



ISTC CO., LTD



Hydraulic Pneumatic Technology Products

# 박형실린더 IF, IDF 시리즈

THIN TYPE CYLINDER  
IF, IDF SERIES



# 박형실린더 IF, IDF 시리즈 THIN TYPE CYLINDER IF, IDF SERIES

Ø12, Ø16, Ø20, Ø25, Ø32, Ø40, Ø50, Ø63, Ø80, Ø100

## > 개요 Summary

박형실린더는 압입, 클램프 및 단스트로크에 최적이며 축방향 길이가 짧아 좁은 공간에서도 무리없이 설치 할수 있고 부착시에도 부착 금구류가 필요없이 볼트만으로 체결할 수 있도록 설계되었으며 몸체의 외곽을 특수 아노다이징 처리하여 외관이 미려하다. The thin-type cylinder is best suitable for press fit, clamp and stroke. As the length in the shaft direction is shorter than the conventional one, it can be easily installed in a narrow space. It is also designed to be fastened only by bolts with no need of other fastening tools. The surface is coated by anodizing, so the outer part is elegant.

## > 이론출력표 Table of theoretical outputs

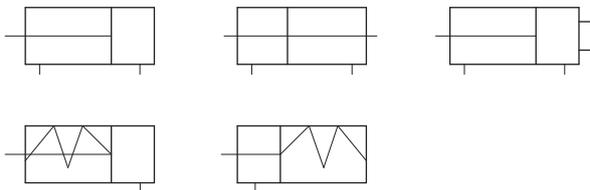
### 단동형 Single acting type

specification	inside diameter of tube (mm)	set pressure (kgf/cm <sup>2</sup> )			stroke start	stroke end	ROD end load (MAX)
		3	5	7			
forward type	20	7.8	14.1	20.3	1.6	0.6	0.67
	32	21.7	37.8	53.8	2.4	1.5	1.77
	40	34.5	59.7	84.8	3.1	1.3	1.77
	50	52.9	92.1	131.4	5.5	2.5	3.1
backward type	20	4.2	8.9	13.6	2.8	0.5	0.67
	32	15.0	27.1	39.2	3.0	2.0	1.77
	40	28.6	49.7	70.8	3.0	2.0	1.77
	50	40.9	73.9	106.0	8.5	2.5	3.1

### 복동형 Double-acting type

inside diameter of tube (mm)	working direction	set pressure (kgf/cm <sup>2</sup> )		
		3	5	7
12	IN	2.5	4.2	5.9
	OUT	3.3	5.6	7.9
16	IN	4.5	7.5	10.5
	OUT	6	10	14
20	IN	7	11.7	16.4
	OUT	9.4	15.7	21.9
25	IN	11.3	18.8	26.4
	OUT	14.7	24.5	34.3
32	IN	18	30	42
	OUT	24	40	56
40	IN	31	52	73
	OUT	37	62	87
50	IN	49	82	115
	OUT	58	98	137
63	IN	84	140	196
	OUT	93	155	218
80	IN	136	227	317
	OUT	150	251	352
100	IN	214	357	500
	OUT	236	393	550

## > 표시기호 Symbol



## > 표준행정표 Standard Stroke Table

단위 unit :mm

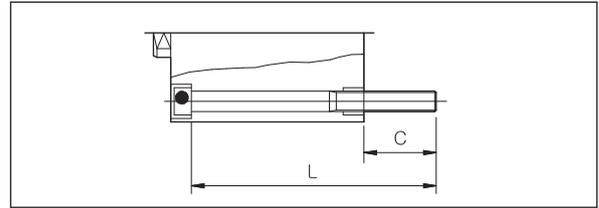
inside diameter of tube (mm)	Double-acting Type			Single-acting Type	
	Single-rod type	Double-rod type	Head-side in ROD types	forward type	backward type
12				5, 10	5, 10
16	5, 10, 15, 20, 25, 30	5, 10, 15, 20, 25, 30	5, 10, 15, 20, 25, 30	5, 10	5, 10
20	5, 10, 15, 20, 25, 30	5, 10, 15, 20, 25, 30	5, 10, 15, 20, 25, 30	5, 10	5, 10
25	35, 40, 45, 50	35, 40, 45, 50	35, 40, 45, 50	5, 10	5, 10
32	5, 10, 15, 20, 25, 30	5, 10, 15, 20, 25, 30	5, 10, 15, 20, 25, 30	5, 10	5, 10
40	35, 40, 45, 50, 75, 100, 125, 150	35, 40, 45, 50	35, 40, 45, 50, 75, 100	5, 10	5, 10
50				10, 20	10, 20
63	10, 15, 20, 25, 30, 35	10, 15, 20, 25, 30, 35	10, 15, 20, 25, 30, 35		
80	40, 45, 50, 75, 100, 125, 150	40, 45, 50	40, 45, 50, 75, 100		
100					

# 박형실린더 IF, IDF 시리즈 THIN TYPE CYLINDER IF, IDF SERIES

취부용 볼트, 취급상 주의사항 Bolt for fitting surface, Caution to handle

## >취부용 볼트 Bolt for fitting surface

Moldel	C	L	Bolt
IF 12B	6.5	25	M3 X 25 $l$
		30	X 30 $l$
		35	X 35 $l$
		40	X 40 $l$
		45	X 45 $l$
		50	X 50 $l$
IF 16B	5	25	M3 X 25 $l$
		30	X 30 $l$
		35	X 35 $l$
		40	X 40 $l$
		45	X 45 $l$
		50	X 50 $l$
IF 20B	7.5	25	M3 X 25 $l$
		30	X 30 $l$
		35	X 35 $l$
		40	X 40 $l$
		45	X 45 $l$
		50	X 50 $l$
		55	X 55 $l$
		60	X 60 $l$
		65	X 65 $l$
		70	X 70 $l$
IF 25B	9.5	30	M5 X 30 $l$
		35	X 35 $l$
		40	X 40 $l$
		45	X 45 $l$
		50	X 50 $l$
		55	X 55 $l$
		60	X 60 $l$
		65	X 65 $l$
		70	X 70 $l$
		75	X 75 $l$
IF 32B	9	30	M5 X 30 $l$
		35	X 35 $l$
		40	X 40 $l$
		45	X 45 $l$
		50	X 50 $l$
		55	X 55 $l$
		60	X 60 $l$
		65	X 65 $l$
		70	X 70 $l$
		75	X 75 $l$
IF 40B	7.5	35	M5 X 35 $l$
		40	X 40 $l$
		45	X 45 $l$
		50	X 50 $l$
		55	X 55 $l$
		60	X 60 $l$
		65	X 65 $l$
		70	X 70 $l$
		75	X 75 $l$
		80	X 80 $l$
IF 50B	12.5	45	M6 X 45 $l$
		50	X 50 $l$
		55	X 55 $l$
		60	X 60 $l$
		65	X 65 $l$
		70	X 70 $l$
IF 63B	14.5	75	M8 X 75 $l$
		80	X 80 $l$
		85	X 85 $l$
		90	X 90 $l$
		95	X 95 $l$
		100	X 100 $l$
		105	X 105 $l$
		110	X 110 $l$
		115	X 115 $l$
		120	X 120 $l$
IF 80B	15	55	M10 X 55 $l$
		60	X 60 $l$
		65	X 65 $l$
		70	X 70 $l$
		75	X 75 $l$
		80	X 80 $l$
		85	X 85 $l$
		90	X 90 $l$
		95	X 95 $l$
		100	X 100 $l$
IF 100B	15.5	65	M10 X 65 $l$
		70	X 70 $l$
		75	X 75 $l$
		80	X 80 $l$
		85	X 85 $l$
		90	X 90 $l$
		95	X 95 $l$
		100	X 100 $l$
		105	X 105 $l$
		110	X 110 $l$



Moldel	C	L	Bolt
IF 50B	12.5	45	M6 X 45 $l$
		50	X 50 $l$
		55	X 55 $l$
		60	X 60 $l$
		65	X 65 $l$
		70	X 70 $l$
		75	X 75 $l$
		80	X 80 $l$
		85	X 85 $l$
		90	X 90 $l$
IF 63B	14.5	75	M8 X 75 $l$
		80	X 80 $l$
		85	X 85 $l$
		90	X 90 $l$
		95	X 95 $l$
		100	X 100 $l$
		105	X 105 $l$
		110	X 110 $l$
		115	X 115 $l$
		120	X 120 $l$
IF 80B	15	55	M10 X 55 $l$
		60	X 60 $l$
		65	X 65 $l$
		70	X 70 $l$
		75	X 75 $l$
		80	X 80 $l$
		85	X 85 $l$
		90	X 90 $l$
		95	X 95 $l$
		100	X 100 $l$
IF 100B	15.5	65	M10 X 65 $l$
		70	X 70 $l$
		75	X 75 $l$
		80	X 80 $l$
		85	X 85 $l$
		90	X 90 $l$
		95	X 95 $l$
		100	X 100 $l$
		105	X 105 $l$
		110	X 110 $l$

(주) IDF 취부볼트 (note) IDF Bolt for fitting surface

1) IDF시리즈는 IF시리즈보다 몸체(BODY)의 길이가 10mm 길어지므로 취부용 볼트는 IF시리즈보다 10mm 추가하여 선택하십시오.

1) Body length of IDF series is 10mm longer than that of IF series. So, mounting bolt should be 10mm longer than that of IF series.

예) ex) F40B-S20▶M5×50L IDF40B-S20▶M5×60L

## >취급상 주의사항 Cautions for using

1. 취부할 때는 접속배관 부위를 청결하게 하여야 하며 실린더 내부에는 분진이나 철분이 들어가지 않도록 주의하여 주십시오.
  2. 피스톤로드의 하중을 항상 축방향에 가까운 상태에서 사용하여 주십시오.
  3. 피스톤로드의 작동부에 찍힘이나 긁힘이 없도록 주의하여 주십시오.  
특히, 단동, 인입형, 복동형의 경우에는 로드패킹이 손상되는 원인이 됩니다.
  4. 보수 및 분해시에는 로드축의 C형 스냅링은 C형 공구를 사용하여 분리하여 주십시오.
1. When mounting, clean the connected pipe and protect dust and iron-dust from entering cylinder.
  2. The load of piston rod should always closer to shaft direction.
  3. Don't make a scraping or scratching at the working part of piston rod. Expecially, it can result in a rod packing in single-acting, lead-in type and double acting type.
  4. In case of Maintaining and disassembling it, use C type. In case of snap ring, use C type tools.

\*주1)표준행정은 전후 5mm 단위로 준비됨

주2)중간행정(55,60,65,70)의 경우는 75 행정과 본체에 각각 20,15,10,5mm폭의 스페이스를 끼운 것이므로 치수관계는 75행정과 동일한 치수로 되어있고, 중간행정(80,85,90,95)의 경우는 100행정 본체에 각각 20,15,10,5mm폭의 스페이스를 끼운 것이므로 치수는 100행정과 같다.

note1)Standard stroke is prepared within 5mm units before and behind.

note2) In case of Mid stroke(55,60,65,70), it puts space of 20,15,10,5mm between 75 stroke and main body, so the dimension is same with 75 stroke. In case of Mid stroke(80,85,90,95), it puts space of 20,15,10,5mm between 100 stroke and main body, so the dimension is same with 100 stroke.

# 박형실린더 IF 시리즈 THIN TYPE CYLINDER IF SERIES

## 형식/사양 Type/Specification



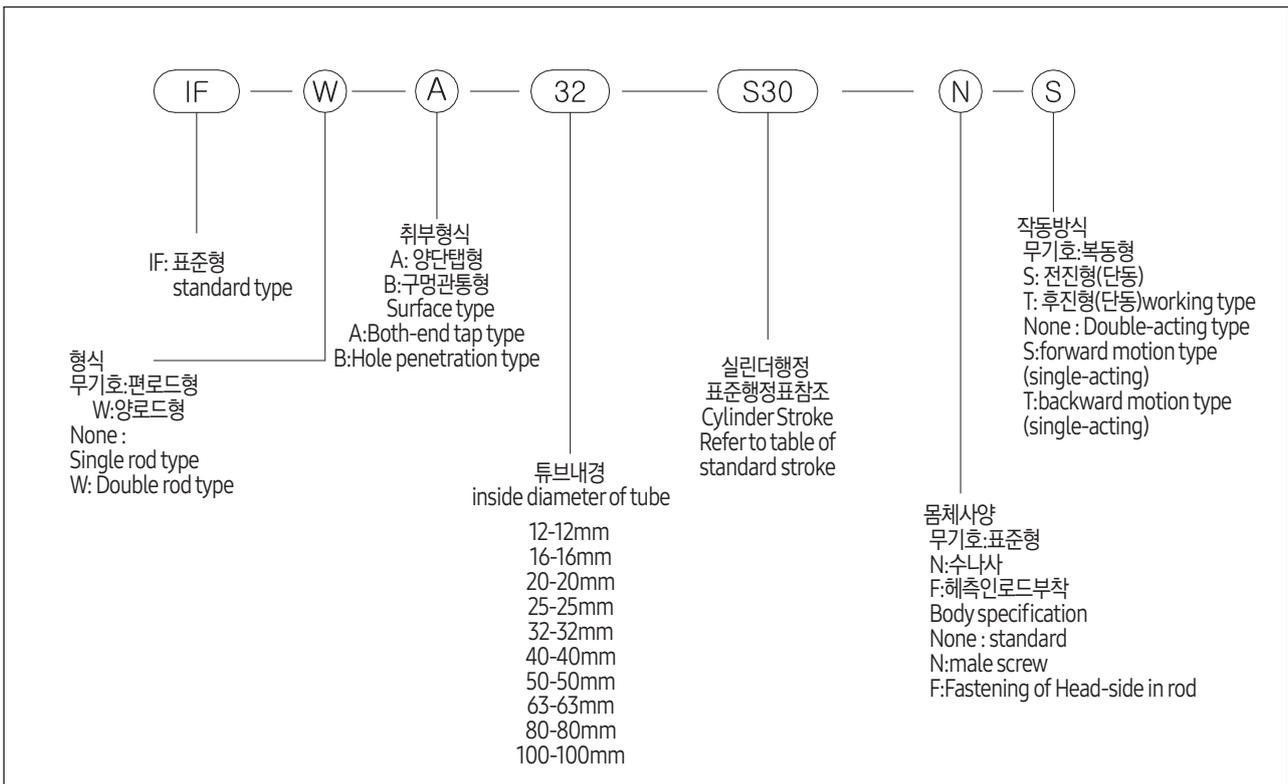
### > 표준사양 Standard specification

형식 Type	무급유형 Oilless Type
사용유체 Working Fluid	공기 Air
시험압력 Test Pressure	15.3kgf/cm <sup>2</sup>
최고사용압력 Max. set pressure	10.2kgf/cm <sup>2</sup>
사용온도 Working Temperature	-10°C~+70°C 동결이 없을 것(No freezing)
쿠션 Cushion	none
로드끝단나사 Rod-end screw	암나사 female screw, 수나사 male screw
로드끝단 나사 공차 Rod-end screw tolerance	KS2급 2nd KS level
행정길이의 허용차 Allowance of stroke length	+1.0 0
취부형식 Mounted Type	구멍 관통형, 양단탭형 Hole penetration type, Both-end tap type
사용피스톤속도 working piston speed	50-500mm/s

### > 최저사용압력 Min. working pressure (kgf/cm<sup>2</sup>)

형식 Model	내경 inside diameter	12	16	20	25	32	40	50	63	80	100
복동형 Double-acting type		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
단동형(전진형, 후진형) single-acting type(forward motion type, backward motion type)		1.5	1.5	1.8	1.8	1.7	1.5	1.3	—	—	—

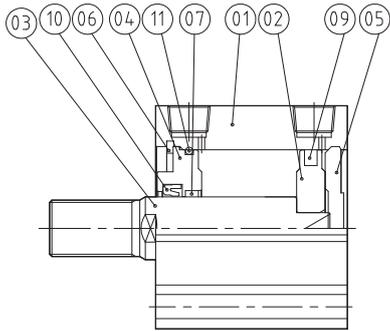
### > 형식표시방법 Indication of Model



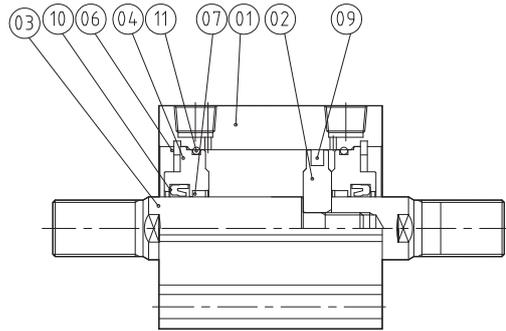
# 박형실린더 IF, IDF 시리즈 THIN TYPE CYLINDER IF, IDF SERIES

## 내부 구조도 Inside structure drawing

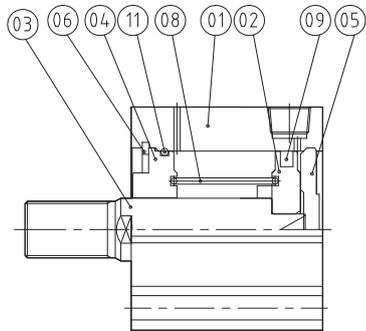
■ **복동 Double Acting**  
**편로드형 Single rod type**



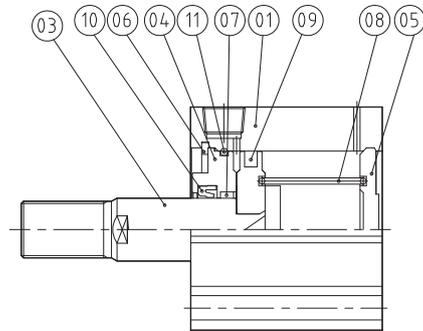
■ **복동 Double Acting**  
**양로드형 Double rod type**



■ **단동 Single-acting**  
**전진형 Forward motion type**



■ **단동 Single-acting**  
**후진형 backward motion type**



### >부품리스트 Parts List

Num	Name	Materials	Remarks
1	TUBE	A6063	
2	PISTON	A2024	
3	ROD	S45C	
4	ROD COVER	A2024	
5	HEAD COVER	A6063	
6	SNAP-RING	SUP	
7	OILLESS	CU+OIL	
8	SPRING	SWP	

### >패킹리스트 Packing List

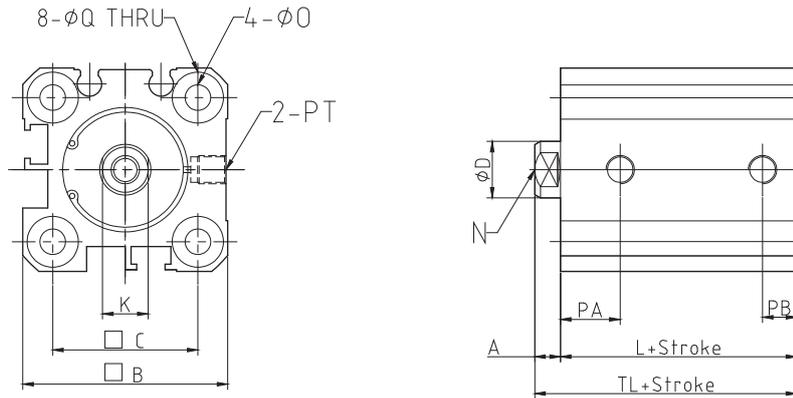
Num	Name	Materials	Inside diameter of tube(mm)									
			Ø12	Ø16	Ø20	Ø25	Ø32	Ø40	Ø50	Ø63	Ø80	Ø100
9	PISTON PACKING	NBR	OPA 12	OPA 16	OPA 20	OPA 25	OPA 32	OPA 40	OPA 50	OPA 63	OPA 80	OPA 100
10	ROD PACKING	NBR	DYR 6K	DYR 8K	DYR 10K	DYR 12	DYR 16	DYR 16	DRP 20	DRP 20	DRP 25	DRP 30
11	TUBE O-RING	NBR	S-10	S-14	S-18	S-22	S-29	S-35	S-45	S-60	S-75	S-95

공기압 참고자료  
공기압 도면기호  
박형 실린더  
소형 실린더  
중형 실린더  
대형 실린더  
오토 스위치  
가이드부착 실린더  
부스터 실린더  
유압실린더 시리즈

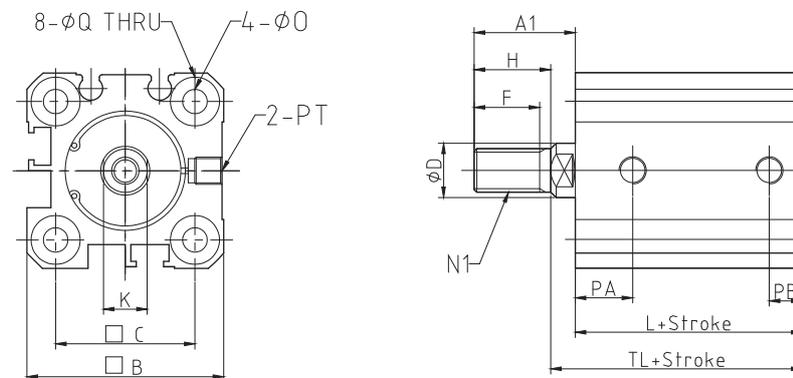
**박형실린더 IF 시리즈** THIN TYPE CYLINDER IF SERIES  
 복동형 Double-Acting Type

**>표준/복동형: 편로드** Standard/Double Acting Type : Single Rod

■ 암나사 Female screw:  $\Phi 12 \sim \Phi 25$



■ 슷나사 Male screw:  $\Phi 12 \sim \Phi 25$



Model	Stroke(mm)	A	A1	□B	□C	∅D	F	H	K	L	N	N1	∅O	PA	PB
IF 12A	5~30	3.5	14	25	15.3	6	9	10.5	5	17	M3X0.5 DP6	M5X0.8	3.5	7.5	5
IF 16A	5~30	3.5	15.5	29	20	8	10	12	6	18.5	M4X0.7 DP8	M6X1.0	3.5	8	5.5
IF 20A	5~50	4.5	18.5	36	25.5	10	12	14	8	19.5	M5X0.8 DP8	M8X1.25	5.5	10.5	6
IF 25A	5~50	5	22.5	40	28	12	15	17.5	10	22.5	M6X1.0 DP12	M10X1.25	5.5	11	5.5

Model	TL	PT	∅Q
IF 12A	20.5	M5X0.8	6.5 Dp3.5
IF 16A	22	M5X0.8	6.5 Dp 3.5
IF 20A	24	M5X0.8	9 Dp 7
IF 25A	27.5	M5X0.8	9 Dp 7

Both-end tap Type

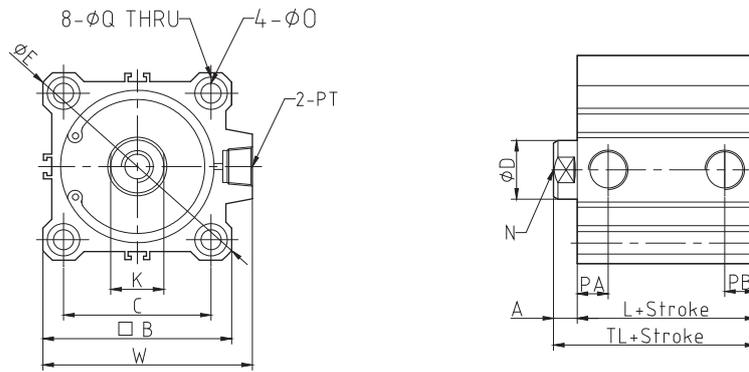
Stroke(mm)	TAP	R
12	M4X0.7	7
16	M4X0.7	7
20	M6X1.0	10
25	M6X1.0	10

# 박형실린더 IF, IDF 시리즈 THIN TYPE CYLINDER IF, IDF SERIES

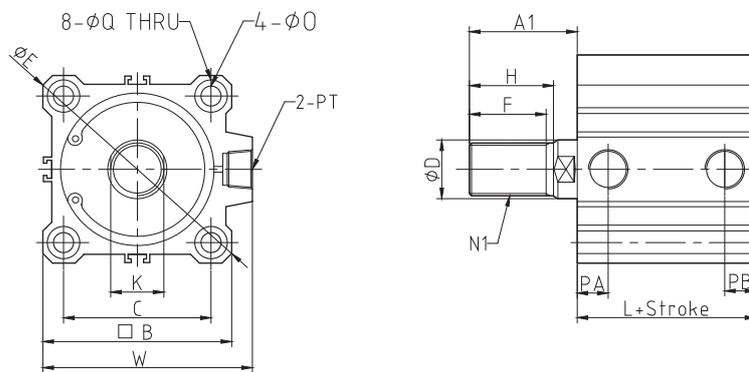
## 복동형 Double-Acting Type

### > 표준/복동형 : 편로드 Standard/Double Acting Type : Single Rod

#### ■ 암나사 Female screw: $\Phi 32 \sim \Phi 100$



#### ■ 숫나사 Male screw: $\Phi 32 \sim \Phi 100$



Model	Stroke(mm)	A	A1	□B	□C	øD	øE	F	H	K	L	N	N1	øO	PA	PB
IF 32A	5	7	28.5	45	34	16	60	20.5	23.5	14	23	M8X1.25 DP13	M14X1.5	5.5	11.5	5.5
	10~100														10.5	7.5
IF 40A	5~100	7	28.5	52	40	16	69	20.5	23.5	14	29.5	M8X1.25 DP13	M14X1.5	5.5	12	8.5
IF 50A	10~100	8	33.5	64	50	20	86	26	28.5	18	30.5	M10X1.5 DP15	M18X1.5	6.8	10.5	10.5
IF 63A	10~100	8	33.5	77	60	20	103	26	28.5	18	36	M10X1.5 DP15	M18X1.5	9	15	11
IF 80A	10~100	10	43.5	98	77	25	132	32.5	35.5	22	43.5	M16X2.0 DP21	M22X1.5	11	18	12.5
IF 100A	10~100	12	43.5	117	94	30	156	32.5	35.5	27	53	M20X2.5 DP27	M26X1.5	11	23	13

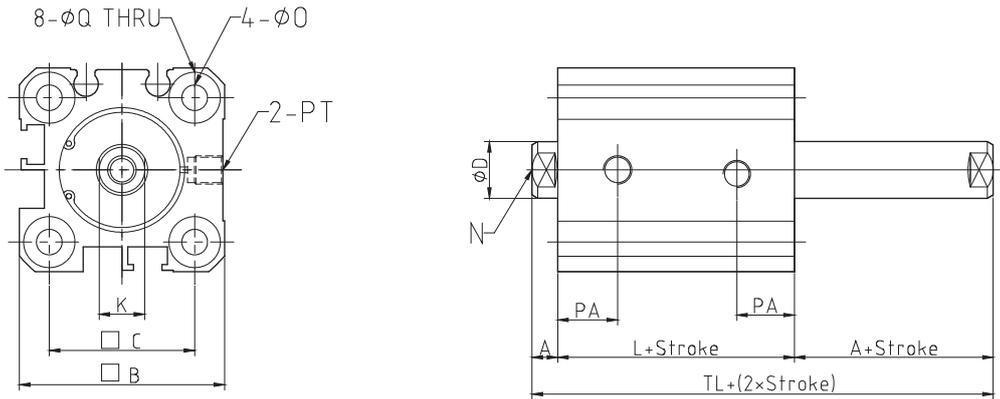
Model	TL	PT	øQ	W
IF 32A	30	M5X0.8	9 Dp7	49.5
		PT 1/8		
IF 40A	36.5	PT 1/8	9 Dp7	57
IF 50A	38.5	PT 1/4	11 Dp8	71
IF 63A	44	PT 1/4	14 Dp10.5	84
IF 80A	53.5	PT 3/8	17.5 Dp13.5	104
IF 100A	65	PT 3/8	17.5 Dp13.5	123.5

Both-end tap Type	Stroke(mm)	TAP	R
		32	M6X1.0
40		M6X1.0	10
50		M8X1.25	14
63		M10X1.5	18
80		M12X1.75	22
100		M12X1.75	22

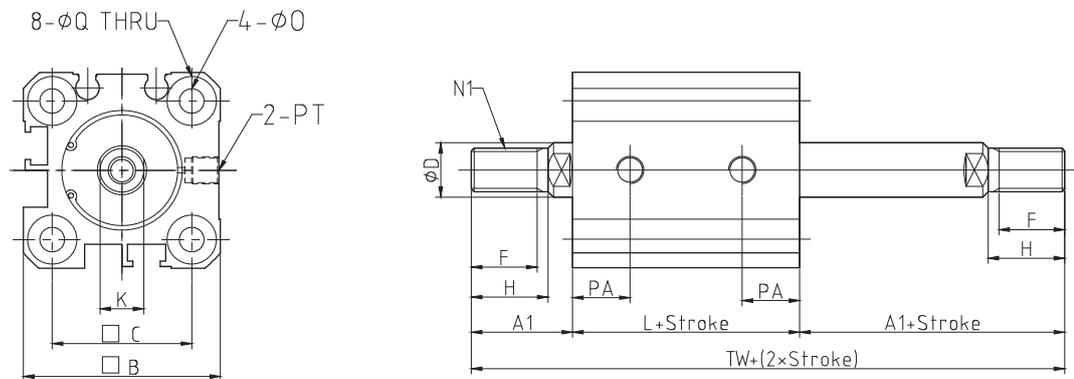
**박형실린더 IF 시리즈 THIN TYPE CYLINDER IF SERIES**  
 복동형 Double-Acting Type

**표준/복동형 : 양로드 Standard/Double acting Type : Double Rod**

■ 암나사 Female screw:  $\Phi 20 \sim \Phi 25$

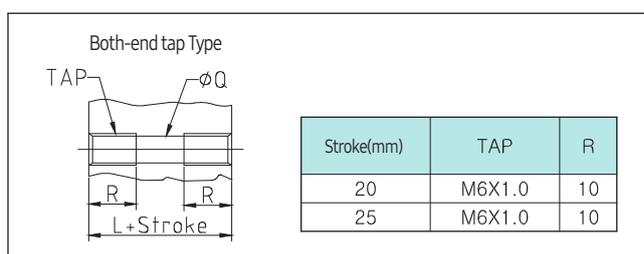


■ 숫나사 Male screw:  $\Phi 20 \sim \Phi 25$



Model	Stroke(mm)	A	A1	□	□C	øD	F	H	K	L	N	N1	øO	PA	PT
IF W 20A	5~50	4.5	18.5	36	25.5	10	12	14	8	26	M5X0.8 DP7	M8X1.25	5.5	10.5	M5X0.8
IF W 25A	5~50	5	22.5	40	28	12	15	17.5	10	29	M6X1.0 DP12	M10X1.25	5.5	11	M5X0.8

Model	øQ	TL	TW
IF W 20A	9 Dp7	35	63
IF W 25A	9 Dp7	39	74

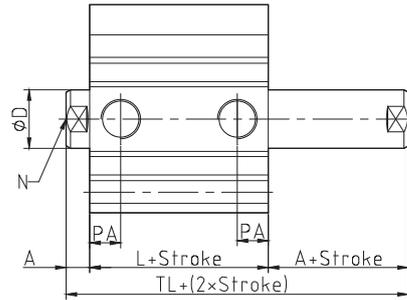
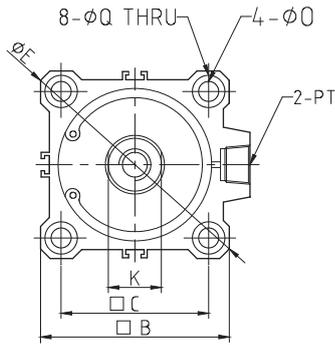


# 박형실린더 IF, IDF 시리즈 THIN TYPE CYLINDER IF, IDF SERIES

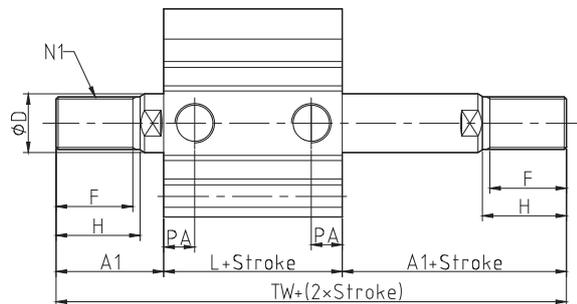
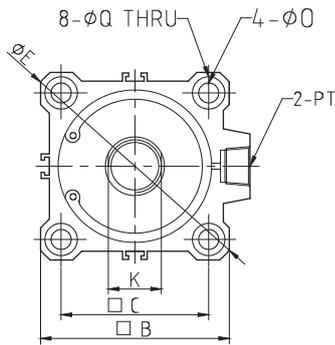
## 복동형 Double-Acting Type

### 표준/복동형 : 양로드 Standard/Double acting Type : Double Rod

#### 암나사 Female screw: $\Phi 32 \sim \Phi 100$



#### 숫나사 Male screw: $\Phi 32 \sim \Phi 100$



Model	Stroke(mm)	A	A1	□B	□C	ØD	ØE	F	H	K	L	N	N1	ØO	PT
IF W 32A	5	7	28.5	45	34	16	60	20.5	23.5	14	30.5	M8X1.25 DP13	M14X1.5	5.5	M5X0.8
	10~100														PT1/8
IF W 40A	5~100	7	28.5	52	40	16	69	20.5	23.5	14	40	M8X1.25 DP13	M14X1.5	5.5	PT1/8
IF W 50A	10~100	8	33.5	64	50	20	86	26	28.5	18	40.5	M10X1.5 DP15	M18X1.5	6.8	PT1/4
IF W 63A	10~100	8	33.5	77	60	20	103	26	28.5	18	42	M10X1.5 DP15	M18X1.5	9	PT1/4
IF W 80A	10~100	10	43.5	98	77	25	132	32.5	35.5	22	51	M16X2.0 DP21	M22X1.5	11	PT3/8
IF W 100A	10~100	12	43.5	117	94	30	156	32.5	35.5	27	60.5	M20X2.5 DP27	M26X1.5	11	PT3/8

Model	PA	ØQ	TL	TW
IF W 32A	11.5	9 Dp7	44.5	87.5
	10.5			
IF W 40A	12	9 Dp7	54	97
IF W 50A	10.5	11 Dp8	56.5	107.5
IF W 63A	15	14 Dp10.5	58	109
IF W 80A	18	17.5 Dp13.5	71	138
IF W 100A	23	17.5 Dp13.5	84.5	147.5

Both-end tap Type	Stroke(mm)	TAP	R
		32	M6X1.0
40		M6X1.0	10
50		M8X1.25	14
63		M10X1.50	18
80		M12X1.75	22
100		M12X1.75	22

# 박형실린더 IF 시리즈 THIN TYPE CYLINDER IF SERIES

가변행정 실린더, 전진시 조정형 Control Stroke Cylinder, Control type of Forward Motion

## >형식 표시 방법 Indication of Model



실린더 전진시 행정을 전 행정에서 0-50mm 까지 가변조정 가능합니다.  
헤드측에 행정조정기구를 설치, 출력 즉 행정조정을 행합니다.

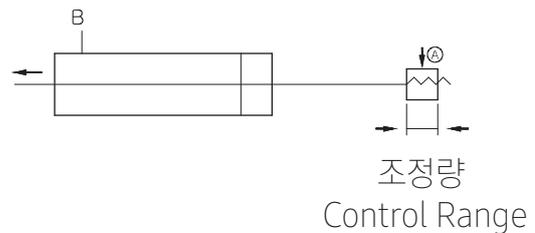
In case of forward motion of cylinder, can have a variable control to 0-50 mm from former stroke.  
Install stroke controlling equipment to Head side and control stroke and output

A: 행정조정범위 Range of stroke control 0~25m/m  
B: 행정조정범위 Range of stroke control 0~50m/m

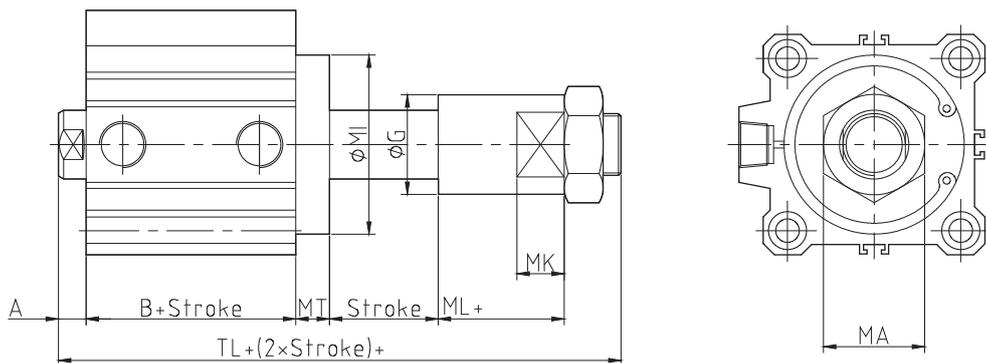
## >사양 Specification

형식 type	무급유형 Oilless Type
튜브 내경 Inside diameter of tube	Ø20, Ø25, Ø32, Ø40, Ø50, Ø63, Ø80, Ø100
작동방식 Operating Type	복동 double-acting
사용유체 Working Fluid	공기 air
행정조정방법 Stroke Control	STOPER 조정 control
행정조정범위 Range of stroke control	0~50mm
취부형식 Mounted Type	관통구멍형 Hole penetration type
최저사용압력 Min. set pressure	0.5kgf/cm <sup>2</sup>
쿠션 Cushion	없음 none

## >표시기호 Symbol



### ■ Ø20~Ø100



단위 unit: mm

Inside diameter of tube	A	B	TL	MT	ØMI	MA	MK	ØG	ML
20	4.5	26	61	8	36	17	10	20	12.5
25	5	29	64.5	8	40	17	10	20	12.5
32	7	30.5	72.5	6	38	24	14	27	16
40	7	40	82	6	46	24	14	27	16
50	8	40.5	91.5	8	57	30	16	35	20
63	8	42	95	10	68	30	16	35	20
80	12	51	119	12	90	41	20	48	28
100	12	60.5	134.5	14	100	41	20	48	28

※기타 표기하지 않는 치수는 IF 시리즈 일반형과 동일  
※The other numbers is same as general IF series.

공기압 힘고저표  
공기압 도면기호  
박형 실린더  
스텝 실린더  
중형 실린더  
대형 실린더  
오토 스위치  
가이드부착 실린더  
부스터 실린더  
유압실린더 시리즈

# 박형실린더 IDF 시리즈 THIN TYPE CYLINDER IDF SERIES

사양, 형식표시방법 Specification, Indication of Model



## >표준사양 Standard specification

형식 Type	무급유형 Oilless Type
사용유체 Working Fluid	공기 Air
시험압력 Test Pressure	15.3kgf/cm <sup>2</sup>
최고사용압력 Max. set pressure	10.2kgf/cm <sup>2</sup>
사용온도 Working Temperature	-10°C~+70°C 동결이 없을 것(No freezing)
쿠션 Cushion	none
로드끝단나사 Rod-end screw	암나사 female screw, 수나사 male screw
로드끝단 나사 공차 Rod-end screw tolerance	KS2급 2nd KS level
행정길이의 허용차 Allowance of stroke length	0-50 <sup>+10</sup> <sub>0</sub>
취부형식 Mounted Type	구멍 관통형, 양단탭형 Hole penetration type, Both-end tap type

## >오토스위치 부착 가능 최소 행정

Number to mount auto switch Min. stroke

Auto switch	Min.stroke
1EA	5mm
2EA	10mm

## >형식표시방법 Indication of Model

**IDF**

IDF: 마그네트 내장형  
오토스위치 부착형  
Magnet built in type  
Mounted Auto Switch

**W**

형식  
무기호:편로드형 W: 양로드형  
None:  
Single rod type  
W: Double rod type

**A**

취부형식  
A: 양단탭형  
B: 구멍관통형  
fitting Surface type  
A:Both-end tap type  
B:Hole penetration type

**40**

튜브내경  
inside diameter of tube  
12-12mm  
16-16mm  
20-20mm  
25-25mm  
32-32mm  
40-40mm  
50-50mm  
63-63mm  
80-80mm  
100-100mm

**S20**

실린더행정  
표준행정표참조  
Cylinder Stroke  
Refer to table of  
standard stroke

**N**

몸체사양  
무기호:암나사  
N:수나사  
Body specification  
None: Female Screw  
N: male screw

**72**

오토스위치 종류 Auto switch

D-A72	AC 220V
D-A73	AC 110V,DC24V
D-A93K	AC 110V,DC24V
D-50V	AC 220V, AC 110V,DC24V

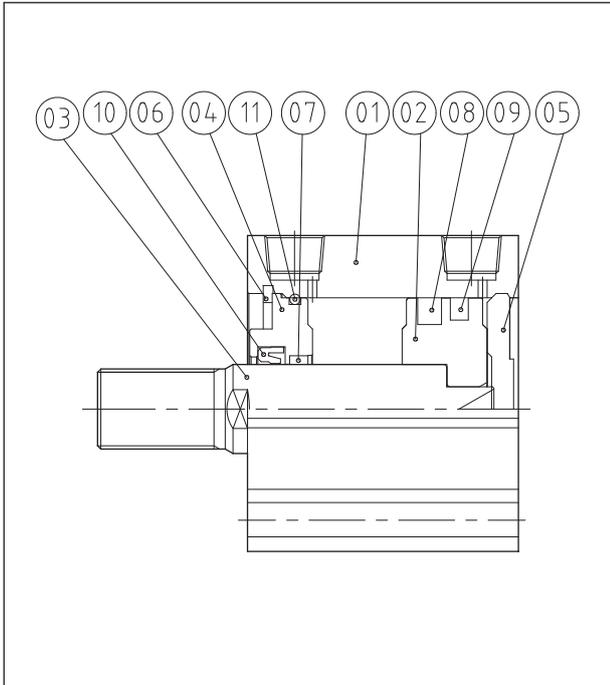
**AS<sub>1</sub>**

오토스위치 부착수량  
Auto switch  
mounted type  
AS1: 1EA  
AS2: 2EA  
AS3: 3EA

# 박형실린더 IDF 시리즈 THIN TYPE CYLINDER IDF SERIES

## 내부 구조도 Inside structure drawing

### >구조도 Structure Drawing



### >부품 리스트 Part List

Num	Name	Materials	Remarks
1	TUBE	A6063	
2	PISTON	A2024	
3	ROD	S45C	
4	ROD COVER	A2024	
5	HEAD COVER	A6063	
6	SNAP-RING	SWP	
7	OILLESS	CU+OIL	Ø50~Ø100

### >패킹 리스트 Packing List

Num	Name	Materials	Inside diameter of tube(mm)									
			Ø12	Ø16	Ø20	Ø25	Ø32	Ø40	Ø50	Ø63	Ø80	Ø100
8	MAGNET	NBR	Ø12	Ø16	Ø20	Ø25	Ø32	Ø40	Ø50	Ø63	Ø80	Ø100
9	PISTON PACKING	NBR	OPA 12	OPA 16	OPA 20	OPA 25	OPA 32	OPA 40	OPA 50	OPA 63	OPA 80	OPA 100
10	ROD PACKING	NBR	DYR 6K	DYR 8K	DYR 10K	DYR 12	DYR 16	DRP 16	DRP 20	DRP 20	DRP 25	DRP 30
11	TUBE O-RING	NBR	S-10	S-14	S-18	S-22	S-29	S-35	S-45	S-60	S-75	S-95

### >오트 스위치의 설정위치 Setting position of Auto Switch

#### ■ Ø12~Ø25

#### ■ Ø32~Ø100

#### ■ 설정위치 Setting position

Inside diameter of tube(mm)	A	B
12	7.5	3
16	7.5	3
20	8	6.5
25	8	6.5
32	9.5	7
40	13.5	9.5
50	13.5	12.5
63	14	15.5
80	17	20
100	21.5	25

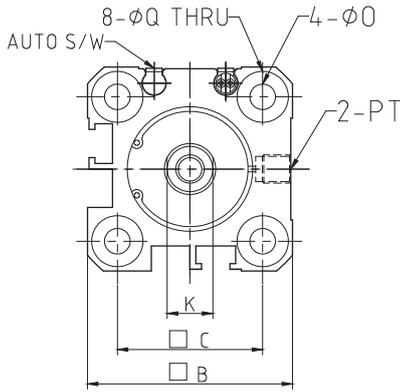
5st(1개 부착) 및 10st(2개 부착)의 경우 동작범위의 관계로 스위치가 OFF하지 않거나 2개의 스위치가 동시에 ON하는 경우가 있으므로 설정할 때는 상기표의 값보다 1-2mm 정도 바깥쪽으로 설치해 주십시오.  
 In case of mounting 5st(mounting 1) or 10st(mounting 2), there are two case that switch isn't turned Off due to working range or two switches turn On.  
 So should set the value 1-2mm outside apart.  
 기입하지 않는 치수는 압출형과 동일  
 The other numbers are the same as press outputs.

# 박형실린더 IDF 시리즈 THIN TYPE CYLINDER IDF SERIES

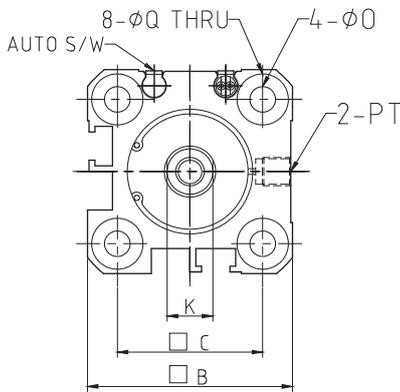
## 복동형 Double-Acting Type

### >표준/복동형 : 편로드 Standard/Double acting Type : Single Rod

#### ■ 암나사 Female screw: $\Phi 12 \sim \Phi 25$



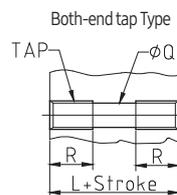
#### ■ 숫나사 Male screw: $\Phi 12 \sim \Phi 25$



단위 unit:mm

Model	Stroke(mm)	A	A1	□B	□C	ØD	F	H	K	L	N	N1	ØO	PA	PT
IDF 12A	5~30	3.5	14	25	15.3	6	9	10.5	5	28.5	M3X0.5 DP6	M5X0.8	3.5	10	M5X0.8
IDF 16A	5~30	3.5	15.5	29	20	8	10	12	6	30.5	M4X0.7 DP8	M6X1.0	3.5	10	M5X0.8
IDF 20A	5~50	4.5	18.5	36	25.5	10	12	14	8	31.5	M5X0.8 DP8	M8X1.25	6	10.5	M5X0.8
IDF 25A	5~50	5	22.5	40	28	12	15	17.5	10	32.5	M6X1.0 DP12	M10X1.25	5.5	11	M5X0.8

Model	PB	ØQ	TL
IDF 12A	5.5	6.5 Dp3.5	31.5
IDF 16A	5.5	6.5 Dp3.5	34
IDF 20A	5.5	9 Dp7	36
IDF 25A	5.5	9 Dp7	37.5



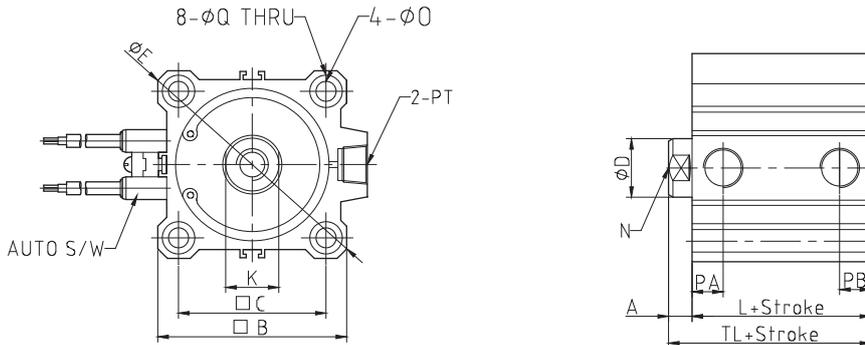
Stroke(mm)	TAP	R
12	M4X0.7	7
16	M4X0.7	7
20	M6X1.0	10
25	M6X1.0	10

공기압 참고자료  
공기압 도면기호  
박형 실린더  
소형 실린더  
중형 실린더  
대형 실린더  
오토 스위치  
가이드부착 실린더  
부스터 실린더  
유압실린더 시리즈

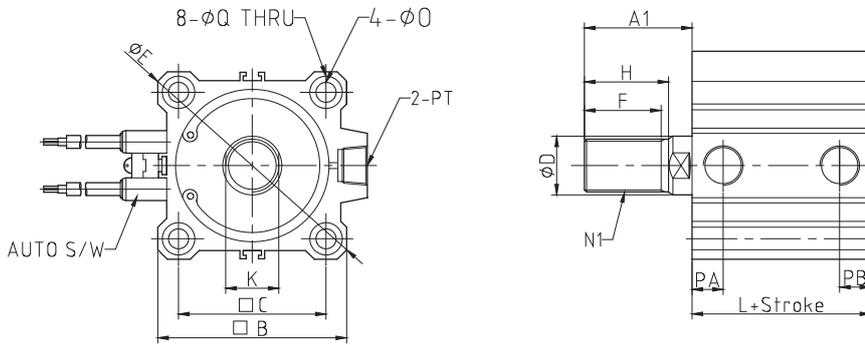
**박형실린더 IDF 시리즈** THIN TYPE CYLINDER IDF SERIES  
복동형 Double-Acting Type

**표준/복동형:편로드** Standard/Double-acting Type: Single Rod

■ 암나사 Female screw:  $\Phi 32 \sim \Phi 100$



■ 숫나사 Male screw:  $\Phi 32 \sim \Phi 100$



단위 unit:mm

Model	Stroke(mm)	A	A1	□B	□C	ØD	ØE	F	H	K	L	N	N1	ØO	PA	PB
IDF 32A	5~100	7	28.5	45	34	16	60	20.5	23.5	14	33	M8X1.25 DP13	M14X1.5	5.5	10.5	7.5
IDF 40A	5~100	7	28.5	52	40	16	69	20.5	23.5	14	39.5	M8X1.25 DP13	M14X1.5	5.5	12	8.5
IDF 50A	10~100	8	33.5	64	50	20	86	26	28.5	18	40.5	M10X1.5 DP15	M18X1.5	6.8	10.5	10.5
IDF 63A	10~100	8	33.5	77	60	20	103	26	28.5	18	46	M10X1.5 DP15	M18X1.5	9	15	11
IDF 80A	10~100	10	43.5	98	77	25	132	32.5	35.5	22	53.5	M16X2.0 DP21	M22X1.5	11	18	12.5
IDF 100A	10~100	12	43.5	117	94	30	156	32.5	35.5	27	63	M20X2.5 DP27	M26X1.5	11	23	13

Model	PT	ØQ	TL
IDF 32A	PT 1/8	9 Dp7	40
IDF 40A	PT 1/8	9 Dp7	46.5
IDF 50A	PT 1/4	11 Dp8	48.5
IDF 63A	PT 1/4	14 Dp10.5	54
IDF 80A	PT 3/8	17.5 Dp13.5	63.5
IDF 100A	PT 3/8	17.5 Dp13.5	75

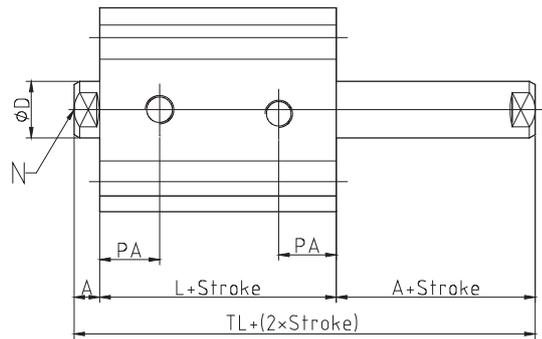
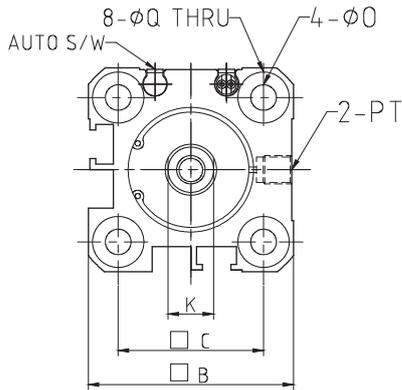
Both-end tap Type TAP	Stroke(mm)	TAP	R
	32	M6X1.0	10
40	M6X1.0	10	
50	M8X1.25	14	
63	M10X1.5	18	
80	M12X1.75	22	
100	M12X1.75	22	

# 박형실린더 IDF 시리즈 THIN TYPE CYLINDER IDF SERIES

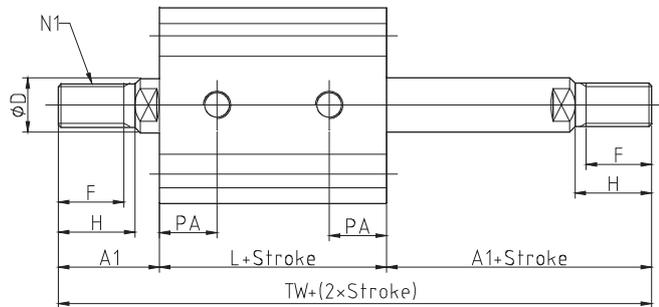
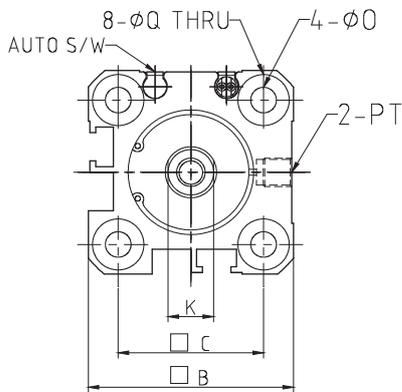
## 복동형 Double-Acting Type

### 표준/복동형 : 양로드 Standard/Double acting Type : Double Rod

#### 암나사 Female screw: $\Phi 12 \sim \Phi 25$



#### 숫나사 Male screw: $\Phi 12 \sim \Phi 25$

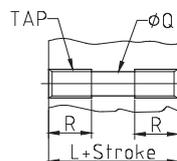


단위 unit:mm

Model	Stroke(mm)	A	A1	ØB	ØC	ØD	F	H	K	L	N	N1	ØO	PA	PT
IDF W 20A	5~50	4.5	18.5	36	25.5	10	12	14	8	38	M5X0.8 DP7	M8X1.25	5.5	10.5	M5X0.8
IDF W 25A	5~50	5	22.5	40	28	12	15	17.5	10	39	M6X1.0 DP12	M10X1.25	5.5	11	M5X0.8

Model	ØQ	TL	TW
IDF W 20A	9 Dp7	47	75
IDF W 25A	9 Dp7	49	84

#### Both-end tap Type

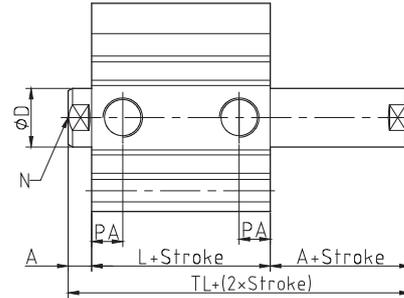
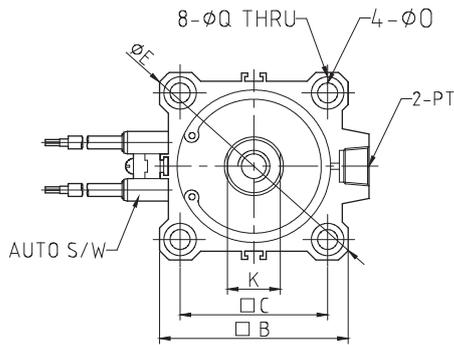


Stroke(mm)	TAP	R
20	M6X1.0	10
25	M6X1.0	10

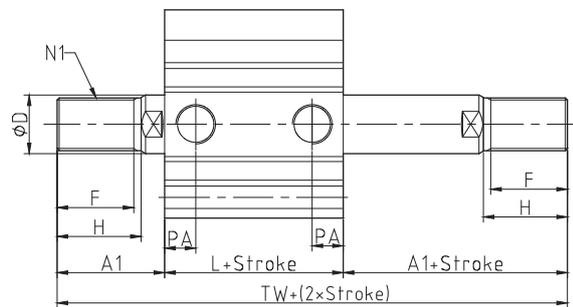
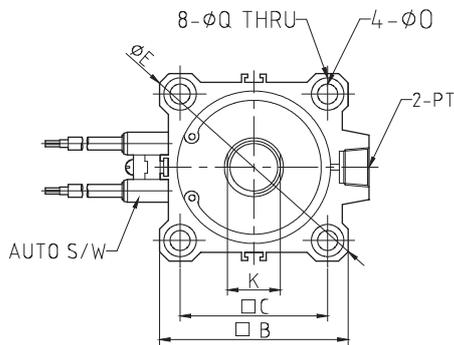
**박형실린더 IDF 시리즈** THIN TYPE CYLINDER IDF SERIES  
 복동형 Double-Acting Type

**> 표준/복동형:양로드** Standard/Double acting Type : Double Rod

■ 암나사 Female screw:  $\Phi 32 \sim \Phi 100$



■ 숫나사 Male screw:  $\Phi 32 \sim \Phi 100$



단위 unit:mm

Model	Stroke(mm)	A	A1	□B	□C	ØD	ØE	F	H	K	L	N	N1	ØO	PT
IDF 32A	5~100	7	28.5	45	34	16	60	20.5	23.5	14	40.5	M8X1.25 DP13	M14X1.5	5.5	PT 1/8
IDF 40A	5~100	7	28.5	52	40	16	69	20.5	23.5	14	50	M8X1.25 DP13	M14X1.5	5.5	PT 1/8
IDF 50A	10~100	8	33.5	64	50	20	86	26	28.5	18	50.5	M10X1.5 DP15	M18X1.5	6.8	PT 1/4
IDF 63A	10~100	8	33.5	77	60	20	103	26	28.5	18	52	M10X1.5 DP15	M18X1.5	9	PT 1/4
IDF 80A	10~100	10	43.5	98	77	25	132	32.5	35.5	22	61	M16X2.0 DP21	M22X1.5	11	PT 3/8
IDF 100A	10~100	12	43.5	117	94	30	156	32.5	35.5	27	70.5	M20X2.5 DP27	M26X1.5	11	PT 3/8

Model	PA	ØQ	TL	TW
IDF 32A	10.5	9 Dp7	54.5	97.5
IDF 40A	12	9 Dp7	64	107
IDF 50A	10.5	11 Dp8	66.5	117.5
IDF 63A	15	14 Dp10.5	68	119
IDF 80A	18	17.5 Dp13.5	81	148
IDF 100A	23	17.5 Dp13.5	94.5	157.5

Both-end tap Type	Stroke(mm)	TAP	R
	32	M6X1.0	10
40	M6X1.0	10	
50	M8X1.25	14	
63	M10X1.50	18	
80	M12X1.75	22	
100	M12X1.75	22	