



**SK-KAWANISHI**

**Innovative Solutions  
to Reduce Non-  
Revenue Water**

# The Home of “Suppon”.

The word “Suppon” defines the gripping feature of SK-Kawanishi mechanical joints.



**SK-Kawanishi Factory/Headquarters-Japan**



SK-KAWANISHI started life in 1952 as an innovator and is currently the leading water pipe joint manufacturer in Japan.

Founder: Sentaro Kawanishi. His mission was to have a world where not even one precious drop of water is wasted.

Specialization: Water Pipe Joints

Manufacturing System: Comprehensive in house. Designing, casting, machining, coating and Assembling.

SK-Kawanishi Factory / Headquarters - Japan



# **SK-KAWANISHI**

## **SK-KAWANISHI AFRICA LIMITED**

Since our founding in 1952, we have specialized in designing, manufacturing, and selling high-quality water pipe joints, developing over 4,500 types and holding many patents.

Our mission is "Delivering water that is always safe, reliable, and never wasted." In Africa, especially Kenya, we contribute to the improvement of water infrastructure by supporting **Non-Revenue Water(NRW)** reduction and leakage control initiatives.

In October last year, we established a local subsidiary "**SK-KAWANISHI AFRICA LIMITED**" in Nairobi to respond more closely to local needs. We will continue to work with our African customers to build trust and provide reliable water infrastructure.

# Innovative Solutions to reduce Non-Revenue Water



**Suppon HP**



**Neo SKX + SB**

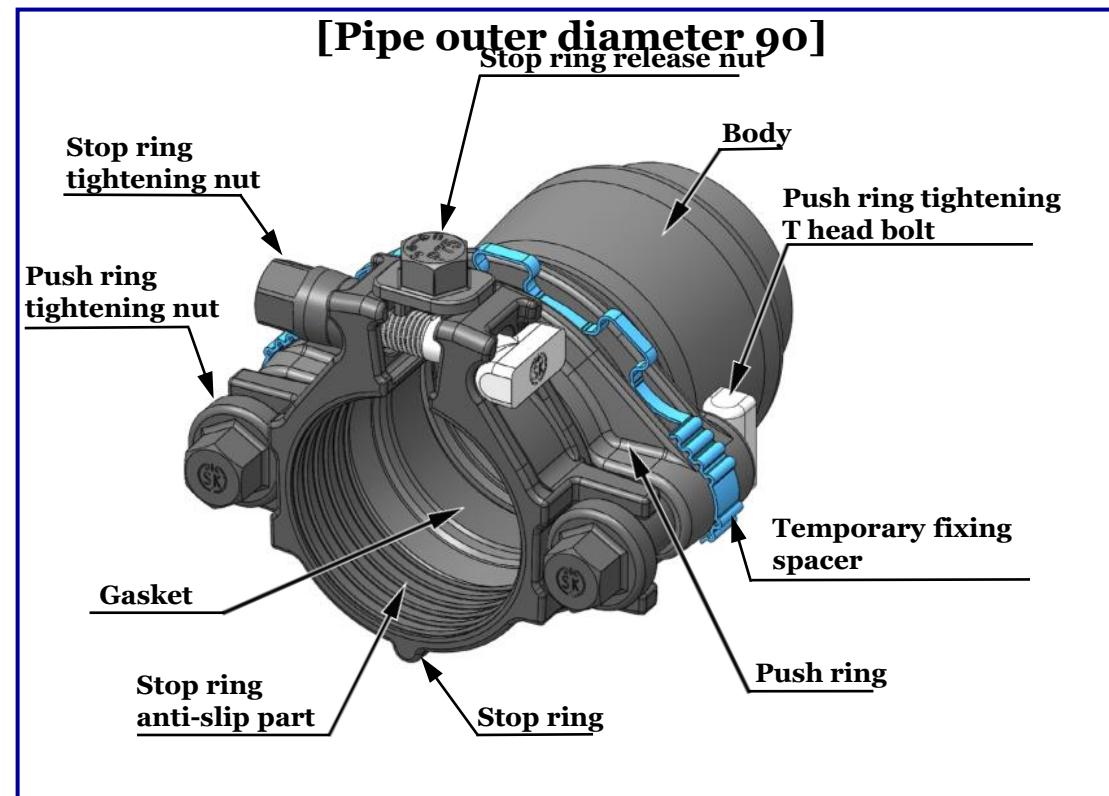


**Neo SKX**

## Suppon HP

Manufacturer	: SK-KAWANISHI Co.,Ltd
Material	: Cast Iron, FCD420-10
Coating Exterior	: Epoxy Powder Coating (black color) Thickness is 0.08mm or more
Coating Interior	: Epoxy Powder Coating (grey color) Thickness is 0.3mm or more
Anticorrosion bolt & nut	: FCD600-3, Epoxy Powder Coating
Gasket	: SBR
Pressure Rating	: PN 16
Application	: HDPE, PVC, PPR & Steel Pipes
Available diameter sizes	: OD63, OD90, OD110, OD125, OD160,OD180,OD200 & OD250

## Structure



## Suppon HP Lineup



**Straight  
Socket**



**Straight  
Socket**



**Equal/Reducer  
Tees**



**Flanged  
Tees**



**Reducer  
Sockets**



**Flange  
Adaptors**



**90° / 45°  
Elbows/Bends**



**End Caps/Pipe  
Ends**

## Neo SKX + SB

Manufacturer	: SK-KAWANISHI Co.,Ltd
Material	: Cast Iron, FCD420-10
Coating Exterior	: Epoxy Powder Coating (grey color) Thickness is 0.08mm or more
Coating Interior	: Epoxy Powder Coating (grey color) Thickness is 0.3mm or more
Anticorrosion bolt & nut : FCD600-3, Epoxy Powder Coating	
Gasket	: SBR
Pressure Rating	: PN 16
Application	: HDPE Pipes
Available diameter sizes : OD32, OD50 & OD63	

## Structure

## Neo SKX + SB Lineup



Socket



Tees



Reducer  
socket



Pipe end



Male  
adaptor



Female  
adaptor



Elbow 90°

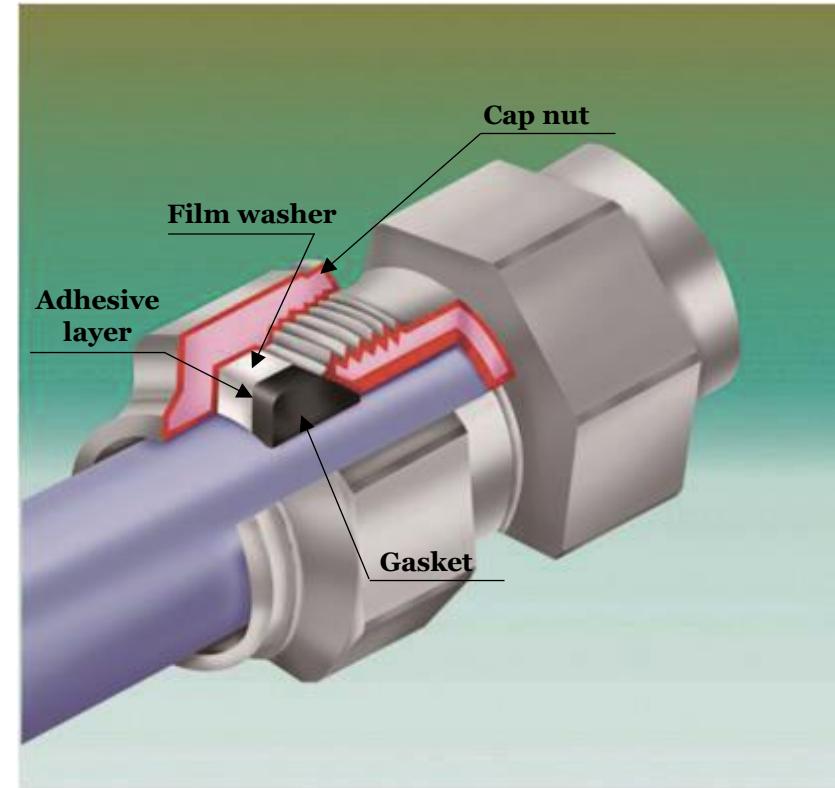


Elbow 45°

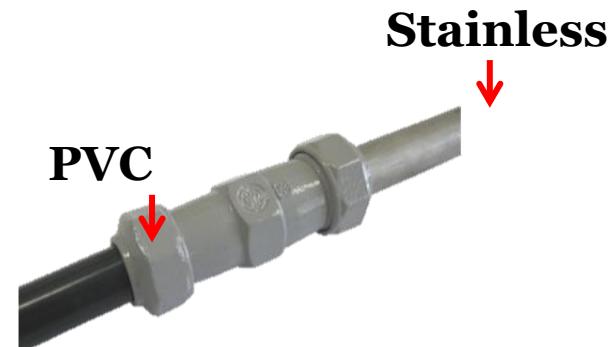
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Coating Interior	: Epoxy Powder Coating (grey color) Thickness is 0.3mm or more
Gasket	: SBR
Pressure Rating	: PN 16
Application	: HDPE, PVC, PPR Pipes
Available diameter sizes : OD20, OD25 & OD32	

## Structure



## Neo SKX Lineup



**Sockets**

**Reducer**

**Valve Socket**

# Installation Procedure

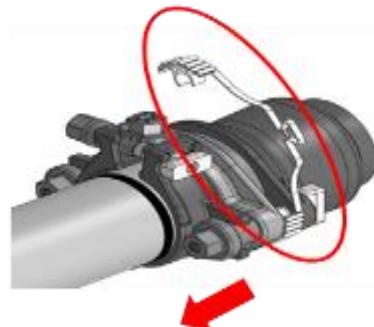
## ① Mark the amount of pipe inserted.

- Measure the amount of pipe to be inserted and mark the line.



## ② Insert the pipe.

- Insert the joint up to the marked line without disassembling.
- Remove the temporary fixing spacer.



## ③ Give final tightening to the push ring.

- Give final tightening to the push ring (tightening up to the stopper).



## ④ Remove the release nut.

- Remove the release nut.



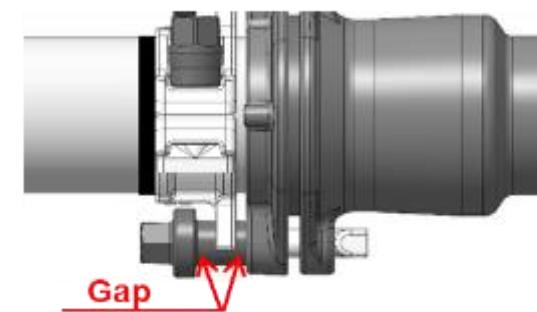
## ⑤ Give final tightening to the stop ring.

- Give final tightening to the stop ring (tightening up to the stopper).



## ⑥ Complete installation

- Check clearance at both ends.



## SK-Kawanishi Joints' unique properties and features over other mechanical joints.

- Ability to slide over pipe. Easy installation requiring less excavations/working space.
- No pipe chamfering, no stiffener, no lubricant, no disassembling and no torque controlling is needed.
- Ability to connect different pipe materials serving as a transition joint.
- External pull-out restraints – stop rings. (Flexible pipe receivers – up to 6<sup>0</sup> deflection)
- Ribbed and tapered gasket – Water tightness.
- Interior and exterior epoxy powder coated. (Resistant to corrosion with lifespan of over 50 years).
- No special tools nor skills needed for installation.
- Flange adaptors can slide along the pipeline making it very easy to install and uninstall other fittings like Gate Valves, Water Meters, Pressure Release Valves etc.



## SK-Kawanishi Joints Certifications and Performance Tests.

Performance standards (For PE100, SDR11 pipes)	Performance Items	Performance	Test conditions
	1. Resistance to pull out <sup>1)</sup>	No pull-out or other defects.	Axial load×1 hour (23°C±2°C) OD 63 : 10.3kN OD 90 : 20.9kN OD110 : 31.1kN OD125 : 40.3kN OD160 : 66.0kN OD180 : 83.4kN OD200 : 102.9kN OD250 : 160.5kN
	2. Separation prevention force <sup>2)</sup>	No pull-out or other defects under specified load (WIS 4-24-01: 1998, Type 2)	Tensile speed 25mm/min (23°C±2°C) OD 63 : 9kN OD 90 : 17kN OD110 : 26kN OD125 : 34kN OD160 : 55kN OD180 : 70kN OD200 : 86kN OD250 : 134kN
	3. Pressure resistance <sup>1)</sup>	No leakage, deformation, breakage or other defects.	2.4MPa×1 hour
	4. Bending Water Pressure Resistance <sup>1)</sup> (Only OD63)	No leakage, breakage or other defects.	Bend radius1260mm, 2.4MPa×1 hour
	5. Negative pressure resistance <sup>1)</sup> (Only OD63)	No air intake or other drawbacks.	-10kPa, -80kPa×1 hour each
Reference standard	1) ISO 17885:2021 [international standard] 2) WIS 4-24-01: 1998 [British Water Industry Standard].		

# Application of SK-Kawanishi joints onsite for repair works.



## SK-Kawanishi Joints Solutions



**SK Joints can connect different pipe types together.**

## SK-Kawanishi Joints Solutions

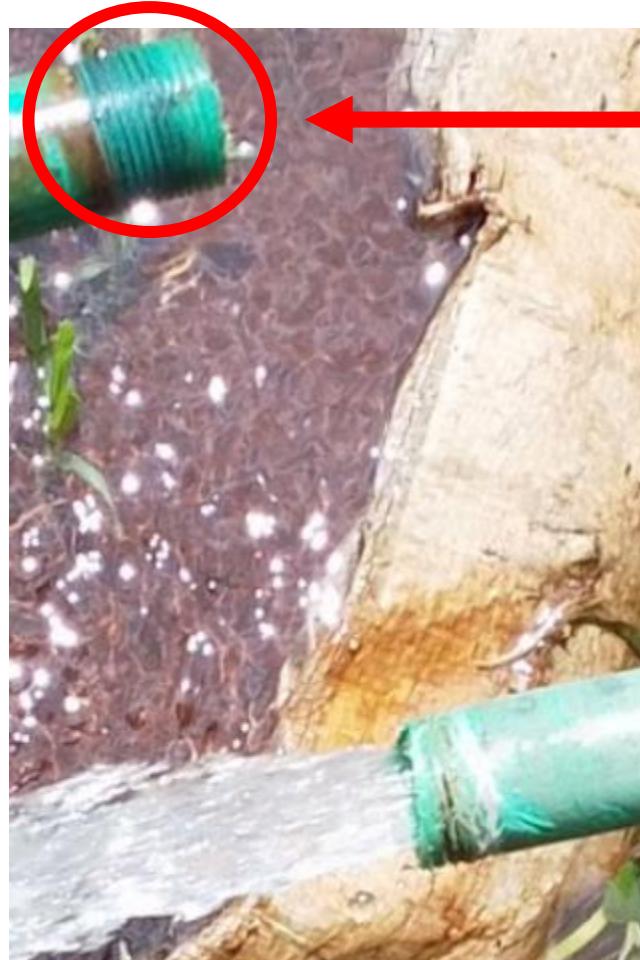


**SK Joints can connect different pipe types together.**



## SK-Kawanishi Joints Solutions

Thread cutting



**SK joint can be connected without threading the PPR pipe.**

## SK-Kawanishi Joints Solutions



**SK joints have a firm grip on the pipe and does not come off due to high pressure.**

## SK-Kawanishi Joints Solutions



**Failed compression joints during water pressure test. Replaced with SK Joints.**

## SK-Kawanishi Joints Solutions



SK joint used to repair steel pipeline.

## Butt Fusion Onsite challenges

***Failed Butt Fusion Joint***



***Around Gate Valve***



## SK-Kawanishi Joints Solutions



**SK joints can effectively repair failed butt fusion joints.**

## SK-Kawanishi Joints Solutions



Unlike VJ Joints, SK joint external pull-out restraints ensuring water tightness even with there are pressure fluctuations or movements along the pipeline.

## SK-Kawanishi Joints Solutions



**Repairing HDPE pipeline in Kericho Kenya**

## SK-Kawanishi Joints Solutions



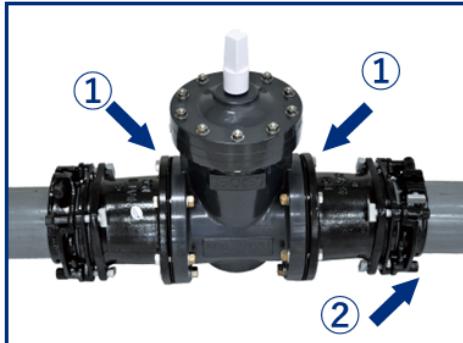
**Repairing HDPE pipeline in Kericho Kenya**

# Application of SK-Kawanishi joints onsite for new pipeline installations.



# ⟨Valve replacement using flange adapter⟩

## Replacement procedure



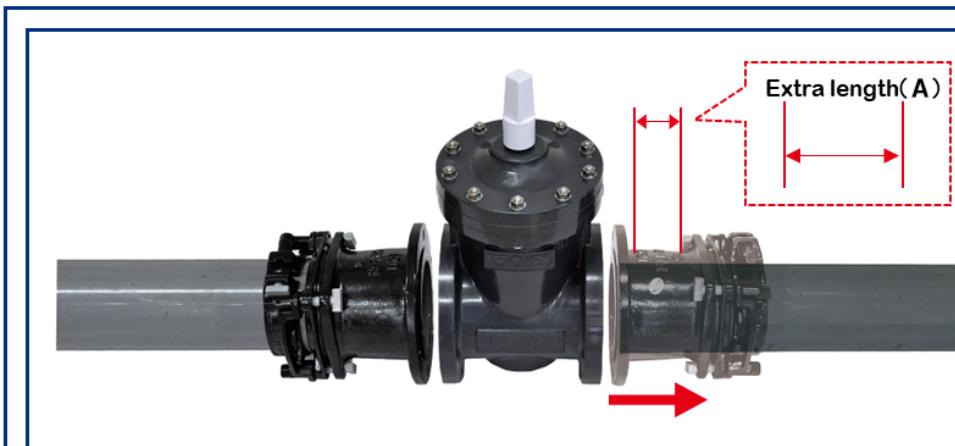
① Remove flange bolts  
 ② Loosen the bolts on one side of joints



③ Slide one of the joint for outwards



④ The valve can be removed  
 Valve can be replaced



※Please install the fitting dimension for pipe insertion amount to ensure sufficient clearance at the pipe.

SK joints using, extra length slide on the pipe as reference

OD	Extra length (A)	DN	Extra length (A)
63	42mm	250	46mm
90	45mm	300	49mm
110	43mm	350	69mm
140	48mm	400	72mm
160	53mm	450	71mm
200	53mm	500	70mm



# SK-Kawanishi Joints Solutions

*PRV Installation*



*Gate Valve Installation*

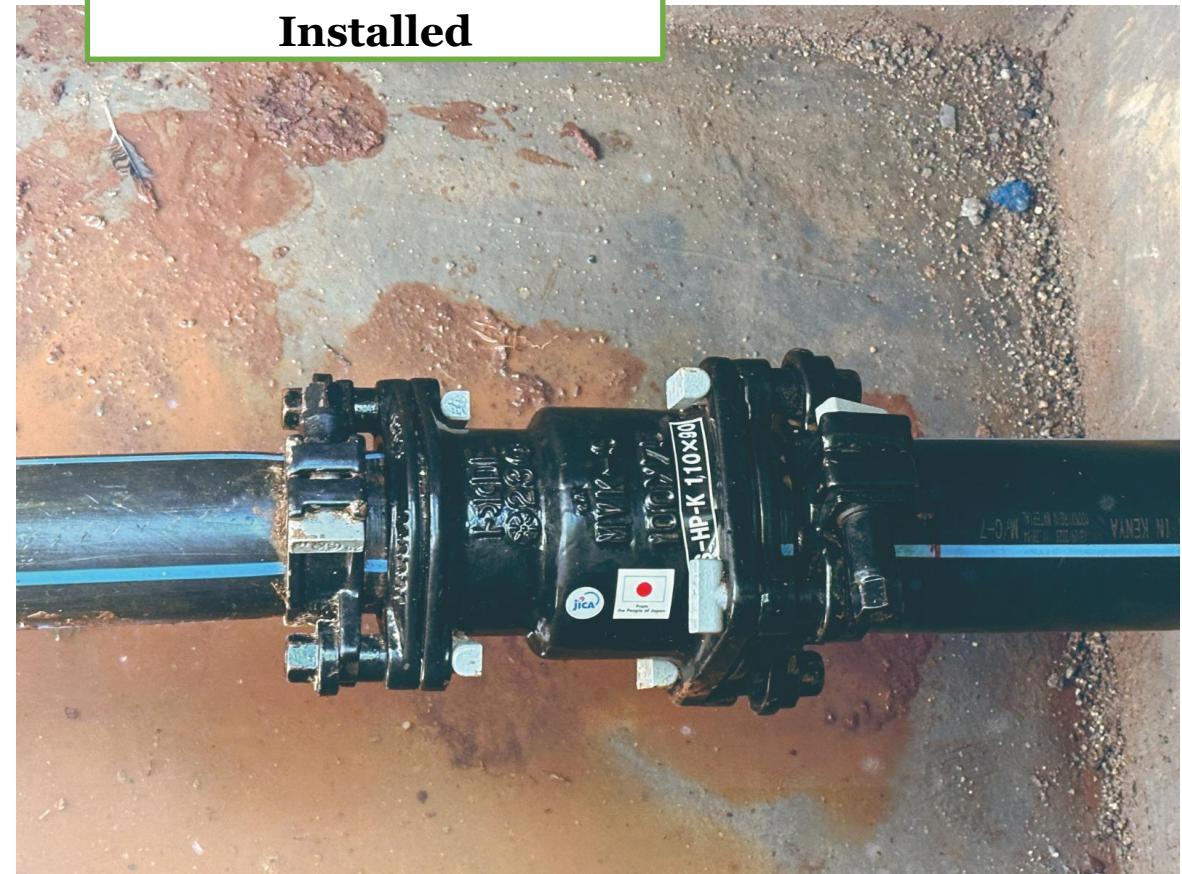


# SK-Kawanishi Joints Solutions

**Water Meter  
Installation**



**Reducer Socket  
Installed**



# SK-Kawanishi Joints Solutions

*Pipe End Cap Installed*



*Equal Tee Installed*



# SK-Kawanishi Joints Solutions

*Commissioning Ceremony for Ainamoi Project in Kericho, Kenya.*



## SK-Kawanishi Joints Contribution to Non-Revenue Water Reduction

In addition to the reported ease of installation and convenience of SK-Kawanishi Joints from repair teams, Kericho Water and Sanitation Company reports a Non-Revenue Water (NRW) rate of 14% within the District Metered Area (DMA) where SK-Kawanishi Joints were installed compared to NRW rate of over 50% reported in other DMAs.

## Where to get SK-Kawanishi Pipe Joints

### 1. At SK-Kawanishi Africa Limited.

Physical Address: Unit 6, 45 Matumbato Road, Upper Hill, Nairobi, Kenya (Intraspeed Warehouse\_Sun Flag Industrial Park, Unit 9, Mombasa Road, Nairobi, Kenya)

### 2. Directly from SK-Kawanishi Co.,Ltd Factory in Japan.

Physical Address: 7188-1 Sue Ayagawa-cho, Ayauta-gun, Kagawa-ken 761-2103 Japan  
(Delivery in two months)

### 3. DANCO CAPITAL LIMITED (Kenyan Distributor)

Physical Address: Danco Compound, behind Family Bank, Ruiru Town Centre, Ruiru  
P. O. Box 46206-00100, Nairobi.



**Physical Address**

Unit 6, 45 Matumbato Road, Upper Hill, Nairobi, Kenya

**Postal Address**

P.O Box 24003-00100 Nairobi.

**Email**

[m\\_festus@skkawanishi.com](mailto:m_festus@skkawanishi.com)

**Phone**

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