



이 중 잠 금 클 램 프

High Strength Double Lock Clamp



특허 등록 제 10-1935125호
(Patent Number)



KF(NW), MF(DC) FLANGES & ASME BPE STANDARDS

Assembly Instruction



①

클램프 & 플랜지 정렬
Align the clamp & flanges



- 1차 잠금 -

②

오른쪽 잠금 (Clockwise)
Torque 70+/-10kgf.cm



- 2차 잠금 -

③

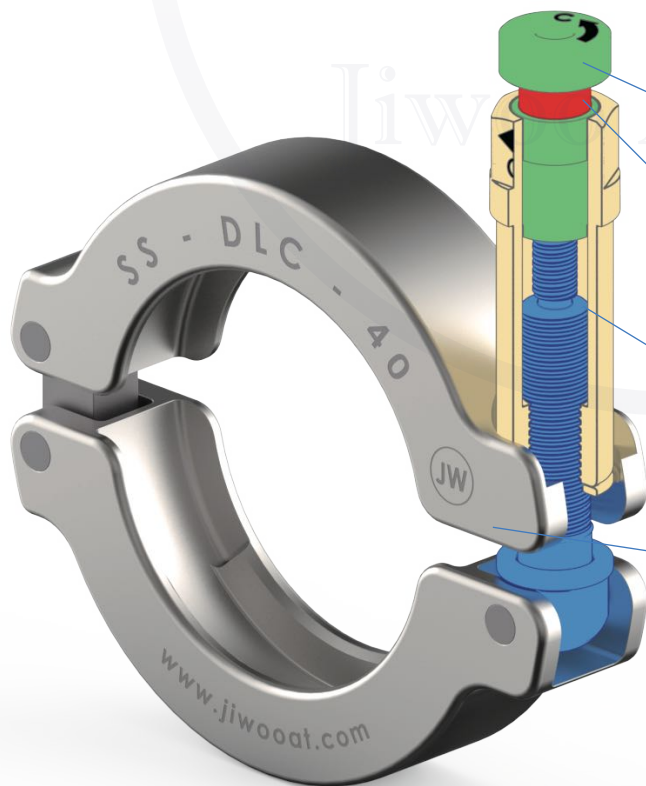
왼나사 잠금 (Anti-Clockwise)
Torque 20+/-5kgf.cm



④

체결완료
Complete

Locking Structure



이차 잠금 나사(왼나사)
Secondary Lock (LH)

아이 마킹 밴드
Eye Marking Band

일차 잠금 나사(오른나사)
Primary Lock (RH)

몸체
Body for KF Flange

Youtube Clip

How to Install
Double Lock Clamp



Advantages



이중 잠금 장치 Double Lock System

A double locking device consisting of primary and secondary screws for complete sealing.

1차 나사와 2차 나사로 구성된 이중 잠금 장치가 장착되어 완전 밀폐가 가능



스테인리스 스틸 Stainless Steel

Stainless steel is used to prevent corrosion and external damage

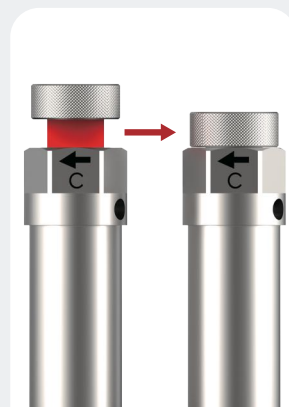
스테인리스 스틸 사용으로 부식 및 외부 충격 등으로 인한 손상 방지



잠금 방향 표시 Lock Direction Indication

Easily installable with the lock direction indication on the primary & secondary lock nuts.

1차 및 2차 잠금 나사에 잠금 방향 표시를 하여 쉽게 설치가 가능



잠금 확인 가능 Eye Marking Function

Easily check the lock status with the red mark on the secondary lock nut.

2차 잠금 너트에 빨강 표시를 하여 잠금 상태를 쉽게 확인 가능



미끄럼 방지 Knurled Handle

A knurled handle is applied to the secondary nut for easy hand assembly.

이차 나사에 Knurled Handle이 적용되어 손으로 쉽게 조립 가능



줄어든 부피/무게 Reduced Volume & Weight

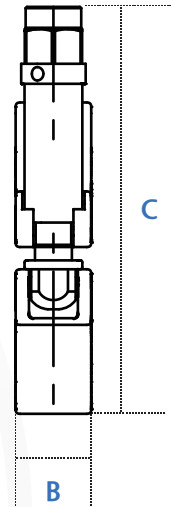
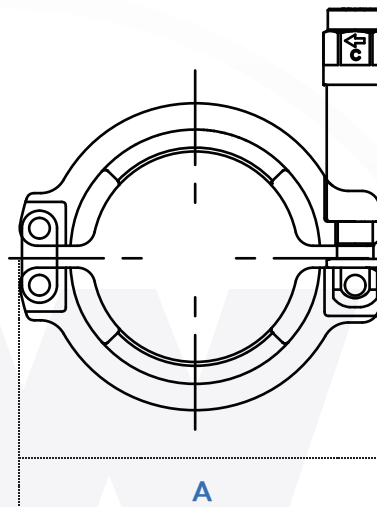
New processing reduces volume & weight by 30~40% compared to the previous design.

새로운 가공 방식으로 기존 대비 약 30~40% 가량 부피 및 무게가 감소

Double Lock Clamps 이중 잠금 클램프

General Clamp for KF(NW) Flanges

- Material : Stainless Steel
- Flange type : KF Flange (NW type)
- Flange size : NW 16 ~ 50
- Locking type : Double Locking

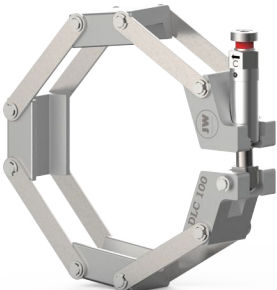


Material	Size	Part Number	Primary Lock		Secondary Lock		Length (mm)			Weight (g)
			Thread	Torque (Kgf.cm)	Thread	Torque (Kgf.cm)	A	B	C	
Stainless Steel	NW16	SS-DLC-16	M8/ 16-4/5	70±10	M5/5	20±5	57.56	17.00	69.50	173.2
	NW25	SS-DLC-25					67.87	17.00	74.50	203.4
	NW40	SS-DLC-40					83.05	17.00	91.50	260.0
	NW50	SS-DLC-50					103.25	17.00	101.50	363.6

** Outering 미체결 조건 | Above information is the standard condition for not assembling a 'Outer-Ring'.

Chain Clamp for KF(NW) Flanges

- Material : Stainless Steel / Aluminium (Chain)
- Flange type : KF Flange (NW type)
- Flange size : NW 63 ~ 150
- Locking type : Double Locking

	Size	Part Number
	NW63	SS-FLC-63-C
	NW80	SS-FLC-80-C
	NW100	SS-FLC-100-C
	NW125	SS-FLC-125-C
	NW160	SS-FLC-160-C

** Outering 체결 조건 | Please use 'Outer-Ring' to meet the conditions below
Primary lock : Thread M10/21-1/2, 80±10 Kgf.cm
Secondary lock : Thread M6/10, 20±5 Kgf.cm

Double Lock Clamp for ASME BPE

- Material : Stainless Steel
- Flange type : ASME-BPE standard clamp fittings
- Flange size : 1.0S, 1.5S, 2.0S, 2.5S
- Locking type : Double Locking

	Size	Part Number
	1.0~1.5 S	SS-BPE-1015
	2.0 S	SS-BPE-20
	2.5 S	SS-BPE-25

** The torque value may vary depending on the O-ring material
Primary lock : Thread M8/16-4/5, 60±10 Kgf.cm
Secondary lock : Thread M5/5, 20±5 Kgf.cm

High Strength Clamps 고강도 클램프

Vacuum KF(NW) Flange Clamp w/ Special Lock Washer

- Material : Stainless Steel
- Flange type : KF Flange (NW type)
- Flange size : NW16 ~ 50
- Locking type : Single Locking + Special Lock Washer



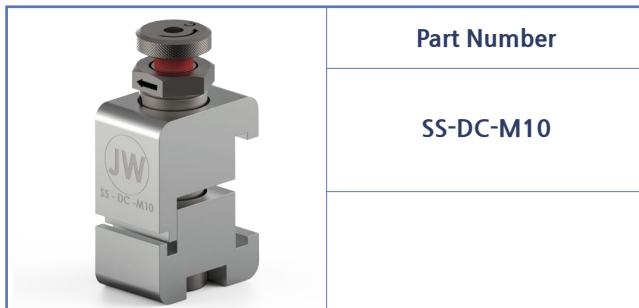
Material	Size	Part Number	Primary Lock		Length (mm)			Weight (g)
			Thread	Torque (Kgf.cm)	A	B	C	
Stainless Steel	NW16	SS-NW16	M8/16-4/5	70±10	57.56	17.00	69.50	162.8
	NW25	SS-NW25			67.87	17.00	74.50	192.9
	NW40	SS-NW40			83.05	17.00	91.50	242.7
	NW50	SS-NW50			103.25	17.00	101.50	313.6

** Outering 미체결 조건 | Above information is the standard condition for not assembling a 'Outer-Ring'.

Double Claw Clamp MF 플랜지용 더블 클로우 클램프

Double Lock Type for MF Flanges

- Material : Stainless Steel
- Flange type : MF Flange (Double Claw, DC type)
- Flange size : MF 63 ~ 600
- Locking type : Double Locking



Single Lock Type for MF Flanges

- Material : Stainless Steel / Aluminium
- Flange type : MF Flange (Double Claw, DC type)
- Flange size : MF 63 ~ 600 / Thread size : M10
- Locking type : Single Locking

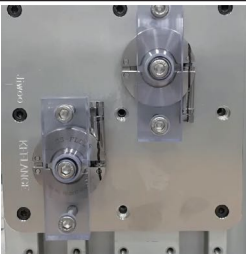
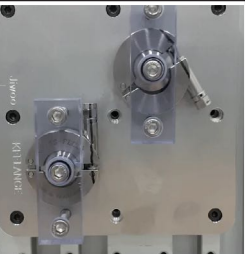
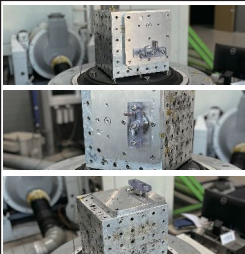
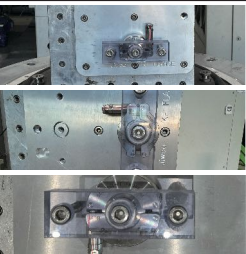


** Outering 체결 조건 | Please use 'Outer-Ring' to meet the conditions below
 Primary lock : Thread M10/15-1/2, 110±10 Kgf.cm
 Secondary lock : Thread M6/3-1/2, 20±5 Kgf.cm

PRODUCTS & DATASHEET

Test Report 잠금 비교 검사 결과

Comparison Test w/ Single Lock Clamp Fastening Force Test X/Y/Z axis

Test	Set Up	Result	Test	Set Up	Result
 Youtube Clip			 Youtube Clip		
Condition	Frequency : 20/80/350/2,000, Axis : X Time : 2 Minutes each Model : I 250 / SA4M, Manufacturer : IMV (Japan)		Condition	Frequency : 20/80/350/2,000, Axis : X / Y / Z Time : 2 Minutes each Model : I 250 / SA4M, Manufacturer : IMV (Japan)	
Result	Single Lock Clamp : Loose in 2 minutes Jiwoo Double Lock Clamp : Pass		Result	Jiwoo Double Lock Clamp : Pass	

Certificates



특허증

Certificate of Patent

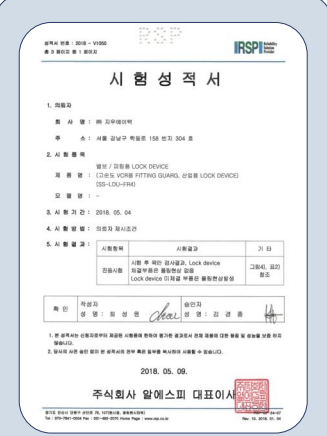
10-1935125



디자인등록증

Certificate of Design Registration

30-0888206



진동 시험 성적서

Vibration Test Report

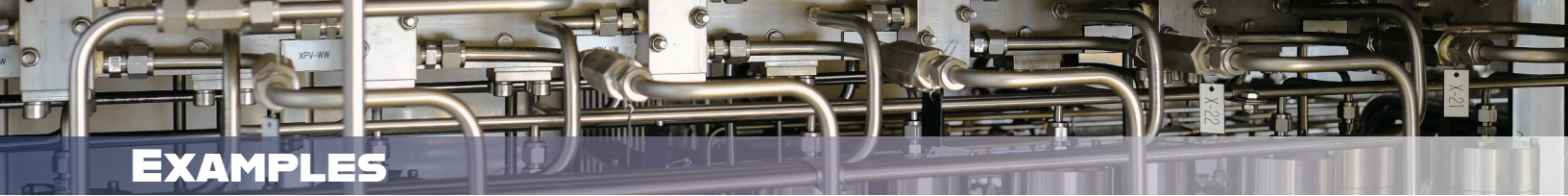
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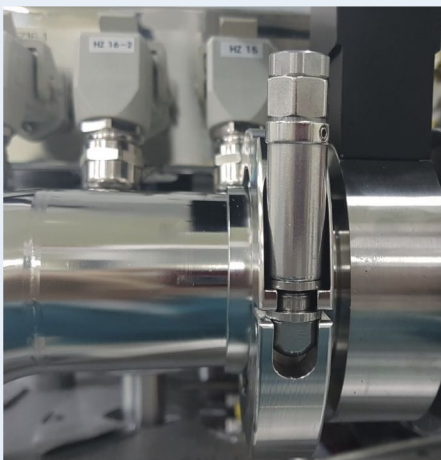
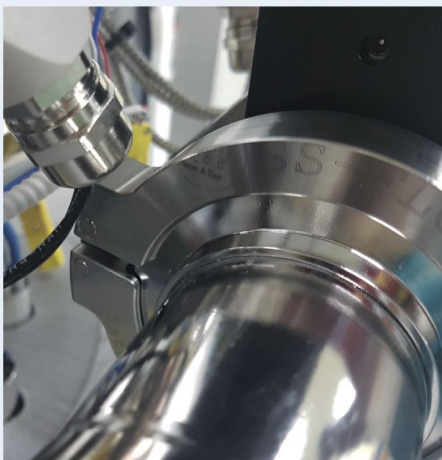
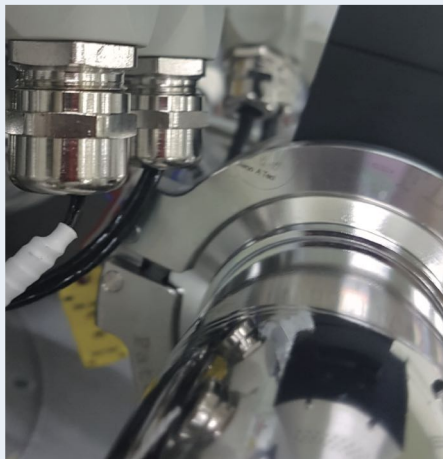
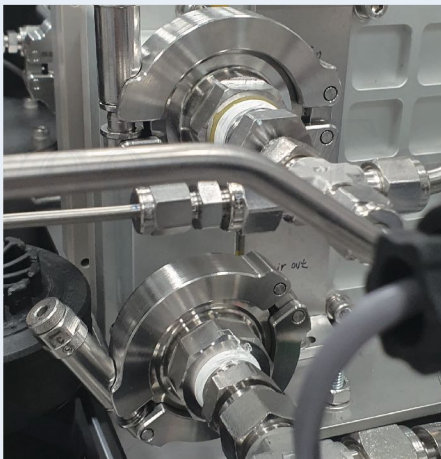
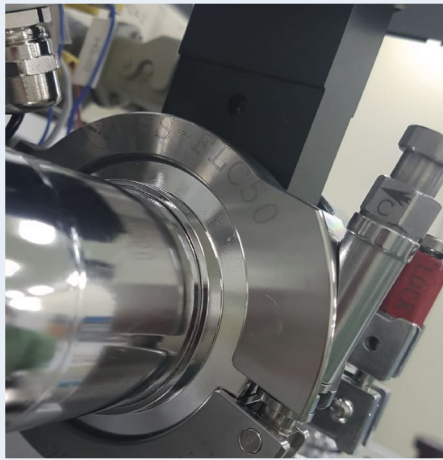
2019 대한민국 우수특허 대상

Best Patent Awards 2019

2019.07.11



EXAMPLES



Jiwoo A-Tech. (주)지우에이텍

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Total Solution Provider for Fluid System

Double Lock Clamp & Fitting Lock Device

Rev.250117-R1

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