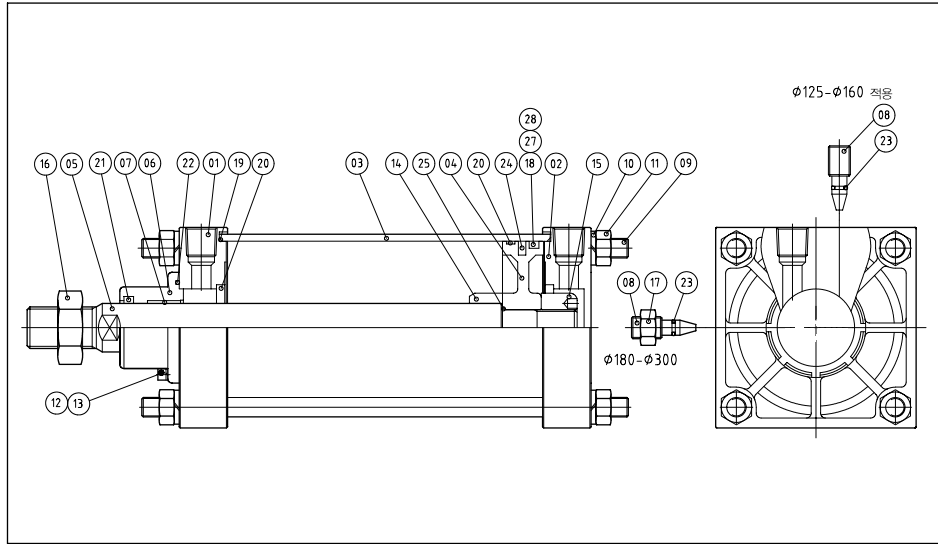


대형실린더 ISL 시리즈 LARGE-SIZE ISL SERIES

내부 구조도 Inside Structure Drawings

내부 구조도 Inside Structure Drawings



부품리스트 Parts List

No	Name	Materials	Remarks
1	ROD COVER	AC4C	φ125-φ160
		FCD	φ180-φ200
		SS41	φ250-φ300
2	HEAD COVER	AC4C	φ125-φ160
		SS41	φ180-φ300
3	TUBE	A6063	φ125-φ160
		STKM13C	φ180-φ300
4	PISTON	AC4C	φ125-φ160
		SS41	φ180-φ300
5	ROD	S45C	
6	SUB BLOCK	FC20	
7	BUSH	DU	
8	CUSHION NIDDLE	BSM	
9	TIE ROD	SS41	
10	SPRING WASHER	SS41	
11	TIE ROD NUT	S20C	
12	SUB BLOCK BOLT	SCM4	
13	" WASHER	SCM4	
14	CUSHION RING(R)	SS41	
15	CUSHION RING(H)	SS41	
16	ROD NUT	SS41	
17	CUSHION NUT	S20C	

패킹 리스트 Packing List

No	Name	Materials	I-D(mm)							
			125	140	150	160	180	200	250	300
18	PISTON PACKING	N	AP115	AP130	AP140	AP150	AP165	AP185	AP235	AP285
19	TUBE O-RING	N	φ125+ S125	φ140+ S140	φ150+ S150	φ160+ S160	φ180+ S180	φ200+ S200	φ250+ S250	φ300+ S300
20	CUSHION PACKING	B	PCS50	PCS50	PCS55	PCS55	PCS60	PCS60	PCS75	PCS80
21	ROD PACKING	B	DRP35	DRP35	DRP40	DRP40	DRP45	DRP50	DRP60	DRP70
22	BUSH O-RING	R	AP56	AP56	AP58	AP58	AP63	AP67	AP80	AP85
23	NOZZLE O-RING	R	P9	P9	P9	P9	P9	P9	P9	P9
24	MAGNET	R	φ125	φ140	φ150	φ160	-	-	-	-
25	ROD O-RING	R	S26	S26	S30	S30	S35	S40	S48	S50

급유형 Oil Supply Type

무급유형 Oilless Type

26	WEARING	AC	SNW125	SNW140	SNW150	SNW160	SNW180	SNW200	SNW250	SNW300
27	PISTON PACKING	NBR	PSD 125	PSD 140	PSD 150	PSD 160	DXP 180	DXP 200	DXP 250	DXP 300

저유압형 Low Hydraulic Type

28	PISTON PACKING	NBR	DXP 125	DXP 140	DXP 150	DXP 160				
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■ 26, 27, 28 이외의 패킹은 급유형과 동일하다. 18은 제외
Packing except 26, 27, 28 is same with Oil Supply Type (except 18).

대형실린더 ISL 시리즈 LARGE-SIZE ISL SERIES

형식 및 사양 기타 Model & Specification and Others

사양 Specification

형식 Type	무급유형 Oilless Type	저유압형 Low-Hydraulic Type
사용유체 Fluid	공기 Air	유압작동유 Hydraulic Working Oil
보증내압력 Bearing pressure	16kgf/cm ²	
최고사용압력 Max. Working Pressure	9.9kgf/cm ²	
최저사용압력 Min. Working Pressure	0.5kgf/cm ²	1kgf/cm ²
사용피스톤속도 Working Piston Speed	50~500mm/s	0.5~200mm/s
쿠션 Cushion	쿠션 Cushion	없음 None
주위온도 및 사용유체온도 Ambient & Working Oil temperature	-10~70°C	
나사공차 Screw Tolerance	KS2급 2nd KS Level	
형질미의 허용치 Allowance of Stroke Length	~250 ^{±0.05}	250~1,000 ^{±0.1} 1,001~1,500 ^{±0.15}
취부지형식 Supporting Type of Fitting Surface	Basic Type, Foot Type, Rod-side Flange Type, Head-side Flange Type Single Thread CLEVIS Type, Double Thread CLEVIS Type, Trunion Type	

부속품 Parts

취부지형식 Supporting Type of Fitting Surface	Basic Type	Foot Type	Rod-side Flange Type	Head-side Flange Type	Single Thread CLEVIS Type	Double Thread CLEVIS Type	Center-side Trunion Type
기본부속품 Basic Mounted parts							
크레비스용 핀 Pin for CLEVIS	-	-	-	-	-	●	-
로드산단너트 Rod-end Nut	●	●	●	●	●	●	●
주요품 Special Order							
1선클레비스형 Single Knuckle Joint	●	●	●	●	●	●	●
2선클레비스형 Double Knuckle Joint	●	●	●	●	●	●	●
벨로우즈 Bellows	●	●	●	●	●	●	●

표준행정표 Standard Stroke Table

I-D(mm)	표준 행정 Standard Stroke	최대행정범위 Max. Stroke Range
125	50, 100, 150, 200, 250, 300	1000
140	50, 100, 150, 200, 250, 300	1000
150	50, 100, 150, 200, 250, 300	1000
160	50, 100, 150, 200, 250, 300	1200
180	50, 100, 150, 200, 250, 300	1400
200	50, 100, 150, 200, 250, 300	1600
250	50, 100, 150, 200, 250, 300, 400	1800
300	50, 100, 150, 200, 250, 300, 400	2000

벨로우즈 재질 및 최고 주위 온도

기호 notation	재질 materials	최고주위온도 Max. Ambient Temperature
J	Nylon Tauplin	60°C
K	Neoprene Cross	110°C

형식 Type

Type	Working	Packing	I-D(mm)
ISL	Oil Supply	Double-acting O-Ring	φ125, φ140, φ150, φ160
ISL N	No Oil Supply	Double-acting Special	φ180, φ200, φ250, φ300
ISL L	Low Hydraulic	Double-acting Special	φ125, φ140, φ150, φ160

지지 금구 부품 품번 Supporting Parts No.

Lot-end I-D(mm)	125	140	150	160	180	200	250	300
푸트형 Foot Type	ISL-LB 125	ISL-LB 140	ISL-LB 150	ISL-LB 160	ISL-LB 180	ISL-LB 200	ISL-LB 250	ISL-LB 300
플랜지형 Flange Type	ISL-F 125	ISL-F 140	ISL-F 150	ISL-F 160	ISL-F 180	ISL-F 200	ISL-F 250	ISL-F 300
1선클레비스형 1 Thread CLEVIS	ISL-CA 125	ISL-CA 140	ISL-CA 150	ISL-CA 160	ISL-CA 180	ISL-CA 200	ISL-CA 250	ISL-CA 300
2선클레비스형 2 Thread CLEVIS	ISL-CB 125	ISL-CB 140	ISL-CB 150	ISL-CB 160	ISL-CB 180	ISL-CB 200	ISL-CB 250	ISL-CB 300

선단 금구 품번 Lot-end No.

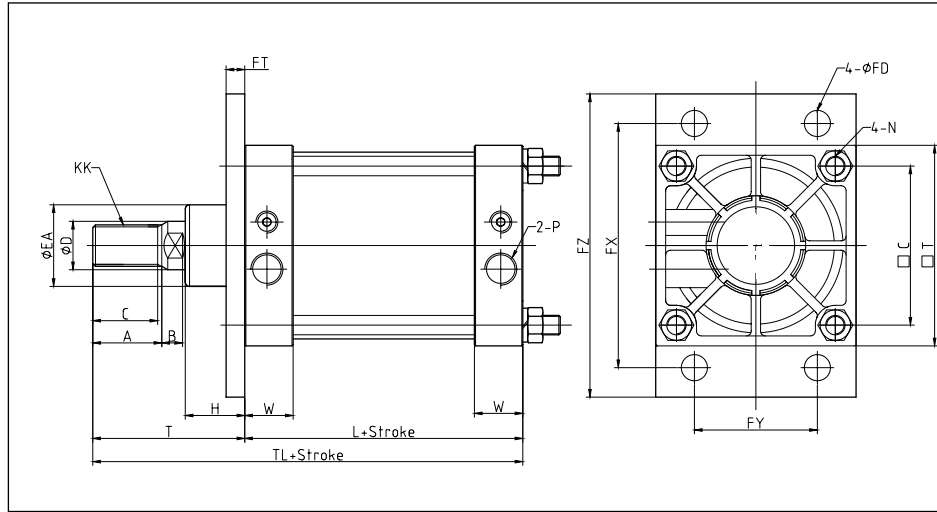
Lot-end I-D(mm)	125	140	150, 160	180	200	250	300
1선클레비스형 1 Thread CLEVIS	ISL-125 I	ISL-140 I	ISL-150, 160 I	ISL-180 I	ISL-200 I	ISL-250 I	ISL-300 I
2선클레비스형 2 Thread CLEVIS	ISL-125 Y	ISL-140 Y	ISL-150, 160 Y	ISL-180 Y	ISL-200 Y	ISL-250 Y	ISL-300 Y

대형실린더 ISL 시리즈 LARGE-SIZE ISL SERIES

일반형(FA) General Type(FA)

로드측 플랜지형 (FA) Rod-side Flange Type(FA)

Oil Supply Type ISL-FA / Oilless Type ISL N-FA / Low Hydraulic Type ISL L-FA



단위 unit:mm

I-D(mm)	Stroke Range	C	A	B	D	ØD	ØEA	ØFD	FT	FX	FY	FZ	H	KK	L	P(PT)
125	~1000	47	50	15	115	35	59	19	14	190	100	230	43	M30X1.5	98	1/2
140	~1000	47	50	15	128	35	59	19	20	212	112	255	43	M30X1.5	98	1/2
150	~1200	53	56	17	132	40	59	19	20	228	115	265	43	M36X1.5	106	3/4
160	~1200	53	56	17	144	40	59	19	20	236	118	275	43	M36X1.5	106	3/4
180	~1400	60	63	20	162	45	70	24	25	265	132	320	48	M40X1.5	111	3/4
200	~1600	60	63	20	182	50	74	24	25	280	150	335	48	M45X1.5	111	3/4
250	~1800	67	71	25	225	60	96	29	30	355	180	420	60	M56X2.0	141	1
300	~2000	76	80	30	270	70	96	33	30	400	212	475	60	M64X2.0	146	1

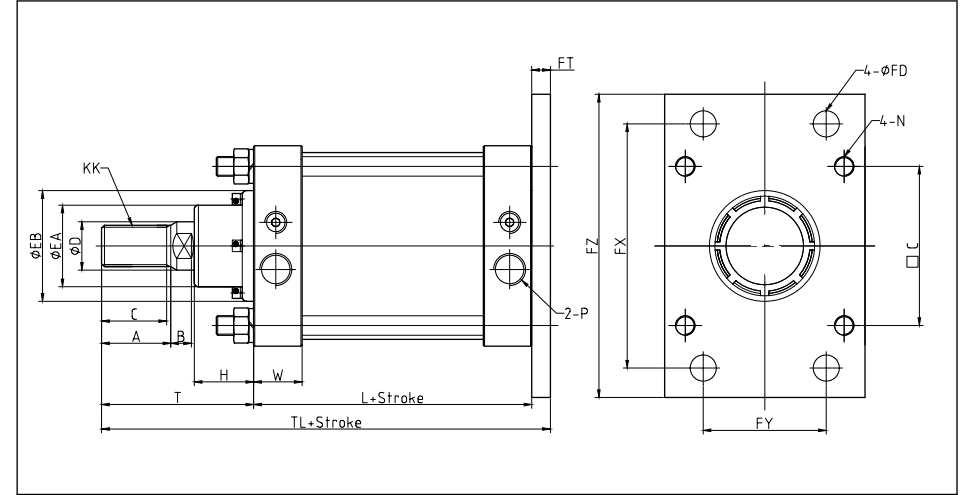
I-D(mm)	N	□T	T	TL	W
125	M14X1.5	145	110	235	35
140	M14X1.5	161	110	235	35
150	M16X1.5	170	120	256.5	39
160	M16X1.5	184	120	256.5	39
180	M18X1.5	204	135	281	39
200	M20X1.5	226	135	281	39
250	M24X1.5	277	160	342.5	49
300	M30X1.5	330	175	372.5	49

대형실린더 ISL 시리즈 LARGE-SIZE ISL SERIES

일반형(FB) General Type(FB)

헤드측 플랜지형 (FB) Head-side Flange Type(FB)

Oil Supply Type ISL-FB / Oilless Type ISL N-FB / Low Hydraulic Type ISL L-FB



단위 unit:mm

I-D(mm)	Stroke Range	C	A	B	D	ØD	ØEA	ØEB	ØFD	FT	FX	FY	FZ	H	KK	L	P(PT)
125	~1000	47	50	15	115	35	59	90	19	14	190	100	230	43	M30X1.5	98	1/2
140	~1000	47	50	15	128	35	59	90	19	20	212	112	255	43	M30X1.5	98	1/2
150	~1200	53	56	17	132	40	59	90	19	20	228	115	265	43	M36X1.5	106	3/4
160	~1200	53	56	17	144	40	59	90	19	20	236	118	275	43	M36X1.5	106	3/4
180	~1400	60	63	20	162	45	70	115	24	25	265	132	320	48	M40X1.5	111	3/4
200	~1600	60	63	20	182	50	74	115	24	25	280	150	335	48	M45X1.5	111	3/4
250	~1800	67	71	25	225	60	96	140	29	30	355	180	420	60	M56X2.0	141	1
300	~2000	76	80	30	270	70	96	140	33	30	400	212	475	60	M64X2.0	146	1

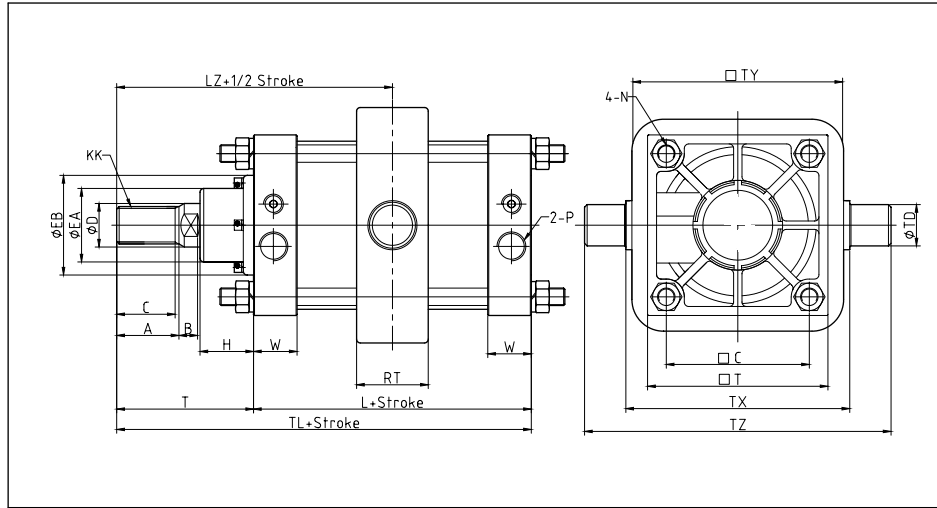
I-D(mm)	N	T	TL	W
125	M14X1.5	110	222	35
140	M14X1.5	110	228	35
150	M16X1.5	120	246	39
160	M16X1.5	120	246	39
180	M18X1.5	135	271	39
200	M20X1.5	135	271	39
250	M24X1.5	160	331	49
300	M30X1.5	175	351	49

대형실린더 ISL 시리즈 LARGE-SIZE ISL SERIES

일반형(TC) General Type(TC)

센터 트러니온형(TC) Center Trunnion Type(TC)

Oil Supply Type ISL-TC / Oilless Type ISLN-TC / Low Hydraulic Type ISLL-TC



단위 Unit:mm

I-D(mm)	Stroke Range	C	A	B	□C	∅D	∅EA	∅EB	H	KK	L	LZ	N	P(PT)	□T	T
125	~1000	47	50	15	115	35	59	90	43	M30X1.5	98	159	M14X1.5	1/2	145	110
140	~1000	47	50	15	128	35	59	90	43	M30X1.5	98	159	M14X1.5	1/2	161	110
150	~1200	53	56	17	132	40	59	90	43	M36X1.5	106	173	M16X1.5	3/4	170	120
160	~1200	53	56	17	144	40	59	90	43	M36X1.5	106	173	M16X1.5	3/4	184	120
180	~1400	60	63	20	162	45	70	115	48	M40X1.5	111	190.5	M18X1.5	3/4	204	135
200	~1600	60	63	20	182	50	74	115	48	M45X1.5	111	190.5	M20X1.5	3/4	226	135
250	~1800	67	71	25	225	60	96	140	60	M56X2.0	141	230.5	M24X1.5	1	277	160
300	~2000	76	80	30	270	70	96	140	60	M64X2.0	146	248	M30X1.5	1	330	175

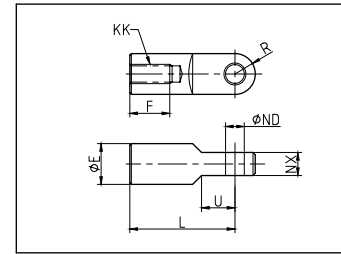
I-D(mm)	RT	∅TD	TL	TX	□TY	TZ	W
125	50	32 ^{+0.05} _{-0.09}	208	170	164	234	35
140	55	36 ^{+0.05} _{-0.09}	208	190	184	262	35
150	59	40 ^{+0.05} _{-0.09}	226	200	192	275	39
160	59	40 ^{+0.05} _{-0.09}	226	212	204	292	39
180	60	45 ^{+0.05} _{-0.09}	246	236	228	326	39
200	60	45 ^{+0.05} _{-0.09}	246	265	257	355	39
250	69	56 ^{+0.05} _{-0.10}	301	335	325	447	49
300	79	67 ^{+0.05} _{-0.16}	321	400	390	534	49

대형실린더 ISL 시리즈 LARGE-SIZE ISL SERIES

부속 금구 Parts-end

1산 너클 조인트 Single-Thread Knuckle Joint

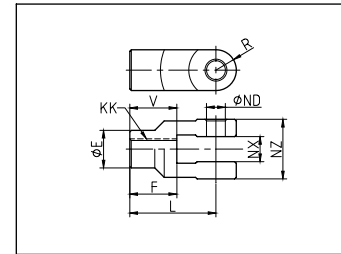
단위 Unit:mm



I-D(mm)	∅E	F	KK	L	∅ND	NX	R	U
125	46	54	M30X1.5	100	25 ^{+0.08} ₀	32 ^{+0.1} _{-0.3}	27	33
140	48	54	M30X1.5	105	28 ^{+0.08} ₀	36 ^{+0.1} _{-0.3}	30	39
150,160	55	60	M36X1.5	110	32 ^{+0.10} ₀	40 ^{+0.1} _{-0.3}	34	39
180	70	67	M40X1.5	125	40 ^{+0.10} ₀	50 ^{+0.1} _{-0.3}	42.5	44
200	70	67	M45X1.5	125	40 ^{+0.10} ₀	50 ^{+0.1} _{-0.3}	42.5	44
250	86	75.5	M56X2	160	50 ^{+0.10} ₀	63 ^{+0.1} _{-0.3}	53	66
300	105	84.5	M64X2	175	63 ^{+0.12} ₀	80 ^{+0.1} _{-0.3}	66	71

2산 너클조인트 Double-Thread Knuckle Joint

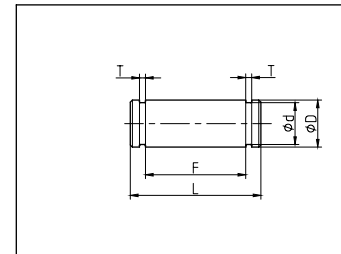
단위 Unit:mm



I-D(mm)	∅E	KK	L	∅ND	NX	NZ	R	F	V
125	46	M30X1.5	100	25 ^{+0.08} ₀	32 ^{+0.1} _{-0.3}	64 ^{+0.1} _{-0.3}	27	38	58
140	48	M30X1.5	105	28 ^{+0.08} ₀	36 ^{+0.1} _{-0.3}	72 ^{+0.1} _{-0.3}	30	38	58
150,160	55	M36X1.5	110	32 ^{+0.10} ₀	40 ^{+0.1} _{-0.3}	80 ^{+0.1} _{-0.3}	34	40	64
180	70	M40X1.5	125	40 ^{+0.10} ₀	50 ^{+0.1} _{-0.3}	100 ^{+0.1} _{-0.3}	42.5	43	71
200	70	M45X1.5	125	40 ^{+0.10} ₀	50 ^{+0.1} _{-0.3}	100 ^{+0.1} _{-0.3}	42.5	43	71
250	86	M56X2	160	50 ^{+0.10} ₀	63 ^{+0.1} _{-0.3}	126 ^{+0.1} _{-0.3}	53	47	79
300	105	M64X2	175	63 ^{+0.12} ₀	80 ^{+0.1} _{-0.3}	160 ^{+0.1} _{-0.3}	66	50	78

너클 클레비스형 핀 Knuckle CLEVIS Type Pin

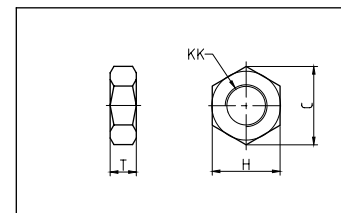
단위 Unit:mm



I-D(mm)	∅D	∅d	L	F	T
125	25 ^{+0.06} _{-0.11}	23.5	72	64.3	1.35
140	28 ^{+0.06} _{-0.11}	26	80.6	72.3	1.65
150,160	32 ^{+0.08} _{-0.14}	29.5	89.6	80.3	1.65
180,200	40 ^{+0.08} _{-0.14}	37	110.1	100.3	1.9
250	50 ^{+0.08} _{-0.14}	46	138.9	126.5	2.2
300	63 ^{+0.10} _{-0.17}	59	172.9	160.5	2.2

로드너트 Rod nut

단위 Unit:mm



I-D(mm)	C	H	KK	T
125,140	53.1	46	M30X1.5	18
150,160	63.5	55	M36X1.5	21
180	69.3	60	M40X1.5	23
200	80.8	70	M45X1.5	27
250	98.1	85	M56X1.5	34
300	110	95	M64X1.5	38

대형실린더 ISL 시리즈 LARGE-SIZE ISL SERIES

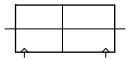
양로드형 Double-rod Type

형식 표시 방법 Indication of Model

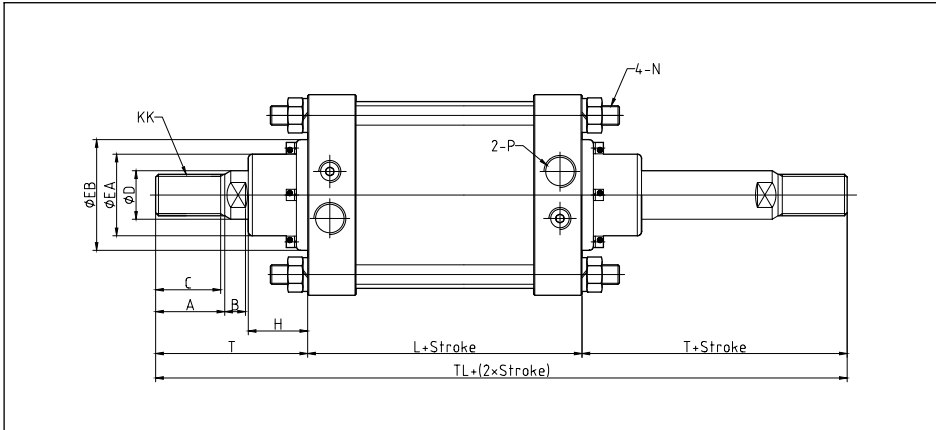
ISL W (형식 Type) 튜브내경 I-D(mm) 취부지형식 mounting type 튜브내경 I-D(mm) 행정 / Stroke 선단금구 Lot-end

※ISL 시리즈 일반형 형식 표기 방법 참조
Refer to method for indication of general type of ISL series.

표시기호 Notation



외형 치수도/기본형 Outside Dimension Drawings/Basic Type



단위 unit:mm

I-D(mm)	Stroke Range	C	A	B	T	ØD	ØEA	ØEB	H	KK	L	N	P(PT)	TL
125	~1000	47	50	15	110	35	59	90	43	M30X1.5	98	M14X1.5	1/2	318
140	~1000	47	50	15	110	35	59	90	43	M30X1.5	98	M14X1.5	1/2	318
150	~1200	53	56	17	120	40	59	90	43	M36X1.5	106	M16X1.5	3/4	346
160	~1200	53	56	17	120	40	59	90	43	M36X1.5	106	M16X1.5	3/4	346
180	~1400	60	63	20	135	45	70	115	48	M40X1.5	111	M18X1.5	3/4	381
200	~1600	60	63	20	135	50	74	115	48	M45X1.5	111	M20X1.5	3/4	381
250	~1800	67	71	25	160	60	96	140	60	M56X2.0	141	M24X1.5	1	461
300	~2000	76	80	30	175	70	96	140	60	M64X2.0	146	M30X1.5	1	496

대형실린더 ISL 시리즈 LARGE-SIZE ISL SERIES

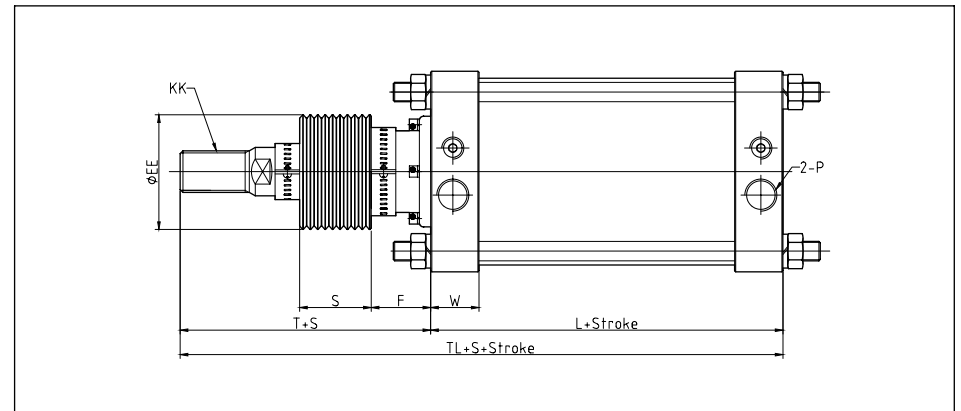
벨로우즈 부착형 Bellows-Mounted Type

형식 표시 방법 Indication of Model

ISL (형식 Type) 튜브내경 I-D(mm) 취부지형식 mounting type 튜브내 I-D(mm) 행정 / Stroke J 선단금구 Lot-end

※벨로우즈 부착형 Bellows-Mounted Type
J: 나일론 테플론 60°C Nylon Teflon
K: 네오프렌크로스 110°C Neoprene Cross

외형 치수도/기본형 Outside Dimension Drawings/Basic Type



단위 unit:mm

I-D(mm)	ØEE	F	KK	N	L	P(PT)	T	TL	S	W
125	90	40	M30X1.5	M14X1.5	98	1/2	133	231	0.2x stroke(mm)	35
140	90	40	M30X1.5	M14X1.5	98	1/2	133	231		35
150	90	40	M36X1.5	M16X1.5	106	3/4	141	247		39
160	90	40	M36X1.5	M16X1.5	106	3/4	141	247		39
180	115	45	M40X1.5	M18X1.5	111	3/4	153	264	39	39
200	115	45	M45X1.5	M20X1.5	111	3/4	153	264	39	39
250	140	55	M56X2.0	M24X1.5	141	1	176	317	0.17x stroke(mm)	49
300	140	55	M64X2.0	M30X1.5	146	1	190	336		49

※기타 표시하지 않은 치수는 ISL 기본형 참조
Dimension which isn't indicated is same with general type of ISL SERIES