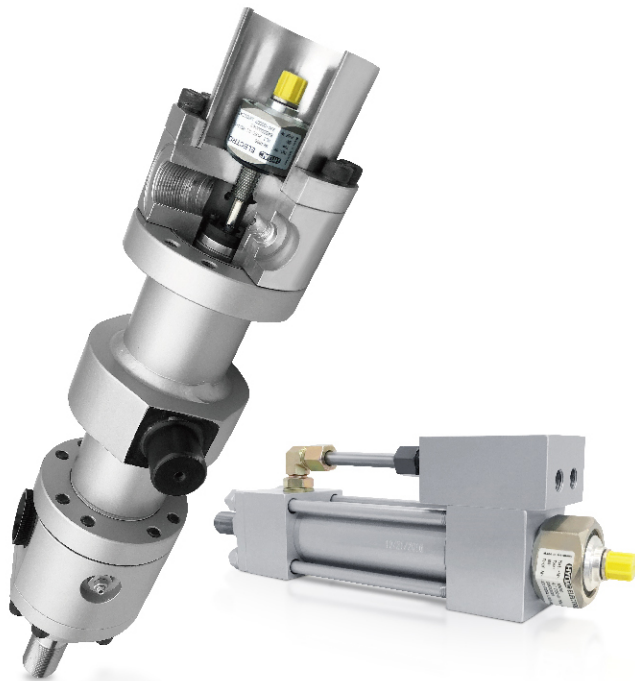


ASHUN

Heavy Duty Metric Mill Types |

- ◀ AH series (ISO 6022)
- ◀ AK series (ISO 6020-1)
- ◀ AT series (ISO 6020-2)



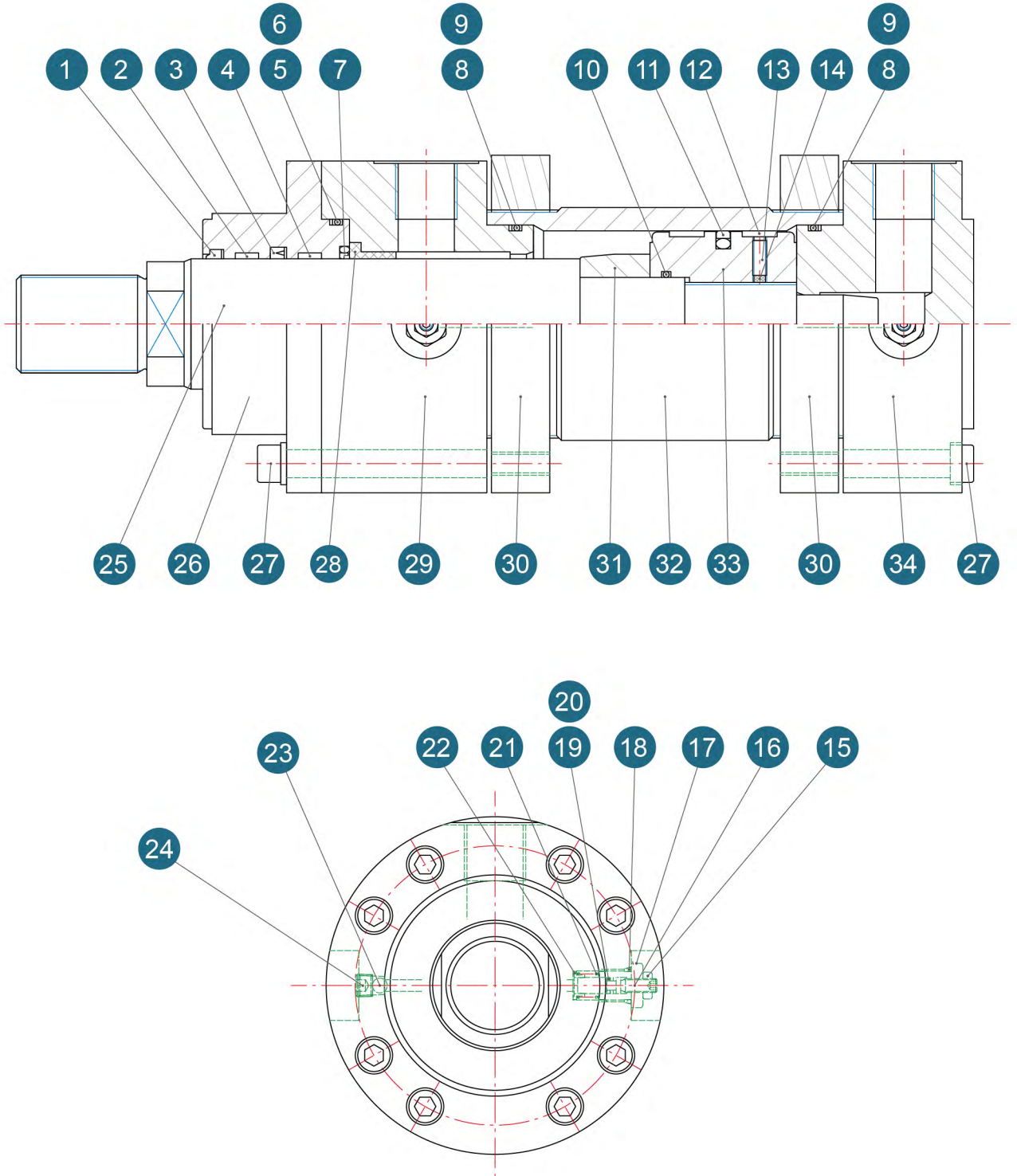
Jan. 2017

油順精密股份有限公司
ASHUN FLUID POWER CO., LTD.

www.ashun.com

- **ISO 6022** 25MPa Standard Hydraulic Cylinders
MF3 / MF4 / MP3 / MP5 / MS2 / MT4

Parts List



STANDARD CYLINDERS

NO	Description
1	Dust Wiper
2	Wearing Ring
3	Rod Seal
4	Wearing Ring
5	O Ring
6	Backup Ring
7	Rod Seal
8	O Ring
9	Backup Ring
10	O Ring
11	Piston Seal
12	Wearing Ring
13	Screw Stop Pin
14	Copper Bushing

NO	Description
15	Nut
16	Cushion Pin
17	Cushion Pin Cap
18	O Ring
19	O Ring
20	Backup Ring
21	Spring
22	Cushion Pin Sleeve
23	Ball Bearing
24	PT Stopper

NO	Description
25	Piston Rod
26	Front Cap
27	Hex Socket Screws
28	Rod Bush
29	Front Cap
30	Flange
31	Cushion Sleeve
32	Cylinder Tube
33	Piston
34	End Cap

ISO 6022 25MPa Standard Hydraulic Cylinders

MF3 / MF4 / MP3 / MP5 / MS2 / MT4

HOW TO ORDER

Model Code:

AH R - MP5 - 063 - B - A A - 040 - B - B B - D D - 0100 - H2 - H1 - ES2

SERIES

SENSORS

Magnet + Sensors Switch = **R**
 Linear Position Transmitter = **S**
 Proximity Sensors = **T**
 (No Symbol - No Device)

MOUNTING TYPES

Round Flange at Head = **MF3**
 Round Flange at Base = **MF4**
 Plain Clevis at Base = **MP3**
 Self-aligning Clevis at Base = **MP5**
 Foot Mounting = **MS2**
 Trunnion = **MT4**

BORE

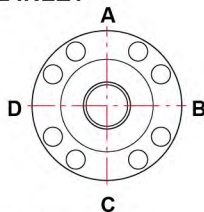
Piston Ø **40** to **320** mm

SEAL

Standard (-20° C ~ +80° C) = **B**
 Viton (-20° C ~ +150° C) = **C**

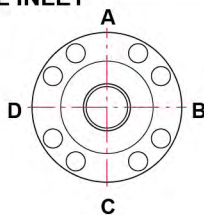
POSITION OF OIL INLET

Location at Head
A = Standard



POSITION OF OIL INLET

Location at Base
A = Standard



ROD

Piston Rod Ø **25** to **220** mm
 (S45C = Standard)

CUSHION DEVICE

Front and Rear = **B**
 Front only = **X**
 Rear only = **Y**
 None = **N**

SENSORS SWITCH

Only Front Rear = **ES1** /
 Front and Rear = **ES2** /
 Position Not Fixed = **ES3** /
 Position Not Fixed = **ES4** /
 Position Not Fixed = **ES5** /
 (No Symbol "R" - No Accessory)

ROD ACCESSORY

Please Refer Page **07 ~ 08**
 (No Symbol - No Accessory)

BORE ACCESSORY

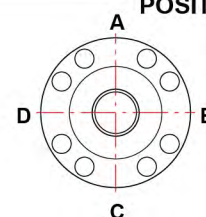
Please Refer Page **07 ~ 08**
 (No Symbol - No Accessory)

STROKE

Stroke Length in **mm**

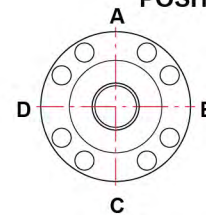
POSITION OF AIR VENT

Location at Base
D = Standard



POSITION OF AIR VENT

Location at Head
D = Standard



POSITION OF CUSHION

Location at Base
 Please Refer Oil Inlet Configuration
B = Standard

POSITION OF CUSHION

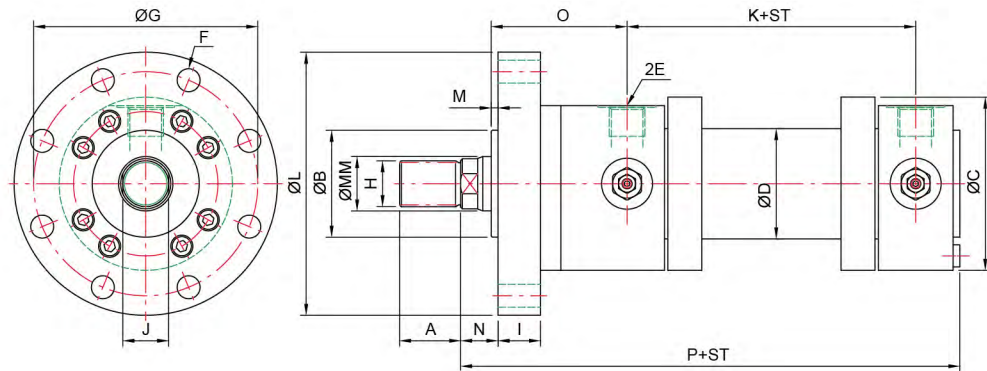
Location at Head
 Please Refer Oil Inlet Configuration
B = Standard

SPACERS

0 mm . For stroke of 0 ~ 1000 mm
50 mm . For stroke of 1001 ~ 1500 mm
100 mm . For stroke of 1501 ~ 2000 mm
150 mm . For stroke of 2001 ~ 2500 mm
200 mm . For stroke of 2501 ~ 3000 mm

The Cylinder Length is increased

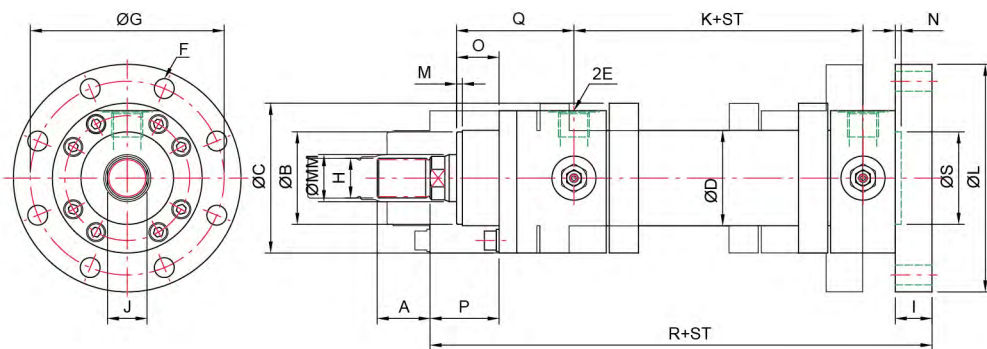
AH-MF3



DIMENSION

BORE	MM	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Ø40	25 / 28	28	52	88	55	1/2"G	8xØ11	115	M20xP1.5	25	19 / 22	120	138	4	22	83	230
Ø50	32 / 36	36	63	102	65	1/2"G	8xØ13.5	132	M27xP2	25	27 / 30	120	155	4	22	98	244
Ø63	40 / 45	45	75	120	76	3/4"G	8xØ13.5	150	M33xP2	28	32 / 36	133	175	4	25	112	274
Ø80	50 / 56	56	90	145	100	3/4"G	8xØ17.5	180	M42xP2	32	41 / 46	155	210	4	28	120	305
Ø100	63 / 70	63	110	170	120	1"G	8xØ22	212	M48xP2	36	50 / 60	171	250	5	32	134	340
Ø125	80 / 90	85	132	206	150	1"G	8xØ22	250	M64xP3	40	65 / 75	205	290	5	36	153	396
Ø140	90 / 100	90	145	226	170	1 1/4"G	8xØ26	280	M72xP3	40	75 / 85	219	325	5	36	166	431
Ø160	100 / 110	95	160	265	190	1 1/4"G	8xØ26	315	M80xP3	45	85 / 95	235	360	5	40	185	467
Ø180	110 / 125	105	185	292	216	1 1/4"G	8xØ33	350	M90xP3	50	95 / 110	264	405	5	45	194	510
Ø200	125 / 140	112	200	306	245	1 1/4"G	8xØ33	385	M100xP3	56	110 / 120	278	440	5	45	220	550
Ø220	140 / 160	125	235	355	270	1 1/2"G	8xØ39	435	M125xP4	63	120 / 140	325	500	8	50	244	637
Ø250	160 / 180	125	250	412	299	1 1/2"G	8xØ39	475	M125xP4	63	140 / 160	325	540	8	50	260	652
Ø320	200 / 220	160	320	500	385	2"G	8xØ45	600	M160xP4	80	180 / 200	350	675	8	56	310	764

AH-MF4



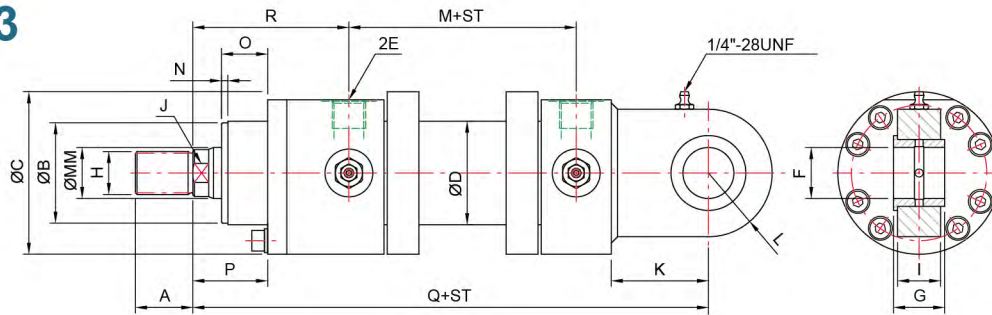
DIMENSION

BORE	MM	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
Ø40	25 / 28	28	52	88	55	1/2"G	8xØ11	115	M20xP1.5	25	19 / 22	120	138	4	5	29	47	83	250	52
Ø50	32 / 36	36	63	102	65	1/2"G	8xØ13.5	132	M27xP2	25	27 / 30	120	155	4	4	29	47	98	265	63
Ø63	40 / 45	45	75	120	76	3/4"G	8xØ13.5	150	M33xP2	28	32 / 36	133	175	4	4	32	53	112	298	75
Ø80	50 / 56	56	90	145	100	3/4"G	8xØ17.5	180	M42xP2	32	41 / 46	155	210	4	5	36	60	120	332	90
Ø100	63 / 70	63	110	170	120	1"G	8xØ22	212	M48xP2	36	50 / 60	171	250	5	5	41	68	134	371	110
Ø125	80 / 90	85	132	206	150	1"G	8xØ22	250	M64xP3	40	65 / 75	205	290	5	6	45	76	153	430	132
Ø140	90 / 100	90	145	226	170	1 1/4"G	8xØ26	280	M72xP3	40	75 / 85	219	325	5	6	45	76	166	465	145
Ø160	100 / 110	95	160	265	190	1 1/4"G	8xØ26	315	M80xP3	45	85 / 95	235	360	5	7	50	85	185	505	160
Ø180	110 / 125	105	185	292	216	1 1/4"G	8xØ33	350	M90xP3	50	95 / 110	264	405	5	10	55	95	194	550	185
Ø200	125 / 140	112	200	306	245	1 1/4"G	8xØ33	385	M100xP3	56	110 / 120	278	440	5	10	61	101	220	596	200
Ø220	140 / 160	125	235	355	270	1 1/2"G	8xØ39	435	M125xP4	63	120 / 140	325	500	8	10	71	113	244	690	235
Ø250	160 / 180	125	250	412	299	1 1/2"G	8xØ39	475	M125xP4	63	140 / 160	325	540	8	12	71	113	260	703	250
Ø320	200 / 220	160	320	500	385	2"G	8xØ45	600	M160xP4	80	180 / 200	350	675	8	14	88	136	310	830	320

Standard Cylinders 6022 AH

ISO 6022 25MPa Standard Hydraulic Cylinders

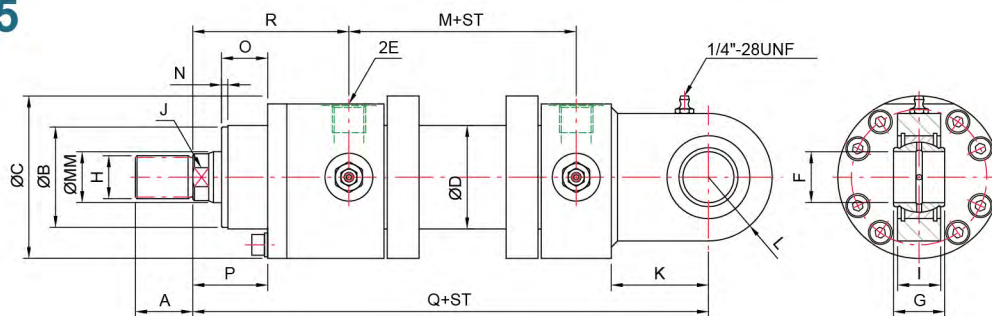
AH-MP3



DIMENSION

BORE	MM	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
Ø40	25 / 28	28	52	88	55	1/2"G	Ø25	25	M20xP1.5	22	19 / 22	53	R32	120	4	29	47	283	83
Ø50	32 / 36	36	63	102	65	1/2"G	Ø32	32	M27xP2	27	27 / 30	61	R40	120	4	29	47	305	98
Ø63	40 / 45	45	75	120	76	3/4"G	Ø40	40	M33xP2	32	32 / 36	74	R50	133	4	32	53	348	112
Ø80	50 / 56	56	90	145	100	3/4"G	Ø50	50	M42xP2	40	41 / 46	90	R63	155	4	36	60	395	120
Ø100	63 / 70	63	110	170	120	1"G	Ø63	63	M48xP2	52	50 / 60	102	R71	171	5	41	68	442	134
Ø125	80 / 90	85	132	206	150	1"G	Ø80	80	M64xP3	66	65 / 75	124	R90	205	5	45	76	520	153
Ø140	90 / 100	90	145	226	170	1 1/4"G	Ø90	90	M72xP3	72	75 / 85	149	R101	219	5	45	76	580	166
Ø160	100 / 110	95	160	265	190	1 1/4"G	Ø100	100	M80xP3	84	85 / 95	150	R112	235	5	50	85	617	185
Ø180	110 / 125	105	185	292	216	1 1/4"G	Ø110	110	M90xP3	88	95 / 110	180	R129	264	5	55	95	690	194
Ø200	125 / 140	112	200	306	245	1 1/4"G	Ø125	125	M100xP3	102	110 / 120	206	R145	278	5	61	101	756	220
Ø220	140 / 160	125	235	355	270	1 1/2"G	Ø160	160	M125xP4	130	120 / 140	251	R170	325	8	71	113	888	244
Ø250	160 / 180	125	250	412	299	1 1/2"G	Ø160	160	M125xP4	130	140 / 160	251	R200	325	8	71	113	903	260
Ø320	200 / 220	160	320	500	385	2"G	Ø200	200	M160xP4	162	180 / 200	316	R250	350	8	88	136	1080	310

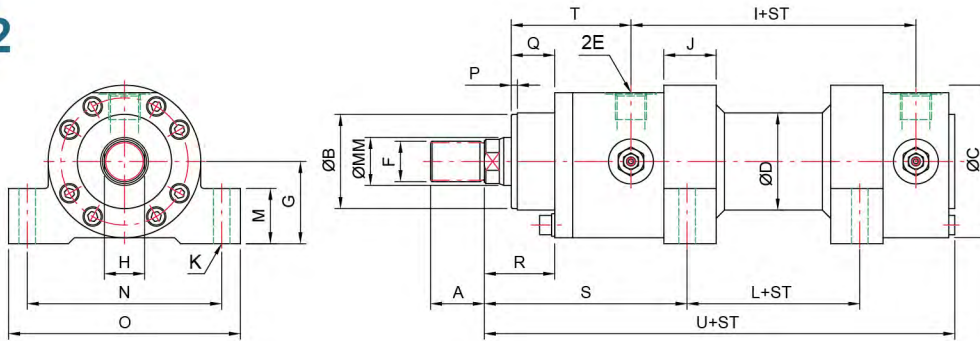
AH-MP5



DIMENSION

BORE	MM	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
Ø40	25 / 28	28	52	88	55	1/2"G	Ø25	25	M20xP1.5	22	19 / 22	53	R32	120	4	29	47	283	83
Ø50	32 / 36	36	63	102	65	1/2"G	Ø32	32	M27xP2	27	27 / 30	61	R40	120	4	29	47	305	98
Ø63	40 / 45	45	75	120	76	3/4"G	Ø40	40	M33xP2	32	32 / 36	74	R50	133	4	32	53	348	112
Ø80	50 / 56	56	90	145	100	3/4"G	Ø50	50	M42xP2	40	41 / 46	90	R63	155	4	36	60	395	120
Ø100	63 / 70	63	110	170	120	1"G	Ø63	63	M48xP2	52	50 / 60	102	R71	171	5	41	68	442	134
Ø125	80 / 90	85	132	206	150	1"G	Ø80	80	M64xP3	66	65 / 75	124	R90	205	5	45	76	520	153
Ø140	90 / 100	90	145	226	170	1 1/4"G	Ø90	90	M72xP3	72	75 / 85	149	R101	219	5	45	76	580	166
Ø160	100 / 110	95	160	265	190	1 1/4"G	Ø100	100	M80xP3	84	85 / 95	150	R112	235	5	50	85	617	185
Ø180	110 / 125	105	185	292	216	1 1/4"G	Ø110	110	M90xP3	88	95 / 110	180	R129	264	5	55	95	690	194
Ø200	125 / 140	112	200	306	245	1 1/4"G	Ø125	125	M100xP3	102	110 / 120	206	R145	278	5	61	101	756	220
Ø220	140 / 160	125	235	355	270	1 1/2"G	Ø160	160	M125xP4	130	120 / 140	251	R170	325	8	71	113	888	244
Ø250	160 / 180	125	250	412	299	1 1/2"G	Ø160	160	M125xP4	130	140 / 160	251	R200	325	8	71	113	903	260
Ø320	200 / 220	160	320	500	385	2"G	Ø200	200	M160xP4	162	180 / 200	316	R250	350	8	88	136	1080	310

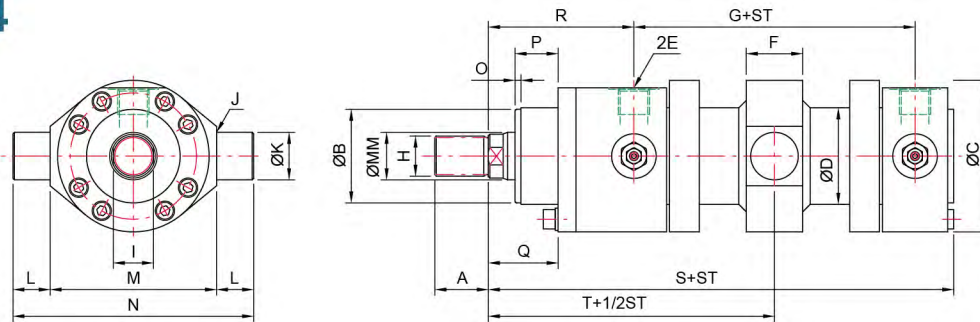
AH-MS2



DIMENSION

BORE	MM	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
Ø40	25 / 28	28	52	88	55	1/2"G	M20xP1.5	45	19 / 22	120	30	Ø11	50	32	110	140	4	29	47	118	83	230
Ø50	32 / 36	36	63	102	65	1/2"G	M27xP2	55	27 / 30	120	35	Ø11	45	37	130	155	4	29	47	135.5	98	244
Ø63	40 / 45	45	75	120	76	3/4"G	M33xP2	65	32 / 36	133	40	Ø13.5	49	42	150	180	4	32	53	154	112	274
Ø80	50 / 56	56	90	145	100	3/4"G	M42xP2	75	41 / 46	155	50	Ø17.5	52	47	180	220	4	36	60	171.5	120	305
Ø100	63 / 70	63	110	170	120	1"G	M48xP2	90	50 / 60	171	60	Ø22	61	57	210	255	5	41	68	189	134	340
Ø125	80 / 90	85	132	206	150	1"G	M64xP3	105	65 / 75	205	70	Ø26	75	67	255	305	5	45	76	218	153	396
Ø140	90 / 100	90	145	226	170	1 1/4"G	M72xP3	115	75 / 85	219	85	Ø30	70	72	290	350	5	45	76	240.5	166	431
Ø160	100 / 110	95	160	265	190	1 1/4"G	M80xP3	135	85 / 95	235	105	Ø33	65	77	330	400	5	50	85	270	185	467
Ø180	110 / 125	105	185	292	216	1 1/4"G	M90xP3	150	95 / 110	264	115	Ø40	69	92	360	440	5	55	95	291.5	194	510
Ø200	125 / 140	112	200	306	245	1 1/4"G	M100xP3	160	110 / 120	278	125	Ø40	73	97	385	465	5	61	101	322.5	220	550
Ø220	140 / 160	125	235	355	270	1 1/2"G	M125xP4	185	120 / 140	325	155	Ø45	74	102	445	541	8	71	113	369.5	244	637
Ø250	160 / 180	125	250	412	299	1 1/2"G	M125xP4	215	140 / 160	325	155	Ø52	80	112	520	620	8	71	113	382.5	260	652
Ø320	200 / 220	160	320	500	385	2"G	M160xP4	260	180 / 200	350	190	Ø62	100	152	620	740	8	88	136	435	310	764

AH-MT4



DIMENSION

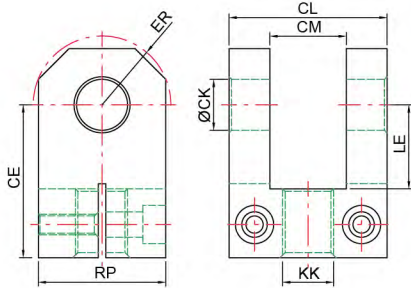
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Ø40	25 / 28	28	52	88	55	1/2"G	38	120	M20xP1.5	19 / 22	1	25	20	95	135	4	29	47	83	230	143
Ø50	32 / 36	36	63	102	65	1/2"G	38	120	M27xP2	27 / 30	2	32	25	112	162	4	29	47	98	244	158
Ø63	40 / 45	45	75	120	76	3/4"G	48	133	M33xP2	32 / 36	2.5	40	32	125	189	4	32	53	112	274	178.5
Ø80	50 / 56	56	90	145	100	3/4"G	58	155	M42xP2	41 / 46	2.5	50	40	150	230	4	36	60	120	305	197.5
Ø100	63 / 70	63	110	170	120	1"G	78	171	M48xP2	50 / 60	3	63	50	180	280	5	41	68	134	340	219.5
Ø125	80 / 90	85	132	206	150	1"G	98	205	M64xP3	65 / 75	3	80	63	224	350	5	45	76	153	396	255.5
Ø140	90 / 100	90	145	226	170	1 1/4"G	118	219	M72xP3	75 / 85	3	90	70	265	405	5	45	76	166	431	275.5
Ø160	100 / 110	95	160	265	190	1 1/4"G	128	235	M80xP3	85 / 95	3.5	100	80	280	440	5	50	85	185	467	303
Ø180	110 / 125	105	185	292	216	1 1/4"G	138	264	M90xP3	95 / 110	3.5	110	90	320	500	5	55	95	194	510	326
Ø200	125 / 140	112	200	306	245	1 1/4"G	178	278	M100xP3	110 / 120	3.5	125	100	335	535	5	61	101	220	550	359
Ø220	140 / 160	125	235	355	270	1 1/2"G	180	325	M125xP4	120 / 140	3.5	160	125	385	635	8	71	113	244	637	406.5
Ø250	160 / 180	125	250	412	299	1 1/2"G	180	325	M125xP4	140 / 160	3.5	160	125	425	675	8	71	113	260	652	423
Ø320	200 / 220	160	320	500	385	2"G	220	350	M160xP4	180 / 200	4	200	160	530	850	8	88	136	310	764	485

Standard Cylinders 6022 AH

ISO 6022 25MPa Standard Hydraulic Cylinders

H-1

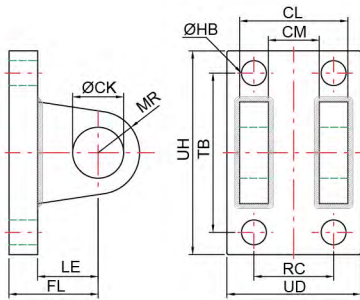
DIMENSION



REFERENCE	KK	CE	CK	CL	CM	ER	LE	RP
H-1-25	M20x1.5	65	25	56	25	32	34	50
H-1-32	M27x2	80	32	70	32	40	41	65
H-1-40	M33x2	97	40	90	40	50	51	80
H-1-50	M42x2	120	50	110	50	63	63	100
H-1-63	M48x2	140	63	140	63	71	75	140
H-1-70	M56x2	160	70	150	70	80	84	140
H-1-80	M64x3	180	80	170	80	90	94	180
H-1-90	M72x3	195	90	190	90	100	109	200
H-1-100	M80x3	210	100	210	100	110	114	220

H-2

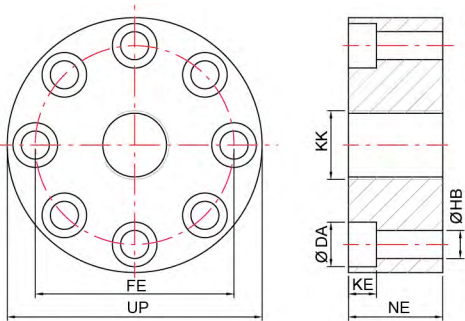
DIMENSION



REFERENCE	CK	CL	CM	FL	HB	LE	MR	RC	TB	UD	UH
H-2-25	25	56	25	55	13.5	37	25	40	85	70	113
H-2-32	32	70	32	65	17.5	43	32	50	110	85	143
H-2-40	40	90	40	76	22	52	40	65	130	108	170
H-2-50	50	110	50	95	26	65	50	80	170	130	220
H-2-63	63	140	63	112	33	75	63	100	210	160	270
H-2-70	70	150	70	130	33	90	70	110	230	175	300
H-2-80	80	170	80	140	39	95	80	125	250	210	320
H-2-90	90	190	90	160	45	108	90	140	290	230	370
H-2-100	100	210	100	180	45	120	100	160	315	260	400
H-2-110	110	240	110	200	52	138	110	180	350	290	445
H-2-125	125	270	125	230	52	170	125	200	385	320	470

H-3

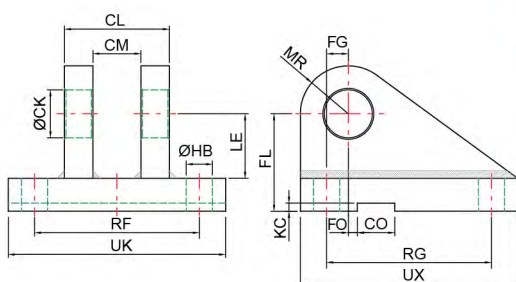
DIMENSION



REFERENCE	KK	DA	FE	HB	KE	NE	UP
H-3-32	M27x2	17.5	78	6xØ11	11	37	100
H-3-40	M33x2	20	95	8xØ13.5	13	46	120
H-3-50	M42x2	26	120	8xØ17.5	17.5	57	150
H-3-63	M48x2	33	150	8xØ22	21.5	64	190
H-3-70	M56x2	36	165	8xØ24	23.5	77	212
H-3-80	M64x3	39	180	8xØ26	25.5	86	230
H-3-90	M72x3	43	195	8xØ29	28.5	89	250
H-3-100	M80x3	43	210	8xØ29	28.5	96	270

H-4

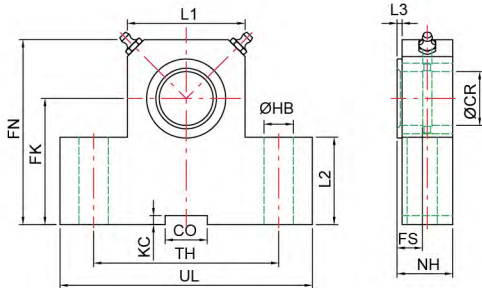
DIMENSION



REFERENCE	CK	CL	CM	CO	FG	FL	FO	HB	KC	LE	MR	RF	RG	UK	UX
H-4-25	25	56	25	25	10	55	10	13.5	5.4	37	25	90	85	120	115
H-4-32	32	70	32	25	14.5	65	6	17.5	5.4	43	32	110	110	145	145
H-4-40	40	90	40	36	17.5	76	6	22	8.4	52	40	140	125	185	170
H-4-50	50	110	50	36	25	95	-	26	8.4	65	50	165	150	215	200
H-4-63	63	140	63	50	33	112	-	33	11.4	75	63	210	170	270	230
H-4-70	70	150	70	50	40	130	-	33	11.4	90	70	230	190	290	250
H-4-80	80	170	80	50	45	140	-	39	11.4	95	80	250	210	320	280
H-4-90	90	190	90	63	47.5	160	-	45	12.4	108	90	280	235	360	320
H-4-100	100	210	100	63	52.5	180	-	52	12.4	120	100	315	250	405	345
H-4-110	110	240	110	80	62.5	200	-	52	15.4	138	110	335	305	425	400
H-4-125	125	270	125	80	75	230	-	52	15.4	170	125	365	350	455	450

H-5

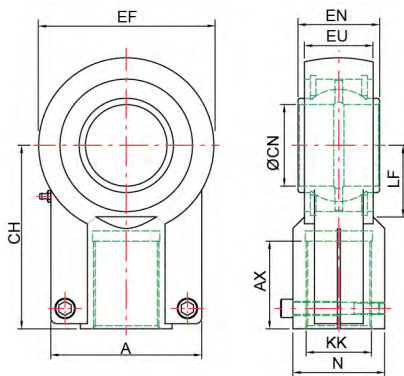
DIMENSION



REFERENCE	CR	CO	FK	FN	FS	HB	KC	L1	L2	L3	NH	TH	UL
H-5-25	25	25	55	80	12	13.5	5.4	56	45	1.5	26	80	110
H-5-32	32	25	65	100	15	17.5	5.4	70	52	2	33	110	150
H-5-40	40	36	76	120	16	22	8.4	88	60	2.5	41	125	170
H-5-50	50	36	95	140	20	26	8.4	100	75	2.5	51	160	210
H-5-63	63	50	112	180	25	33	11.4	130	85	3	61	200	265
H-5-80	80	50	140	220	31	39	11.4	170	112	3	81	250	325

H-6

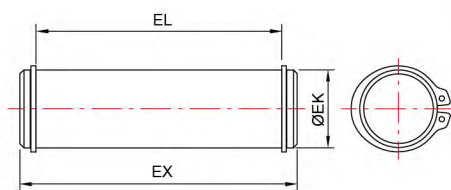
DIMENSION



REFERENCE	KK	A	AX	CH	CN	EF	EN	EU	LF	N
H-6-25	M20x1.5	54	29	65	25	58	25	21	27	30
H-6-32	M27x2	66	37	80	32	70	32	27	32	38
H-6-40	M33x2	80	46	97	40	89	40	32	41	47
H-6-50	M42x2	96	57	120	50	108	50	40	50	58
H-6-63	M48x2	114	64	140	63	132	63	52	62	70
H-6-80	M64x3	148	86	180	80	168	80	66	78	90
H-6-90	M72x3	160	91	195	90	185	90	72	85	100
H-6-100	M80x3	178	96	210	100	210	100	84	98	110
H-6-110	M90x3	190	106	235	110	235	110	88	105	125
H-6-125	M100x3	200	113	260	125	262	125	102	120	135
H-6-160	M125x4	250	126	310	160	326	160	130	150	165
H-6-200	M160x4	320	161	390	200	418	200	162	195	215

H-7

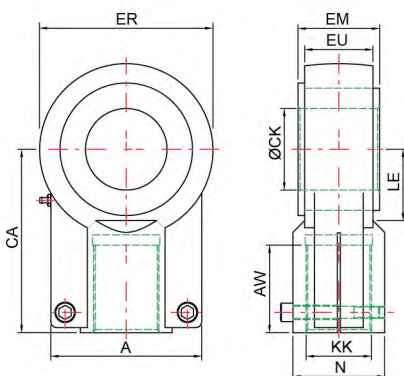
DIMENSION



REFERENCE	EK	EL	EX
H-7-25	25	57	65
H-7-32	32	72	80
H-7-40	40	92	105
H-7-50	50	112	130
H-7-63	63	142	160
H-7-70	70	152	170
H-7-80	80	172	190

H-8

DIMENSION



REFERENCE	KK	A	AW	CA	CK	EM	ER	EU	LE	N
H-8-32	M27x2	66	37	80	32	32	70	27	32	38
H-8-40	M33x2	80	46	97	40	40	89	32	41	47
H-8-50	M42x2	96	57	120	50	50	108	40	50	58
H-8-63	M48x2	114	64	140	63	63	132	52	62	70
H-8-80	M64x3	148	86	180	80	80	168	66	78	90
H-8-90	M72x3	160	91	195	90	90	185	72	85	100
H-8-100	M80x3	178	96	210	100	100	210	84	98	110
H-8-110	M90x3	190	106	235	110	110	235	88	105	125
H-8-125	M100x3	200	113	260	125	125	262	102	120	135
H-8-160	M125x4	250	126	310	160	160	326	130	150	165
H-8-200	M160x4	320	161	390	200	200	418	162	195	215

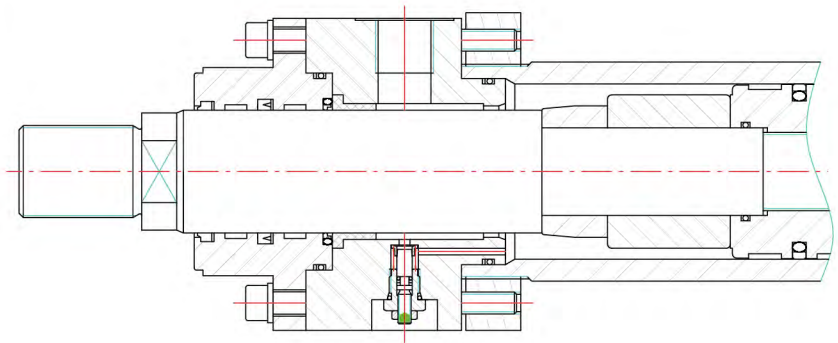
Stop Tube

When compression loads are involved, it's also necessary to consider bearing pressures on rod cartridge and piston and if we want to keep these values within proper limits, it could be necessary to increase bearing length; this is achieved by means of a stop tube between piston and rod cartridge.

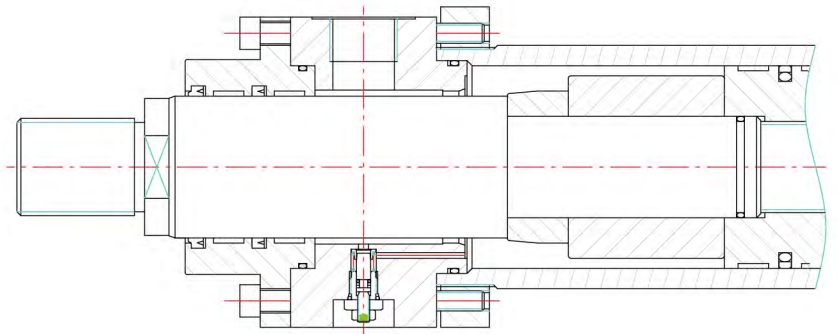
The next table shows different stop tube lengths according to cylinder strokes but sometimes other designs can be supplied according to application requirements; in these cases, please consult factory.

STROKE	STOP TUBE
0 - 1000 mm	0 mm
1001 - 1500 mm	50 mm
1501 - 2000 mm	100 mm
2001 - 2500 mm	150 mm
2501 - 3000 mm	200 mm

AH Series (ISO 6022)



AK Series (ISO 6020-1)



AT Series (ISO 6020-2)

