



PISTON ACCUMULATOR



주식회사 플루마

Fluma Co., Ltd.

HYDRAULIC, PNEUMATIC AND ELECTRIC TECHNOLOGY

PISTON ACCUMULATOR DESCRIPTION

PISTON 형 ACCUMULATOR 설명

General

FLUMA piston accumulators are suitable for storing hydraulic energy, absorbing pressure shocks, pulsation damping and compensating for flow fluctuation through compression of nitrogen.

Advantages:

- Optimal application solution derived by changing diameter or length
- Piston position monitoring possible
- Installation position arbitrary
- Total discharge is possible
- Long life, reduced friction sealing system
- Maintainable design
- Low gas permeation compared to bladder or diaphragm accumulators due to small sealing areas.
- Low piston weight guarantees high dynamics
- Large connection cross-section possible
- Sealing systems available for different kinds of operating liquids, wide temperature range and applications
- In case of failure no abrupt gas loss can occur

Temperature range

Temperature range standard -10° C to +80° C, different temperature ranges, e.g. -40° C to +80° C on request.

Condition on delivery

Base-coated with universal priming colour RAL 1001 (beige) inside and connecting surface oiled and openings protected, without hydr. fluids, without gas filling.

Other colors and sand blasting or other surface treatments (e.g. galvanic zinc plating) is possible. Please ask for our offer.

Pressure Fluids

Sealing type PUR:

mineral oil, hydraulic oil due to DIN 51524 part 2

Sealing type NBR:

hydraulic oil due to DIN 51524 part 2,

flame protected liquids, water and emulsions, but no HFD-fluids.

Connections

FLUMA piston accumulators are also available with other or additional connections(e.g. acc. to works standards)

Larger nominal widths(for high flow rates see special connections / alternative filling valves) can be provided by special design. Let us know the required dimension and we'll make a proposal.

개요

FLUMA에서 공급하는 piston accumulators는 유압에너지 저장, 압력 충격 흡수, 맥동감소 그리고 질소의 압축을 통하여 유동의 파동보상으로 사용되어진다.

장점

- 치수 및 길이의 변화를 통한 최선의 적용 방법
- 피스톤 위치 식별 가능
- Piston arbitrary 설치
- 전체 방출이 가능
- 긴 수명과 마찰을 줄인 씰방법
- 유지보수가 쉬운 디자인
- 적은 씰 부분에 비해 낮은 가스 투과 (bladder/diaphragm accumulator 비교시)
- piston의 무게에 의한 높은 힘
- 많은 연결 단면적이 가능
- 여러 가지 종류의 작동 유체, 넓은 온도 범위 및 적용에 대한 다양한 씰 시스템
- 돌발적인 누기의 발생가능성 없음

온도 범위

일반적인 온도 범위는 -10°C 에서 80°C이며, 요청 시에는 -40°C에서 80°C까지 가능 하다.

납품 조건

기본 도장은 RAL1001(베이지색)이며, 오일 및 가스 충전은 없는 상태이다. 다른 색의 도장 및 샌딩 혹은 다른 표면처리도 가능하며, 요구시 문의하기 바랍니다.

압력 유체

PUR 씰 타입:

Mineral oil, hydraulic oil(DIN 51523 part 2)

NBR 씰 타입

hydraulic oil(DIN 51523 part 2), Flame protected liquids, 물 혹은 유상액. HFD 유체는 적용불가

연결

FLUMA에서 공급하는 piston accumulator는 다양하고 추가적인 연결이 가능하다(제작규정에 의거하여) 더 다양한 사양(높은 유량에 대한 특별한 연결/선택적인 주입밸브)은 특별한 디자인을 제공 할 수 있다. 요구되는 치수를 알려주면 우리는 제안해 줄 수 있다.

PISTON ACCUMULATOR ACCEPTANCE SELECTION
PISTON 형 ACCUMULATOR 승인 규정

FLUMA accumulator systems are manufactured for Korea and worldwide market and are approved in accordance with the Pressure Equipment Directive PED 97/23/EC applicable as from 29.11.1999 and binding since 30.05.2002. This is applicable to the KAK and AK series piston accumulators. FLUMA is accredited for all required product and company certifications worldwide. The Table below list a selection of the most important approvals. Should your envisaged country of application or required approval not be included, please provide us with full details in your request.

Acceptance selection table

Acceptance variations based on the KAK / AK series with CE acceptance.

FLUMA에서 공급하는 accumulator 시스템은 국내와 세계시장을 위해 생산되고 있으며 특히 1999년 11월 29일 부터 PED(the Pressure Equipment Directive) 97/23.EC 규정에 의거하여 인증을 받았으며, 2002년 5월 30일 부터 구속력을 가지고 있다. KAK 및 AK 시리즈의 Piston accumulators에 적용된다. FLUMA의 모든 제품은 전세계적인 규정(승인)에 대해 승인을 받고 있다. 아래의 표는 가장 많이 적용되는 승인들을 정리 한 것이다. 이 표에 명시되지 않은 승인이 고객에 의해 요구되어 지면, 모든 상세한 자료를 보내주면 그 승인에 대해 자료를 제공 할 것이다.

승인 규정 표

승인의 변동은 CE승인을 받은 KAK / AK 시리즈를 기본으로 한다.

NO	Approval regulation	Countries	Country code	Ordering code
1	PED 97/23/EC[Pressure Equipment Directive] with CE mark	EU member states	EU	50
2	Australian Standard 1210 Supplement 1 Cl.1 H	Australia	AUS	14
3	PED 97/23/EC + SVTI	Switzerland	CH	502
4	PED 97/23/EC + ESCO	Korea	KOR	60
5	PED 97/23/EC + DOSH	Malaysia	MAL	61
6	PED 97/23/EC + DNV	Norway	N	509
7	PED 97/23/EC + GOST	Russia	RUS	520
8	PED 97/23/EC + Ukr SEPRO	Ukraine	UKR	522
9	PED 97/23/EC + ML	China	VRC	534

Acceptance variations based on UKA series with ASME U-stamp acceptance

승인의 변동은 ASME U-stamp를 받은 UAK 시리즈를 기본으로 한다

NO	Approval regulation	Countries	Country code	Ordering code
1	ASME Code Sect. VIII Div. 1	USA	USA	15
2	ASME Code + CRN(Canadian Registration No.) Certification province-dependent-name province	Canada	CND	29
3	ASME Code +M.E.T.Japan UAK series with modified dimensions.	Japan	J	30

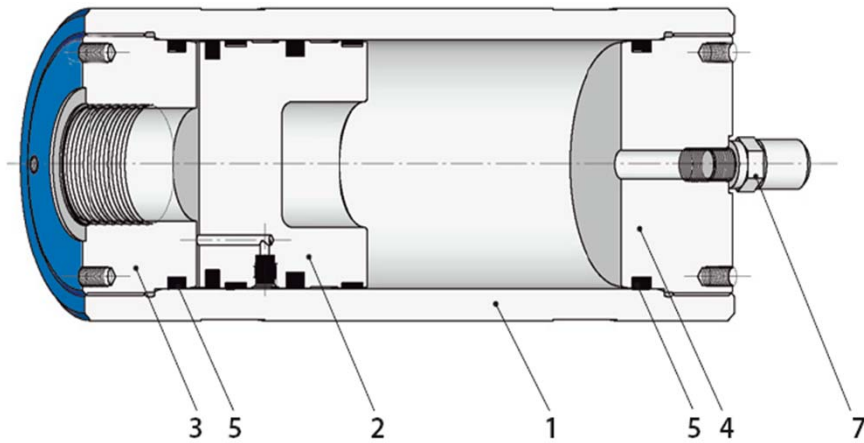
PISTON ACCUMULATOR CONSTRUCTION - KAK
 PISTON 형 ACCUMULATOR 구조 - KAK

CE-Series KAK

- Volume : 0.13 to 13.2 gal
- Design pressure : 3,200 to 11,600psi
- Piston -D : 60 to 150mm
- Approval : CE according PED 97/23/EC

CE-시리즈 KAK

- 오일 용량 : 0.13 ~ 13.2 gal
- 디자인 압력 : 3200 ~ 11600 psi
- 피스톤 둘레 : 60 ~ 150mm
- 승 인 : PED 97/23/EC에 따른 CE 인증



CE-Series KAK with screwed end caps

Pos.	designation
1	tube
2	piston with seals
3	screwed end cap oil side
4	screwed end cap gas side
5	end cap seal
7	Minimess-fill-valve (others available)

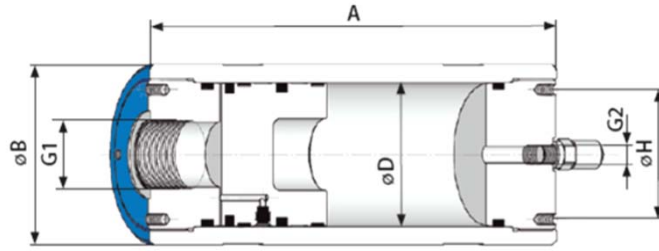
Remark:
 This CE-Series is also be allowed for installation in USA, since an ASME U-Stamp acceptance is only required for piston- $\phi > 6"$ (152.4 cm).

CE 시리즈 KAK – 나사타입 덮개

No	사 양
1	튜브 (첼)
2	피스톤 헤드 (씰 포함)
3	오일 방향 나사타입 덮개
4	가스 방향 나사타입 덮개
5	덮개 씰
7	가스 주입 밸브 (다른 사양 가능)

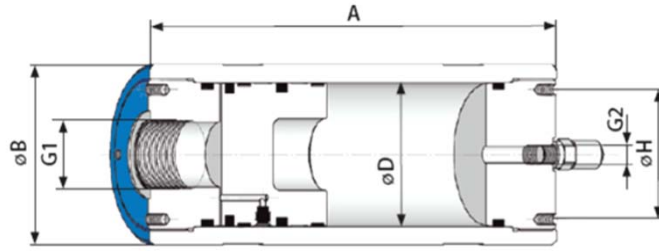
비 고 :
 CE시리즈는 USA에서도 사용이 가능하다. 다만, 피스톤 둘레가 6"(152.4cm)이상일 경우에는 ASME U-stamp가 요구된다.

PISTON ACCUMULATOR SPECIFICATION – CE-SERIES KAK
PISTON 형 ACCUMULATOR 사양 – CE시리즈 KAK



Oil volume		Desing pressure		Type	Piston-Φ	Length	Outside-Φ	Fastening	Oil side	Gas side	Weight
[l]	[gal]	[bar]	[psi]	Model	Φ D [mm]	A [mm]	Φ B [mm]	Φ H [mm]	G1	G2	[kg]
0.5	0.13	220	3200	KAK 0.5-220-06	60	300	70	55.2 x M6 x 10	1/2	1/4	5
		375	5400	KAK 0.5-375-06	60	330	80	55.2 x M6 x 10	1/2	1/4	8
		220	3200	KAK 0.5-220-08	80	230	100	70.4 x M8 x 13	1/2	1/4	8
		375	5400	KAK 0.5-375-08	80	250	100	70.4 x M8 x 13	1/2	1/4	10
		220	3200	KAK 0.5-220-10	100	250	125	90.4 x M8 x 12	3/4	1/4	12
		375	5400	KAK 0.5-375-10	100	250	125	90.4 x M8 x 12	3/4	1/4	16
		800	11600	KAK 0.5-800-10	100	305	170	90.4 x M8 x 12	3/4	1/4	49
1	0.26	220	3200	KAK 01-220-06	60	475	70	55.2 x M6 x 10	1/2	1/4	6
		375	5400	KAK 01-375-06	60	505	80	55.2 x M6 x 10	1/2	1/4	11
		220	3200	KAK 01-220-08	80	330	100	70.4 x M8 x 13	1/2	1/4	10
		375	5400	KAK 01-375-08	80	350	100	70.4 x M8 x 13	1/2	1/4	13
		220	3200	KAK 01-220-10	100	315	125	90.4 x M8 x 12	3/4	1/4	14
		375	5400	KAK 01-375-10	100	315	125	90.4 x M8 x 12	3/4	1/4	18
		800	11600	KAK 01-800-10	100	370	170	90.4 x M8 x 12	3/4	1/4	57
1.5	0.4	220	3200	KAK 1.5-220-06	60	655	70	55.2 x M6 x 10	1/2	1/4	8
		375	5400	KAK 1.5-375-06	60	685	80	55.2 x M6 x 10	1/2	1/4	14
		220	3200	KAK 1.5-220-08	80	430	100	70.4 x M8 x 13	1/2	1/4	12
		375	5400	KAK 1.5-375-08	80	450	100	70.4 x M8 x 13	1/2	1/4	15
		220	3200	KAK 1.5-220-10	100	375	125	90.4 x M8 x 12	3/4	1/4	16
		375	5400	KAK 1.5-375-10	100	375	125	90.4 x M8 x 12	3/4	1/4	20
		800	11600	KAK 1.5-800-10	100	430	170	90.4 x M8 x 12	3/4	1/4	64
2	0.53	220	3200	KAK 02-220-06	60	830	70	55.2 x M6 x 10	1/2	1/4	9
		375	5400	KAK 02-375-06	60	860	80	55.2 x M6 x 10	1/2	1/4	17
		220	3200	KAK 02-220-08	80	530	100	70.4 x M8 x 13	1/2	1/4	14
		375	5400	KAK 02-375-08	80	550	100	70.4 x M8 x 13	1/2	1/4	17
		220	3200	KAK 02-220-10	100	440	125	90.4 x M8 x 12	3/4	1/4	17
		375	5400	KAK 02-375-10	100	440	125	90.4 x M8 x 12	3/4	1/4	22
		800	11600	KAK 02-800-10	100	495	170	90.4 x M8 x 12	3/4	1/4	71
2.5	0.7	220	3200	KAK 2.5-220-06	60	1005	70	55.2 x M6 x 10	1/2	1/4	10
		375	5400	KAK 2.5-375-06	60	1035	80	55.2 x M6 x 10	1/2	1/4	21
		220	3200	KAK 2.5-220-08	80	630	100	70.4 x M8 x 13	1/2	1/4	17
		375	5400	KAK 2.5-375-08	80	650	100	70.4 x M8 x 13	1/2	1/4	19
		220	3200	KAK 2.5-220-10	100	505	125	90.4 x M8 x 12	3/4	1/4	19
		375	5400	KAK 2.5-375-10	100	505	125	90.4 x M8 x 12	3/4	1/4	24
		800	11600	KAK 2.5-800-10	100	560	170	90.4 x M8 x 12	3/4	1/4	79
3	0.8	220	3200	KAK 03-220-06	60	1185	70	55.2 x M6 x 10	1/2	1/4	12
		375	5400	KAK 03-375-06	60	1215	80	55.2 x M6 x 10	1/2	1/4	24
		220	3200	KAK 03-220-08	80	730	100	70.4 x M8 x 13	1/2	1/4	19
		375	5400	KAK 03-375-08	80	750	100	70.4 x M8 x 13	1/2	1/4	21
		220	3200	KAK 03-220-10	100	570	125	90.4 x M8 x 12	3/4	1/4	21
		375	5400	KAK 03-375-10	100	570	125	90.4 x M8 x 12	3/4	1/4	27
		800	11600	KAK 03-800-10	100	620	170	90.4 x M8 x 12	3/4	1/4	86
4	1.1	220	3200	KAK 03-220-15	150	360	170	125.4 x M12 x 20	1	1/4	31
		350	5100	KAK 03-350-15	150	405	180	125.4 x M12 x 20	1	1/4	48
		220	3200	KAK 04-220-06	60	1535	70	55.2 x M6 x 10	1/2	1/4	15
		375	5400	KAK 04-375-06	60	1565	80	55.2 x M6 x 10	1/2	1/4	30
		220	3200	KAK 04-220-08	80	930	100	70.4 x M8 x 13	1/2	1/4	23
		375	5400	KAK 04-375-08	80	950	100	70.4 x M8 x 13	1/2	1/4	26
		220	3200	KAK 04-220-10	100	695	125	90.4 x M8 x 12	3/4	1/4	24
4	1.1	375	5400	KAK 04-375-10	100	695	125	90.4 x M8 x 12	3/4	1/4	31
		800	11600	KAK 04-800-10	100	750	170	90.4 x M8 x 12	3/4	1/4	101
		220	3200	KAK 04-220-15	150	420	170	125.4 x M12 x 20	1	1/4	34
		350	5100	KAK 04-400-15	150	460	180	125.4 x M12 x 20	1	1/4	52

PISTON ACCUMULATOR SPECIFICATION – CE-SERIES KAK
PISTON 형 ACCUMULATOR 사양 – CE시리즈 KAK



Oil volume		Desing pressure		Type	Piston-Φ	Length	Outside-Φ	Fastening	Oil side	Gas side	Weight
[l]	[gal]	[bar]	[psi]	Model	Φ D [mm]	A [mm]	Φ B [mm]	Φ H [mm]	G1	G2	[kg]
5	1.3	220	3200	KAK 05-220-06	60	1890	70	55.2 x M6 x 10	1/2	1/4	18
		375	5400	KAK 05-375-06	60	1920	80	55.2 x M6 x 10	1/2	1/4	36
		220	3200	KAK 05-220-08	80	1125	100	70.4 x M8 x 13	1/2	1/4	28
		375	5400	KAK 05-375-08	80	1145	100	70.4 x M8 x 13	1/2	1/4	30
		220	3200	KAK 05-220-10	100	825	125	90.4 x M8 x 12	3/4	1/4	28
		375	5400	KAK 05-375-10	100	825	125	90.4 x M8 x 12	3/4	1/4	36
		800	11600	KAK 05-800-10	100	875	170	90.4 x M8 x 12	3/4	1/4	116
		220	3200	KAK 05-220-15	150	475	170	125.4 x M12 x 20	1	1/4	36
		350	5100	KAK 05-350-15	150	515	180	125.4 x M12 x 20	1	1/4	55
6	1.6	220	3200	KAK 06-220-08	80	1325	100	70.4 x M8 x 13	1/2	1/4	32
		375	5400	KAK 06-375-08	80	1345	100	70.4 x M8 x 13	1/2	1/4	35
		220	3200	KAK 06-220-10	100	950	125	90.4 x M8 x 12	3/4	1/4	31
		375	5400	KAK 06-375-10	100	950	125	90.4 x M8 x 12	3/4	1/4	40
		800	11600	KAK 06-800-10	100	1005	170	90.4 x M8 x 12	3/4	1/4	131
		220	3200	KAK 06-220-15	150	530	170	125.4 x M12 x 20	1	1/4	38
		350	5100	KAK 06-400-15	150	575	180	125.4 x M12 x 20	1	1/4	59
8	2.1	220	3200	KAK 08-220-08	80	1725	100	70.4 x M8 x 13	1/2	1/4	41
		375	5400	KAK 08-375-08	80	1745	100	70.4 x M8 x 13	1/2	1/4	44
		220	3200	KAK 08-220-10	100	1205	125	90.4 x M8 x 12	3/4	1/4	38
		375	5400	KAK 08-375-10	100	1205	125	90.4 x M8 x 12	3/4	1/4	49
		800	11600	KAK 08-800-10	100	1260	170	90.4 x M8 x 12	3/4	1/4	161
		220	3200	KAK 08-220-15	150	645	170	125.4 x M12 x 20	1	1/4	43
		350	5100	KAK 08-400-15	150	685	180	125.4 x M12 x 20	1	1/4	65
10	2.6	220	3200	KAK 10-220-10	100	1460	125	90.4 x M8 x 12	3/4	1/4	45
		375	5400	KAK 10-375-10	100	1460	125	90.4 x M8 x 12	3/4	1/4	58
		800	11600	KAK 10-800-10	100	1515	170	90.4 x M8 x 12	3/4	1/4	191
		220	3200	KAK 10-220-15	150	760	170	125.4 x M12 x 20	1	1/4	47
		350	5100	KAK 10-400-15	150	800	180	125.4 x M12 x 20	1	1/4	72
12	3.2	220	3200	KAK 12-220-10	100	1715	125	90.4 x M8 x 12	3/4	1/4	52
		375	5400	KAK 12-375-10	100	1715	125	90.4 x M8 x 12	3/4	1/4	66
		800	11600	KAK 12-800-10	100	1770	170	90.4 x M8 x 12	3/4	1/4	220
		220	3200	KAK 12-220-15	150	870	170	125.4 x M12 x 20	1	1/4	52
		350	5100	KAK 12-400-15	150	915	180	125.4 x M12 x 20	1	1/4	79
15	4	220	3200	KAK 15-220-10	100	2095	125	90.4 x M8 x 12	3/4	1/4	62
		375	5400	KAK 15-375-10	100	2095	125	90.4 x M8 x 12	3/4	1/4	80
		220	3200	KAK 15-220-15	150	1040	170	125.4 x M12 x 20	1	1/4	58
		350	5100	KAK 15-400-15	150	1085	180	125.4 x M12 x 20	1	1/4	90
20	5.3	220	3200	KAK 20-220-15	150	1325	170	125.4 x M12 x 20	1	1/4	69
		350	5100	KAK 20-400-15	150	1365	180	125.4 x M12 x 20	1	1/4	107
25	6.6	220	3200	KAK 25-220-15	150	1605	170	125.4 x M12 x 20	1	1/4	81
		350	5100	KAK 25-400-15	150	1650	180	125.4 x M12 x 20	1	1/4	142
30	7.9	220	3200	KAK 30-220-15	150	1890	170	125.4 x M12 x 20	1	1/4	92
		350	5100	KAK 30-400-15	150	1930	180	125.4 x M12 x 20	1	1/4	141
35	9.2	220	3200	KAK 35-220-15	150	2175	170	125.4 x M12 x 20	1	1/4	103
		350	5100	KAK 35-400-15	150	2215	180	125.4 x M12 x 20	1	1/4	159
40	10.6	220	3200	KAK 40-220-15	150	2455	170	125.4 x M12 x 20	1	1/4	114
		350	5100	KAK 40-400-15	150	2500	180	125.4 x M12 x 20	1	1/4	176
45	11.9	220	3200	KAK 45-220-15	150	2740	170	125.4 x M12 x 20	1	1/4	125
		350	5100	KAK 45-400-15	150	2780	180	125.4 x M12 x 20	1	1/4	194
50	13.2	220	3200	KAK 50-220-15	150	3020	170	125.4 x M12 x 20	1	1/4	136
		350	5100	KAK 50-400-15	150	3065	180	125.4 x M12 x 20	1	1/4	211

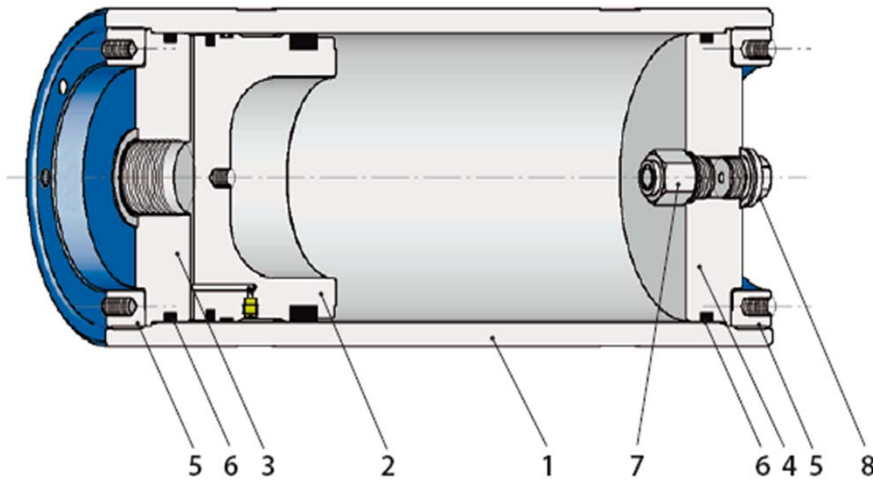
PISTON ACCUMULATOR CONSTRUCTION - AK
 PISTON 형 ACCUMULATOR 구조 - AK

CE-Series AK

- Volume : 2.6 to 396.3 gal
- Design pressure : 2,900 to 8,700psi
- Piston -D : 180 to 800mm
- Approval : CE according PED 97/23/EC

CE-시리즈 AK

- 오일 용량 : 2.6 ~ 396.3 gal
- 디자인 압력 : 2900 ~ 8700 psi
- 피스톤 둘레 : 180 ~ 800mm
- 승 인 : PED 97/23/EC에 따른 CE 인증



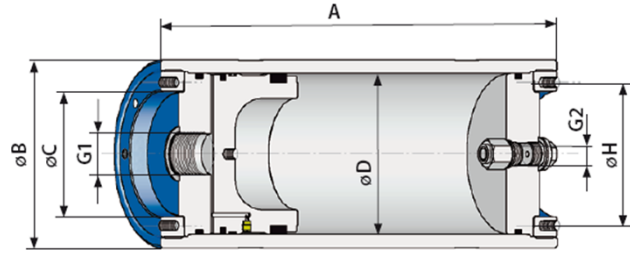
CE-Series AK with screwed end caps

Pos.	designation
1	tube
2	piston with seals
3	end cap oil side
4	end cap gas side
5	thread ring
6	end cap seal
7	Gas fill valve
8	screw plug

CE 시리즈 AK – 나사타입 덮개

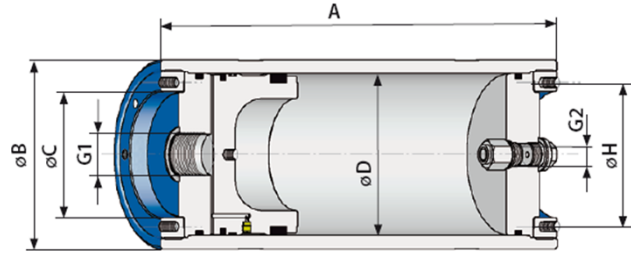
No	사 양
1	튜브 (셸)
2	피스톤 헤드 (씰 포함)
3	오일 방향 나사타입 덮개
4	가스 방향 나사타입 덮개
5	나사 링
6	덮개 씰
7	가스 주입 밸브
8	나사 플러그

PISTON ACCUMULATOR SPECIFICATION – CE-SERIES AK
PISTON 형 ACCUMULATOR 사양 – CE시리즈 AK



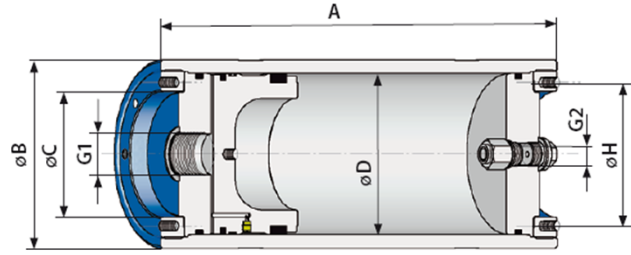
Oil volume		Desing pressure		Type	Piston-φ	Length	Outside-φ	Outside-φ	Fastening	Oil side	Gas side	Weight
[l]	[gal]	[bar]	[psi]	Model	φ D	A	φ B	φ c	φ H	G1	G2	[kg]
					[mm]	[mm]	[mm]	[mm]	[mm]			
10	2.6	200	2900	AK 10-200-18	180	665	210	140	160.4 x M12 x 16	1 1/2	3/4	76
		280	4000	AK 10-280-18	180	705	210	140	160.4 x M12 x 16	1 1/2	3/4	76
		375	5400	AK 10-375-18	180	720	222	140	160.4 x M12 x 16	1 1/2	3/4	103
		600	8700	AK 10-600-18	180	795	250	140	160.4 x M12 x 16	3/4	3/4	194
		220	3200	AK 10-220-20	200	620	230	170	180.4 x M12 x 16	1 1/2	3/4	83
		350	5100	AK 10-350-20	200	640	240	170	180.4 x M12 x 16	1 1/2	3/4	103
15	4	200	2900	AK 15-200-18	180	860	210	140	160.4 x M12 x 16	1 1/2	3/4	90
		280	4000	AK 15-280-18	180	900	210	140	160.4 x M12 x 16	1 1/2	3/4	93
		375	5400	AK 15-375-18	180	915	222	140	160.4 x M12 x 16	1 1/2	3/4	124
		600	8700	AK 15-600-18	180	990	250	140	160.4 x M12 x 16	3/4	3/4	230
		220	3200	AK 15-220-20	200	775	230	170	180.4 x M12 x 16	1 1/2	3/4	95
		350	5100	AK 15-350-20	200	800	240	170	180.4 x M12 x 16	1 1/2	3/4	121
20	5.2	200	2900	AK 20-200-18	180	1055	210	140	160.4 x M12 x 16	1 1/2	3/4	104
		280	4000	AK 20-280-18	180	1095	210	140	160.4 x M12 x 16	1 1/2	3/4	108
		375	5400	AK 20-375-18	180	1110	222	140	160.4 x M12 x 16	1 1/2	3/4	144
		600	8700	AK 20-600-18	180	1185	250	140	160.4 x M12 x 16	3/4	3/4	266
		220	3200	AK 20-220-20	200	935	230	170	180.4 x M12 x 16	1 1/2	3/4	108
		350	5100	AK 20-350-20	200	955	240	170	180.4 x M12 x 16	1 1/2	3/4	137
25	6.6	200	2900	AK 25-200-18	180	1255	210	140	160.4 x M12 x 16	1 1/2	3/4	118
		280	4000	AK 25-280-18	180	1295	210	140	160.4 x M12 x 16	1 1/2	3/4	122
		375	5400	AK 25-375-18	180	1310	222	140	160.4 x M12 x 16	1 1/2	3/4	165
		600	8700	AK 25-600-18	180	1385	250	140	160.4 x M12 x 16	3/4	3/4	303
		220	3200	AK 25-220-20	200	1095	230	170	180.4 x M12 x 16	1 1/2	3/4	121
		350	5100	AK 25-350-20	200	1115	240	170	180.4 x M12 x 16	1 1/2	3/4	155
30	7.9	200	2900	AK 30-200-18	180	1450	210	140	160.4 x M12 x 16	1 1/2	3/4	133
		280	4000	AK 30-280-18	180	1490	210	140	160.4 x M12 x 16	1 1/2	3/4	137
		375	5400	AK 30-375-18	180	1505	222	140	160.4 x M12 x 16	1 1/2	3/4	185
		600	8700	AK 30-600-18	180	1580	250	140	160.4 x M12 x 16	3/4	3/4	340
		220	3200	AK 30-220-20	200	1255	230	170	180.4 x M12 x 16	1 1/2	3/4	134
		350	5100	AK 30-350-20	200	1275	240	170	180.4 x M12 x 16	1 1/2	3/4	173
		220	3200	AK 30-220-25	250	980	290	220	240.4 x M12 x 20	1 1/2	3/4	198
		350	5100	AK 30-350-25	250	1010	310	220	240.4 x M12 x 20	1 1/2	3/4	289
40	10.6	200	2900	AK 40-200-18	180	1840	210	140	160.4 x M12 x 16	1 1/2	3/4	161
		280	4000	AK 40-280-18	180	1880	210	140	160.4 x M12 x 16	1 1/2	3/4	165
		375	5400	AK 40-375-18	180	1895	222	140	160.4 x M12 x 16	1 1/2	3/4	226
		600	8700	AK 40-600-18	180	1970	250	140	160.4 x M12 x 16	3/4	3/4	412
		220	3200	AK 40-220-20	200	1575	230	170	180.4 x M12 x 16	1 1/2	3/4	159
		350	5100	AK 40-350-20	200	1595	240	170	180.4 x M12 x 16	1 1/2	3/4	207
		220	3200	AK 40-220-25	250	1185	290	220	240.4 x M12 x 20	1 1/2	3/4	225
		350	5100	AK 40-350-25	250	1215	310	220	240.4 x M12 x 20	1 1/2	3/4	331
50	13.2	200	2900	AK 50-200-18	180	2235	210	140	160.4 x M12 x 16	1 1/2	3/4	190
		280	4000	AK 50-280-18	180	2275	210	140	160.4 x M12 x 16	1 1/2	3/4	194
		375	5400	AK 50-375-18	180	2290	222	140	160.4 x M12 x 16	1 1/2	3/4	267
		600	8700	AK 50-600-18	180	2365	250	140	160.4 x M12 x 16	3/4	3/4	486
		220	3200	AK 50-220-20	200	1890	230	170	180.4 x M12 x 16	1 1/2	3/4	184
		350	5100	AK 50-350-20	200	1910	240	170	180.4 x M12 x 16	1 1/2	3/4	241
		220	3200	AK 50-220-25	250	1390	290	220	240.4 x M12 x 20	1 1/2	3/4	253
		350	5100	AK 50-350-25	250	1420	310	220	240.4 x M12 x 20	1 1/2	3/4	374

PISTON ACCUMULATOR SPECIFICATION – CE-SERIES AK
PISTON 형 ACCUMULATOR 사양 – CE시리즈 AK



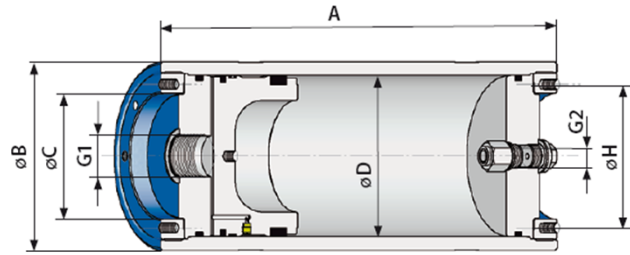
Oil volume		Desing pressure		Type	Piston-Φ	Length	Outside-Φ	Outside-Φ	Fastening	Oil side	Gas side	Weight
[l]	[gal]	[bar]	[psi]	Model	Φ D [mm]	A [mm]	Φ B [mm]	Φ c [mm]	Φ H [mm]	G1	G2	[kg]
60	15.9	200	2900	AK 60-200-18	180	2630	210	140	160.4 x M12 x 16	1 1/2	3/4	218
		280	4000	AK 60-280-18	180	2670	210	140	160.4 x M12 x 16	1 1/2	3/4	222
		375	5400	AK 60-375-18	180	2685	222	140	160.4 x M12 x 16	1 1/2	3/4	208
		600	8700	AK 60-600-18	180	2760	250	140	160.4 x M12 x 16	3/4	3/4	560
		220	3200	AK 60-220-20	200	2210	230	170	180.4 x M12 x 16	1 1/2	3/4	210
		350	5100	AK 60-350-20	200	2230	240	170	180.4 x M12 x 16	1 1/2	3/4	276
		220	3200	AK 60-220-25	250	1590	290	220	240.4 x M12 x 20	1 1/2	3/4	279
		350	5100	AK 60-350-25	250	1620	310	220	240.4 x M12 x 20	1 1/2	3/4	416
70	18.5	200	2900	AK 70-200-18	180	3020	210	140	160.4 x M12 x 16	1 1/2	3/4	246
		280	4000	AK 70-280-18	180	3060	210	140	160.4 x M12 x 16	1 1/2	3/4	250
		375	5400	AK 70-375-18	180	3075	222	140	160.4 x M12 x 16	1 1/2	3/4	348
		600	8700	AK 70-600-18	180	3150	250	140	160.4 x M12 x 16	3/4	3/4	632
		220	3200	AK 70-220-20	200	2530	230	170	180.4 x M12 x 16	1 1/2	3/4	235
		350	5100	AK 70-350-20	200	2550	240	170	180.4 x M12 x 16	1 1/2	3/4	311
		220	3200	AK 70-220-25	250	1795	290	220	240.4 x M12 x 20	1 1/2	3/4	307
		350	5100	AK 70-350-25	250	1825	310	220	240.4 x M12 x 20	1 1/2	3/4	458
80	21.1	220	3200	AK 70-220-31	310	1370	350	260	180.4 x M12 x 16	1 1/2	3/4	356
		350	5100	AK 70-350-31	310	1410	365	260	180.4 x M12 x 16	1 1/2	3/4	470
		200	2900	AK 80-200-18	180	3415	210	140	160.4 x M12 x 16	1 1/2	3/4	275
		280	4000	AK 80-280-18	180	3455	210	140	160.4 x M12 x 16	1 1/2	3/4	279
		375	5400	AK 80-375-18	180	3470	222	140	160.4 x M12 x 16	1 1/2	3/4	390
		600	8700	AK 80-600-18	180	3545	250	140	160.4 x M12 x 16	3/4	3/4	706
		220	3200	AK 80-220-20	200	2845	230	170	180.4 x M12 x 16	1 1/2	3/4	260
		350	5100	AK 80-350-20	200	2865	240	170	180.4 x M12 x 16	1 1/2	3/4	345
90	23.8	220	3200	AK 80-220-25	250	2000	290	220	240.4 x M12 x 20	1 1/2	3/4	334
		350	5100	AK 80-350-25	250	2030	310	220	240.4 x M12 x 20	1 1/2	3/4	501
		220	3200	AK 80-220-31	310	1500	350	260	180.4 x M12 x 16	1 1/2	3/4	379
		350	5100	AK 80-350-31	310	1540	365	260	180.4 x M12 x 16	1 1/2	3/4	500
		200	2900	AK 90-200-18	180	3805	210	140	160.4 x M12 x 16	1 1/2	3/4	303
		280	4000	AK 90-280-18	180	3845	210	140	160.4 x M12 x 16	1 1/2	3/4	307
		375	5400	AK 90-375-18	180	3860	222	140	160.4 x M12 x 16	1 1/2	3/4	430
		600	8700	AK 90-600-18	180	3935	250	140	160.4 x M12 x 16	3/4	3/4	778
100	26.4	220	3200	AK 90-220-20	200	3165	230	170	180.4 x M12 x 16	1 1/2	3/4	286
		350	5100	AK 90-350-20	200	3185	240	170	180.4 x M12 x 16	1 1/2	3/4	380
		220	3200	AK 90-220-25	250	2205	290	220	240.4 x M12 x 20	1 1/2	3/4	361
		350	5100	AK 90-350-25	250	2235	310	220	240.4 x M12 x 20	1 1/2	3/4	543
		220	3200	AK 90-220-31	310	1630	350	260	180.4 x M12 x 16	1 1/2	3/4	400
		350	5100	AK 90-350-31	310	1670	365	260	180.4 x M12 x 16	1 1/2	3/4	530
		220	3200	AK 100-220-20	200	3485	230	170	180.4 x M12 x 16	1 1/2	3/4	312
		350	5100	AK 100-350-20	200	3505	240	170	180.4 x M12 x 16	1 1/2	3/4	415
120	31.7	220	3200	AK 100-220-25	250	2405	290	220	240.4 x M12 x 20	1 1/2	3/4	388
		350	5100	AK 100-350-25	250	2435	310	220	240.4 x M12 x 20	1 1/2	3/4	585
		220	3200	AK 100-220-31	310	1765	350	260	290.4 x M16 x 25	1 1/2	3/4	422
		350	5100	AK 100-350-31	310	1805	365	260	290.4 x M16 x 25	1 1/2	3/4	561
		220	3200	AK 100-220-36	360	1480	405	290	330.4 x M16 x 25	1 1/2	3/4	595
		350	5100	AK 100-350-36	360	1520	430	290	330.4 x M16 x 25	1 1/2	3/4	828
		220	3200	AK 120-220-20	200	4120	230	170	180.4 x M12 x 16	1 1/2	3/4	362
		350	5100	AK 120-350-20	200	4140	240	170	180.4 x M12 x 16	1 1/2	3/4	484
120	31.7	220	3200	AK 120-220-25	250	2815	290	220	240.4 x M12 x 20	1 1/2	3/4	443
		350	5100	AK 120-350-25	250	2845	310	220	240.4 x M12 x 20	1 1/2	3/4	670
		220	3200	AK 120-220-31	310	2030	350	260	290.4 x M16 x 25	1 1/2	3/4	465
		350	5100	AK 120-350-31	310	2070	365	260	290.4 x M16 x 25	1 1/2	3/4	622
		220	3200	AK 120-220-36	360	1680	405	290	330.4 x M16 x 25	1 1/2	3/4	637
		350	5100	AK 120-350-36	360	1720	430	290	330.4 x M16 x 25	1 1/2	3/4	896

PISTON ACCUMULATOR SPECIFICATION – CE-SERIES AK
PISTON 형 ACCUMULATOR 사양 – CE시리즈 AK



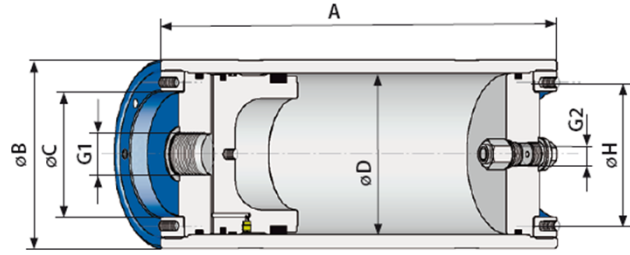
Oil volume		Desing pressure		Type	Piston-Φ	Length	Outside-Φ	Outside-Φ	Fastening	Oil side	Gas side	Weight
[l]	[gal]	[bar]	[psi]	Model	Φ D [mm]	A [mm]	Φ B [mm]	Φ c [mm]	Φ H [mm]	G1	G2	[kg]
140	36.9	220	3200	AK 140-220-25	250	3220	290	220	240.4 x M12 x 20	1 1/2	3/4	497
		350	5100	AK 140-350-25	250	3250	310	220	240.4 x M12 x 20	1 1/2	3/4	754
		220	3200	AK 140-220-31	310	2295	350	260	290.4 x M16 x 25	1 1/2	3/4	508
		350	5100	AK 140-350-31	310	2335	365	260	290.4 x M16 x 25	1 1/2	3/4	683
		220	3200	AK 140-220-36	360	1875	405	290	330.4 x M16 x 25	1 1/2	3/4	678
		350	5100	AK 140-350-36	360	1915	430	290	330.4 x M16 x 25	1 1/2	3/4	963
150	39.6	220	3200	AK 150-220-25	250	3425	290	220	240.4 x M12 x 20	1 1/2	3/4	524
		350	5100	AK 150-350-25	250	3455	310	220	240.4 x M12 x 20	1 1/2	3/4	796
		220	3200	AK 150-220-31	310	2425	350	260	290.4 x M16 x 25	1 1/2	3/4	530
		350	5100	AK 150-350-31	310	2465	365	260	290.4 x M16 x 25	1 1/2	3/4	712
		220	3200	AK 150-220-36	360	1975	405	290	330.4 x M16 x 25	1 1/2	3/4	699
		350	5100	AK 150-350-36	360	2015	430	290	330.4 x M16 x 25	1 1/2	3/4	997
160	42.3	220	3200	AK 160-220-25	250	3630	290	220	240.4 x M12 x 20	1 1/2	3/4	552
		350	5100	AK 160-350-25	250	3660	310	220	240.4 x M12 x 20	1 1/2	3/4	839
		220	3200	AK 160-220-31	310	2560	350	260	290.4 x M16 x 25	1 1/2	3/4	552
		350	5100	AK 160-350-31	310	2600	365	260	290.4 x M16 x 25	1 1/2	3/4	543
		220	3200	AK 160-220-36	360	2070	405	290	330.4 x M16 x 25	1 1/2	3/4	720
		350	5100	AK 160-350-36	360	2110	430	290	330.4 x M16 x 25	1 1/2	3/4	1030
180	47.6	220	3200	AK 180-220-25	250	4035	290	220	240.4 x M12 x 20	1 1/2	3/4	606
		350	5100	AK 180-350-25	250	4065	310	220	240.4 x M12 x 20	1 1/2	3/4	923
		220	3200	AK 180-220-31	310	2825	350	260	290.4 x M16 x 25	1 1/2	3/4	595
		350	5100	AK 180-350-31	310	2865	365	260	290.4 x M16 x 25	1 1/2	3/4	804
		220	3200	AK 180-220-36	360	2270	405	290	330.4 x M16 x 25	1 1/2	3/4	762
		350	5100	AK 180-350-36	360	2310	430	290	330.4 x M16 x 25	1 1/2	3/4	1098
200	52.8	220	3200	AK 200-220-31	310	3090	350	260	290.4 x M16 x 25	1 1/2	3/4	638
		350	5100	AK 200-350-31	310	3130	365	260	290.4 x M16 x 25	1 1/2	3/4	865
		220	3200	AK 200-220-36	360	2465	405	290	330.4 x M16 x 25	1 1/2	3/4	804
		350	5100	AK 200-350-36	360	2505	430	290	330.4 x M16 x 25	1 1/2	3/4	1165
225	59.4	220	3200	AK 225-220-31	310	3420	350	260	290.4 x M16 x 25	1 1/2	3/4	692
		350	5100	AK 225-350-31	310	3460	365	260	290.4 x M16 x 25	1 1/2	3/4	941
		220	3200	AK 225-220-36	360	2710	405	290	330.4 x M16 x 25	1 1/2	3/4	856
		350	5100	AK 225-350-36	360	2750	430	290	330.4 x M16 x 25	1 1/2	3/4	1248
250	250	220	3200	AK 250-220-31	310	3750	350	260	290.4 x M16 x 25	1 1/2	3/4	746
		350	5100	AK 250-350-31	310	3790	365	260	290.4 x M16 x 25	1 1/2	3/4	1017
		220	3200	AK 250-220-36	360	2955	405	290	330.4 x M16 x 25	1 1/2	3/4	908
		350	5100	AK 250-350-36	360	2995	430	290	330.4 x M16 x 25	1 1/2	3/4	1332
275	66	220	3200	AK 275-220-31	310	4085	350	260	290.4 x M16 x 25	1 1/2	3/4	800
		350	5100	AK 275-350-31	310	4125	365	260	290.4 x M16 x 25	1 1/2	3/4	1094
		220	3200	AK 275-220-36	360	3200	405	290	330.4 x M16 x 25	1 1/2	3/4	961
		350	5100	AK 275-350-36	360	3240	430	290	330.4 x M16 x 25	1 1/2	3/4	1416
300	72.7	220	3200	AK 300-220-31	310	4415	350	260	290.4 x M16 x 25	1 1/2	3/4	854
		350	5100	AK 300-350-31	310	4455	365	260	290.4 x M16 x 25	1 1/2	3/4	1169
		220	3200	AK 300-220-36	360	3445	405	290	330.4 x M16 x 25	1 1/2	3/4	1013
		350	5100	AK 300-350-36	360	3485	430	290	330.4 x M16 x 25	1 1/2	3/4	1500
325	85.9	220	3200	AK 325-220-31	310	4745	350	260	290.4 x M16 x 25	1 1/2	3/4	908
		350	5100	AK 325-350-31	310	4785	365	260	290.4 x M16 x 25	1 1/2	3/4	1245
		220	3200	AK 325-220-36	360	3695	405	290	330.4 x M16 x 25	1 1/2	3/4	1066
		350	5100	AK 325-350-36	360	3735	430	290	330.4 x M16 x 25	1 1/2	3/4	1586
350	92.5	220	3200	AK 350-220-31	310	5075	350	260	290.4 x M16 x 25	1 1/2	3/4	962
		350	5100	AK 350-350-31	310	5115	365	260	290.4 x M16 x 25	1 1/2	3/4	1321
		220	3200	AK 350-220-36	360	3940	405	290	330.4 x M16 x 25	1 1/2	3/4	1118
		350	5100	AK 350-350-36	360	3980	430	290	330.4 x M16 x 25	1 1/2	3/4	1669
375	99	220	3200	AK 375-220-31	310	5410	350	260	290.4 x M16 x 25	1 1/2	3/4	1017
		350	5100	AK 375-350-31	310	5450	365	260	290.4 x M16 x 25	1 1/2	3/4	1397
		220	3200	AK 375-220-36	360	4185	405	290	330.4 x M16 x 25	1 1/2	3/4	1170
		350	5100	AK 375-350-36	360	4225	430	290	330.4 x M16 x 25	1 1/2	3/4	1752

PISTON ACCUMULATOR SPECIFICATION – CE-SERIES AK
 PISTON 형 ACCUMULATOR 사양 – CE시리즈 AK



Oil volume		Desing pressure		Type	Piston-Φ	Length	Outside-Φ	Outside-Φ	Fastening	Oil side	Gas side	Weight
[l]	[gal]	[bar]	[psi]	Model	Φ D [mm]	A [mm]	Φ B [mm]	Φ c [mm]	Φ H [mm]	G1	G2	[kg]
400	105.6	220	3200	AK 375-220-31	310	5740	350	260	290.4 x M16 x 25	1 1/2	3/4	1,071
		350	5100	AK 375-350-31	310	5780	365	260	290.4 x M16 x 25	1 1/2	3/4	1,473
		220	3200	AK 375-220-36	360	4430	405	290	330.4 x M16 x 25	1 1/2	3/4	1,222
		350	5100	AK 375-350-36	360	4470	430	290	330.4 x M16 x 25	1 1/2	3/4	1,836
		220	3200	AK 375-220-54	540	2425	600	470	510.4 x M20 x 25	SAE 2"	3/4	1,871
		350	5100	AK 375-350-54	540	2535	640	470	510.4 x M20 x 25	SAE 2"	3/4	2,820
425	112.3	220	3200	AK 425-220-36	360	4675	405	290	330.4 x M16 x 25	1 1/2	3/4	1,274
		350	5100	AK 425-350-36	360	4715	430	290	330.4 x M16 x 25	1 1/2	3/4	1,920
		220	3200	AK 425-220-54	540	2535	600	470	510.4 x M20 x 25	SAE 2"	3/4	1,917
		350	5100	AK 425-350-54	540	2645	640	470	510.4 x M20 x 25	SAE 2"	3/4	2,900
450	118.9	220	3200	AK 450-220-36	360	4920	405	290	330.4 x M16 x 25	1 1/2	3/4	1,326
		350	5100	AK 450-350-36	360	4960	430	290	330.4 x M16 x 25	1 1/2	3/4	2,004
		220	3200	AK 450-220-54	540	2645	600	470	510.4 x M20 x 25	SAE 2"	3/4	1,964
		350	5100	AK 450-350-54	540	2755	640	470	510.4 x M20 x 25	SAE 2"	3/4	2,980
475	125.5	220	3200	AK 475-220-36	360	5165	405	290	330.4 x M16 x 25	1 1/2	3/4	1,378
		350	5100	AK 475-350-36	360	5205	430	290	330.4 x M16 x 25	1 1/2	3/4	2,088
		220	3200	AK 475-220-54	540	2755	600	470	510.4 x M20 x 25	SAE 2"	3/4	2,010
		350	5100	AK 475-350-54	540	2865	640	470	510.4 x M20 x 25	SAE 2"	3/4	3,065
500	132	220	3200	AK 500-220-36	360	5410	405	290	330.4 x M16 x 25	1 1/2	3/4	1,431
		350	5100	AK 500-350-36	360	5450	430	290	330.4 x M16 x 25	1 1/2	3/4	2,171
		220	3200	AK 500-220-54	540	2865	600	470	510.4 x M20 x 25	SAE 2"	3/4	2,057
		350	5100	AK 500-350-54	540	2975	640	470	510.4 x M20 x 25	SAE 2"	3/4	3,145
550	145.3	220	3200	AK 550-220-36	360	5905	405	290	330.4 x M16 x 25	1 1/2	3/4	1,636
		350	5100	AK 550-350-36	360	5945	430	290	330.4 x M16 x 25	1 1/2	3/4	2,340
		220	3200	AK 550-220-54	540	3080	600	470	510.4 x M20 x 25	SAE 2"	3/4	2,148
		350	5100	AK 550-350-54	540	3190	640	470	510.4 x M20 x 25	SAE 2"	3/4	3,300
600	158.5	220	3200	AK 600-220-36	360	6395	405	290	330.4 x M16 x 25	1 1/2	3/4	1,640
		350	5100	AK 600-350-36	360	6435	430	290	330.4 x M16 x 25	1 1/2	3/4	2,508
		220	3200	AK 600-220-54	540	3300	600	470	510.4 x M20 x 25	SAE 2"	3/4	2,241
		350	5100	AK 600-350-54	540	3410	640	470	510.4 x M20 x 25	SAE 2"	3/4	3,560
		220	3200	AK 600-220-60	600	2940	670	520	570.4 x M20 x 32	SAE 2"	3/4	2,890
		350	5100	AK 600-350-60	600	3050	710	520	570.4 x M20 x 32	SAE 2"	3/4	4,170
650	171.7	220	3200	AK 650-220-36	360	6885	405	290	330.4 x M16 x 25	1 1/2	3/4	1,745
		350	5100	AK 650-350-36	360	6925	430	290	330.4 x M16 x 25	1 1/2	3/4	2,676
		220	3200	AK 650-220-54	540	3520	600	470	510.4 x M20 x 25	SAE 2"	3/4	2,334
		350	5100	AK 650-350-54	540	3630	640	470	510.4 x M20 x 25	SAE 2"	3/4	3,620
		220	3200	AK 650-220-60	600	3120	670	520	570.4 x M20 x 32	SAE 2"	3/4	2,990
		350	5100	AK 650-350-60	600	3230	710	520	570.4 x M20 x 32	SAE 2"	3/4	4,330
700	185	220	3200	AK 700-220-36	360	7375	405	290	330.4 x M16 x 25	1 1/2	3/4	1,849
		350	5100	AK 700-350-36	360	7415	430	290	330.4 x M16 x 25	1 1/2	3/4	2,843
		220	3200	AK 700-220-54	540	3735	600	470	510.4 x M20 x 25	SAE 2"	3/4	2,426
		350	5100	AK 700-350-54	540	3845	640	470	510.4 x M20 x 25	SAE 2"	3/4	3,780
		220	3200	AK 700-220-60	600	3295	670	520	570.4 x M20 x 32	SAE 2"	3/4	3,085
		350	5100	AK 700-350-60	600	3405	710	520	570.4 x M20 x 32	SAE 2"	3/4	4,480
750	198	220	3200	AK 750-220-36	360	7870	405	290	330.4 x M16 x 25	1 1/2	3/4	1,954
		350	5100	AK 750-350-36	360	7910	430	290	330.4 x M16 x 25	1 1/2	3/4	3,012
		220	3200	AK 750-220-54	540	3955	600	470	510.4 x M20 x 25	SAE 2"	3/4	2,518
		350	5100	AK 750-350-54	540	4065	640	470	510.4 x M20 x 25	SAE 2"	3/4	3,940
		220	3200	AK 750-220-60	600	3475	670	520	570.4 x M20 x 32	SAE 2"	3/4	3,185
		350	5100	AK 750-350-60	600	3585	710	520	570.4 x M20 x 32	SAE 2"	3/4	4,645

PISTON ACCUMULATOR SPECIFICATION – CE-SERIES AK
PISTON 형 ACCUMULATOR 사양 – CE시리즈 AK



Oil volume		Desing pressure		Type	Piston-Φ	Length	Outside-Φ	Outside-Φ	Fastening	Oil side	Gas side	Weight
[l]	[gal]	[bar]	[psi]	Model	Φ D	A	Φ B	Φ c	Φ H	G1	G2	[kg]
					[mm]	[mm]	[mm]	[mm]				
800	211.4	220	3200	AK 800-220-36	360	8360	405	290	330.4 x M16 x 25	1 1/2	3/4	2058
		350	5100	AK 800-350-36	360	8400	430	290	330.4 x M16 x 25	1 1/2	3/4	3180
		220	3200	AK 800-220-54	540	4175	600	470	510.4 x M20 x 25	SAE 2"	3/4	2611
		350	5100	AK 800-350-54	540	4285	640	470	510.4 x M20 x 25	SAE 2"	3/4	4100
		220	3200	AK 800-220-60	600	3650	670	520	570.4 x M20 x 32	SAE 2"	3/4	3280
		350	5100	AK 800-350-60	600	3760	710	520	570.4 x M20 x 32	SAE 2"	3/4	4800
		220	3200	AK 800-220-80	800	2640	910	700	770.4 x M20 x 32	SAE 2"	3/4	5685
900	237.8	350	5100	AK 800-350-80	800	2900	960	700	770.4 x M20 x 32	SAE 2"	3/4	8300
		220	3200	AK 900-220-54	540	4610	600	470	510.4 x M20 x 25	SAE 2"	3/4	2795
		350	5100	AK 900-350-54	540	4720	640	470	510.4 x M20 x 25	SAE 2"	3/4	4420
		220	3200	AK 900-220-60	600	4005	670	520	570.4 x M20 x 32	SAE 2"	3/4	3475
		350	5100	AK 900-350-60	600	4115	710	520	570.4 x M20 x 32	SAE 2"	3/4	5115
		220	3200	AK 900-220-80	800	2840	910	700	770.4 x M20 x 32	SAE 2"	3/4	5915
1000	264.2	350	5100	AK 900-350-80	800	3100	960	700	770.4 x M20 x 32	SAE 2"	3/4	8650
		220	3200	AK 1000-220-54	540	5045	600	470	510.4 x M20 x 25	SAE 2"	3/4	2980
		350	5100	AK 1000-350-54	540	5155	640	470	510.4 x M20 x 25	SAE 2"	3/4	4735
		220	3200	AK 1000-220-60	600	4355	670	520	570.4 x M20 x 32	SAE 2"	3/4	3670
		350	5100	AK 1000-350-60	600	4465	710	520	570.4 x M20 x 32	SAE 2"	3/4	5430
		220	3200	AK 1000-220-80	800	3040	910	700	770.4 x M20 x 32	SAE 2"	3/4	6150
1100	290.6	350	5100	AK 1000-350-80	800	3300	960	700	770.4 x M20 x 32	SAE 2"	3/4	9000
		220	3200	AK 1100-220-60	600	4710	670	520	570.4 x M20 x 32	SAE 2"	3/4	3860
		350	5100	AK 1100-350-60	600	4820	710	520	570.4 x M20 x 32	SAE 2"	3/4	5740
		220	3200	AK 1100-220-80	800	3240	910	700	770.4 x M20 x 32	SAE 2"	3/4	6385
120	317	350	5100	AK 1000-350-80	800	3500	960	700	770.4 x M20 x 32	SAE 2"	3/4	9350
		220	3200	AK 1200-220-80	800	3440	910	700	770.4 x M20 x 32	SAE 2"	3/4	6615
1300	343.5	350	5100	AK 1200-350-80	800	3700	960	700	770.4 x M20 x 32	SAE 2"	3/4	9700
		220	3200	AK 1300-220-80	800	3635	910	700	770.4 x M20 x 32	SAE 2"	3/4	6841
1400	370	350	5100	AK 1300-350-80	800	3895	960	700	770.4 x M20 x 32	SAE 2"	3/4	10050
		220	3200	AK 1400-220-80	800	3835	910	700	770.4 x M20 x 32	SAE 2"	3/4	7075
1500	396.3	350	5100	AK 1400-350-80	800	4095	960	700	770.4 x M20 x 32	SAE 2"	3/4	10400
		220	3200	AK 1500-220-80	800	4035	910	700	770.4 x M20 x 32	SAE 2"	3/4	8300
		350	5100	AK 1500-350-80	800	4295	960	700	770.4 x M20 x 32	SAE 2"	3/4	10750

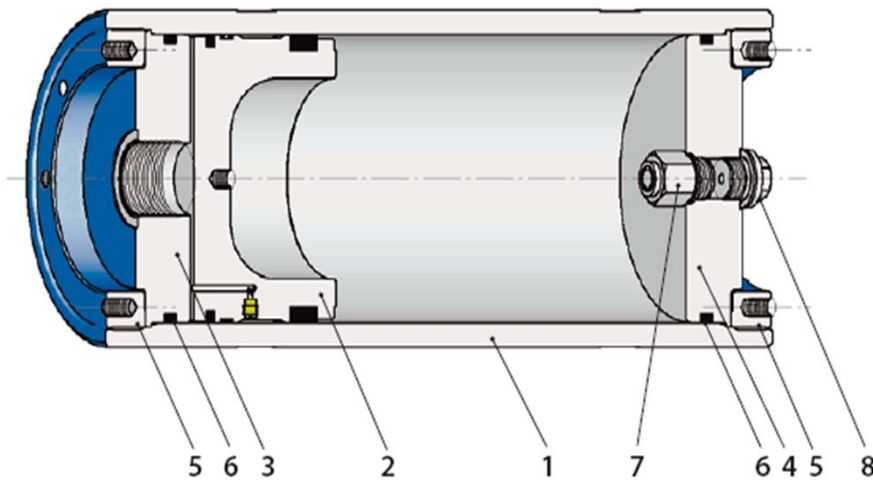
PISTON ACCUMULATOR CONSTRUCTION - UAK
 PISTON 형 ACCUMULATOR 구조 - UAK

ASME-Series UAK

- Volume : 2.6 to 396 gal
- Design pressure : 3,200 to 9,000psi
- Piston -Φ : 60 to 150mm (AK series)
180 ~ 800mm (UAK series)
- Approval : ASME-Code Sect. VIII Div.1
- Remark : In case, the piston diameter is over 6"(152.4mm), ASME U-stamp should be required.

ASME 시리즈 UAK

- 오일 용량 : 2.6 ~ 396 gal
- 디자인 압력 : 3200 ~ 9000 psi
- 피스톤 둘레 : 60 ~ 150mm(AK model 사용)
180 ~ 800mm(UAK model 사용)
- 승인 : ASME-Code Sec. VIII Div.1
- 비고 : 피스톤 둘레가 6"(152.4mm)이상의 경우만 ASME U-stamp 승인이 요구되어짐



ASME-Series UAK with screwed end caps

Pos.	designation
1	tube
2	piston with seals
3	end cap oil side
4	end cap gas side
5	thread ring
6	end cap seal Gas fill valve
7	BSD-gas-fill-valve
8	screw plug

ASME-시리즈 UAK – 나사타입 덮개

No	사 양
1	튜브 (셸)
2	피스톤 헤드 (씰 포함)
3	오일 방향 나사타입 덮개
4	가스 방향 나사타입 덮개
5	나사 링
6	덮개 씰
7	가스 주입 밸브
8	나사 플러그

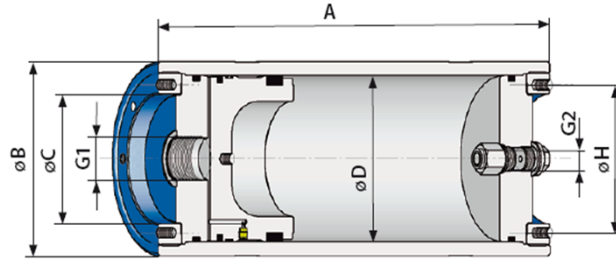
PISTON ACCUMULATOR ORDER DESIGNATION
PISTON 형 ACCUMULATOR 주문 코드

UAK 30 - 280 - 18 / 0 / 0 / 1 / mRV / FG / ES / 50 / 20

1 2 3 4 5 6 7 8 9 10 11 12

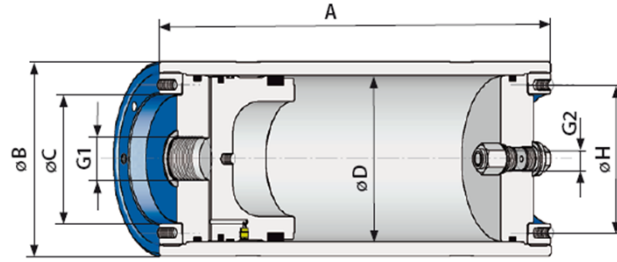
1 2 3 4	ASME-Series UAK > 6" Piston -ø KAK < 6" Piston-ø CE 시리즈	UAK (piston-ø 180 - 800 mm) KAK (piston-ø 60 - 150 mm)	Example: UAK 30-55-18/0/0/1/mRV/FG/ES/15/20
5	material 소재	oil capacity [l] (오일용량) pressure [psi:10 ⁵] (사용압력) piston ø [cm] (피스톤 둘레)	Product of order designation (e.g) is: ASME-Series: UAK oil-capacity: 30 liter pressure: 5500 psi piston ø: 18 cm material: carbon steel design of piston: standard type of seals: NBR gas non return valve: with RV connection: flange one side, other thread monitor, piston pos.: limit switching device acceptance by: ASME-code Sect. VIII Div. 1 painting (outside): standard primer
6	design of piston	0 = carbon steel VA = stainless steel Ni = nickel-plated, e.g. for water	
7	type of seals 씰 사양	0 = standard S = special design, e.g. for water	
8	Gas filling valve	1 = NBR (e.g. for HFC) 2 = Viton (e.g. for HFD) 3 = polyurethane 4 = Others	
9	connections 연결	mRV = with no pressure vessel adapted o RV = without pressure vessel are adapted	
10	monitoring of the piston position 피스톤 위치 모니터링	G0 = standard, figure no. 1 G1 = other thread connections F = flange connections FG = flange one side, thread the other	(to be indicated for gas and oil separately)
11	acceptance 승인 사양	0 = without ES = limit switching device SV = switching device SVG = switching device bended UPS = ultrasonic position sensor KME = piston accumulator measuring ULM = ultrasonic length measuring device	see for this separate brochure *BSD PISTON ACCUMULATOR EQUIPMENT*
12	paintings (outside) 페인트	15 = ASME-code Sect. VIII Div. 1 = others see also acceptance selection	We recommend, outside the USA, to indicate the name of the country where the accumulator will be installed
		20 = standard primer 21 = sand blasting and coating (please specify) 22 = painting on demand	(please specify)

PISTON ACCUMULATOR SPECIFICATION – ASME-SERIES UAK
PISTON 형 ACCUMULATOR 사양 – ASME시리즈 UAK



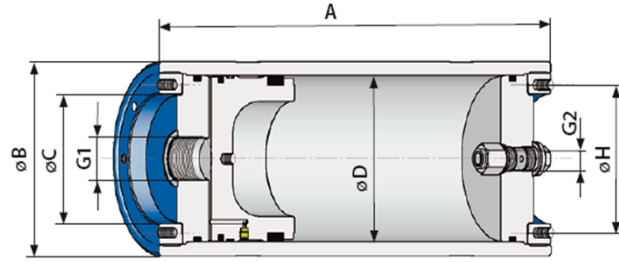
Oil volume		Desing pressure		Type	Piston-Φ	Length	Outside-Φ	Inside-Φ	Fastening	Oil side	Gas side	Weight
[gal]	[l]	[psi]	[bar]	Model	Φ D	A	Φ B	Φ C	Φ H	G1	G2	[kg]
					[mm]	[mm]	[mm]	[mm]	[mm]			
2.6	10	3200	220	UAK 10-32-18	180	720	207	140	160.4 x M12 x 16	1 1/2	3/4	92
		5500	375	UAK 10-55-18	180	755	217	140	160.4 x M12 x 16	1 1/2	3/4	120
		9000	620	UAK 10-90-18	180	875	250	140	160.4 x M12 x 16	3/4	3/4	240
		3200	220	UAK 10-32-20	200	660	230	170	180.4 x M12 x 16	1 1/2	3/4	110
		5100	350	UAK 10-51-20	200	720	240	170	180.4 x M12 x 16	1 1/2	3/4	150
4	15	3200	220	UAK 15-32-18	180	915	207	140	160.4 x M12 x 16	1 1/2	3/4	105
		5500	375	UAK 15-55-18	180	950	217	140	160.4 x M12 x 16	1 1/2	3/4	138
		9000	620	UAK 15-90-18	180	1070	250	140	160.4 x M12 x 16	3/4	3/4	277
		3200	220	UAK 15-32-20	200	820	230	170	180.4 x M12 x 16	1 1/2	3/4	122
		5100	350	UAK 15-51-20	200	875	240	170	180.4 x M12 x 16	1 1/2	3/4	167
5.2	20	3200	220	UAK 20-32-18	180	1115	207	140	160.4 x M12 x 16	1 1/2	3/4	118
		5500	375	UAK 20-55-18	180	1145	217	140	160.4 x M12 x 16	1 1/2	3/4	156
		9000	620	UAK 20-90-18	180	1255	250	140	160.4 x M12 x 16	3/4	3/4	312
		3200	220	UAK 20-32-20	200	975	230	170	180.4 x M12 x 16	1 1/2	3/4	134
		5100	350	UAK 20-51-20	200	1035	240	170	180.4 x M12 x 16	1 1/2	3/4	184
6.6	25	3200	220	UAK 25-32-18	180	1310	207	140	160.4 x M12 x 16	1 1/2	3/4	130
		5500	375	UAK 25-55-18	180	1340	217	140	160.4 x M12 x 16	1 1/2	3/4	174
		9000	620	UAK 25-90-18	180	1460	250	140	160.4 x M12 x 16	3/4	3/4	350
		3200	220	UAK 25-32-20	200	1135	230	170	180.4 x M12 x 16	1 1/2	3/4	147
		5100	350	UAK 25-51-20	200	1195	240	170	180.4 x M12 x 16	1 1/2	3/4	201
7.9	30	3200	220	UAK 30-32-18	180	1505	207	140	160.4 x M12 x 16	1 1/2	3/4	143
		5500	375	UAK 30-55-18	180	1540	217	140	160.4 x M12 x 16	1 1/2	3/4	192
		9000	620	UAK 30-90-18	180	1660	250	140	160.4 x M12 x 16	3/4	3/4	387
		3200	220	UAK 30-32-20	200	1295	230	170	180.4 x M12 x 16	1 1/2	3/4	160
		5100	350	UAK 30-51-20	200	1355	240	170	180.4 x M12 x 16	1 1/2	3/4	219
		3200	220	UAK 30-32-25	250	1030	290	220	240.4 x M12 x 20	1 1/2	3/4	290
		5100	350	UAK 30-51-25	250	1080	310	220	240.4 x M12 x 20	1 1/2	3/4	409
10.6	40	3200	220	UAK 40-32-18	180	1900	207	140	160.4 x M12 x 16	1 1/2	3/4	168
		5500	375	UAK 40-55-18	180	1930	217	140	160.4 x M12 x 16	1 1/2	3/4	227
		9000	620	UAK 40-90-18	180	2050	250	140	160.4 x M12 x 16	3/4	3/4	459
		3200	220	UAK 40-32-20	200	1615	230	170	180.4 x M12 x 16	1 1/2	3/4	185
		5100	350	UAK 40-51-20	200	1675	240	170	180.4 x M12 x 16	1 1/2	3/4	254
		3200	220	UAK 40-32-25	250	1235	290	220	240.4 x M12 x 20	1 1/2	3/4	318
		5100	350	UAK 40-51-25	250	1285	310	220	240.4 x M12 x 20	1 1/2	3/4	452
13.2	50	3200	220	UAK 50-32-18	180	2295	207	140	160.4 x M12 x 16	1 1/2	3/4	194
		5500	375	UAK 50-55-18	180	2325	217	140	160.4 x M12 x 16	1 1/2	3/4	263
		9000	620	UAK 50-90-18	180	2445	250	140	160.4 x M12 x 16	3/4	3/4	533
		3200	220	UAK 50-32-20	200	1930	230	170	180.4 x M12 x 16	1 1/2	3/4	210
		5100	350	UAK 50-51-20	200	1990	240	170	180.4 x M12 x 16	1 1/2	3/4	288
		3200	220	UAK 50-32-25	250	1440	290	220	240.4 x M12 x 20	1 1/2	3/4	345
		5100	350	UAK 50-51-25	250	1490	310	220	240.4 x M12 x 20	1 1/2	3/4	309

PISTON ACCUMULATOR SPECIFICATION – ASME-SERIES UAK
PISTON 형 ACCUMULATOR 사양 – ASME시리즈 UAK



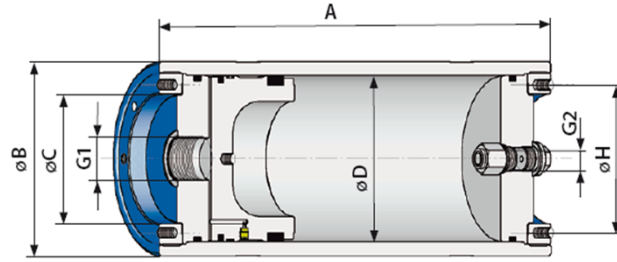
Oil volume		Desing pressure		Type	Piston-Φ	Length	Outside-Φ	Inside-Φ	Fastening	Oil side	Gas side	Weight
[gal]	[l]	[psi]	[bar]	Model	Φ D [mm]	A [mm]	Φ B [mm]	Φ C [mm]	Φ H [mm]	G1	G2	[kg]
15.9	60	3200	220	UAK 60-32-18	180	2685	207	140	160.4 x M12 x 16	1 1/2	3/4	219
		5500	375	UAK 60-55-18	180	2720	217	140	160.4 x M12 x 16	1 1/2	3/4	299
		9000	620	UAK 60-90-18	180	2840	250	140	160.4 x M12 x 16	3/4	3/4	606
		3200	220	UAK 60-32-20	200	2250	230	170	180.4 x M12 x 16	1 1/2	3/4	236
		5100	350	UAK 60-51-20	200	2310	240	170	180.4 x M12 x 16	1 1/2	3/4	323
		3200	220	UAK 60-32-25	250	1640	290	220	240.4 x M12 x 20	1 1/2	3/4	372
		5100	350	UAK 60-51-25	250	1690	310	220	240.4 x M12 x 20	1 1/2	3/4	536
18.5	70	3200	220	UAK 70-32-18	180	3080	207	140	160.4 x M12 x 16	1 1/2	3/4	245
		5500	375	UAK 70-55-18	180	3110	217	140	160.4 x M12 x 16	1 1/2	3/4	334
		9000	620	UAK 70-90-18	180	3230	250	140	160.4 x M12 x 16	3/4	3/4	679
		3200	220	UAK 70-32-20	200	2570	230	170	180.4 x M12 x 16	1 1/2	3/4	161
		5100	350	UAK 70-51-20	200	2630	240	170	180.4 x M12 x 16	1 1/2	3/4	357
		3200	220	UAK 70-32-25	250	1845	290	220	240.4 x M12 x 20	1 1/2	3/4	400
		5100	350	UAK 70-51-25	250	1895	310	220	240.4 x M12 x 20	1 1/2	3/4	578
		3200	220	UAK 70-32-31	310	1455	360	260	180.4 x M12 x 16	1 1/2	3/4	513
21.1	80	5100	350	UAK 70-51-31	310	1565	370	260	180.4 x M12 x 16	1 1/2	3/4	606
		3200	220	UAK 80-32-18	180	3475	207	140	160.4 x M12 x 16	1 1/2	3/4	270
		5500	375	UAK 80-55-18	180	3505	217	140	160.4 x M12 x 16	1 1/2	3/4	370
		9000	620	UAK 80-90-18	180	3625	250	140	160.4 x M12 x 16	3/4	3/4	752
		3200	220	UAK 80-32-20	200	2885	230	170	180.4 x M12 x 16	1 1/2	3/4	286
		5100	350	UAK 80-51-20	200	2950	240	170	180.4 x M12 x 16	1 1/2	3/4	392
		3200	220	UAK 80-32-25	250	2050	290	220	240.4 x M12 x 20	1 1/2	3/4	427
23.8	90	5100	350	UAK 80-51-25	250	2100	310	220	240.4 x M12 x 20	1 1/2	3/4	621
		3200	220	UAK 80-32-31	310	1590	360	260	180.4 x M12 x 16	1 1/2	3/4	541
		5100	350	UAK 80-51-31	310	1700	370	260	180.4 x M12 x 16	1 1/2	3/4	640
		3200	220	UAK 90-32-18	180	3865	207	140	160.4 x M12 x 16	1 1/2	3/4	295
		5500	375	UAK 90-55-18	180	3895	217	140	160.4 x M12 x 16	1 1/2	3/4	405
		9000	620	UAK 90-90-18	180	4015	250	140	160.4 x M12 x 16	3/4	3/4	825
		3200	220	UAK 90-32-20	200	3205	230	170	180.4 x M12 x 16	1 1/2	3/4	312
		5100	350	UAK 90-51-20	200	3265	240	170	180.4 x M12 x 16	1 1/2	3/4	427
26.4	100	3200	220	UAK 90-32-25	250	2255	290	220	240.4 x M12 x 20	1 1/2	3/4	454
		5100	350	UAK 90-51-25	250	2305	310	220	240.4 x M12 x 20	1 1/2	3/4	663
		3200	220	UAK 90-32-31	310	1720	360	260	180.4 x M12 x 16	1 1/2	3/4	568
		5100	350	UAK 90-51-31	310	1830	370	260	180.4 x M12 x 16	1 1/2	3/4	674
		3200	220	UAK 100-32-20	200	3525	230	170	180.4 x M12 x 16	1 1/2	3/4	337
		5100	350	UAK 100-51-20	200	3585	240	170	180.4 x M12 x 16	1 1/2	3/4	461
		3200	220	UAK 100-32-25	250	2455	290	220	240.4 x M12 x 20	1 1/2	3/4	480
		5100	350	UAK 100-51-25	250	2505	310	220	240.4 x M12 x 20	1 1/2	3/4	705
31.7	120	3200	220	UAK 100-32-31	310	1855	360	260	180.4 x M12 x 16	1 1/2	3/4	596
		5100	350	UAK 100-51-31	310	1965	370	260	180.4 x M12 x 16	1 1/2	3/4	707
		3200	220	UAK 100-32-36	360	1555	410	290	330.4 x M16 x 25	1 1/2	3/4	882
		5100	350	UAK 100-51-36	360	1640	430	290	330.4 x M16 x 25	1 1/2	3/4	1072
		3200	220	UAK 120-32-20	200	4160	230	170	180.4 x M12 x 16	1 1/2	3/4	388
		5100	350	UAK 120-51-20	200	4220	240	170	180.4 x M12 x 16	1 1/2	3/4	530
		3200	220	UAK 120-32-25	250	2865	290	220	240.4 x M12 x 20	1 1/2	3/4	535
		5100	350	UAK 120-51-25	250	2915	310	220	240.4 x M12 x 20	1 1/2	3/4	790
36.9	140	3200	220	UAK 120-32-31	310	2120	360	260	180.4 x M12 x 16	1 1/2	3/4	650
		5100	350	UAK 120-51-31	310	2230	370	260	180.4 x M12 x 16	1 1/2	3/4	775
		3200	220	UAK 120-32-36	360	1750	410	290	330.4 x M16 x 25	1 1/2	3/4	928
		5100	350	UAK 120-51-36	360	1840	430	290	330.4 x M16 x 25	1 1/2	3/4	1141
		3200	220	UAK 140-32-25	250	3270	290	220	240.4 x M12 x 20	1 1/2	3/4	590
		5100	350	UAK 140-51-25	250	3320	310	220	240.4 x M12 x 20	1 1/2	3/4	874
		3200	220	UAK 140-32-31	310	2385	360	260	180.4 x M12 x 16	1 1/2	3/4	706
36.9	140	5100	350	UAK 140-51-31	310	2495	370	260	180.4 x M12 x 16	1 1/2	3/4	841
		3200	220	UAK 140-32-36	360	1945	410	290	330.4 x M16 x 25	1 1/2	3/4	975
		5100	350	UAK 140-51-36	360	2035	430	290	330.4 x M16 x 25	1 1/2	3/4	1208

PISTON ACCUMULATOR SPECIFICATION – ASME-SERIES UAK
PISTON 형 ACCUMULATOR 사양 – ASME시리즈 UAK



Oil volume		Desing pressure		Type	Piston-Φ	Length	Outside-Φ	Inside-Φ	Fastening	Oil side	Gas side	Weight
[gal]	[l]	[psi]	[bar]	Model	Φ D [mm]	A [mm]	Φ B [mm]	Φ C [mm]	Φ H [mm]	G1	G2	[kg]
39.6	150	3200	220	UAK 150-32-25	250	3475	290	220	240.4 x M12 x 20	1 1/2	3/4	617
		5100	350	UAK 150-51-25	250	3525	310	220	240.4 x M12 x 20	1 1/2	3/4	917
		3200	220	UAK 150-32-31	310	2515	360	260	180.4 x M12 x 16	1 1/2	3/4	733
		5100	350	UAK 150-51-31	310	2625	370	260	180.4 x M12 x 16	1 1/2	3/4	874
		3200	220	UAK 150-32-36	360	2045	410	290	330.4 x M16 x 25	1 1/2	3/4	999
		5100	350	UAK 150-51-36	360	2135	430	290	330.4 x M16 x 25	1 1/2	3/4	1242
42.3	160	3200	220	UAK 160-32-25	250	3680	290	220	240.4 x M12 x 20	1 1/2	3/4	644
		5100	350	UAK 160-51-25	250	3730	310	220	240.4 x M12 x 20	1 1/2	3/4	960
		3200	220	UAK 160-32-31	310	2650	360	260	180.4 x M12 x 16	1 1/2	3/4	760
		5100	350	UAK 160-51-31	310	2760	370	260	180.4 x M12 x 16	1 1/2	3/4	908
		3200	220	UAK 160-32-36	360	2145	410	290	330.4 x M16 x 25	1 1/2	3/4	1022
		5100	350	UAK 160-51-36	360	2230	430	290	330.4 x M16 x 25	1 1/2	3/4	1274
47.3	180	3200	220	UAK 180-32-25	250	4085	290	220	240.4 x M12 x 20	1 1/2	3/4	698
		5100	350	UAK 180-51-25	250	4135	310	220	240.4 x M12 x 20	1 1/2	3/4	1044
		3200	220	UAK 180-32-31	310	2915	360	260	180.4 x M12 x 16	1 1/2	3/4	815
		5100	350	UAK 180-51-31	310	3025	370	260	180.4 x M12 x 16	1 1/2	3/4	975
		3200	220	UAK 180-32-36	360	2340	410	290	330.4 x M16 x 25	1 1/2	3/4	1069
		5100	350	UAK 180-51-36	360	2430	430	290	330.4 x M16 x 25	1 1/2	3/4	1342
52.8	200	3200	220	UAK 200-32-31	310	3180	360	260	180.4 x M12 x 16	1 1/2	3/4	870
		5100	350	UAK 200-51-31	310	3290	370	260	180.4 x M12 x 16	1 1/2	3/4	1041
		3200	220	UAK 200-32-36	360	2535	410	290	330.4 x M16 x 25	1 1/2	3/4	1115
		5100	350	UAK 200-51-36	360	2625	430	290	330.4 x M16 x 25	1 1/2	3/4	1410
59.4	225	3200	220	UAK 225-32-31	310	3510	360	260	180.4 x M12 x 16	1 1/2	3/4	727
		5100	350	UAK 225-51-31	310	3620	370	260	180.4 x M12 x 16	1 1/2	3/4	1125
		3200	220	UAK 225-32-36	360	2780	410	290	330.4 x M16 x 25	1 1/2	3/4	1173
		5100	350	UAK 225-51-36	360	2870	430	290	330.4 x M16 x 25	1 1/2	3/4	1493
66	250	3200	220	UAK 250-32-31	310	3840	360	260	180.4 x M12 x 16	1 1/2	3/4	795
		5100	350	UAK 250-51-31	310	3950	370	260	180.4 x M12 x 16	1 1/2	3/4	1208
		3200	220	UAK 250-32-36	360	3030	410	290	330.4 x M16 x 25	1 1/2	3/4	1233
		5100	350	UAK 250-51-36	360	3115	430	290	330.4 x M16 x 25	1 1/2	3/4	1577
72.7	275	3200	220	UAK 275-32-31	310	4175	360	260	180.4 x M12 x 16	1 1/2	3/4	1076
		5100	350	UAK 275-51-31	310	4285	370	260	180.4 x M12 x 16	1 1/2	3/4	1292
		3200	220	UAK 275-32-36	360	3275	410	290	330.4 x M16 x 25	1 1/2	3/4	1291
		5100	350	UAK 275-51-36	360	3360	430	290	330.4 x M16 x 25	1 1/2	3/4	1660
79.2	300	3200	220	UAK 300-32-31	310	4505	360	260	180.4 x M12 x 16	1 1/2	3/4	1145
		5100	350	UAK 300-51-31	310	4615	370	260	180.4 x M12 x 16	1 1/2	3/4	1375
		3200	220	UAK 300-32-36	360	3520	410	290	330.4 x M16 x 25	1 1/2	3/4	1350
		5100	350	UAK 300-51-36	360	3605	430	290	330.4 x M16 x 25	1 1/2	3/4	1745
85.9	325	3200	220	UAK 325-32-31	310	4835	360	260	180.4 x M12 x 16	1 1/2	3/4	1213
		5100	350	UAK 325-51-31	310	4945	370	260	180.4 x M12 x 16	1 1/2	3/4	1459
		3200	220	UAK 325-32-36	360	3765	410	290	330.4 x M16 x 25	1 1/2	3/4	1408
		5100	350	UAK 325-51-36	360	3588	430	290	330.4 x M16 x 25	1 1/2	3/4	1830
92.5	350	3200	220	UAK 350-32-31	310	5165	360	260	180.4 x M12 x 16	1 1/2	3/4	1281
		5100	350	UAK 350-51-31	310	5275	370	260	180.4 x M12 x 16	1 1/2	3/4	1542
		3200	220	UAK 350-32-36	360	4010	410	290	330.4 x M16 x 25	1 1/2	3/4	1466
		5100	350	UAK 350-51-36	360	4100	430	290	330.4 x M16 x 25	1 1/2	3/4	1913
99	375	3200	220	UAK 375-32-31	310	5500	360	260	180.4 x M12 x 16	1 1/2	3/4	1350
		5100	350	UAK 375-51-31	310	5610	370	260	180.4 x M12 x 16	1 1/2	3/4	1627
		3200	220	UAK 375-32-36	360	4255	410	290	330.4 x M16 x 25	1 1/2	3/4	1525
		5100	350	UAK 375-51-36	360	4345	430	290	330.4 x M16 x 25	1 1/2	3/4	1997
105.6	400	3200	220	UAK 400-32-31	310	5830	360	260	180.4 x M12 x 16	1 1/2	3/4	1420
		5100	350	UAK 400-51-31	310	5940	370	260	180.4 x M12 x 16	1 1/2	3/4	1710
		3200	220	UAK 400-32-36	360	4500	410	290	330.4 x M16 x 25	1 1/2	3/4	1583
		5100	350	UAK 400-51-36	360	4590	430	290	330.4 x M16 x 25	1 1/2	3/4	2080
		3200	220	UAK 400-32-54	540	2625	610	470	510.4 x M20 x 32	SAE 2"	3/4	2425
		5100	350	UAK 400-51-54	540	2805	640	470	510.4 x M20 x 32	SAE 2"	3/4	3165

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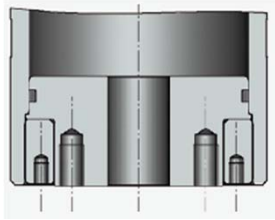


Oil volume		Desing pressure		Type	Piston-Φ	Length	Outside-Φ	Inside-Φ	Fastening	Oil side	Gas side	Weight
[gal]	[l]	[psi]	[bar]	Model	Φ D [mm]	A [mm]	Φ B [mm]	Φ C [mm]	Φ H [mm]	G1	G2	[kg]
112.3	425	3200	220	UAK 425-32-36	360	4745	410	290	330.4 x M16 x 25	1 1/2	3/4	1641
		5100	350	UAK 425-51-36	360	4835	430	290	330.4 x M16 x 25	1 1/2	3/4	2165
		3200	220	UAK 425-32-54	540	2735	610	470	510.4 x M20 x 32	SAE 2"	3/4	2480
		5100	350	UAK 425-51-54	540	2915	640	470	510.4 x M20 x 32	SAE 2"	3/4	3245
118.9	450	3200	220	UAK 450-32-36	360	4995	410	290	330.4 x M16 x 25	1 1/2	3/4	1700
		5100	350	UAK 450-51-36	360	5080	430	290	330.4 x M16 x 25	1 1/2	3/4	2250
		3200	220	UAK 450-32-54	540	2845	610	470	510.4 x M20 x 32	SAE 2"	3/4	2534
		5100	350	UAK 450-51-54	540	3025	640	470	510.4 x M20 x 32	SAE 2"	3/4	3325
125.5	475	3200	220	UAK 475-32-36	360	5240	410	290	330.4 x M16 x 25	1 1/2	3/4	1759
		5100	350	UAK 475-51-36	360	5325	430	290	330.4 x M16 x 25	1 1/2	3/4	2332
		3200	220	UAK 475-32-54	540	2955	610	470	510.4 x M20 x 32	SAE 2"	3/4	2588
		5100	350	UAK 475-51-54	540	3135	640	470	510.4 x M20 x 32	SAE 2"	3/4	3405
132	500	3200	220	UAK 500-32-36	360	5485	410	290	330.4 x M16 x 25	1 1/2	3/4	1817
		5100	350	UAK 500-51-36	360	5570	430	290	330.4 x M16 x 25	1 1/2	3/4	2415
		3200	220	UAK 500-32-54	540	3065	610	470	510.4 x M20 x 32	SAE 2"	3/4	2643
		5100	350	UAK 500-51-54	540	3245	640	470	510.4 x M20 x 32	SAE 2"	3/4	3485
145.3	550	3200	220	UAK 550-32-36	360	5975	410	290	330.4 x M16 x 25	1 1/2	3/4	1934
		5100	350	UAK 550-51-36	360	6065	430	290	330.4 x M16 x 25	1 1/2	3/4	2585
		3200	220	UAK 550-32-54	540	3280	610	470	510.4 x M20 x 32	SAE 2"	3/4	2750
		5100	350	UAK 550-51-54	540	3460	640	470	510.4 x M20 x 32	SAE 2"	3/4	3640
158.5	600	3200	220	UAK 600-32-36	360	6465	410	290	330.4 x M16 x 25	1 1/2	3/4	2050
		5100	350	UAK 600-51-36	360	6555	430	290	330.4 x M16 x 25	1 1/2	3/4	2750
		3200	220	UAK 600-32-54	540	3500	610	470	510.4 x M20 x 32	SAE 2"	3/4	2860
		5100	350	UAK 600-51-54	540	3680	640	470	510.4 x M20 x 32	SAE 2"	3/4	3800
		3200	220	UAK 600-32-60	600	3150	680	520	570.4 x M20 x 32	SAE 2"	3/4	3630
		5100	350	UAK 600-51-60	600	3340	710	520	570.4 x M20 x 32	SAE 2"	3/4	4905
171.7	650	3200	220	UAK 650-32-36	360	6960	410	290	330.4 x M16 x 25	1 1/2	3/4	2168
		5100	350	UAK 650-51-36	360	7045	430	290	330.4 x M16 x 25	1 1/2	3/4	2920
		3200	220	UAK 650-32-54	540	3720	610	470	510.4 x M20 x 32	SAE 2"	3/4	2970
		5100	350	UAK 650-51-54	540	3900	640	470	510.4 x M20 x 32	SAE 2"	3/4	3960
		3200	220	UAK 650-32-60	600	3330	680	520	570.4 x M20 x 32	SAE 2"	3/4	3745
		5100	350	UAK 650-51-60	600	3520	710	520	570.4 x M20 x 32	SAE 2"	3/4	5065
185	700	3200	220	UAK 700-32-36	360	7450	410	290	330.4 x M16 x 25	1 1/2	3/4	2285
		5100	350	UAK 700-51-36	360	7535	430	290	330.4 x M16 x 25	1 1/2	3/4	3090
		3200	220	UAK 700-32-54	540	3935	610	470	510.4 x M20 x 32	SAE 2"	3/4	3075
		5100	350	UAK 700-51-54	540	4115	640	470	510.4 x M20 x 32	SAE 2"	3/4	4120
		3200	220	UAK 700-32-60	600	3505	680	520	570.4 x M20 x 32	SAE 2"	3/4	3855
		5100	350	UAK 700-51-60	600	3695	710	520	570.4 x M20 x 32	SAE 2"	3/4	5225
198	750	3200	220	UAK 750-32-36	360	7940	410	290	330.4 x M16 x 25	1 1/2	3/4	2401
		5100	350	UAK 750-51-36	360	8030	430	290	330.4 x M16 x 25	1 1/2	3/4	3256
		3200	220	UAK 750-32-54	540	4155	610	470	510.4 x M20 x 32	SAE 2"	3/4	3185
		5100	350	UAK 750-51-54	540	4335	640	470	510.4 x M20 x 32	SAE 2"	3/4	4280
		3200	220	UAK 750-32-60	600	3680	680	520	570.4 x M20 x 32	SAE 2"	3/4	3965
		5100	350	UAK 750-51-60	600	3870	710	520	570.4 x M20 x 32	SAE 2"	3/4	5380
211.4	800	3200	220	UAK 800-32-36	360	8430	410	290	330.4 x M16 x 25	1 1/2	3/4	2518
		5100	350	UAK 800-51-36	360	8520	430	290	330.4 x M16 x 25	1 1/2	3/4	3425
		3200	220	UAK 800-32-54	540	4375	610	470	510.4 x M20 x 32	SAE 2"	3/4	3295
		5100	350	UAK 800-51-54	540	4555	640	470	510.4 x M20 x 32	SAE 2"	3/4	4440
		3200	220	UAK 800-32-60	600	3860	680	520	570.4 x M20 x 32	SAE 2"	3/4	4080
		5100	350	UAK 800-51-60	600	4050	710	520	570.4 x M20 x 32	SAE 2"	3/4	5540
		3200	220	UAK 800-32-80	800	2870	890	700	770.4 x M20 x 32	SAE 2"	3/4	6225
		5100	350	UAK 800-51-80	800	3140	940	700	770.4 x M20 x 32	SAE 2"	3/4	8530

PISTON ACCUMULATOR SPECIFICATION – CE-SERIES AK
 PISTON 형 ACCUMULATOR 사양 – CE시리즈 AK

SPECIAL CONNECTIONS AK

AK 모델 플렌지 연결



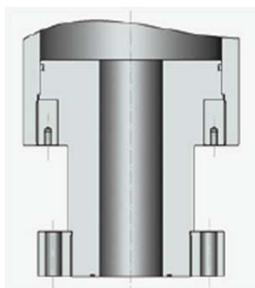
example 1:
axial
flange connection

예 1 :
축방향 플렌지 연결



example 2:
radial
flange connection

예 2 :
원심방향 플렌지 연결



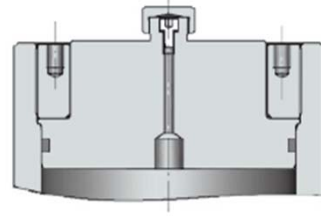
example 3:
axial
flange connection

예 3 :
축방향 플렌지 연결

Only a possible selection of special connections and gas filling valves is shown above. We offer further types on request gladly.

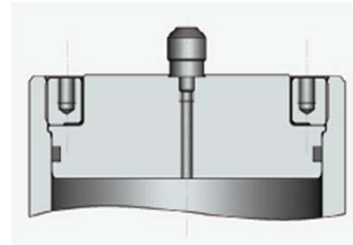
ALTERNATIVE FILLING VALVES AK

AK 주입밸브 사양



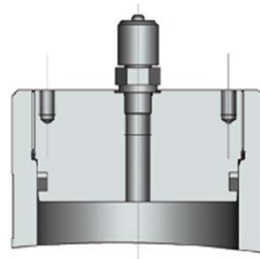
example 1:
filling valve for dia-
phragm accumulator
M 28 x 1.5

예 1 :
Diaphragm accumulator
용 주입밸브
M 28 x 1.5



example 2:
Filling valve with
connection
7/8" 14 UNF 1A

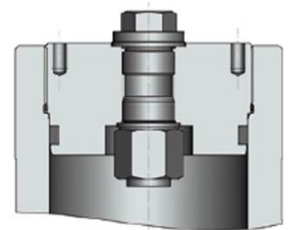
예 2 :
7/8" 14 UNF 1A
주입밸브



example 3:
Minimes filling valve
M 16 x 1.5

예 3 :
체크포인트 주입 밸브
M 16 x 1.5

적용모델 : KAK series



example 3:
Gas fill valve
with connection 3/4"

예 3 :
3/4" 가스 주입밸브

적용모델 : AK series
UAK series

위와 같이 특별한 연결부 및 가스 주입 밸브의 적용이 가능하다. 그리고 다른 사양이 요구되어지면 그 사양에 대해 제안이 가능하다.

PISTON ACCUMULATOR - PRESSURE GAUGE CONNECTIONS FOR OIL & GAS SIDE
PISTON ACCUMULATOR – 오일부 / 가스부 압력계 연결

Pressure gauge connection for oil side
오일부 압력계 연결

Essential components of the pressure gauge for oil side as follow;

- Pressure gauge(1) a scale of bar and psi, given size:100, class2.5(DIN 16005) for measure points with high dynamic pressure burdens and vibrations. Filled with glycerin.

-Shut-off valve(2), ref. to DIN 16271 with testing connection(TUV). The shut-off valve is to be used for the simultaneous connection of a pressure gauge and a test pressure gauge to the according to the proof test connection M20 x 1.5

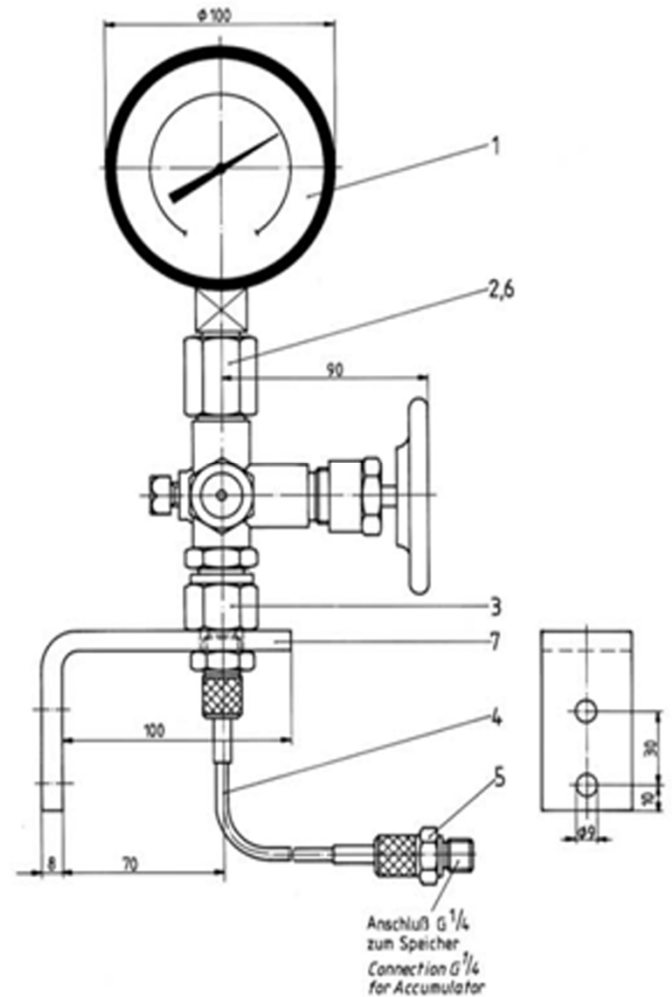
- High pressure hose with adapter

오일 부 압력계의 중요 부품은 다음과 같다.

- 압력계(1) : Φ100, class2.5(DIN 16005) 높은 동압 / 높은진동 대응하는 액충만 타입

- Shut-off valve(2) : DIN16271, testing connection (TUV) . M20 x 15에 따른 테스트 압력 게이지와 압력 게이지를 동시에 사용가능

-고압호스를 연결용 아답터



Part list - Pressure gauge connection for oil side

Pos	Description
1	Pressure gauge 0~250bar or Pressure gauge 0~400bar
2	Shut-off valve with test plug
3	Pressure gauge connection
4	High pressure hose (DNx2000l)
5	Screw coupling
6	Canted gasket

PISTON ACCUMULATOR - PRESSURE GAUGE CONNECTIONS FOR OIL & GAS SIDE
PISTON ACCUMULATOR – 오일부 / 가스부 압력계 연결

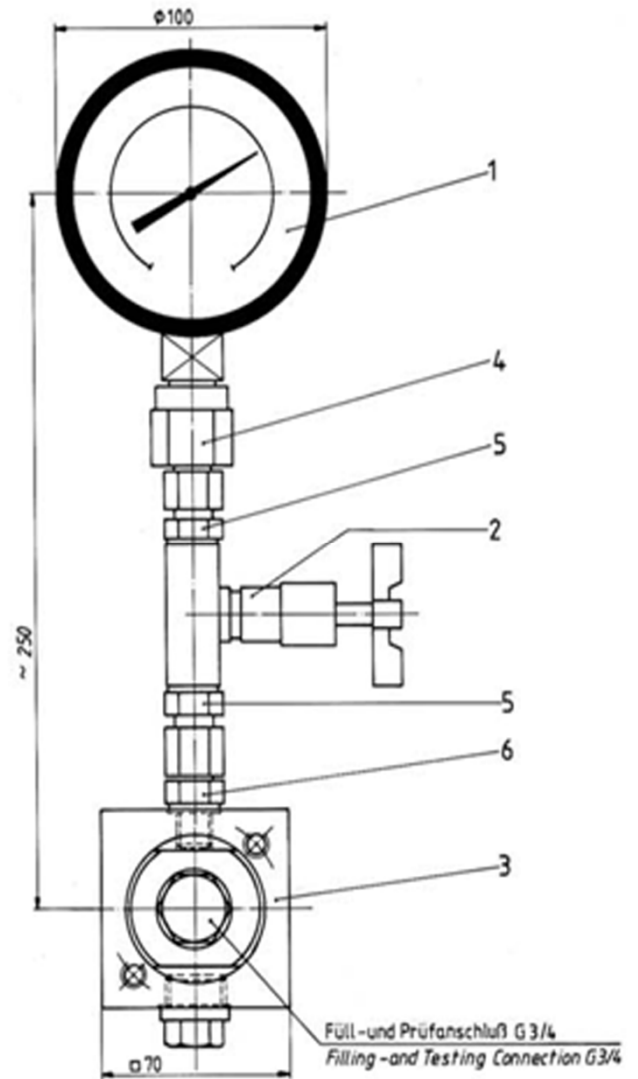
Pressure gauge connection for gas side
가스부 압력계 연결

Essential components of the pressure gauge for gas side as follow;

- Pressure gauge(1) with scale of bar and **psi**, given size:100, class 2.5(DIN16005) for measure point with high dynamic pressure burdens and vibrations. Filled with glycerin.
- Shut-off valve(2)
- Adapter(3) with gas filling and testing connection for the connection to the pipe between piston accumulator and pressure vessels. It is to be used for the gas filling of the accumulator unit with the filling and testing kit.

오일 부 압력계의 중요 부품은 다음과 같다.

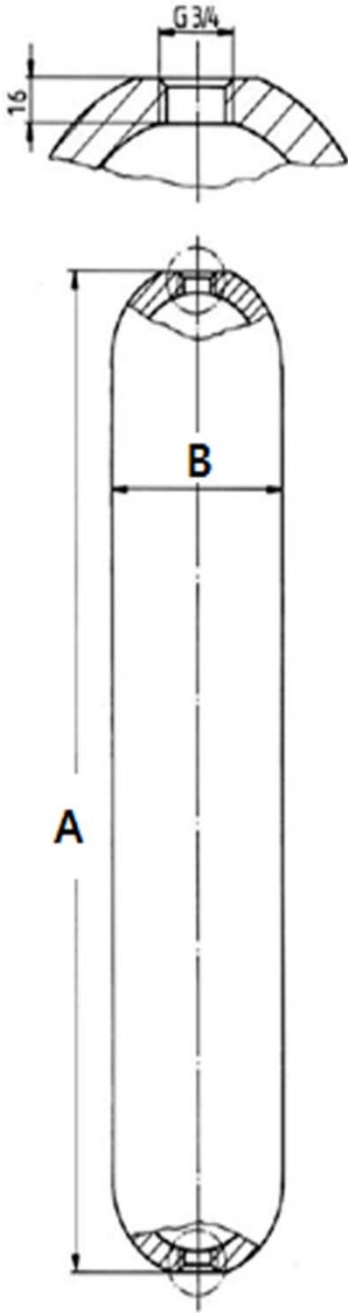
- 압력계(1) : $\Phi 100$, class 2.5(DIN 16005) 높은 동압/진동 측정 포인트 액충만 타입
- Shut-off valve(2)
- Adapter(3) : piston accumulator와 압력용기를 연결하기 위한 가스주입과 test connection을 가지고 있음. 이것은 accumulator장비에 가스를 충전하기 위해 사용된다.



Part list - Pressure gauge connection for gas side

Pos	Description
1	Pressure gauge 0~250bar or Pressure gauge 0~400bar
2	Shut-off valve
3	Adapter
4	Screwing
5	Screwing
6	Screwing

PRESSURE VESSEL STATIONARY FOR PISTON ACCUMULATOR
압력 용기 - PISTON 형 ACCUMULATOR



NO	DESCRIPTION	SPECIFICATION		
		1	Volume capacity	50L
2	Working pressure	360bar		
3	Test pressure	546bar		
4	Acceptance	TUV		
5	Temperature range	-10°C ~ 50°C		
6	Medium	Nitrogen		
7	Weight(±10%)	330bar	87kg(±10%)	116kg(±10%)
		360bar	98kg(±10%)	133kg(±10%)
8	Dimension			
	A (±1%)	330bar	1667 (±1%)	2280 (±1%)
		360bar	1590 (±1%)	2280 (±1%)
	B (±1%)	330bar	219 (±1%)	219 (±1%)
360bar		229 (±1%)	229 (±1%)	

Description

Pressure vessels of seamless steel tubes forged to a half-round shape on both sides. Internally blasted and greased. Externally blasted, similar to SIS Bsa 21/2 and primed. Openings closed for shipment.

Seamless steel 튜브를 이용한 압력용기는 양쪽 방향의 방원을 단조로 제작되었다. 내부에는 표면 및 오일처리가 되어있고, 외부 역시 표면처리, SIS Bsa 21/2 및 하도 도장처리가 되어있다.

Special Design

Pressure vessels with a larger volumetric capacity or with other Operating/working pressure resp. acceptances can be quoted on request.

더 많은 용량 및 규정에 따른 작동압력에 대한 압력용기는 당사로 문의하기 바랍니다.

Ordering code - 주문 코드

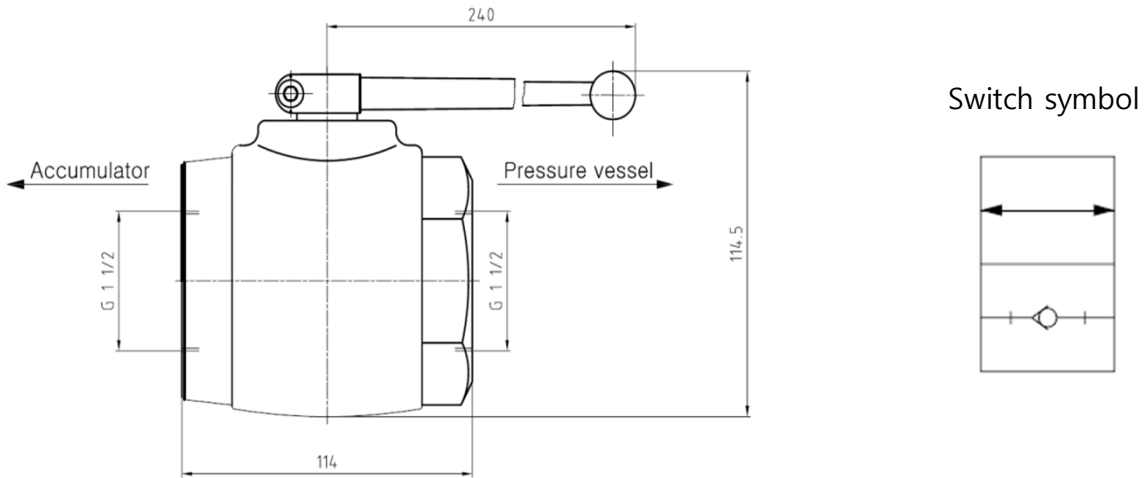
FGB - 330 - 50 - A

1 2 3 4


1	Type	FGB
2	Pressure gauge	5 ~ 400 kg/cm ² (other spec' on request)
3	Volume capacity	50 : 50 liter 75 : 75 liter
4	Connection	A : 3/4" B : 1"

ACCESSORY FOR PISTON ACCUMULATOR
액세서리 - PISTON 형 ACCUMULATOR


N2 – Shut –off Valve DN32, PN350



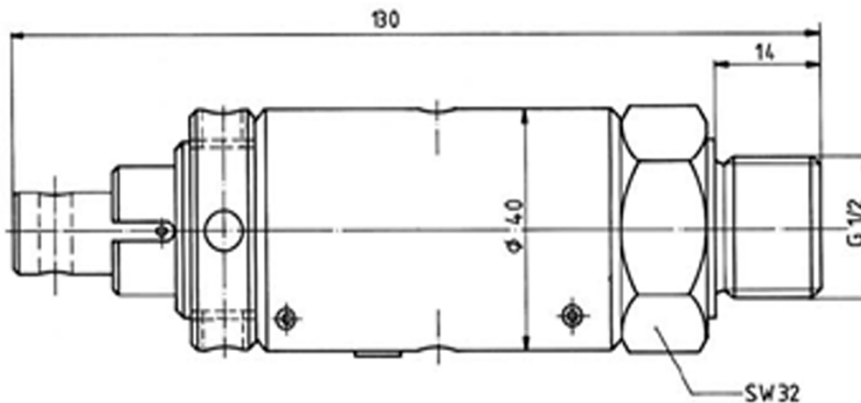
Note of Installation

On fitting the shut-off valve care must be taken that the symbol  on the closed position of the shut-off valve is towards the piston accumulator.

설치 시 주의사항

조립시 shut-off valve의 닫힘위치에 표시된 심벌() 이 piston accumulator로 향하도록 shut-off valve의 위치하여야만 한다.

Gas Safety valve DN6, PN 220



Attention

The pressure setting of the safety valve is to choose a way that a frequent reaction on a normal working pressure is avoided. The normal working pressure should stay between 10 to 15% below the pressure setting. If possible the safety valve should be adjusted to the design pressure of the Piston accumulator. Safety valves can leak after reaction.

주의

안전밸브의 압력설정은 일반 작동압력에서의 빈번한 반응을 피하기 위해 선정한다. 일반 작동압력은 설정 압력 이하에서 10~15%사이에 설정 되어야 한다. 만약 가능하다면, 안전밸브는 piston accumulator의 디자인 압력을 조절 할 수 있어야 한다. 안전밸브는 반응 후에 새 수도 있다.

Fluma Co., Ltd.



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