9	25	108	67	173	159
	36	22	50							M16x1,5	30												
63	28	28	42	48	90	1/2"G	61		38	M27x2	22	80	32	25	100	150	94	13	32	119	71	182	168
	45	28	60							M20x1,5	36												
80	36	36	50	55	115	3/4"G	70		45	M33x2	30	93	40	32	127	191	118	9	31	131	77	209	190
	56	36	72							M27x2	46												
100	45	45	60	65	130	3/4"G	72		45	M42x2	36	101	50	40	140	220	128	10	35	142	82	222	203
	70	45	88							M33x2	60												
125	56	56	72	85	165	1"G	80		58	M48x2	46	117	63	50	178	278	168	10	35	160	86	257	232
	90	56	108							M42x2	80												
160	70	63	88	105	205	1"G	83		58	M64x3	60	130	80	63	215	341	205	7	32	170	86	277	245
	110	63	133							M48x2	100												
200	90	85	108	125	245	1 1/4"G	101		76	M80x3	80	165	100	80	279	439	250	7	32	198	98	334	299
	140	85	163							M64x3	120												

HT Series

ISO 6020/2 Hydraulic Cylinders

Fixing accessories

Tie-rods extended head and cap ISO MX1



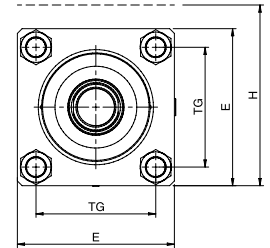
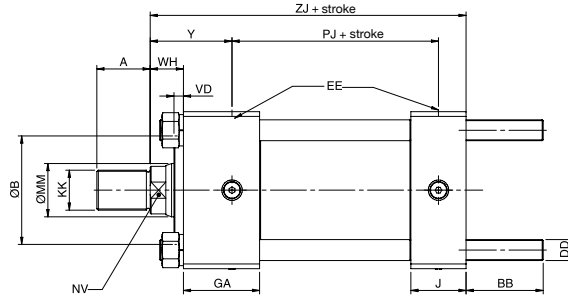
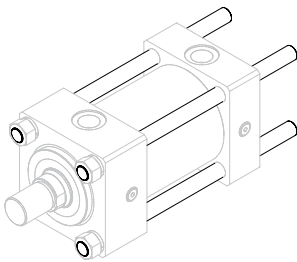
Ø	ØMM	A	B	BB	DD	E	EE	GA	H	J	KK	NV	PJ	TG	VD	WH	Y	ZJ
25	12	14	24	19	M5x0,8	40	1/4"G	50	45	25	M10x1,25	10	53	28,3	6	15	50	114
	18	14	30								M10x1,25	15						
32	14	16	26	24	M6x1	45	1/4"G	50	50	25	M14x1,5	12	56	33,2	12	25	60	128
	22	16	34								M12x1,5	18						
40	18	18	30	35	M8x1	63	3/8"G	55		38	M16x1,5	15	73	41,7	12	25	62	153
	28	18	42								M14x1,5	22						
50	22	22	34	46	M12x1,25	75	1/2"G	61		38	M20x1,5	18	74	52,3	9	25	67	159
	36	22	50								M16x1,5	30						
63	28	28	42	46	M12x1,25	90	1/2"G	61		38	M27x2	22	80	64,3	13	32	71	168
	45	28	60								M20x1,5	36						
80	36	36	50	59	M16x1,5	115	3/4"G	70		45	M33x2	30	93	82,7	9	31	77	190
	56	36	72								M27x2	46						
100	45	45	60	59	M16x1,5	130	3/4"G	72		45	M42x2	36	101	96,9	10	35	82	203
	70	45	88								M33x2	60						
125	56	56	72	81	M22x1,5	165	1"G	80		58	M48x2	46	117	125,9	10	35	86	232
	90	56	108								M42x2	80						
160	70	63	88	92	M27x2	205	1"G	83		58	M64x3	60	130	154,9	7	32	86	245
	110	63	133								M48x2	100						
200	90	85	108	115	M30x2	245	1 1/4"G	101		76	M80x3	80	165	190,2	7	32	98	299
	140	85	163								M64x3	120						

HT Series

ISO 6020/2 Hydraulic Cylinders

Fixing accessories

Tie-rods extended cap end ISO MX2



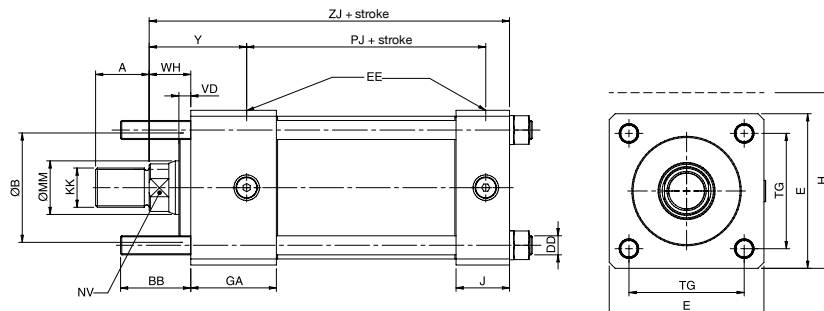
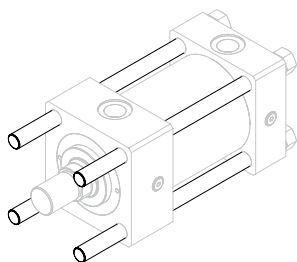
Ø	ØMM	A	B	BB	DD	E	EE	GA	H	J	KK	NV	PJ	TG	VD	WH	Y	ZJ
25	12	14	24	19	M5x0,8	40	1/4"G	50	45	25	M10x1,25	10	53	28,3	6	15	50	114
	18	14	30								M10x1,25	15						
32	14	16	26	24	M6x1	45	1/4"G	50	50	25	M14x1,5	12	56	33,2	12	25	60	128
	22	16	34								M12x1,5	18						
40	18	18	30	35	M8x1	63	3/8"G	55		38	M16x1,5	15	73	41,7	12	25	62	153
	28	18	42								M14x1,5	22						
50	22	22	34	46	M12x1,25	75	1/2"G	61		38	M20x1,5	18	74	52,3	9	25	67	159
	36	22	50								M16x1,5	30						
63	28	28	42	46	M12x1,25	90	1/2"G	61		38	M27x2	22	80	64,3	13	32	71	168
	45	28	60								M20x1,5	36						
80	36	36	50	59	M16x1,5	115	3/4"G	70		45	M33x2	30	93	82,7	9	31	77	190
	56	36	72								M27x2	46						
100	45	45	60	59	M16x1,5	130	3/4"G	72		45	M42x2	36	101	96,9	10	35	82	203
	70	45	88								M33x2	60						
125	56	56	72	81	M22x1,5	165	1"G	80		58	M48x2	46	117	125,9	10	35	86	232
	90	56	108								M42x2	80						
160	70	63	88	92	M27x2	205	1"G	83		58	M64x3	60	130	154,9	7	32	86	245
	110	63	133								M48x2	100						
200	90	85	108	115	M30x2	245	1 1/4"G	101		76	M80x3	80	165	190,2	7	32	98	299
	140	85	163								M64x3	120						

HT Series

ISO 6020/2 Hydraulic Cylinders

Fixing accessories

Tie-rods extended head end ISO MX3



Ø	ØMM	A	B	BB	DD	E	EE	GA	H	J	KK	NV	PJ	TG	VD	WH	Y	ZJ
25	12	14	24	19	M5x0,8	40	1/4"G	50	45	25	M10x1,25	10	53	28,3	6	15	50	114
	18	14	30								M10x1,25	15						
32	14	16	26	24	M6x1	45	1/4"G	50	50	25	M12x1,5	12	56	33,2	12	25	60	128
	22	16	34								M12x1,5	18						
40	18	18	30	35	M8x1	63	3/8"G	55		38	M14x1,5	15	73	41,7	12	25	62	153
	28	18	42								M14x1,5	22						
50	22	22	34	46	M12x1,25	75	1/2"G	61		38	M20x1,5	18	74	52,3	9	25	67	159
	36	22	50								M16x1,5	30						
63	28	28	42	46	M12x1,25	90	1/2"G	61		38	M20x1,5	22	80	64,3	13	32	71	168
	45	28	60								M20x1,5	36						
80	36	36	50	59	M16x1,5	115	3/4"G	70		45	M27x2	30	93	82,7	9	31	77	190
	56	36	72								M27x2	46						
100	45	45	60	59	M16x1,5	130	3/4"G	72		45	M33x2	36	101	96,9	10	35	82	203
	70	45	88								M33x2	60						
125	56	56	72	81	M22x1,5	165	1"G	80		58	M48x2	46	117	125,9	10	35	86	232
	90	56	108								M42x2	80						
160	70	63	88	92	M27x2	205	1"G	83		58	M64x3	60	130	154,9	7	32	86	245
	110	63	133								M48x2	100						
200	90	85	108	115	M30x2	245	1 1/4"G	101		76	M80x3	80	165	190,2	7	32	98	299
	140	85	163								M64x3	120						

HV Series

ISO 3320 Hydraulic Cylinders



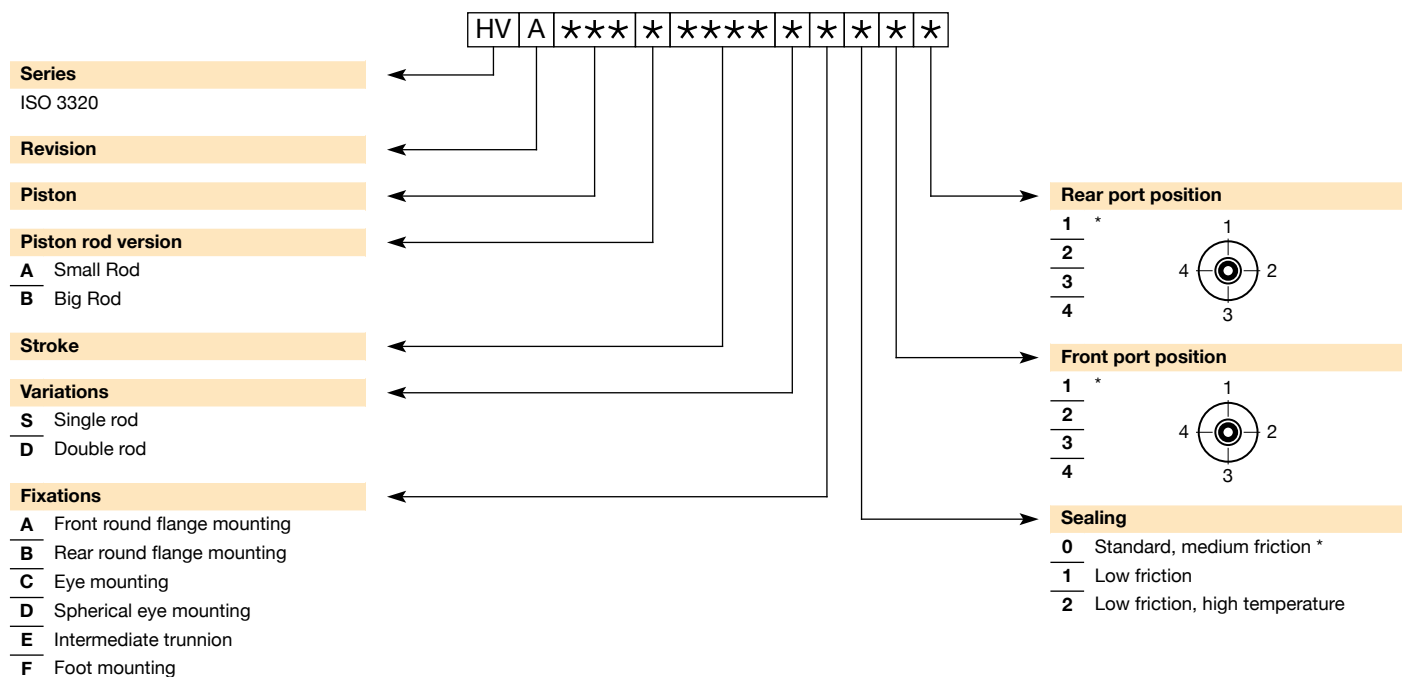
Technical characteristics

Standard	ISO 3320																	
Rated pressure	160 bar																	
Test pressure	240 bar																	
Ambient temperature	-20°C → +80°C																	
	-20°C → +160°C with Viton seals																	
Fluid temperature	-20°C → +80°C																	
	-20°C → +160°C with Viton seals																	
Fluid	Mineral oil - Other fluids to order																	
Piston (mm)	32	40		50		63		80		100		125		160		200		250
Rod (mm)	20	22	28	28	36	36	45	45	56	56	70	70	90	90	110	110	140	140 180
Maximum speed (m/s) - standard seals	0,5					0,4												
Maximum speed (m/s) - low-friction seals	1																	

HV Series

ISO 3320 Hydraulic Cylinders

Codification



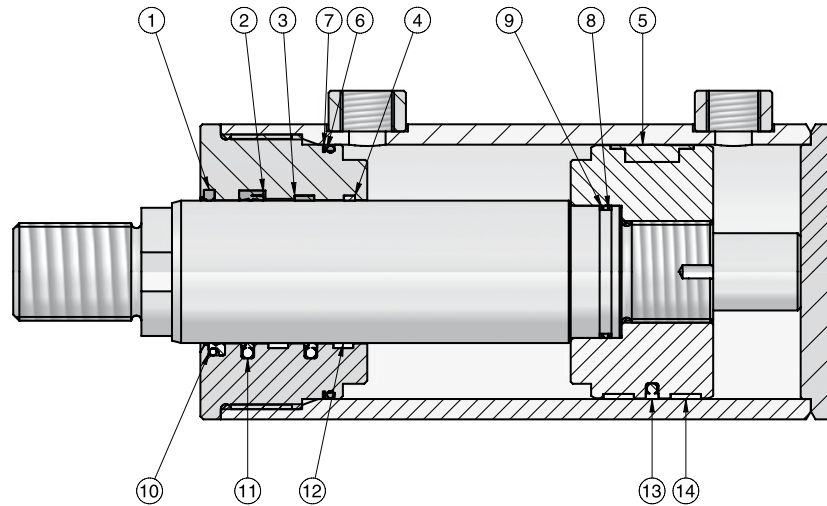
A spacer is installed for strokes higher than 1000 mm
 Overall length of the cylinder increases this way:
 1001 - 1500: +50mm total length
 1501 - 2000: +100mm total length
 2001 - 2500: +150mm total length
 2501 - 3000: +200mm total length

*Default option

HV Series

ISO 3320 Hydraulic Cylinders

Seal kit



Position	Description
1	Wiper
2	Rod seal
3	Piston-rod guide ring
4	Piston-rod guide band
5	Piston seal
6	O-ring
7	Anti-extrusion seal
8	O-ring
9	Anti-extrusion seal
10	Wiper (low friction)
11	Rod seal (LF)
12	Piston-rod guide band (LF)
13	Piston seal (LF)
14	Piston-rod guide band (LF)

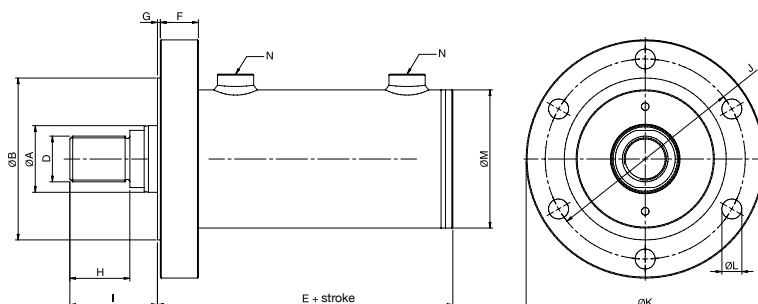
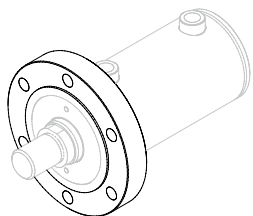
KHV *** *** *			
ISO3320 Serie	Piston	Rod	Seal type
	032 = 32 mm	020 = 20 mm	0 = Standard, medium friction
	040 = 40 mm	022 = 22 mm	1 = Low friction
	050 = 50 mm	028 = 28 mm	2 = Low friction, high temperature
	063 = 63 mm	036 = 36 mm	
	080 = 80 mm	045 = 45 mm	
	100 = 100 mm	056 = 56 mm	
	125 = 125 mm	070 = 70 mm	
	160 = 160 mm	090 = 90 mm	
	200 = 200 mm	110 = 110 mm	
	250 = 250 mm	140 = 140 mm	
		180 = 180 mm	

HV Series

ISO 3320 Hydraulic Cylinders

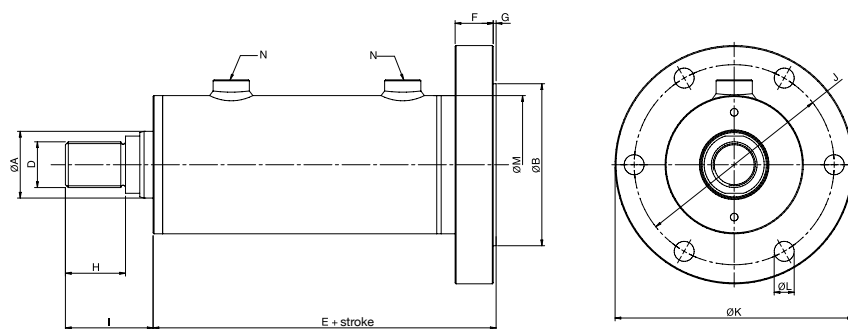
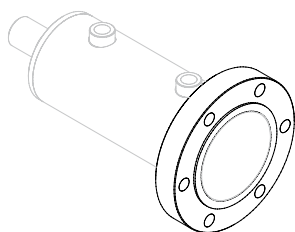
Fixing accessories

Front Round Flange



Ø	ØA	E	B	D	F	G	H	I	J	K	L	M	N
32	20	107	52	M14 x 1,5	15	2	18	35	67	80	7	42	1/4"G
40	22	97	60	M16 x 1,5	15	2	22	40	82	100	9	50	3/8"G
50	28	104	75	M20 x 1,5	18	2	28	48	103	125	11	60	3/8"G
63	36	106	90	M27 x 2	20	2	36	58	120	145	13	75	3/8"G
80	45	126	110	M33 x 2	28	2	45	68	142	170	15	95	3/8"G
100	56	138	135	M42 x 2	30	3	56	85	170	202	17	115	1/2"G
125	70	210	170	M48 x 2	40	3	63	92	210	250	21	145	3/4"G
160	90	238	215	M80 x 3	54	3	95	130	270	320	29	185	1"G
200	110	278	270	M80 x 3	65	3	95	130	330	385	32	230	1 1/4"G
250	140	338	330	M110 x 3	65	5	110	150	390	440	29	298	1 1/4"G

Rear Round Flange



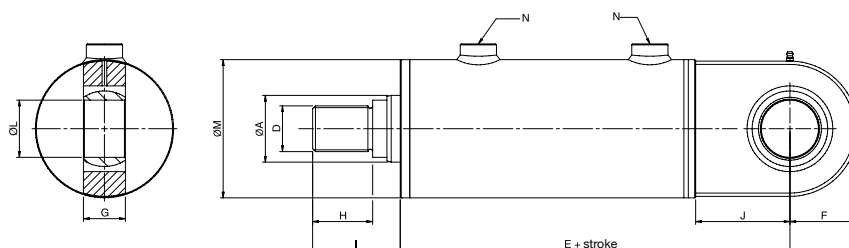
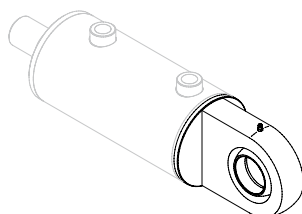
Ø	ØA	E	B	D	F	G	H	I	J	K	L	M	N
32	20	125	52	M14 x 1,5	15	2	18	35	67	80	7	42	1/4"G
40	22	130	60	M16 x 1,5	15	2	22	40	82	100	9	50	3/8"G
50	28	139	75	M20 x 1,5	18	2	28	48	103	125	11	60	3/8"G
63	36	149	90	M27 x 2	20	2	36	58	120	145	13	75	3/8"G
80	45	171	110	M33 x 2	28	2	45	68	142	170	15	95	3/8"G
100	56	185	135	M42 x 2	30	3	56	85	170	202	17	115	1/2"G
125	70	260	170	M48 x 2	40	3	63	92	210	250	21	145	3/4"G
160	90	308	215	M80 x 3	54	3	95	130	270	320	29	185	1"G
200	110	363	270	M80 x 3	65	3	95	130	330	385	32	230	1 1/4"G
250	140	408	330	M110 x 3	65	5	110	150	390	440	29	298	1 1/4"G

HV Series

ISO 3320 Hydraulic Cylinders

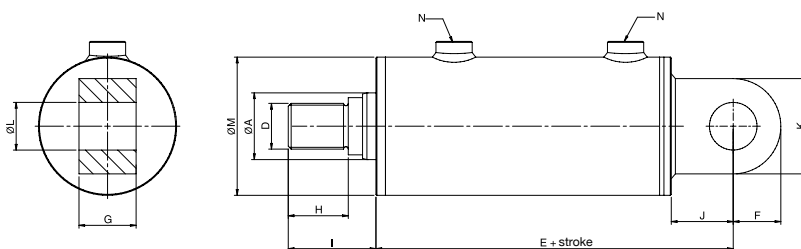
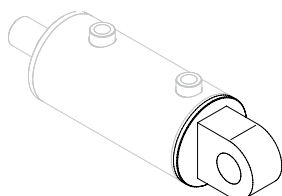
Fixing accessories

Spherical eye mounting



Ø	ØA	E	D	F	G	H	I	J	L	M	N
32	20	145	M14 x 1,5	22,8	16	18	35	38	20	42	1/4"G
40	22 28	142	M16 x 1,5	27,5	20	22	40	45	25	50	3/8"G
50	28 36	157	M20 x 1,5	32,5	22	36	48	51	29	60	3/8"G
63	36 45	167	M27 x 2	41,5	25	36	58	61	35	75	3/8"G
80	45 56	195	M33 x 2	50	28	45	68	69	40	95	3/8"G
100	56 70	226	M42 x 2	61,5	35	56	85	88	50	115	1/2"G
125	70 90	310	M48 x 2	71	44	63	92	99	60	145	3/4"G
160	90 110	379	M80 x 3	90	55	95	130	141	80	185	1"G
200	110 140	433	M80 x 3	115	70	95	130	155	100	230	1 1/4"G
250	140 180	468	M110 x 3	147,5	70	110	150	165	110	298	1 1/4"G

Eye mounting



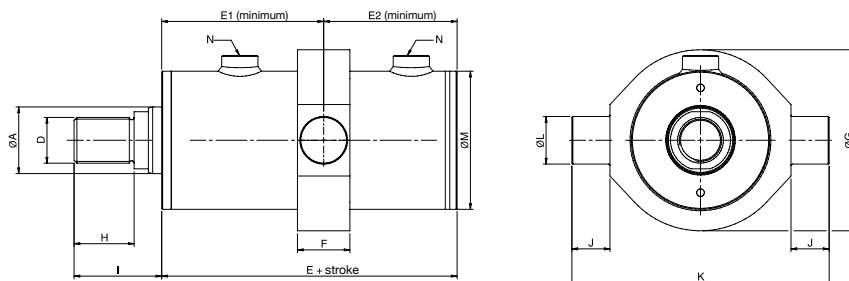
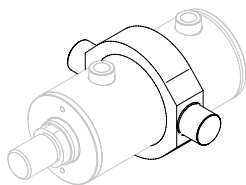
Ø	ØA	E	D	F	G	H	I	J	K	L	M	N
32	20	127	M14 x 1,5	13	16	18	35	20	26	12	42	1/4"G
40	22 28	122	M16 x 1,5	16	20	22	40	25	32	16	50	3/8"G
50	28 36	132	M20 x 1,5	20	25	36	48	28	40	20	60	3/8"G
63	36 45	138	M27 x 2	25	32	36	58	32	50	25	75	3/8"G
80	45 56	171	M33 x 2	32	40	45	68	45	64	32	95	3/8"G
100	56 70	193	M42 x 2	40	50	56	85	55	80	40	115	1/2"G
125	70 90	275	M48 x 2	50	60	63	92	65	100	50	145	3/4"G
160	90 110	313	M80 x 3	63	80	95	130	75	126	63	185	1"G
200	110 140	373	M80 x 3	80	100	95	130	95	160	80	230	1 1/4"G
250	140 180	468	M110 x 3	100	120	110	150	130	200	100	298	1 1/4"G

HV Series

ISO 3320 Hydraulic Cylinders

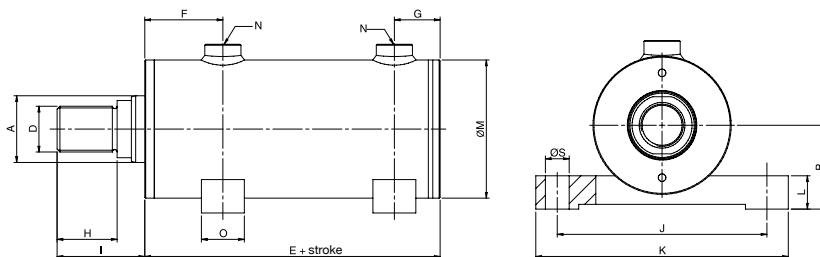
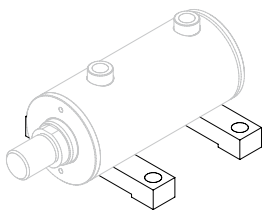
Fixing accessories

Intermediate trunnion



Ø	ØA	E	E1	E2	D	F	G	H	I	J	K	L	M	N
32	20	107	65	58	M14 x 1,5	20	56	18	35	12	80	16	42	1/4"G
40	22 28	97	74	64	M16 x 1,5	24	70	22	40	16	102	20	50	3/8"G
50	28 36	104	80	69	M20 x 1,5	30	85	28	48	20	125	25	60	3/8"G
63	36 45	106	84	70	M27 x 2	40	105	36	58	25	155	32	75	3/8"G
80	45 56	126	95	75	M33 x 2	40	125	45	68	25	175	32	95	3/8"G
100	56 70	138	106	82	M42 x 2	45	156	56	85	32	220	40	115	1/2"G
125	70 90	210	140	115	M48 x 2	55	190	63	92	40	270	50	145	3/4"G
160	90 110	238	175	130	M80 x 3	70	250	95	130	50	350	63	185	1"G
200	110 140	278	190	145	M80 x 3	90	300	95	130	63	426	80	230	1 1/4"G
250	140 180	338	257	210	M110 x 3	110	345	110	150	80	520	100	298	1 1/4"G

Foot mounting



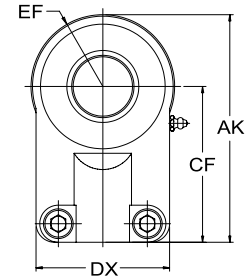
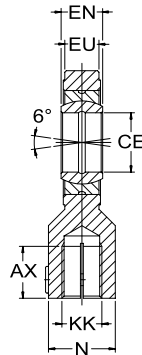
Ø	ØA	E	B	D	H	I	J	K	L	M	N	O	S
32	20	107	28	M14 x 1,5	18	35	75	95	16	42	1/4"G	20	11
40	22 28	97	35	M16 x 1,5	22	40	94	118	20	50	3/8"G	25	13
50	28 36	104	40	M20 x 1,5	36	48	105	130	20	60	3/8"G	25	15
63	36 45	106	50	M27 x 2	36	58	130	160	25	75	3/8"G	30	17
80	45 56	126	62	M33 x 2	45	68	160	195	30	95	3/8"G	40	19
100	56 70	138	73	M42 x 2	56	85	185	225	30	115	1/2"G	40	23
125	70 90	210	88	M48 x 2	63	92	220	265	35	145	3/4"G	45	25
160	90 110	238	100	M80 x 3	95	130	295	355	40	185	1"G	60	35
200	110 140	278	115	M80 x 3	95	130	355	425	50	230	1 1/4"G	70	41
250	140 180	338	140	M110 x 3	110	150	425	510	65	298	1 1/4"G	78	47

Accessories

Hydraulic Cylinders

Swivel head ISO 8133

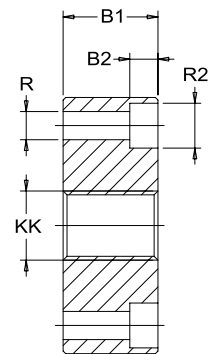
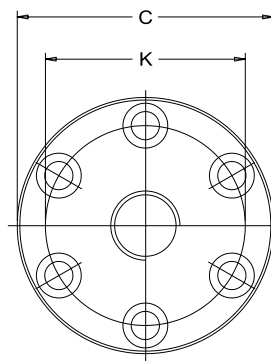
Valid for series
HR, HT and HV



Piston rod	KK (metric)	EN	EU	CE $\varnothing$ $0 -0,008$	EF max.	N max.	DX	CF ^{js13}	AK	AX min.	P/N
14	M12x1,25	14 $^{0}_{-0,12}$	11	16 $^{0}_{-0,008}$	21	21	45	48	69	17	HRT014AH
18	M14x1,5	16 $^{0}_{-0,12}$	13	20 $^{0}_{-0,010}$	25	25	55	58	83	19	HRT018AH
22	M16x1,5	20 $^{0}_{-0,12}$	17	25 $^{0}_{-0,010}$	31	30	62	68	99	23	HRT022AH
28	M20x1,5	22 $^{0}_{-0,12}$	19	30 $^{0}_{-0,010}$	38	36	80	85	123	29	HRT028AH
36	M27x2	28 $^{0}_{-0,12}$	23	40 $^{0}_{-0,012}$	48	45	90	105	153	37	HRT036AH
45	M33x2	35 $^{0}_{-0,15}$	30	50 $^{0}_{-0,012}$	58	55	105	130	188	46	HRT045AH
56	M42x2	44 $^{0}_{-0,15}$	38	60 $^{0}_{-0,015}$	75	68	134	150	225	57	HRT056AH
70	M48x2	55 $^{0}_{-0,15}$	47	80 $^{0}_{-0,015}$	97,5	78	156	185	282,2	64	HRT070AH
90	M64x3	70 $^{0}_{-0,20}$	57	100 $^{0}_{-0,020}$	117,5	100	190	240	357,5	86	HRT090AH

Rod flange ISO 8132

Valid for series
HR, HT and HV



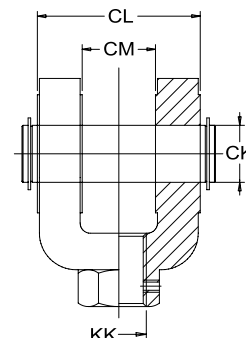
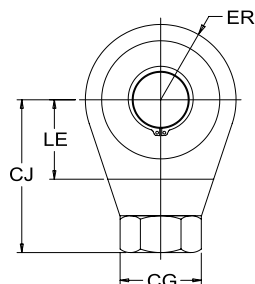
Piston rod	KK (metric)	B1	B2	C $\varnothing$	K $\varnothing$	R x N° $\varnothing$ Q.ty	R2	P/N
14	M12x1,25	17	6,8	56	40	6,6 4	11	HRT014AA
18	M14x1,5	19	9	63	45	9 4	14,5	HRT018AA
22	M16x1,5	23	9	72	54	9 6	14,5	HRT022AA
28	M20x1,5	29	9	82	63	9 6	14,5	HRT028AA
36	M27x2	37	11	100	78	11 6	17,5	HRT036AA
45	M33x2	46	13	120	95	13,5 8	20	HRT045AA
56	M42x2	57	17,5	150	120	17,5 8	26	HRT056AA
70	M48x2	64	21,5	190	150	22 8	33	HRT070AA
90	M64x3	86	25	230	180	26 8	40	HRT090AA

Accessories

Hydraulic Cylinders

Fork joint hinge with pin ISO 8133

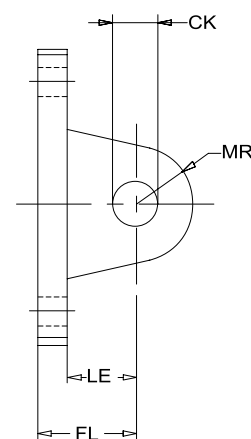
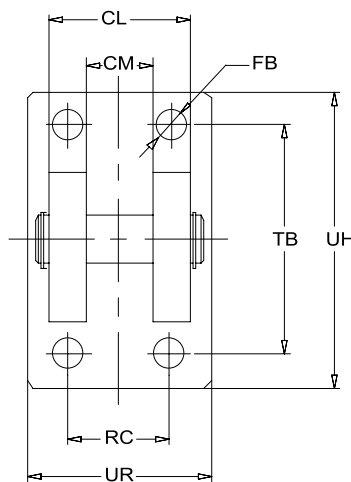
Valid for series
HR, HT and HV



Piston rod	KK (metric)	CK ^{H9} Ø	CL _{máx.}	CM ^{h12}	CJ ^{js13}	LE _{min.}	ER _{máx.}	CG	P/N
14	M12x1,25	12	32	16	36	19	17	21	HRT014AG
18	M14x1,5	14	40	20	38	19	17	21	HRT018AG
22	M16x1,5	20	60	30	54	32	29	32	HRT022AG
28	M20x1,5	20	60	30	60	32	29	32	HRT028AG
36	M27x2	28	80	40	75	39	34	40	HRT036AG
45	M33x2	36	100	50	99	54	50	56	HRT045AG
56	M42x2	45	120	60	113	57	53	56	HRT056AG
70	M48x2	56	140	70	126	63	59	75	HRT070AG
90	M64x3	70	160	80	168	83	78	95	HRT090AG
110	M80x3	70	160	80	168	83	78	95	HRT110AG
140	M100x3	100	230	100	250	90	95	160	HRT140AG

Clevis bracket ISO 8132

Valid for series
HR, HT and HV



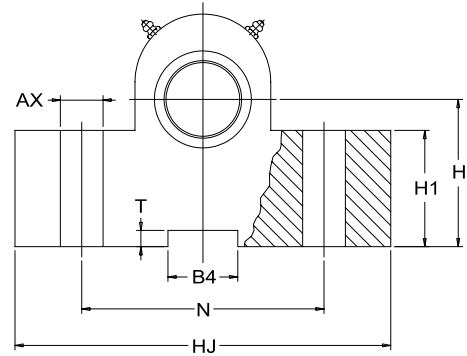
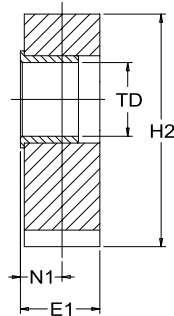
CK ^{H9} Ø	CM ^{A16}	CL ^{h13}	FL ^{js14}	LE	FB Ø	TB ^{js14}	UH	RC ^{js14}	UR	MR	P/N
12	12	28	34	22	9	50	70	20	40	12	HRT012AC
16	16	36	40	27	11	65	90	26	50	16	HRT016AC
20	20	45	45	30	11	75	98	32	58	20	HRT020AC
25	25	56	55	37	13,5	85	113	40	70	25	HRT025AC
32	32	70	65	43	17,5	110	143	50	85	32	HRT032AC
40	40	90	76	52	22	130	170	65	108	40	HRT040AC
50	50	110	95	65	26	170	220	80	130	50	HRT050AC
63	63	140	112	75	33	210	270	100	160	63	HRT063AC
80	80	170	140	95	39	250	320	125	210	80	HRT080AC

Accessories

Hydraulic Cylinders

Trunnion bracket ISO 8132

Valid for series
HR and HT



Piston	AX ^{H13} Ø	H ^{A16}	H1	H2 _{máx.}	TD ^{H7}	HJ	E1	N	N1	B4 ^{N9}	T ^{+0,3 +0}	P/N
25	9	34	25	49	12	63	17	40	8	10	3,3	HRT025AF
32	11	40	30	59	16	80	21	50	10	16	4,3	HRT032AF
40	11	45	38	69	20	90	21	60	10	16	4,3	HRT040AF
50	13,5	55	45	80	25	110	26	80	12	25	5,4	HRT050AF
63	17,5	65	52	100	32	150	33	110	15	25	5,4	HRT063AF
80	22	76	60	120	40	170	41	125	16	36	8,4	HRT080AF
100	26	95	75	140	50	210	51	160	20	36	8,4	HRT100AF
125	33	112	85	177	63	265	61	200	25	50	11,4	HRT125AF
160	39	140	112	220	80	325	81	250	31	50	11,4	HRT160AF

Special Hydraulic Cylinders

Cylinders designed or manufactured from drawings.

Custom measurements, functions, materials and accessories.

Our team of professionals can design and manufacture the cylinders that best suit our customers' needs.

Typical applications: offshore, transshipment and material handling in ports, infrastructure, presses, steel, lifting, trailers....



WE ARE A PARTNER OF INTERNATIONALLY RENOWNED COMPANIES



FURTHER INFORMATION AT...

WWW.AIRCONTROL.ES
WWW.AIRCONTROL-METALS.COM

HEADQUARTER

- DONOSTIA-SAN SEBASTIÁN
Paseo Sarroeta, 4
E-20014 Donostia-San Sebastián
Tel.: (+34) 943 44 50 80
Fax: (+34) 943 44 51 53
E-mail: info@aircontrol.es

BRANCHES

- BILBAO
Tel.: (+34) 943 44 50 80
Fax: (+34) 943 44 51 53
E-mail: info@aircontrol.es
- MADRID
Tel.: (+34) 943 44 50 80
Fax: (+34) 943 44 51 53
E-mail: info@aircontrol.es
- BARCELONA
Ramón Albó 71-73
E-08027 Barcelona
Tel.: (+34) 93 498 81 30
Fax: (+34) 93 408 41 08
E-mail: info@aircontrol.es
- SEVILLA
REINSUR S.L.
Avda. Alcalde Luis Uruñuela s/n
Edificio Congreso, Mod. 421
E-41020 Sevilla
Tel.: (+34) 95 425 85 17
Fax: (+34) 95 425 85 17
E-mail: reinsur_sl@yahoo.es
- LISBOA (PORTUGAL)
Alameda Fernão Lopes 31 A, Torre 2 - Miraflores
P-1495-136 Algés (Lisboa)
Tel.: (+351) 21 410 13 57
Fax: (+351) 21 410 56 08
E-mail: geral@air-control.pt



Distributed by:

