START FROM 1990
300+ STAFF
15 MEMBERS R&D TEAM
100% FOR EXPORT

Qingdao Judberd Machinery Co Ltd

JUDBERD MACHINERY



JUDBERD MACHINERY

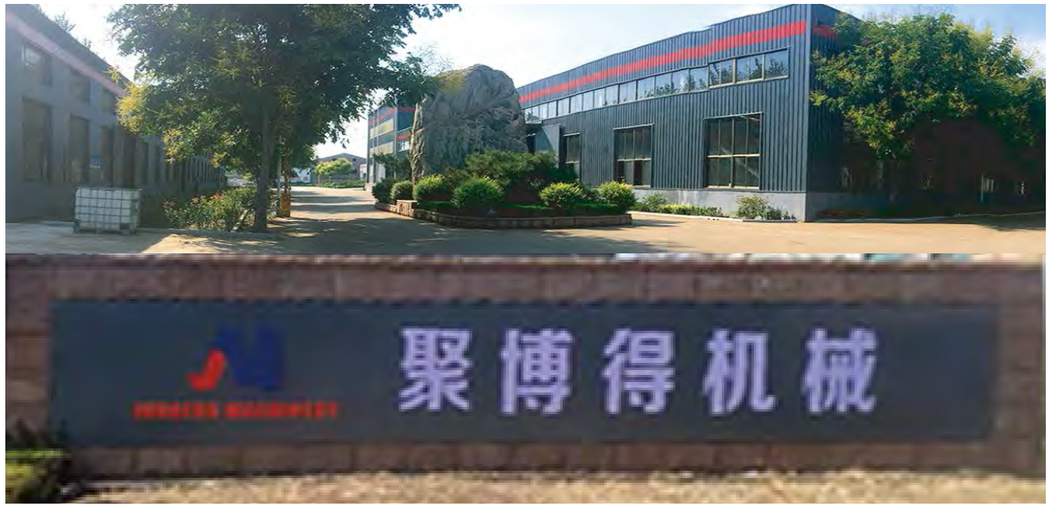
PIPELINE CONNECTION & REPAIR SOLUTIONS
KEEPING PIPELINES CONNECTED AND SECURE

30+ YEARS MANUFACTURING EXPERIENCE
40+ EXPORT COUNTRIES
100+ PIPELINE PROJECTS SERVED

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

JUDBERD — SPECIALISTS IN PIPELINE CONNECTION AND REPAIR SOLUTIONS.

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by



OLD FOUNDRY ESTABLISHED IN 1990

COMPANY PROFILE

QINGDAO JUDBERD MACHINERY CO.,LTD

300+
Total Staff

15+
Administrative Staff

20+
Technical Personnel

20+
College Degree workers

Judberd Specialists in Pipeline Connection and Repair Solutions

Judberd is a professional manufacturer specializing in the design and production of pipeline connection and pipeline repair solutions, with more than 30 years of industry experience. Our main products include dismantling joints, pipe couplings, flange adaptors, saddle clamps and repair clamps, widely used in municipal water supply, wastewater, oil & gas and industrial pipeline systems.

ENGINEERING-DRIVEN PRODUCT DESIGN

Judberd has a highly experienced engineering design team capable of developing customized solutions for different project requirements. Once pipeline parameters, operating conditions and technical specifications are provided, our engineers can design products that achieve the best balance between structural strength, sealing performance, material selection and service life.

Our products can be designed in accordance with major international standards, including:

- EN 545 / EN 598 — Ductile iron pipelines for water and sewage (Europe)
- AWWA C219 — Bolted sleeve-type couplings for plain-end pipe (USA)
- AS/NZS 4129 / AS/NZS 4998 — Waterworks pipeline standards (Australia & New Zealand)

With strong understanding of international standards, Judberd can support pipeline projects across different global markets.

OVER 30 YEARS OF MANUFACTURING EXPERIENCE

With more than 30 years of manufacturing experience, Judberd has established a mature and stable production system covering casting, machining, coating and assembly. Strict process control and comprehensive quality management ensure consistent product performance and long-term reliability.

GLOBAL PROJECT EXPERIENCE

Judberd products are exported worldwide, including Europe, the Middle East, Africa, Asia, Australia and the Americas, and have been widely used in municipal water supply projects, industrial pipelines and infrastructure developments.

Through years of cooperation with international clients, we have accumulated extensive expertise in:

- Pipeline connection design
- Material selection for different operating environments
- Product testing and validation
- Technical support for large infrastructure projects
- International Certifications and Quality Assurance

To meet the requirements of different global markets, Judberd has established a comprehensive certification system, including:

- ISO 9001 — Quality Management System
- EN 545 — Ductile iron pipelines for water supply
- WRAS — UK drinking water approval
- ACS — French drinking water certification
- KTW
- NSF/ANSI 61 — Drinking water system components standard

Third-party inspections can be arranged upon request, and EN 10204 Type 3.1 Material Test Certificates (MTC 3.1) are available to ensure full material traceability and compliance with project specifications.

WITH STRONG ENGINEERING CAPABILITY,
MATURE MANUFACTURING EXPERTISE AND
STRICT QUALITY CONTROL,
JUDBERD IS COMMITTED TO PROVIDING
RELIABLE AND HIGH-PERFORMANCE
PIPELINE CONNECTION AND
REPAIR SOLUTIONS FOR
GLOBAL INFRASTRUCTURE
PROJECTS.

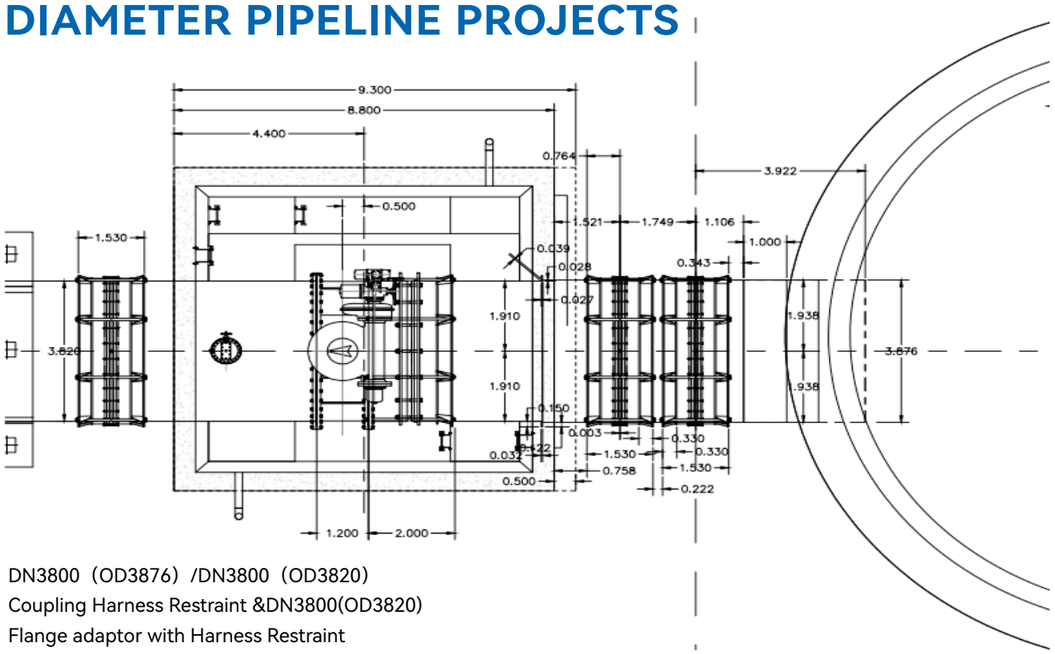


NEW MODERN FACTORY

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

ENGINEERING DRIVEN PRODUCT DESIGN

CUSTOM SOLUTIONS FOR LARGE DIAMETER PIPELINE PROJECTS



DN3800（OD3876）/DN3800（OD3820）
Coupling Harness Restraint &DN3800(OD3820)
Flange adaptor with Harness Restraint

PROJECT NAME

J2566 MAHASAWAT TREATMENT PLANT EXPANSION CONTR. GE-MS 5/6-9

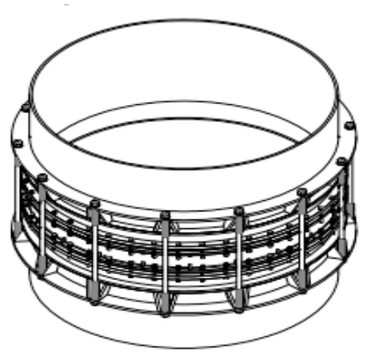
PROJECT BACKGROUND

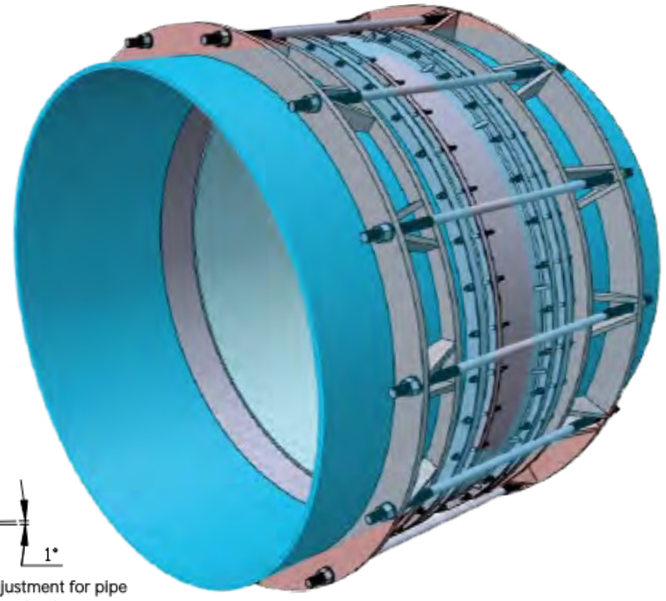
Standard: AWWA C219 - 1997.
Couple Pipe: One for OD3876, THK38mm,Another for OD3820, THK32mm,MATERIAL SS400.
Center sleeve/End ring: Q235B with Liquid Epoxy conform to AWWA C210 , DFT : 406 Micorn (Min).
Working Pressure: 8 kg/cm².
Hydrostatic Test Pressure: 20 kg/cm². 5Minutes without any leakage.

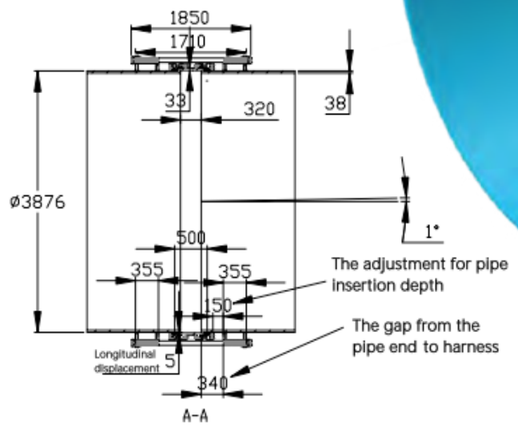
JUDBERD ENGINEERING SOLUTION

1. Configuration:
Due to the extremely large diameter, excellent structural stability is required. Using harness to secure the coupling was determined to be the most suitable solution, as other restrained methods are not applicable for this application. Therefore, the product was designed with a harness-supported configuration.

2. Design:
The product was designed strictly in accordance with AWWA C219-1997. All key parameters—including dimensions, materials ,allowable deflection, inspection rule etc—fully comply with the requirements specified in AWWA C219-1997.



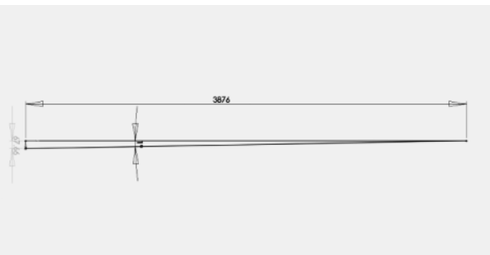


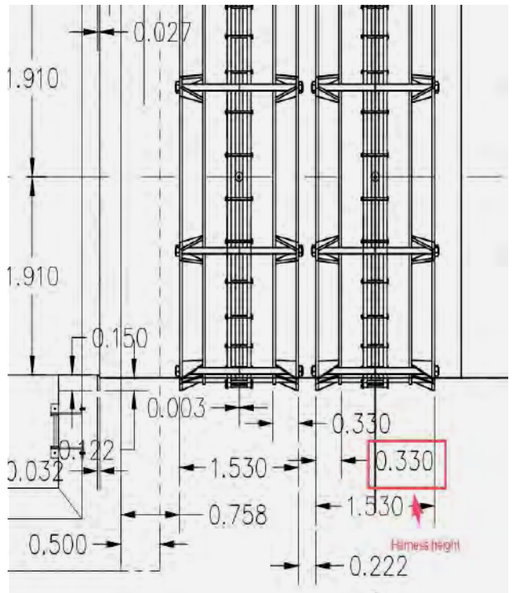


ENGINEERING VERIFICATION

During the design process, engineering calculations and structural analysis were conducted to verify the product performance.

The verification include but not limit to structural strength calculation, sealing performance verification, Max. angle deflection , almost all design parameters of the product.



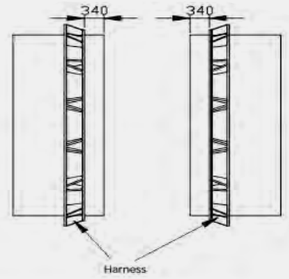


INSTALLATION INSTRUCTIONS & GASKET REPLACEMENT PROCEDURE

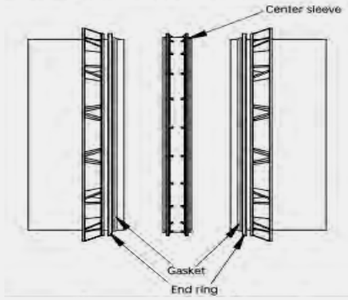
We provided the customer with installation instructions and gasket replacement procedures, offering clear and accurate guidance for both product installation and component replacement.

● INSTALLATION INSTRUCTIONS

1. Weld the hamess 340mm from the pipe end, please kindly note the pipe outside diameter is 3876mm and the haress Inner diameter is 3883mm,so there has a total 7mm gap. There fore, ensure concentricity during welding.

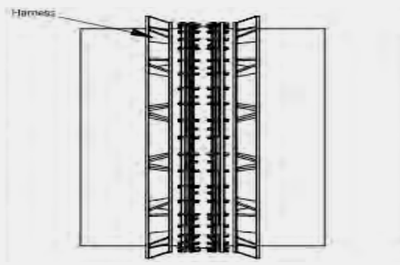


2. Remove the bolts from the coupling and Install the end ring and rubber gasket onto the pipe with welded harness.

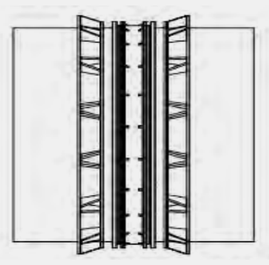


● GASKET REPLACEMENT PROCEDURE

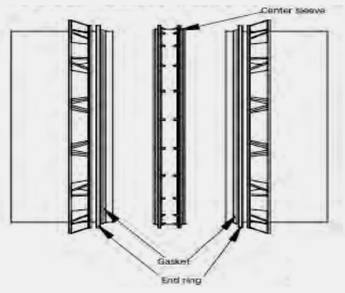
1. Remove the long bolts.



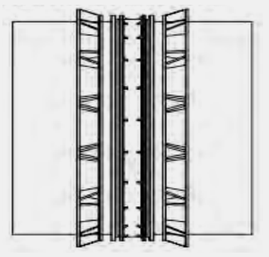
2. Remove the short bolts and pull the pipe out of the central sleeve.



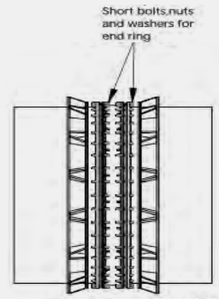
3. Remove the installed rubber gasket from the pipe with the welded hamess, then replace it with a new rubber gasket and install it on the pipe.



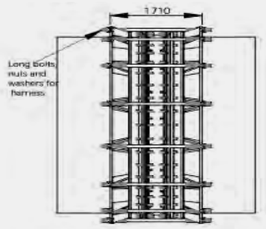
4. Insert the pipe Into the center sleeve. then adjust the rubber gasket and end ring to their respective positions.



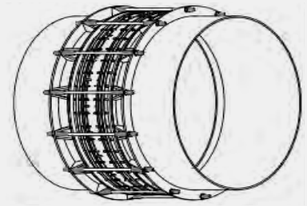
5.Install the short bolts for the end ring.but don't tighten them. so as to adjust the pipe Insertion depth.



6. Install the long bolts on the harness and adjust the nuts to make the distance between two hamesses to 1710mm.



7. Finally. tighten the short bolts on the end rings to complete the connectian. Now the both pipe insertion depth into the center sleeve is 162mm.



PREPARE THE ITP (INSPECTION AND TEST PLAN) AND DESIGN THE CORRESPONDING TESTING FIXTURES.

The following shows the testing fixture design developed according to the customer's requirement for hydrostatic pressure testing with the pipe deflected by 2.5°.

● PRESSURE TEST FOR DN3800 MC

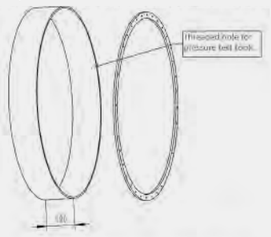
1,The following test procedure is based pipe insertion depth of 162mm and the deflection angle of 2.5°.

Take the DN3800 OD3820 MC as example, we will design three parts steel pipe for pressure test, machine the pipe and weld flanges onto them, and connect them by flange, please refer to the drawing as below.

1. Weld the flange to the 590mm long pipe on the left side, ensuring that the flange face is 5 mm higher than the pipe end.

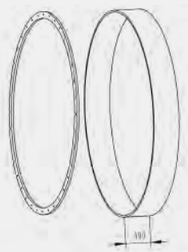
Note that the flange outer diameter is 3746mm and the pipe inner diameter is 3756mm. During welding, there have 5mm gap on each side, so ensure proper concentricity is maintained.

Additionally, at a distance of 100mm from the flange along pipe wall, drill and tap threaded hole corresponding to the sizes of the pressure-testing tools; use PTFE tape when installing water hose for pressure testing to ensure a leak-proof seal.

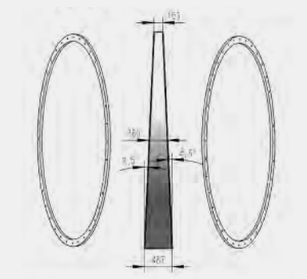


2. Weld the flange to the 490mm long pipe on the right side, ensuring that the flange face is 5mm higher than the pipe end.

Note that the flange outer diameter is 3746mm and the pipe inner diameter is 3756mm. During welding, there have 5mm gap on each side, so ensure proper concentricity is maintained.

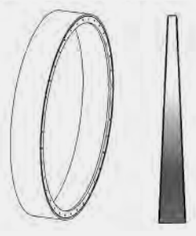


3. Weld the two flanges to the sides of the middle pipe with an deflection angle 2.5°, ensuring that the flange face is 5mm higher than the pipe end and that concentricity is properly adjusted.

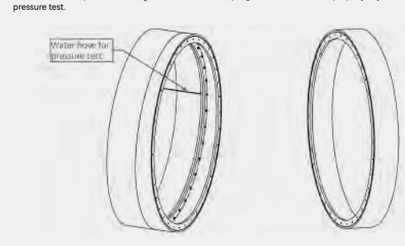


4. Connect the welded left-side pipe to the middle pipe using bolts.

Note: ensure that the two flanges is sealed with a flange gasket; use 36 x M20 stud bolts to tighten the connection and ensure a secure seal.



5. Insert the installed left-side pipe and middle pipe into the coupling, and insert the right-side pipe into the cooupling. Install the flange gasket between the two flanges. Use 36xM20 stud bolts to tighten two flanges, so that complete the installation of the pressure-testing fixture. Once the coupling under test has been properly adjusted, commence the pressure test.



ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

ALL COMPONENT MATERIALS ARE INSPECTED BY A THIRD PARTY ACCORDING TO THE CUSTOMER'S ITP, WITH INSPECTION REPORTS SUBMITTED FOR CUSTOMER APPROVAL.

01 Steel Plate Testing

Chemical Composition Analysis, Impact Testing, and Mechanical Property Testing (Tensile Strength, Yield Strength, and Elongation after fracture).

02 EPDM Rubber Gasket Testing – BS 2494

EPDM gaskets are tested in accordance with BS 2494 for hardness, compression set, tensile strength, elongation at break, and ozone resistance.

Ozone Resistance Test: 10 ± 5 pphm × 30°C × 24 h, 5% elongation, 55 ± 5% R.H. — No cracking or deformation.

03 Bolt Testing – ASTM A307 Grade B

Bolts are tested in accordance with ASTM A307 Grade B, including:

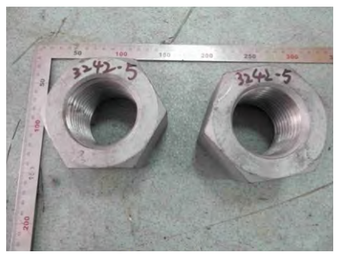
- Chemical Composition Analysis – ASTM A307-2021 Grade B
- Hardness Test – ASTM A307, Table 2 (Grade B)
- Mechanical Property Testing – ASTM A307 Grade B, including Tensile Strength, Yield Point, and Elongation After Fracture







04 Nut Testing – ASTM A563/A563M Grade C



Nuts are tested in accordance with the applicable ASTM standards, including:

- Chemical Composition Analysis – ASTM A563/A563M-26 Grade C
- Hardness Test – ASTM A563/A563M-24, Table 2 (Grade C)
- Proof Load Test – ASTM F606/F606M-26a

Proof Load Test Requirement: Assemble the nut onto a threaded test mandrel, apply the specified axial proof load, and hold for 10 seconds. The nut shall withstand the load without thread stripping or rupture and shall be removable by hand after the load is released. If a manual wrench is required, its use shall be limited to no more than one-half turn.

05 Washer Testing

- Chemical Composition Analysis
- Hardness Test – ASTM E18-25



HYDROSTATIC TEST PRESSURE

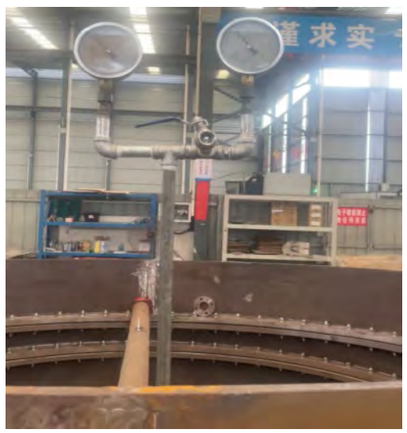
Hydrostatic Pressure Test

Hydrostatic testing is performed according to customer requirements. To avoid damage to the finished coating, the pressure test is carried out before surface coating.

In addition to testing with the pipes in normal alignment, the product is also pressure-tested at the maximum pipe deflection angle of 2.5°.

Test Pressure	Test Duration	Acceptance Criteria
20 kg/cm²	5 minutes	No leakage







ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

CUSTOMIZED DESIGN SOLUTIONS

CASE 1 CUSTOM DISMANTLING JOINT

Designed according to customer-specified flange dimensions to ensure compatibility with existing pipeline systems.

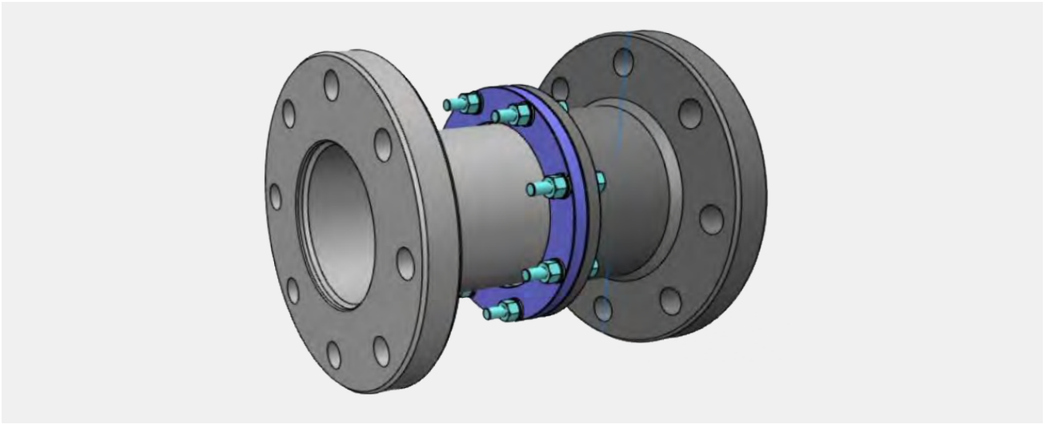
DISMANTLING JOINT

BOTH ODM & OEM ARE WELCOME



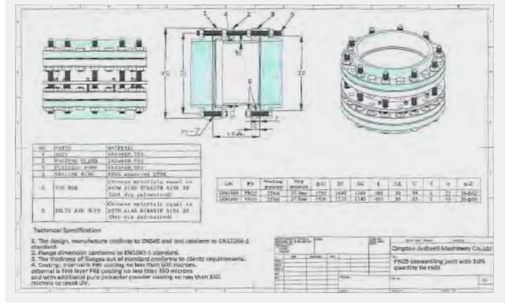
Our standard dismantling joints have an adjustment range of ±25 mm.

To meet customers' requirements for a larger adjustment range, we have developed dismantling joints with an extension range of ±30 mm for smaller sizes and ±50 mm for larger sizes, as shown below.

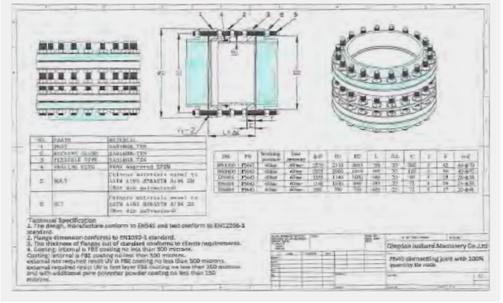


For the same project, we designed different dismantling joint configurations according to the varying pressure requirements.

This approach ensures reliable product performance while also helping the customers reduce overall costs.



PN6/PN10/PN16/PN25



PN40

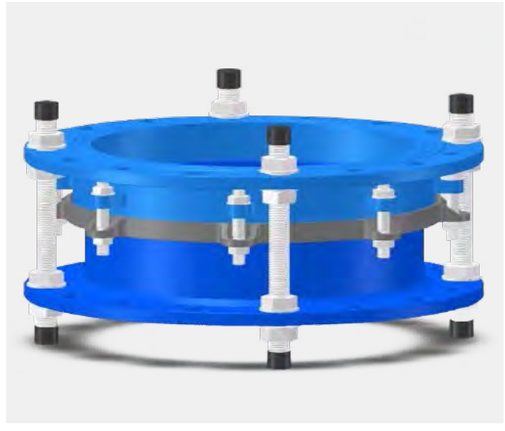
● Four-Flange Dismantling Joint

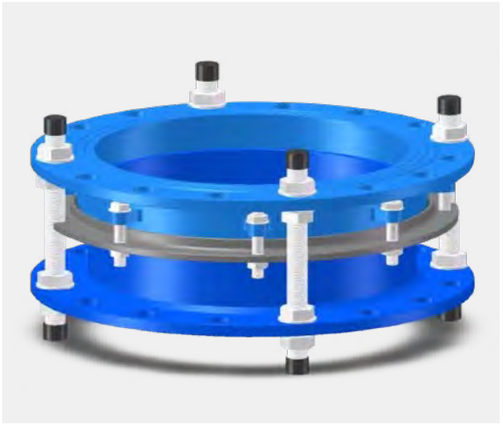
Designed for pipelines connected to valuable or sensitive equipment such as flow meters and valves. The four-flange design provides extra working clearance during installation and dismantling, helping protect adjacent equipment from accidental damage.



● Easy and Flexible Assembly

The short bolts can be adjusted in either direction, allowing deeper insertion of the long body into the short body for greater installation flexibility.





ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

● Dismantling Joint for Confined Spaces

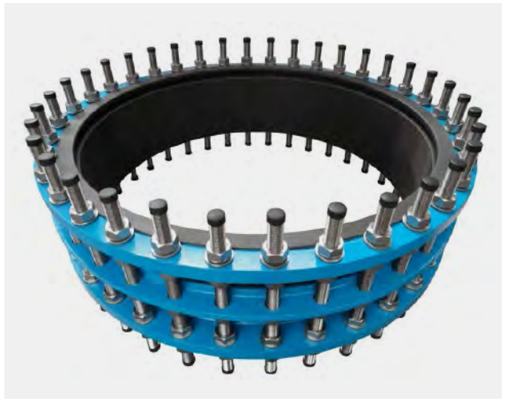
Designed for confined spaces, the long nut allows the bolt to extend into or out of the nut as the dismantling joint length is adjusted. After tightening the connecting flange, only a minimal bolt length protrudes, preventing interference with adjacent equipment.



● Designed for Diverse Media

Judberd dismantling joints are suitable for potable water, seawater, wastewater, oil, gas, and corrosive fluids.

For seawater applications, our Ebonite or EPDM lined design surface provides enhanced corrosion resistance and long-lasting protection.



PN16 Ductile Iron Dismantling Joint
with Ebonite lined surface



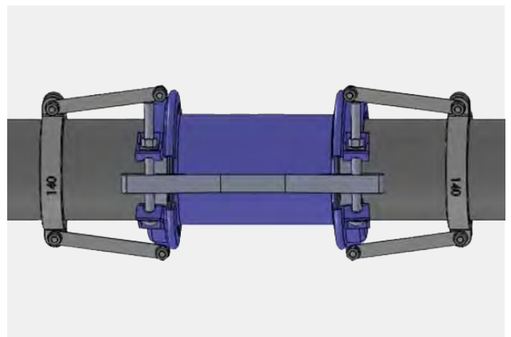
Class600 AWWA B16.5 Flat Face Flange Steel
Dismantling Joint with Ebonite lined surface

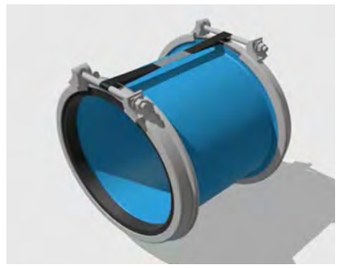
CASE 2 CUSTOM COUPLING&FLANGE ADAPTOR

Fast Installation for Confined Spaces

With only one bolt at each end, this coupling enables fast and easy installation, making it ideal for underground applications and confined spaces.

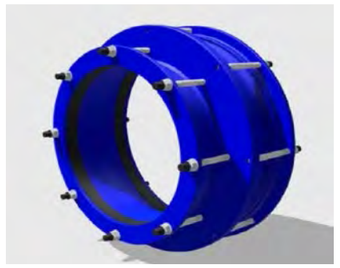
The integrated restraint system at both ends provides reliable resistance to axial pipe movement and pull-out, making it suitable for HDPE pipes and applications where axial thrust must be restrained.





Fast Installation for Confined Spaces

With only one bolt at each end, this coupling enables fast and easy installation, making it ideal for underground applications and confined spaces.

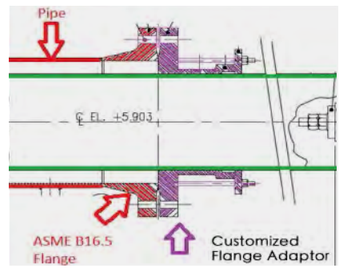


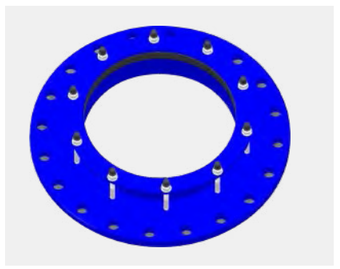
Customized Solutions for Different Pipe Connections

For connections between pipes of different materials or diameters, we provide customized solutions based on specific application requirements and engineer the optimal connection solution for each project.



For long sleeve couplings, we designed a structure with independent locking mechanisms on both ends.



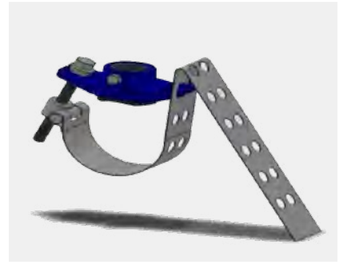


Tailor-Made Flange Adaptors to Match Specific Pipeline Designs

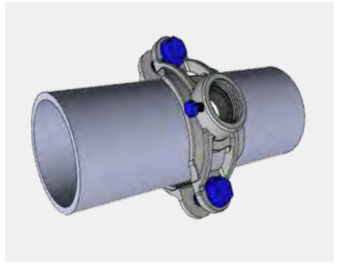


Wide range restrained flange adaptor ,Maximum working pressure PN25(test pressure 37.5 bars)

CASE 3
CUSTOM SADDLE CLAMP

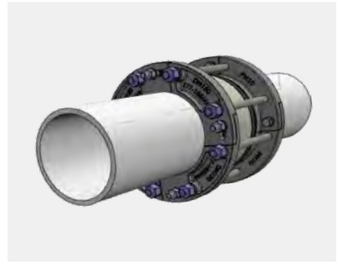


Ultra-Wide Range Saddle
One saddle fits pipes from DN50 to DN350, significantly reducing the number of sizes required and minimizing inventory.



Wide range saddle clamp with metric thread outlet

Case 4
Custom Bell Clamp



Bell clamp design for AC pipes coupling connection

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

MANUFACTURING CAPABILITY



01 CHECK COMPOSITION

Check the chemical composition of the iron with a pre-furnace analyser.



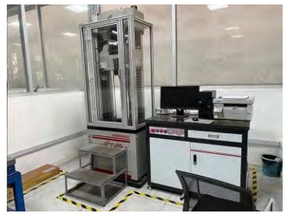
02 ADDING METAL TO CONTROL QUALITY

Adjust metal content in iron water by adding metal until the metal content is qualified.



03 REINFORCEMENT PROCESSING

Machine test bars to standard sizes for tensile strength and elongation testing.



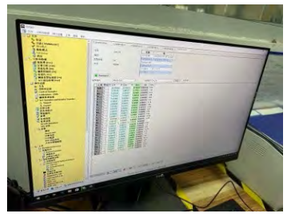
04 TENSILE TEST

Use instrument to tensile test bars to test tensile strength and elongation.



05 SAMPLE POLISHING

Polishing samples for spectroscopy with a spectroscopy grinder.



06 CHEMICAL COMPOSITION TESTING

Chemical composition testing by spectrometer, 2 tests are required to ensure accuracy.



12 MACHINING

The dismantling joints are machined according to customer requirements. Judberd produces dismantling joint with 100% machined surfaces, except for the middle gland, so that the surface of the product is very smooth.



11 POLISHING AND SHOT BLASTING

We need to grind the dismantling joint body surface to remove excess parts, so that the casting meets the dimensional requirements of the product. And the surface becomes smooth.

The casting needs to be shot blasted before machining to remove dust and impurities from the surface.



10 CASTING INSPECTION

After casting , we need to check the casting to see if any casting defects are exist.For those with casting defects, the engineer will judge whether the casting should be discarded or can be repaired.



09 CASTING

For large quantities of products, we now use vertical molding lines to produce castings which is very efficient and low cost.



08 METALLOGRAPHIC TESTING

Metallographic testing to compare test results with standards to determine compliance.



07 SAMPLE POLISHING

Polishing of samples for metallographic testing using a metallographic specimen grinding and polishing machine.



13 DIMENSION INSPECTION

After machining, dimension inspection is necessary to assure every dimension is right.



14 2ND SAND BLASTING AND FBE COATING

Shot blasting again to remove rust from the surface of the casting, dust and poor adhesion of the surface due to grinding etc, in preparation for FBE coating

Make FBE coating, nylon coating or other customer-specific coatings for dismantling joint surface.





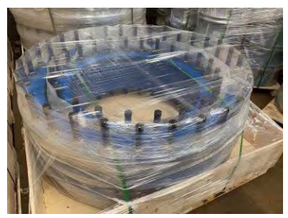
15 FBE COATING INSPECTION

FBE coating inspection include coating appearance inspection, color difference inspection,thickness inspection,powder adhesion,coating performance etc inspection.



16 ASSEMBLING AND PRESSURE VISUAL ETC INSPECTION

Assemble gasket ,bolt and nuts.
Test pressure should be 1.5 times of the working pressure with a holding time of 30s.



17 PACKING

There many different packing way,we can use polywood box,crate,or metal case etc to pack dismantling joint.

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

QUALITY CONTROL & TESTING

ENSURING RELIABLE PERFORMANCE

Quality control is implemented throughout the entire production process at Judberd.

From raw material inspection to final product testing, each step is carefully monitored to ensure that every pipeline connection product meets project specifications and international standards.



TESTING & VERIFICATION

To ensure reliable performance in pipeline systems, Judberd products undergo comprehensive testing and verification.

HYDROSTATIC PRESSURE TESTING

Hydrostatic pressure tests are conducted to verify sealing performance and structural integrity.



2.5° DEFLECTION I 20 BAR I HYDROSTATIC TEST
Custom Engineered by Judberd R&D Team







DIMENSIONAL INSPECTION

Critical product dimensions are verified according to engineering drawings.



COATING INSPECTION

Epoxy coating thickness and adhesion are tested to ensure corrosion resistance.



FBE coating adhesion pull-off test according to ISO 4624



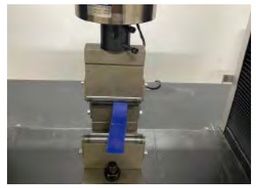
FBE coating holiday test



FBE Coating Degree of Cure Test (MIBK Solvent Rub Test)



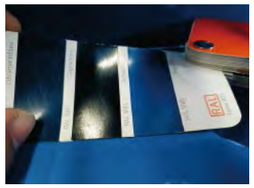
Cross-cut testing verifies FBE coating adhesion to the metal substrate.



FBE Coating Foam Testing



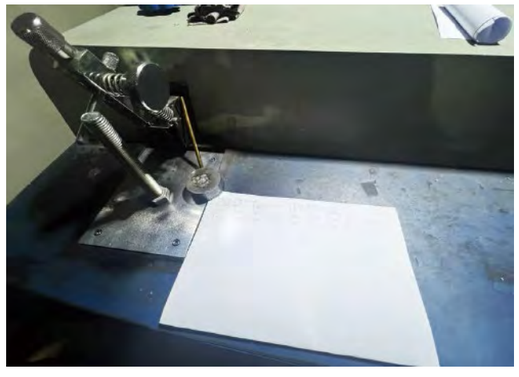
Hot Water Immersion for FBE coating



FBE coating color inspection

MATERIAL ANALYSIS

Material composition is verified using spectrometer analysis.



STANDARDS & TRACEABILITY

- **Judberd products are manufactured and inspected according to international standards, including: EN 545;AWWA C219;AS/NZS4998**
- **Material certificates are available according to: EN 10204 Type 3.1**
- **Third-party inspection can be arranged according to project requirements.**

QUALITY COMMITMENT

Every Judberd product is inspected and tested before delivery to ensure reliable performance, long service life and compliance with international pipeline standards.

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

CERTIFICATE



ISO14001



Certificate of Conformity to EN 545



ISO9001 certificate



WRAS



ISO45001



KTW



ACS



NSF 61

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

CUSTOMER APPROVALS & THIRD-PARTY CERTIFICATIONS

MAYNILAD PREQUALIFIED SUPPLIER

Officially accredited and technically prequalified by **Maynilad, one of the Philippines' largest water utility operators**, qualifying us to participate in its procurement tenders.

In addition to our in-house **Mill Test Certificates (MTCs)**, third-party inspections can be arranged for **raw materials, finished products, and entire shipments prior to dispatch,** with corresponding **inspection and test reports** issued to the customer.

PRODUCT RANGE

1

DISMANTLING JOINT



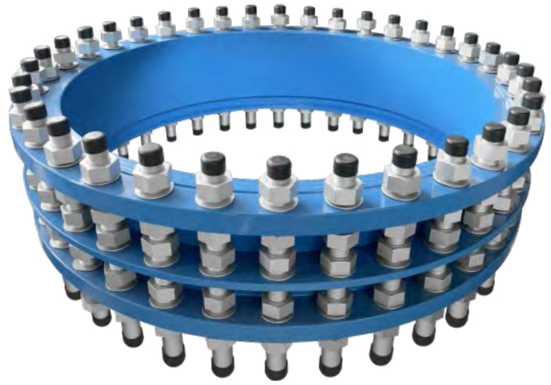
DUCTILE IRON DISMANTLING JOINT

HEAVY DUTY DUCTILE IRON DISMANTLING JOINT

Dismantling joints are designed to simplify installation and maintenance of valves, pumps and other pipeline equipment.

The adjustable length allows easy installation and removal of pipeline components.

Ductile Iron heavy duty type is popular design and used for working Pressure ≤PN25.



GENERAL DATA

Design Standard:

- EN 545 (flange comply to EN 1092-2)
- AWWA C219 (flange comply to AWWA C207/ASME B16.5)
- AS/NZS waterworks standards (flange comply to AS 4087)

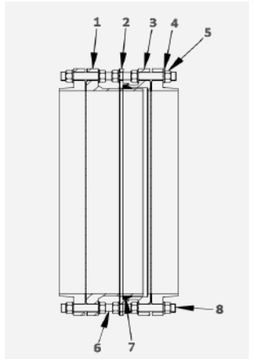
Coating Standard:

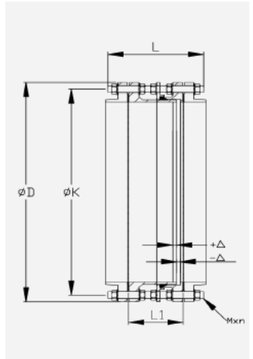
- EN 14901
- AS/NZS 4158
- AWWA C550

Medium: Water, Oil, Gas
Connection Type: Rigid
Size: DN50-DN3000
Pressure: PN10/16/25/Class 125/Class150
Flange: RF /FF

TECHNICAL DATA

Axial Adjustment: ±25 mm
Optional Adjustment: ±30 mm / ±50 mm or customized
Test Pressure: 1.5 × PN
Coating Type: Fusion Bonded Epoxy/Nylon 11/epoxy paint for C5-M environment/Ebonite Hard Rubber Lining/ EPDM rubber lining/UV protective fabric cover
Coating Thickness: ≥250 or According to project and standard requirement





NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624

MATERIAL SPECIFICATION

PART NO.	PART	MATERIAL
1&3	Body	Ductile Iron (EN-GJS-450-10) or other grades of ductile iron upon request.
2	Gland	Ductile Iron (EN-GJS-450-10) or other grades of ductile iron upon request.
4	Washers	Carbon steel with Dacromet or HDG for water supply pipelines; Stainless steel 316 for Coastal / marine environment; Duplex stainless steel for Highly corrosive environment
5	Nuts	
6	Bolts	
7	Gasket	EPDM / NBR/SBR
8	Bolt thread protective cap	Plastic

DIMENSION

Take EN545 dimension as example,AWWA C219 and AS/NZS waterworks standards are available

SIZE	PN	L	L1	△	ϕD	ϕK	MXn
DN50	PN10/16/25	340	190	+/-25	165	125	M16X4
DN65	PN10/16/25	340	190	+/-25	185	145	M16X4
DN80	PN10/16/25	340	205	+/-25	200	160	M16X8
DN100	PN10/16	340	205	+/-25	220	180	M16X8
DN100	PN25	400	215	+/-25	235	190	M20X8
DN125	PN10/16	340	205	+/-25	250	210	M16X8
DN125	PN25	400	220	+/-25	270	220	M24X8
DN150	PN10/16	350	205	+/-25	285	240	M20X8
DN150	PN25	400	220	+/-25	300	250	M24X8
DN200	PN10	350	215	+/-25	340	295	M20X8
DN200	PN16	350	215	+/-25	340	295	M20X12
DN200	PN25	410	225	+/-25	360	310	M24X12
DN250	PN10	390	220	+/-25	400	350	M20X12
DN250	PN16	380	225	+/-25	400	355	M24X12
DN250	PN25	440	235	+/-25	425	370	M27X12
DN300	PN10	390	240	+/-25	455	400	M20X12
DN300	PN16	410	240	+/-25	455	410	M24X12
DN300	PN25	460	245	+/-25	485	430	M27X16
DN350	PN10	400	240	+/-25	505	460	M20X16
DN350	PN16	410	240	+/-25	520	470	M24X16
DN350	PN25	460	265	+/-25	555	490	M30X16
DN400	PN10	420	250	+/-25	565	515	M24X16
DN400	PN16	430	255	+/-25	580	525	M27X16
DN400	PN25	490	275	+/-25	620	550	M33X16
DN450	PN10	440	265	+/-25	615	565	M24X20
DN450	PN16	450	270	+/-25	640	585	M27X20
DN450	PN25	480	280	+/-25	670	600	M33X20
DN500	PN10	440	275	+/-25	670	620	M24X20
DN500	PN16	460	280	+/-25	715	650	M30X20
DN500	PN25	520	285	+/-25	730	660	M33X20
DN600	PN10	460	295	+/-25	780	725	M27X20
DN600	PN16	500	295	+/-25	840	770	M33X20
DN600	PN25	560	310	+/-25	845	770	M36X20
DN700	PN10	480	295	+/-25	895	840	M27X24
DN700	PN16	500	290	+/-25	910	840	M33X24
DN700	PN25	570	315	+/-25	960	875	M39X24
DN800	PN10	500	315	+/-25	1015	950	M30X24
DN800	PN16	530	320	+/-25	1025	950	M36X24
DN800	PN25	590	330	+/-25	1085	990	M45X24
DN900	PN10	500	315	+/-25	1115	1050	M30X28
DN900	PN16	530	315	+/-25	1125	1050	M36X28
DN900	PN25	640	340	+/-25	1185	1090	M45X28
DN1000	PN10	545	330	+/-25	1230	1160	M33X28
DN1000	PN16	570	330	+/-25	1255	1170	M39X28
DN1000	PN25	650	360	+/-25	1320	1210	M52X28
DN1200	PN10	580	345	+/-25	1455	1380	M36X32
DN1200	PN16	620	345	+/-25	1485	1390	M45X32
DN1200	PN25	680	380	+/-25	1530	1420	M52X32
DN1400	PN10	640	375	+/-25	1675	1590	M39X36
DN1400	PN16	680	375	+/-25	1685	1590	M45X36
DN1400	PN25	690	390	+/-25	1755	1640	M56X36
DN1500	PN10	640	400	+/-25	1785	1700	M39X36
DN1500	PN16	690	400	+/-25	1820	1710	M52X36
DN1500	PN25	730	410	+/-25	1865	1750	M56X36
DN1600	PN10	750	395	+/-25	1915	1820	M45X40
DN1600	PN16	780	415	+/-25	1930	1820	M52X40
DN1600	PN25	740	420	+/-25	1975	1860	M56X40
DN1800	PN10	730	420	+/-25	2115	2020	M45X44
DN1800	PN16	730	420	+/-25	2130	2020	M52X44
DN1800	PN25	760	450	+/-30	2195	2070	M64X44
DN2000	PN10	700	440	+/-30	2325	2230	M45X48
DN2000	PN16	770	440	+/-30	2345	2230	M56X48
DN2000	PN25	870	480	+/-30	2425	2300	M64X48
DN2200	PN10	880	525	+/-30	2550	2440	M52X52
DN2200	PN16	760	450	+/-30	2555	2440	M56X52
DN2200	PN25	830	460	+/-30	2630	2510	M64X52
DN2400	PN10	730	460	+/-30	2750	2650	M52X56
DN2400	PN16	850	460	+/-30	2765	2650	M56X56
DN2400	PN25	820	470	+/-30	2830	2710	M64X56
DN2500	PN16	780	460	+/-30	2865	2750	M56X60
DN2600	PN10	780	470	+/-30	2960	2850	M52X60
DN2600	PN16	800	470	+/-30	2965	2850	M56X60
DN2600	PN25	860	480	+/-30	3040	2920	M64X60

Customized dimension which is different from above table is also available upon requirement.
For unreasonable length specifications, we reserve the right to make technical recommendations.

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

LIGHT DUTY DUCTILE IRON DISMANTLING JOINT

The advantage of the light duty dismantling joint is that it uses small bolts for quick tightening, which not only saves installation time but also reduces costs. The number of large bolts can be reduced to 25% of the total quantity (with a minimum of four pieces). This cost reduction is particularly significant when the large bolts are stainless steel bolts, which are relatively expensive.





DN≤900 Gland Design

GENERAL DATA

Design Standard:

- EN 545 (flange comply to EN 1092-2)
- AWWA C219 (flange comply to AWWA C207/ASME B16.5)
- AS/NZS waterworks standards (flange comply to AS 4087)

Coating Standard:

- EN 14901
- AS/NZS 4158
- AWWA C550

Medium: Water,Oil,Gas
Connection Type: Rigid
Size: DN50-DN2000
Pressure: PN10/16/25/Class 125/Class150
Flange: RF /FF





DN≧1000 Gland Design

TECHNICAL DATA

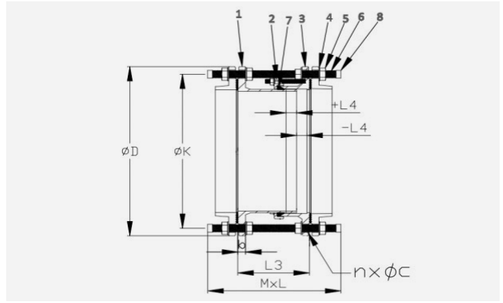
Axial Adjustment: ±25 mm
Optional Adjustment: ±30 mm / ±50 mm or customized
Test Pressure: 1.5 × PN
Coating Type: Fusion Bonded Epoxy/Nylon 11/epoxy paint for C5-M environment/Ebonite Hard Rubber Lining/ EPDM rubber lining/UV protective fabric cover
Coating Thickness: ≥ 250um or According to project and standard requirement

MATERIAL SPECIFICATION

PART NO.	PART	MATERIAL
1&3	Body	Ductile Iron (EN-GJS-450-10) or other grades of ductile iron upon request.
2	Gland	Ductile Iron (EN-GJS-450-10) or other grades of ductile iron upon request.
4	Washer	Carbon steel with Dacromet or HDG for water supply pipelines;Stainless steel 316 for Coastal / marine environment;Duplex stainless steel for Highly corrosive environment
5	Nuts	
6	Bolts	
7	Gasket	EPDM / NBR/SBR
8	Bolt thread protective cap	Plastic

NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624



DIMENSION

Take EN545 dimension as example,AWWA C219 and AS/NZS waterworks standards are available

DN	PN	D	K	b	L3	L4	ΦCXn	MXL	Long Tie Rods No.
DN40	PN10/16	150	110	19	190	±25	19X4	M16X310	4
DN50	PN10/16	165	125	19	190	±25	19X4	M16X310	4
DN65	PN10/16	185	145	19	190	±25	19x4	M16X310	4
DN80	PN10/16	200	160	19	200	±25	19x8	M16X330	4
DN100	PN10/16	220	180	19	200	±25	19x8	M16X330	4
DN125	PN10/16	250	210	19	200	±25	19x8	M16X330	4
DN150	PN10/16	285	240	19	200	±25	20x8	M20X340	4
DN200	PN10	340	295	20	220	±25	23x8	M20X360	4
	PN16	340	295	20	220	±25	23x12	M20X360	4
DN250	PN10	399	350	22	230	±25	23x12	M20X380	4
	PN16	399	355	22	230	±25	28x12	M24X390	4
DN300	PN10	454	400	24.5	240	±25	23x12	M20X380	4
	PN16	454	410	24.5	240	±25	28x12	M24X390	4
DN350	PN10	505	460	24.5	240	±25	23x16	M20X390	4
	PN16	518	47	26.5	240	±25	28x16	M24X400	4
DN400	PN10	562	515	24.5	250	±25	28x16	M24X410	4
	PN16	579	525	28	250	±25	31x16	M27X420	4
DN450	PN10	615	565	25.5	270	±25	28x20	M24X430	5
	PN16	640	585	30	270	±25	31x20	M27X440	5
DN500	PN10	667	620	26.5	280	±25	28x20	M24X440	5
	PN16	715	650	31.5	280	±25	34x20	M30X450	5
DN600	PN10	777	725	30	300	±25	31x20	M27X460	5
	PN16	838	770	36	300	±25	37x20	M33X480	5
DN700	PN10	893	840	32.5	300	±25	31x24	M27X470	6
	PN16	910	840	39.5	300	±25	37x24	M33X490	6
DN800	PN10	1012	950	35	320	±25	34x24	M30X480	6
	PN16	1024	950	43	320	±25	40x24	M36X500	6
DN900	PN10	1112	1050	37.5	320	±25	34x28	M30X490	7
	PN16	1125	1050	46.5	320	±25	40x28	M36X520	7
DN1000	PN10	1227	1160	40	330	±25	37x28	M33X510	7
	PN16	1254	1170	50	330	±25	43x28	M39X550	7
DN1100	PN10	1340	1270	42.5	350	±25	37x32	M33X550	8
	PN16	1349	1270	53.5	350	±25	43x32	M39X580	8
DN1200	PN10	1455	1380	45	360	±25	40x32	M36X570	8
	PN16	1483	1390	57	360	±25	50x32	M45X620	8

Larger size for PN10/16 and PN25 are also available upon request.

NOTE

Light duty dismantling joints utilize a reduced number of long bolts (25%, minimum 4 pcs, grade 4.8) to enable faster installation and cost savings.

Under PN16 working pressure, this configuration is recommended up to DN1000. For larger sizes or higher pressure applications, higher bolt grades and/or an increased number of bolts are required.

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

SAFECLEAR™ DUCTILE IRON DISMANTLING JOINT

Compared with conventional dismantling joints, the SafeClear™ Dismantling Joint features an additional flange that provides extra clearance during length adjustment. This keeps the bolts away from connected water meters, flow meters, and other valuable pipeline equipment, helping prevent accidental contact and potential damage during installation, adjustment, or maintenance.



GENERAL DATA

Design Standard:

- EN 545 (flange comply to EN 1092-2)
- AWWA C219 (flange comply to AWWA C207/ASME B16.5)
- AS/NZS waterworks standards (flange comply to AS 4087)

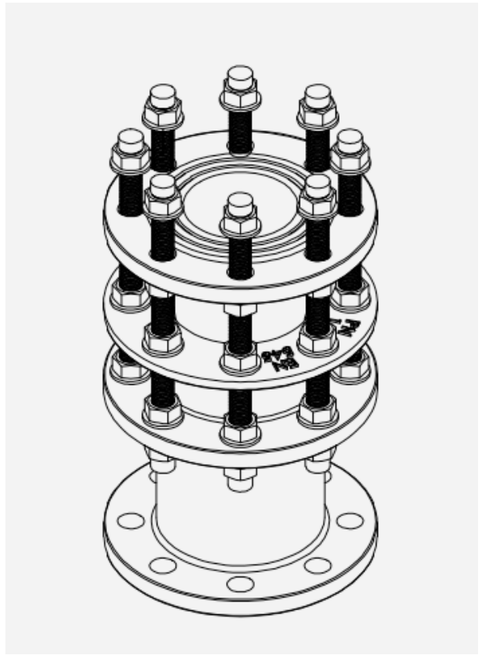
Coating Standard:

- EN 14901
- AS/NZS 4158
- AWWA C550

Medium: Water,Oil,Gas
Connection Type: Rigid
Size: DN50-DN2000
Pressure: PN10/16/25/Class 125/Class150
Flange: RF /FF

TECHNICAL DATA

Axial Adjustment: ±25 mm
Optional Adjustment: ±30 mm / ±50 mm or customized
Test Pressure: 1.5 × PN
Coating Type: Fusion Bonded Epoxy/Nylon 11/epoxy paint for C5-M environment/Ebonite Hard Rubber Lining/ EPDM rubber lining/UV protective fabric cover
Coating Thickness: ≥ 250um or According to project and standard requirement

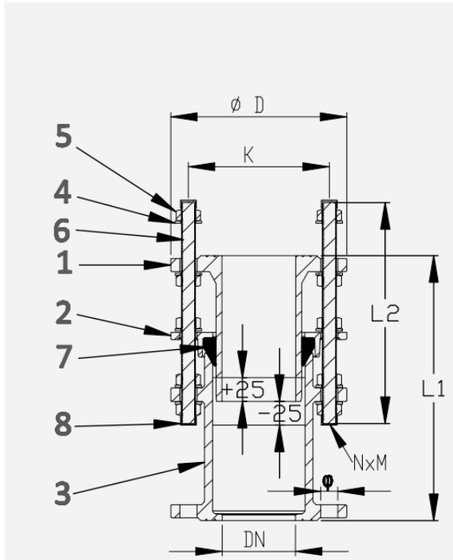


MATERIAL SPECIFICATION

PART NO.	PART	MATERIAL
1&3	Body	Ductile iron(EN-GJS-450-10) or other grades of ductile iron upon request.
2	Gland	Ductile iron(EN-GJS-450-10) or other grades of ductile iron upon request.
4	Washers	Carbon steel with Dacromet or HDG for water supply pipelines;Stainless steel 316 for Coastal/marine environment;Duplex stainless steel for Highly corrosive environment.
5	Nuts	
6	Bolts	
7	Gasket	EPDM/NBR/SBR
8	Bolt thread protective cap	Plastic

NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624



DIMENSION

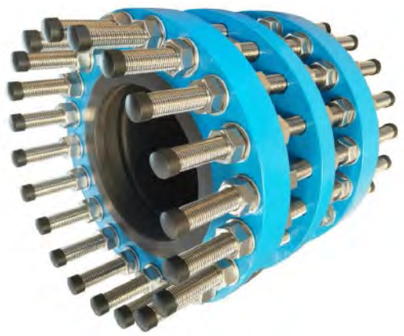
DN	PN	ϕD	K	L1	L2	NXM	ϕ
80	PN10/16	200	160	300	250	8XM16	19
100	PN10/16	219	180	300	250	8XM16	19
150	PN10/16	284	240	350	290	8XM20	23
200	PN10	339	295	350	290	8XM20	23
200	PN16	339	295	350	290	12XM20	23
250	PN10	399	350	350	290	12XM20	23
250	PN16	399	355	375	320	12XM24	28
300	PN10	445	400	350	290	12XM20	23
300	PN16	454	410	375	320	12XM24	28
400	PN10	564	515	375	320	16XM24	28
400	PN16	579	525	425	350	16XM27	31
500	PN10	668	620	375	320	20XM24	28
500	PN16	713	650	450	380	20XM30	34
600	PN10	777	725	400	340	20XM27	31
600	PN16	838	770	475	400	20XM33	37

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

STEEL DISMANTLING JOINT

Steel dismantling joints are typically used for high-pressure pipelines or large diameters where greater mechanical strength is required.

HEAVY DUTY STEEL DISMANTLING JOINT



Carbon Steel



Stainless Steel

GENERAL DATA

Design Standard:

Steel dismantling joints are designed according to project requirements and international flange and welding standards, making them suitable for higher pressure and customized applications.

Coating Standard:

- AWWA C213
- ISO 21809
- EN 14901

Medium: Water, Oil, Gas

Connection Type: Rigid

Size: DN50-DN4000

Pressure: PN10/16/25/40/63/100 Class 125/Class150/ Class300 /Class600/ Class900

Flange: RF /FF

TECHNICAL DATA

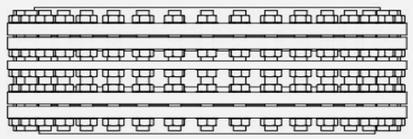
Axial Adjustment: ±25 mm

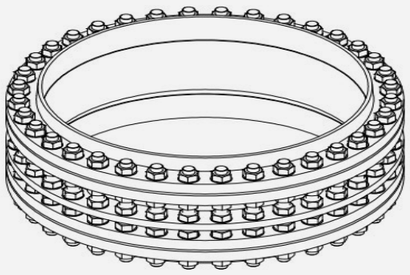
Optional Adjustment: ±30 mm / ±50 mm or customized

Test Pressure: 1.5 × PN

Coating Type: Fusion Bonded Epoxy/Nylon 11/epoxy paint for C5-M environment/Ebonite Hard Rubber Lining/ EPDM rubber lining/UV protective fabric cover

Coating Thickness: ≥ 250um or According to project and standard requirement





MATERIAL SPECIFICATION

PART NO.	PART	MATERIAL
1&3	Body	S235JR / S275JR/S355 / A105 / LF2 or other grades of steel upon request.
2	Gland	S235JR / S275JR/S355 / A105 / LF2 or other grades of steel upon request.
4	Gasket	EPDM / NBR/FKM
5	Bolts	Carbon steel with Dacromet or HDG for water supply pipelines;Stainless steel 316 for Coastal / marine environment; Duplex stainless steel for Highly corrosive environment
6	Washers	
7	Nuts	

NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624

DIMENSION

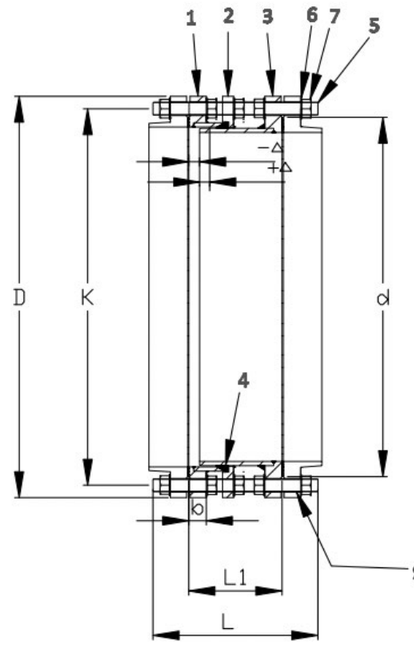
Steel dismantling joints are fabricated products and are not restricted by mold limitations, offering high flexibility in dimensions and configuration.

Dimensions can be customized based on actual project requirements. To proceed with design, the following information is typically required:

- Flange standard or mating flange dimensions
- Required adjustment (telescopic) length

Based on these inputs, a tailored design will be provided.

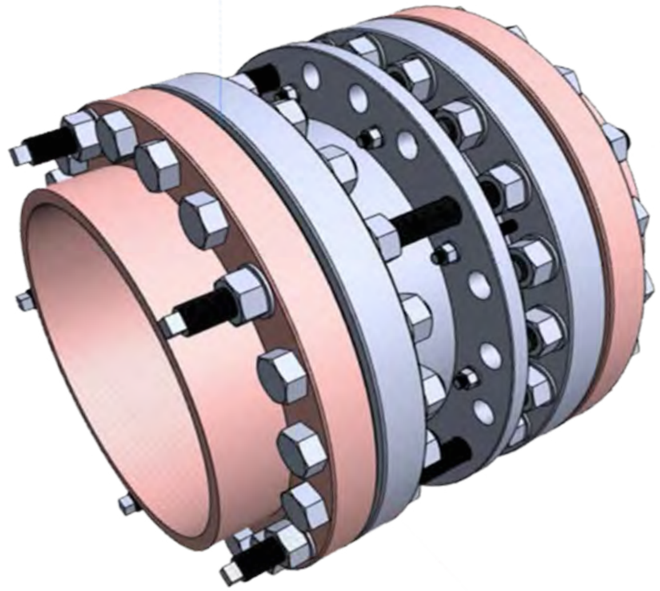
Below Dimension is for reference.



DN	PN	D	K	b	d	L1	△	ΦXn
DN1800	PN10	2115	2020	56	1960	400	30	48-44
DN2200	PN10	2550	2440	58	2370	400	30	56-52
DN2400	PN10	2760	2650	62	2570	400	30	56-56
DN2500	PN10	2860	2750	64	2670	400	30	56-60
DN3000	PN10	3405	3290	75	3210	450	40	62-68
DN600	PN40	890	795	72	735	400	25	48-20
DN800	PN40	1140	1030	75	960	430	30	56-24
DN900	PN40	1250	1140	90	1070	460	30	56-28
DN1600	PN40	2025	1900	120	1815	590	30	70-40
DN1800	PN40	2270	2110	200	2035	750	30	70-48

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

LIGHT DUTY STEEL DISMANTLING JOINT



GENERAL DATA

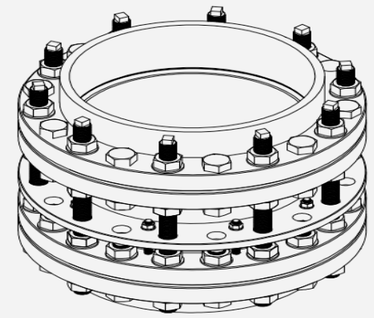
Design Standard:
Steel dismantling joints are designed according to project requirements and international flange and welding standards, making them suitable for higher pressure and customized applications.

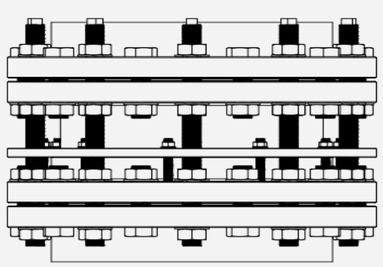
Coating Standard:
- AWWA C213
- ISO 21809
- EN14901

Medium: Water,Oil,Gas
Connection Type: Rigid
Size: DN50-DN4000
Pressure: PN10/16/25/40/63/100 Class 125/Class150 /Class300/Class600/Class900
Flange: RF /FF

TECHNICAL DATA

Axial Adjustment: ±25 mm
Optional Adjustment: ±30 mm / ±50 mm or customized
Test Pressure: 1.5 × PN
Coating Type: Fusion Bonded Epoxy/Nylon 11/epoxy paint for C5-M environment/Ebonite Hard Rubber Lining/ EPDM rubber lining/UV protective fabric cover
Coating Thickness: ≥ 250um or According to project and standard requirement



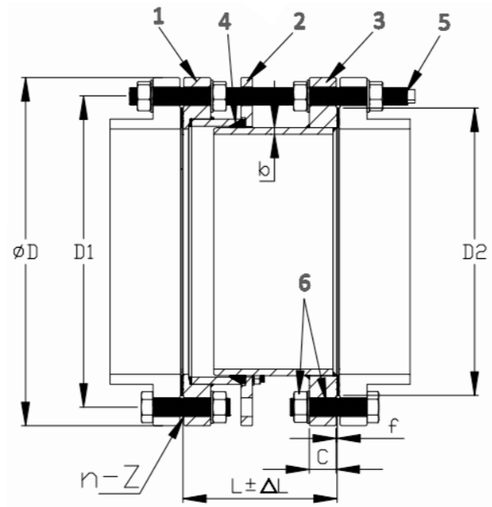


MATERIAL SPECIFICATION

PART NO.	PART	MATERIAL
1&3	Body	S235JR / S275JR/S355 / A105 / LF2 or other grades of steel upon request.
2	Gland	S235JR / S275JR/S355 / A105 / LF2 or other grades of steel upon request.
4	Gasket	EPDM / NBR/FKM
5	Long Bolts	Carbon steel with Dacromet or HDG for water supply pipelines;Stainless steel 316 for Coastal / marine environment;Duplex stainless steel for Highly corrosive environment
6	Small tie rods and nuts	

NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624



DIMENSION

Steel dismantling joints are fabricated products and are not restricted by mold limitations, offering high flexibility in dimensions and configuration.

Dimensions can be customized based on actual project requirements. To proceed with design, the following information is typically required:

– Flange standard or mating flange dimensions

– Required adjustment (telescopic) length

DN	PN	Working pressure	Test pressure	ΦD	D1	D2	L	△L	C	f	b	n-Z
DN1400	PN25	25bar	37.5bar	1560	1640	1560	500	30	94	2	22	36-Φ62
DN1000	PN25	25bar	37.5bar	1140	1210	1140	450	30	63	2	18	28-Φ56

Based on these inputs, a tailored design will be provided.

Below Dimension is for reference.

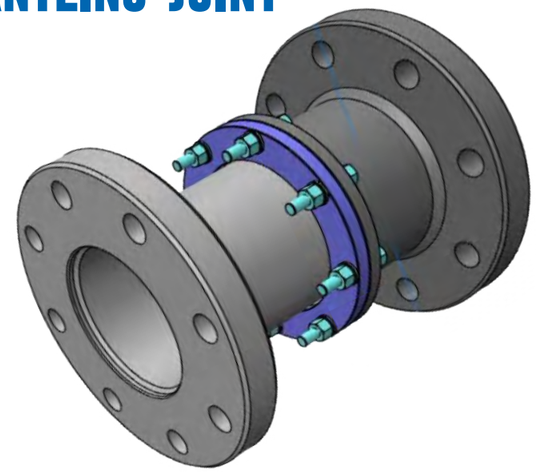
DN	PN	ΦD	D1	D2	L	△L	C	f	b	n-Z
DN1000	PN10	1230	1160	1110	400	30	44	2	14	28-Φ37
DN1000	PN25	1320	1210	1140	450	30	63	2	18	28-Φ56
DN1400	PN6	1630	1560	1510	430	30	56	2	14	36-Φ37
DN1400	PN25	1755	1640	1560	500	30	94	2	22	36-Φ62

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

CUSTOMIZED CARBON STEEL & STAINLESS STEEL DISMANTLING JOINT

EASY ADJUSTMENT

The dismantling joint allows convenient axial adjustment by loosening the small bolts and repositioning the telescopic body, providing a typical adjustment range of 60 mm for smaller sizes and up to 100 mm for larger sizes.



GENERAL DATA

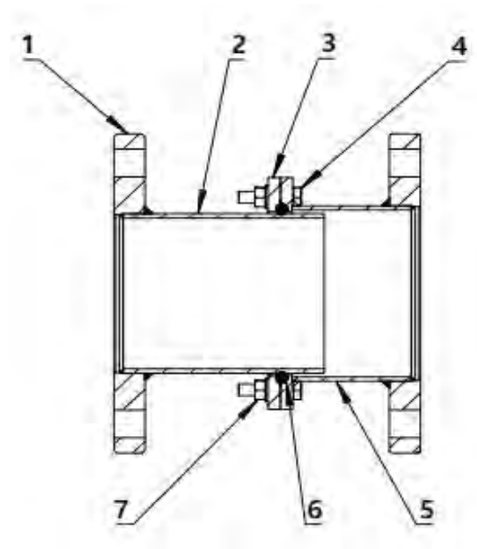
Design Standard:

Steel dismantling joints are designed according to project requirements and international flange and welding standards, making them suitable for higher pressure and customized applications.

Coating Standard:

- EN 10290
- ISO 21809
- AWWA C213

Medium: Water,Oil,Gas
Connection Type: Flexible
Size: DN40-DN1000
Pressure: PN10/16/Class 125/Class150
Flange: RF /FF



TECHNICAL DATA

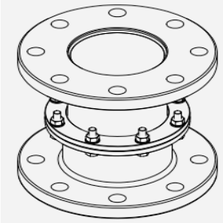
Axial Adjustment: ±30 mm for small size,±50 mm for big size
Test Pressure: 1.5 × PN
Coating Type: Fusion Bonded Epoxy/Nylon 11/epoxy paint for C5-M environment/Ebonite Hard Rubber Lining/ EPDM rubber lining/UV protective fabric cover
Coating Thickness: ≥250 or According to project and standard requirement

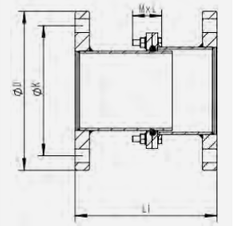
MATERIAL SPECIFICATION

PART NO.	PART	MATERIAL
1	Flange	Canbon steel Q235 or other grade carbon steel
2	Long body	SS304 or other grade stainless steel
3	Retainer	Canbon steel Q235 or other grade carbon steel
4	Bolts	Carbon steel with Dacromet or HDG for water supply pipelines;Stainless steel 316 for Coastal / marine environment;Duplex stainless steel for Highly corrosive environment
5	Short body	SS304/Carbon steel Q235 or other grade steel
6	Gasket	NBR
7	Nuts	Carbon steel with Dacromet or HDG for water supply pipelines;Stainless steel 316 for Coastal / marine environment;Duplex stainless steel for Highly corrosive environment

NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 10290
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624





DIMENSION

SIZE	PN	D	K	L1	ADJUSTABLE	MXL	LENGTH
DN40	PN10	150	110	180	±30	M8×35	4
DN50	PN10	165	125	180	±30	M8×35	4
DN80	PN10	200	160	180	±30	M8×35	8
DN100	PN10	220	180	180	±30	M8×35	8
DN150	PN10	285	240	180	±30	M8×35	8
DN200	PN10	340	295	200	±40	M8×40	8
DN250	PN10	395	350	200	±40	M8×40	12
DN300	PN10	445	400	200	±40	M8×40	12
DN350	PN10	505	460	240	±40	M8×40	16
DN400	PN10	565	515	240	±40	M8×40	16
DN600	PN10	780	725	300	±50	M8×40	20
DN800	PN10	1015	950	300	±50	M10×40	24
DN50	PN16	165	125	180	±30	M8×35	4
DN65	PN16	185	145	180	±30	M8×35	4
DN80	PN16	200	160	180	±30	M8×35	8
DN100	PN16	220	180	180	±30	M8×35	8
DN125	PN16	250	210	180	±30	M8×35	8
DN150	PN16	285	240	180	±30	M8×35	8
DN200	PN16	340	295	200	±40	M8×40	12
DN250	PN16	405	355	200	±40	M8×40	12
DN300	PN16	460	410	200	±40	M8×40	12
DN350	PN16	520	470	240	±40	M8×40	16
DN400	PN16	580	525	240	±40	M8×40	16
DN450	PN16	640	585	240	±40	M8×40	20
DN500	PN16	715	650	240	±40	M8×40	20
DN600	PN16	840	770	300	±50	M8×40	20
DN700	PN16	910	840	300	±50	M10×45	24
DN750	PN16	970	900	300	±50	M10×45	24
DN800	PN16	1025	950	300	±50	M10×45	24
DN900	PN16	1125	1050	300	±50	M12×50	28
DN1000	PN16	1255	1170	300	±50	M12×50	28

Customized dimension which is different from above table is also available upon requirement.
For unreasonable length specifications, we reserve the right to make technical recommendations.

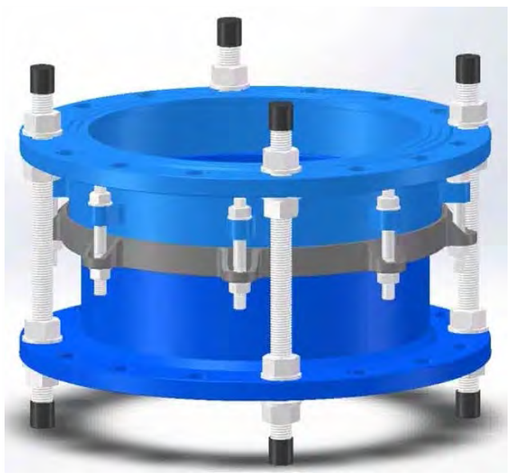
ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by













PRODUCT RANGE

2

PIPE COUPLING & FLANGE ADAPTOR



AQUAGRIP RESTRAINED WIDE RANGE COUPLING AND FLANGE ADAPTOR

AQUAGRIP RESTRAINED WIDE RANGE COUPLING

360° circumferential gripping design ensures uniform restraint force and prevents pipe pull-out.

Recommended for low-strength pipes such as HDPE (SDR ≥ 11, internal stiffeners are required) and PVC.

Wide tolerance design allows connection of pipes with varying outside diameters within the specified range.

Designed to connect two different pipes at each end, functioning as a step coupling.

GENERAL DATA

Design Standard: ● EN 545

Coating Standard:

● EN 14901 ● AS/NZS 4158 ● AWWA C550

Medium: Water, Oil, Gas

Size: DN50-DN600

Pressure: PN10/16/Class 125/Class150

Temperature: -40°~120°



TECHNICAL DATA

Compatible pipe types: ductile iron, grey cast iron, steel, PVC, PE and GRP pipes

Important: For HDPE pipes, an internal pipe stiffener is required. Scan the QR code below for stiffener selection guidelines and detailed installation instructions.



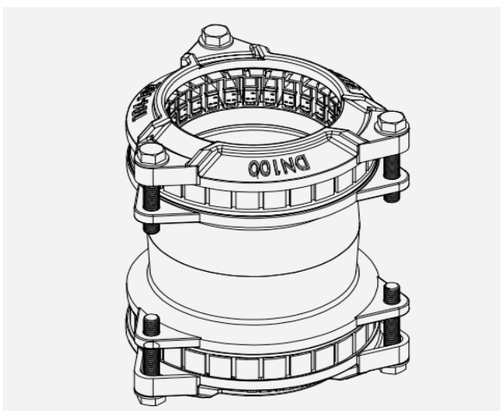
pipe stiffener

Angel Deflection: Maximum angular deflection: ±3°for each size

Test Pressure: 1.5 × PN

Coating Type: Fusion Bonded Epoxy/Nylon 11/epoxy paint for C5-M environment

Coating Thickness: According to project and standard requirement

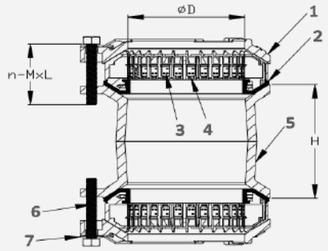


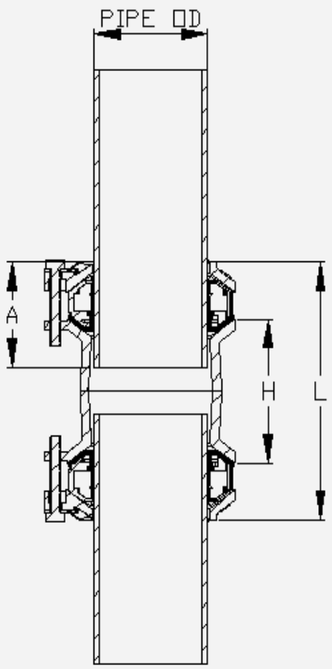
NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624

MATERIAL SPECIFICATION

PART NO.	PART	MATERIAL
1	End Rings	Ductile Iron EN GJS450-10 according to EN1563
2	Gasket	EPDM Compound Grade E to BS EN 681-1 / Nitrile Compound to Grade G BS EN 682, Type G
3	Gripper	SS304
4	Retractable Ring	POM(polyvinylchlorid)
5	Center Sleeve	Ductile Iron EN GJS450-10 according to EN1563
6	Bolts	Grade 8.8 carbon steel or Stainless Steel
7	Washers	Grade 8.8 carbon steel or Stainless Steel
8	Coating	Rilsan Nylon 11 or FBE coating (Adhesion is not less than 12 N/mm2)





DIMENSION

DN	PN	RANGE	ΦD	H	n-MxL	Overall length of coupling (L)	Pipe insertion depth (min-max) (A)
50	PN10/16	46-71	73	150	3-M12x80	265	80-125
60/65	PN10/16	63-90	92	150	3-M12x80	270	80-125
80	PN10/16	84-105	107	150	3-M12x80	260	75-120
100	PN10/16	104-132	134	150	3-M12x80	270	80-125
125	PN10/16	132-155	157.5	150	3-M14x80	260	75-120
150	PN10/16	154-192	194.5	180	3-M14x100	315	90-145
200	PN10/16	192-232	235	180	4-M14x100	320	90-150
250	PN10/16	267-310	313	200	4-M14x110	345	90-160
300	PN10/16	315-356	359	200	6-M14x110	345	90-160
350	PN10/16	352-393	396	200	6-M14x110	345	90-160
400	PN10/16	392-433	436	200	8-M14x110	345	90-160
450	PN10/16	450-482	485	250	8-M16x120	380	90-180
500	PN10/16	500-532	535	250	8-M16x120	380	90-180
600	PN10/16	605-637	640	250	8-M16x120	380	90-180

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

AQUAGRIP RESTRAINED WIDE RANGE FLANGE ADAPTOR

360° circumferential gripping design ensures uniform restraint force and prevents pipe pull-out.

Recommended for low-strength pipes such as HDPE (SDR ≥ 11, internal stiffeners are required) and PVC.

Wide tolerance design allows connection of pipes with varying outside diameters within the specified range.

GENERAL DATA

Design Standard: ●EN 545（flange comply to EN 1092-2)●AWWA C219（flange comply to AWWA C207/ASME B16.5)●AS/NZS waterworks standards(-flange comply to AS 4087)

Coating Standard:

●EN 14901 ● AWWA C550 ●AS/NZS 4158

Medium: Water,Oil,Gas

Size: DN50-DN600

Pressure: PN10/16/Class 125/Class150

Temperature: -40°~120°



TECHNICAL DATA

Compatible pipe types: Ductile iron, grey cast iron, steel, PVC, PE and GRP pipes

Important: For HDPE pipes, an internal pipe stiffener is required. Scan the QR code below for stiffener selection guidelines and detailed installation instructions.



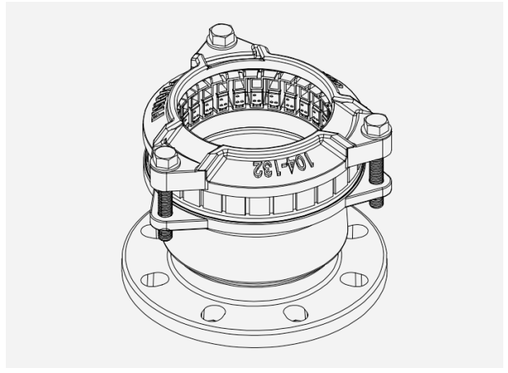
pipe stiffener

Angel Deflection: Maximum angular deflection: ±3°

Test Pressure: 1.5 × PN

Coating Type: Fusion Bonded Epoxy/Nylon 11/epoxy paint for C5-M environment

Coating Thickness: According to project and standard requirement

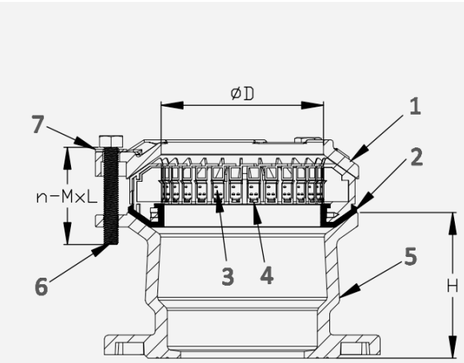


NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624

MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1	End Rings	Ductile Iron EN GJS450-10 according to EN1563
2	Gasket	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G
3	Gripper	SS304
4	Retractable Ring	POM(polyvinylchlorid)
5	Flange Body	Ductile Iron EN GJS450-10 according to EN1563
6	Bolts	Grade 8.8 carbon steel or Stainless Steel
7	Washer	Grade 8.8 carbon steel or Stainless Steel
8	Coating	Rilsan Nylon 11 or FBE coating(Adhesion is not less than 12N/mm2)



DIMENSION

DN	PN	RANGE	ΦD	H	n-MxL
50	PN10/16	46-71	73	120	3-M12x80
60/65	PN10/16	63-90	92	120	3-M12x80
80	PN10/16	84-105	107	120	3-M12x80
100	PN10/16	104-132	134	120	3-M12x80
125	PN10/16	132-155	157.5	130	3-M14x80
150	PN10/16	154-192	194.5	130	3-M14x100
200	PN10/16	192-232	235	150	4-M14x100
250	PN10/16	267-310	313	150	4-M14x110
300	PN10/16	315-356	359	160	6-M14x110
350	PN10/16	352-393	396	160	6-M14x110
400	PN10/16	392-433	436	170	8-M14x110
450	PN10/16	450-482	485	170	8-M16x120
500	PN10/16	500-532	535	180	8-M16x120
600	PN10/16	605-637	640	180	8-M16x120

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

ULTRAGRIP HEAVY DUTY RESTRAINED WIDE RANGE COUPLING AND FLANGE ADAPTOR

ULTRAGRIP HEAVY DUTY RESTRAINED WIDE RANGE COUPLING

1. Equipped with metal toothed gripping segments, forming a high-strength mechanical restraint system capable of withstanding PN25 working pressure (hydrostatic test at 1.5× PN).

The restraint force can be further increased by adjusting the number of gripping segments and upgrading the bolt strength.

2. The end cap is designed with a locking stop feature, preventing the gripping segments from overturning under high pressure, which could otherwise lead to bolt breakage and restraint failure.

GENERAL DATA

Design Standard: EN 545 **Size:** DN50-DN3000

Coating Standard: EN 14901 **Pressure:** PN10/16/25

Medium: Water,Oil,Gas **Temperature:** -40°~120°



TECHNICAL DATA

Compatible pipe types:

Ductile iron, Grey cast iron, Steel, HDPE, PVC, AC, GRP pipes

Important:

(1) For AC or GRP pipes, thicker rubber pads must be applied to the grippers to prevent pipe surface damage. Please consult Judberd for the appropriate configuration.

(2) For HDPE pipes, an internal pipe stiffener is required. Scan the QR code below for stiffener selection guidelines and detailed installation instructions.



pipe stiffener

Maximum angular deflection: ±3°

Test Pressure: 1.5 × PN

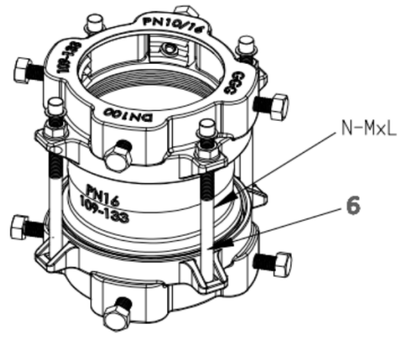
Coating Type: Fusion Bonded Epoxy/Nylon 11/epoxy paint for C5-M environment

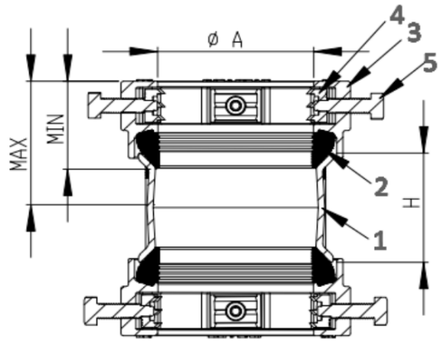
Coating Thickness: According to project and standard requirement



NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624





MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1	Center Sleeve	Ductile Iron EN GJS450-10 according to EN1563
2	Gasket	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G
3	End Ring	Ductile Iron EN GJS450-10 according to EN1563
4	Grip Wedges	Ductile Iron with Dacromet Coating no less than 8um, Carbon Steel and Brass material are also available
5	Grip Tie Rods	Carbon steel grade 10.9 with dacromet coating no less than 8um
6	Bolts	Grade 8.8 carbon steel with dacromet coating no less than 8um or Stainless Steel
7	Coating	Rilsan Nylon 11 or FBE coating(Adhesion is not less than 12 N/mm2)

DIMENSION

DN	OD	PN	ϕA	H	Pipe Insertion Depth		N-MxL
					Min	Max	
DN50	58-74	PN10/16	77	100	85	105	4-M12x180
DN65	68-85	PN10/16	88	100	85	105	4-M12x180
DN80	84-106	PN10/16	109	100	85	105	4-M12x190
DN100	99-118	PN10/16	121	100	85	105	4-M12x190
DN100	109-133	PN10/16	136	100	85	105	4-M12x190
DN125	129-159	PN10/16	162	100	90	110	4-M12x200
DN150	157-182	PN10/16	185	115	85	115	4-M12x200
DN200	177-207	PN10/16	210	140	90	130	4-M12x230
DN200	194-225	PN10/16	228	140	90	130	4-M12x230
DN200	218-242	PN10/16	245	140	85	125	4-M12x220
DN250	244-276	PN10/16	279	130	90	125	6-M12x230
DN250	266-291	PN10/16	294	160	90	135	6-M12x160
DN250	280-305	PN10/16	308	160	90	135	6-M12x160
DN300	302-327	PN10/16	330	160	90	135	6-M12x160
DN300	314-356	PN10/16	359	130	105	135	6-M14x240
DN350	386-410	PN10/16	413	160	105	145	8-M14x260
DN400	398-433	PN10/16	436	180	105	155	8-M16x290
DN500	499-534	PN10/16	537	180	105	155	10-M16x290
DN600	600-635	PN10/16	638	180	105	155	10-M16x290

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

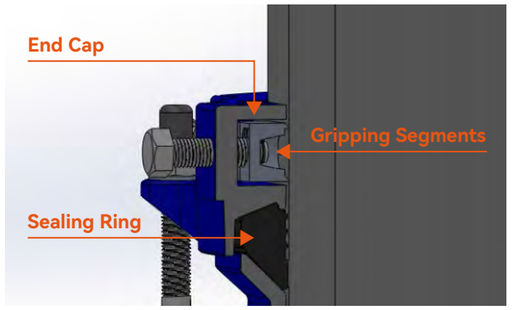
ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

ULTRAGRIP HEAVY DUTY RESTRAINED WIDE RANGE FLANGE ADAPTOR

1. Equipped with metal toothed gripping segments, forming a high-strength mechanical restraint system capable of withstanding PN25 working pressure (hydrostatic test at 1.5× PN).

The restraint force can be further increased by adjusting the number of gripping segments and upgrading the bolt strength.

2. The end cap is designed with a locking stop feature, preventing the gripping segments from overturning under high pressure, which could otherwise lead to bolt breakage and restraint failure.





GENERAL DATA

Design Standard: EN 545
Coating Standard: EN 14901
Medium: Water,Oil,Gas
Size: DN50-DN3000
Pressure: PN10/16/25
Temperature: -40°~120°

TECHNICAL DATA

Compatible pipe types: Ductile iron, Grey cast iron, Steel, HDPE， PVC, AC ,GRP pipes

Important:

(1) For AC or GRP pipes, thicker rubber pads must be applied to the grippers to prevent pipe surface damage. Please consult Judberd for the appropriate configuration.

2) For HDPE pipes, an internal pipe stiffener is required. Scan the QR code below for stiffener selection guidelines and detailed installation instructions.


pipe stiffener

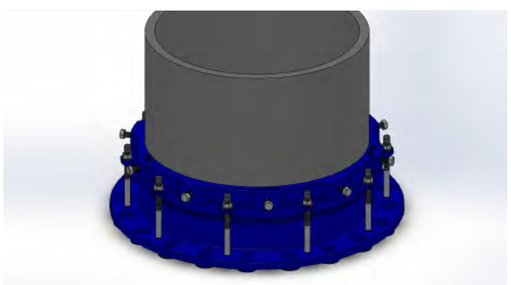
Maximum angular deflection: ±3°

Test Pressure: 1.5 × PN

Coating Type: Fusion Bonded Epoxy/Nylon 11/Epoxy paint for C5-M environment

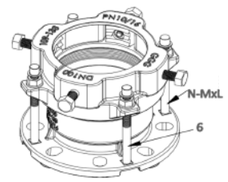
Coating Thickness: According to project and standard requirement

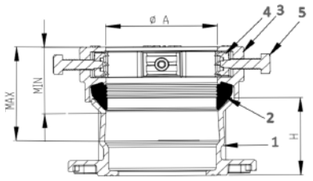




NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624





MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1	Flange Body	Ductile Iron EN GJS450-10 according to EN1563
2	Gasket	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G
3	End Ring	Ductile Iron EN GJS450-10 according to EN1563
4	Grip Wedges	Ductile Iron with Dacromet Coating no less than 8um, Carbon Steel and Brass material are also available
5	Grip Tie Rods	Carbon steel grade 10.9 with dacromet coating no less than 8um
6	Bolts	Grade 8.8 carbon steel with dacromet coating no less than 8um or Stainless Steel
7	Coating	Rilsan Nylon 11 or FBE coating(Adhesion is not less than 12 N/mm2)

DIMENSION

DN	PIPE OD RANGE	PN	NUMBER OF GRIPPER SEGMENTS	ϕA	H	MIN. PIPE INSERTION DEPTH	MAX. PIPE INSERTION DEPTH	N-MxL
DN50	58-74	PN10/16	4	77	100	85	115	4-M12x140
DN65	68-85	PN10/16	4	88	100	85	115	4-M12x140
DN80	84-106	PN10/16	4	109	100	85	115	4-M12x140
DN100	99-118	PN10/16	4	121	100	85	140	4-M12x140
DN100	109-133	PN10/16	4	136	100	85	115	4-M12x140
DN125	129-159	PN10/16	4	162	100	90	140	4-M12x150
DN150	157-182	PN10/16	4	185	110	85	125	4-M12x150
DN200	177-207	PN10/16	4	210	120	90	160	4-M12x160
DN200	194-225	PN10/16	4	228	120	90	160	4-M12x160
DN200	218-242	PN10/16	4	245	120	85	130	4-M12x160
DN250	244-276	PN10/16	6	279	100	90	140	6-M12x150
DN250	266-291	PN10/16	6	294	120	90	130	6-M12x160
DN250	280-305	PN10/16	6	308	120	90	120	6-M12x160
DN300	302-327	PN10/16	6	330	120	90	130	6-M12x160
DN300	314-356	PN10/16	6	359	130	105	160	6-M12x180
DN350	342-372	PN10/16	8	375	130	105	180	8-M14x180
DN350	362-392	PN10/16	8	395	130	105	180	8-M14x180
DN350	370-400	PN10/16	8	403	140	105	160	8-M14x190
DN350	386-410	PN10/16	8	413	140	105	160	8-M14x200
DN400	380-415	PN10/16	8	418	135	105	190	8-M16x190
DN400	390-425	PN10/16	8	428	135	105	190	8-M16x190
DN400	398-433	PN10/16	8	436	135	105	190	8-M16x190
DN400	420-455	PN10/16	8	458	150	105	160	8-M16x200
DN450	440-475	PN10/16	10	478	135	105	190	10-M16x190
DN450	470-505	PN10/16	10	508	150	105	160	10-M16x200
DN500	485-520	PN10/16	10	523	145	105	200	10-M16x190
DN500	499-534	PN10/16	10	537	145	105	200	10-M16x190
DN500	520-555	PN10/16	10	558	155	105	160	10-M16x200
DN600	600-635	PN10/16	10	638	145	105	200	10-M16x190
DN600	615-650	PN10/16	10	653	145	105	200	10-M16x190

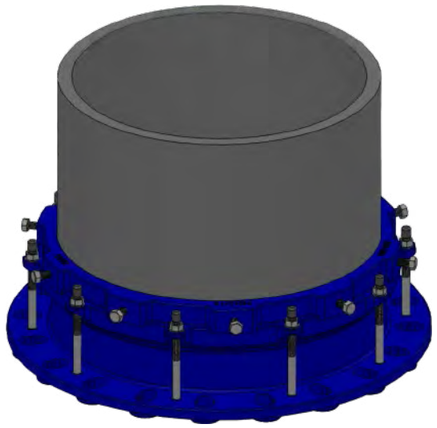
Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

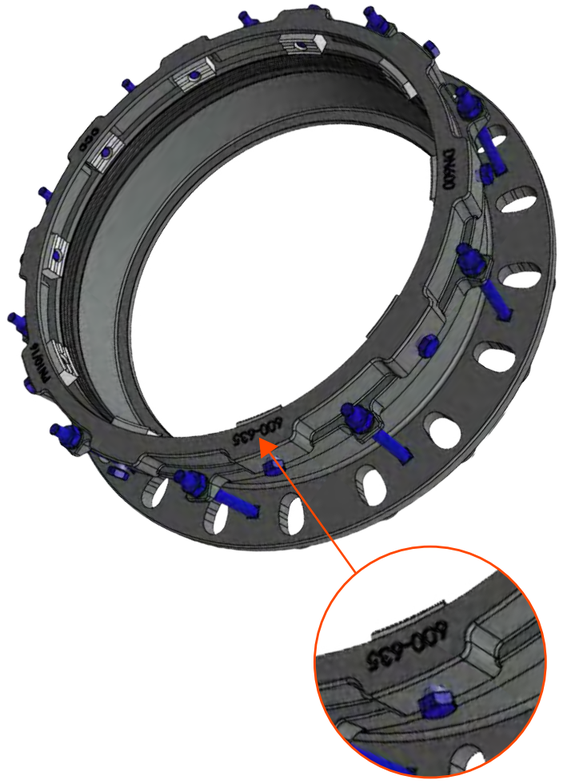
ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

ULTRAGRIP HEAVY DUTY RESTRAINED WIDE RANGE FLANGE ADAPTOR

Installation Guide

Select the appropriate product according to the range marking on the end ring of the Judberd ULTRAGRIP Heavy-Duty Restrained Wide-Range Flange Adaptor. Ensure that the outside diameter of the pipe falls within the range specified by Judberd, as indicated below. Before installation, carefully read these installation instructions and check that no components are missing or damaged.

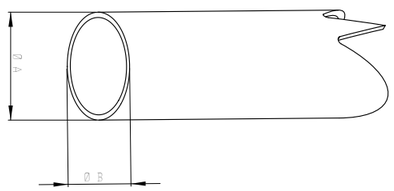




Note: An internal stiffener shall be installed in all HDPE pipes used with Judberd ULTRAGRIP Heavy-Duty Restrained Wide-Range Flange Adaptors. This is mandatory for SDR17 and thinner wall pipes (SDR21, SDR26, SDR33, SDR41), and strongly recommended for all HDPE pipe installations.

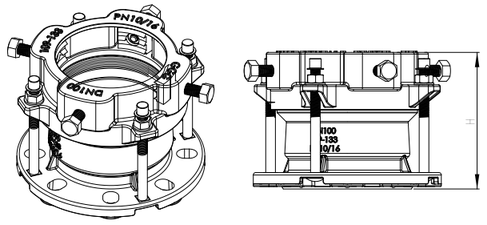
● STEP 1

First, measure the outside diameter of the pipe to be connected. Measure the pipe in two perpendicular directions to obtain ØA and ØB, as shown in the figure below. Calculate the average value using (ØA + ØB) / 2 to determine the pipe diameter.



● STEP 2

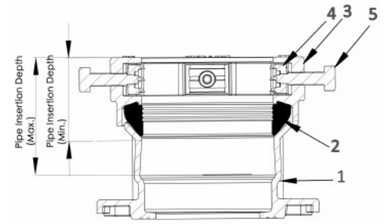
Measure the flange adaptor height (H) as shown in the figure below for later use.



● STEP 3

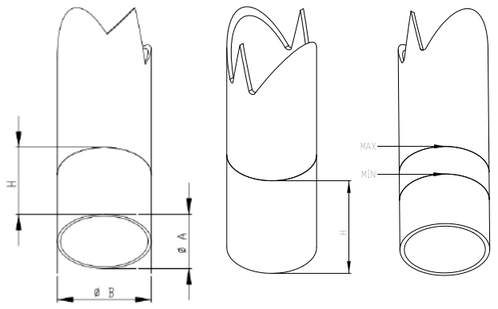
Clean the pipe end to be connected. The cleaned length shall be slightly longer than H. After cleaning, mark a MIN line (as shown in the figure below and in the parameter table for the minimum pipe insertion depth) and a MAX line (as shown in the figure below and in the parameter table for the maximum pipe insertion depth).

DN	OD	PN	Pipe Insertion Depth (Min.)	Pipe Insertion Depth (Max.)
DN50	58-74	PN10/16	85	115
DN65	68-85	PN10/16	85	115
DN80	84-106	PN10/16	85	115
DN100	99-118	PN10/16	85	140
DN100	109-133	PN10/16	85	115
DN125	129-159	PN10/16	90	140
DN150	157-182	PN10/16	85	125
DN200	177-207	PN10/16	90	160
DN200	194-225	PN10/16	90	160
DN200	218-242	PN10/16	85	130
DN250	244-276	PN10/16	90	140
DN250	266-291	PN10/16	90	130
DN250	280-305	PN10/16	90	120
DN300	302-327	PN10/16	90	130
DN300	314-356	PN10/16	105	160
DN350	342-372	PN10/16	105	180
DN350	362-392	PN10/16	105	180
DN350	370-400	PN10/16	105	160
DN350	386-410	PN10/16	105	160
DN400	380-415	PN10/16	105	190
DN400	390-425	PN10/16	105	190
DN400	398-433	PN10/16	105	190
DN400	420-455	PN10/16	105	160
DN450	440-475	PN10/16	105	190
DN450	470-505	PN10/16	105	160
DN500	485-520	PN10/16	105	200
DN500	499-534	PN10/16	105	200
DN500	520-555	PN10/16	105	160
DN600	600-635	PN10/16	105	200
DN600	615-650	PN10/16	105	200



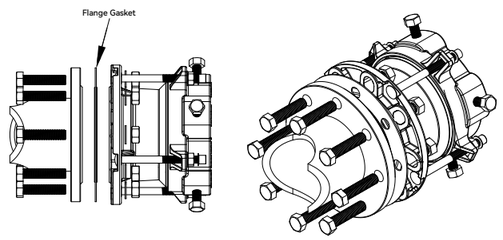
Inspect the pipe surface from the pipe end to the MAX line and ensure that there are no obvious dents, protrusions, scratches, or other defects that may affect the sealing performance. All weld seams shall be ground smooth.

Please note that the pipe ovality (ØA − ØB) shall be less than 1.5 mm for pipes with an outside diameter up to OD400, less than 2.0 mm for pipes with an outside diameter from OD400 to OD600, and less than 2.5 mm for pipes with an outside diameter from OD600 to OD1000. If the measured ovality exceeds these limits, the pipe shall be re-rounded or reshaped to reduce the ovality to within the specified tolerances.



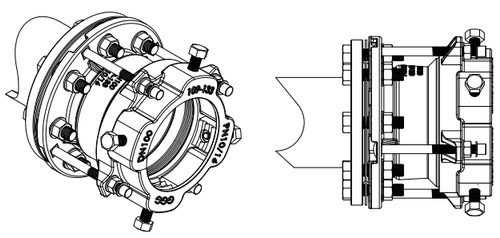
● STEP 4

Select the appropriate flange gasket of the same size and place it between the flange of this adaptor and the mating flange, as shown in the figure below. Select bolts of the correct size and length (refer to the relevant flange standard for the required bolt dimensions) and align the flange bolt holes of the adaptor with those of the mating flange.



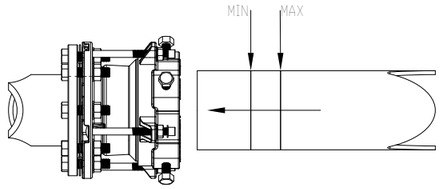
● STEP 5

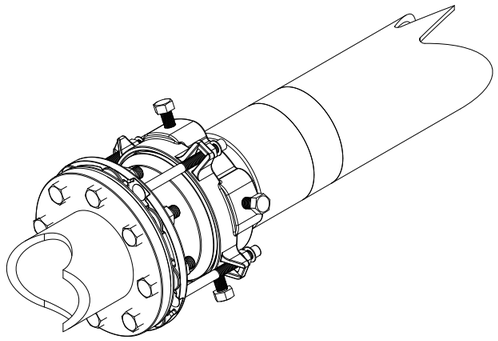
Insert the flange bolts and hand-tighten the nuts. Align the flange of this adaptor with the mating flange, then tighten all bolts gradually in several passes using a diagonal (cross-tightening) sequence.



● STEP 6

Our flange adaptor has been pre-assembled and lubricated. First, loosen and retract the side locking block bolts to prevent the locking blocks from obstructing pipe insertion. Loosen all gland nuts to facilitate the insertion of the pipe marked with the MIN and MAX insertion depth lines.



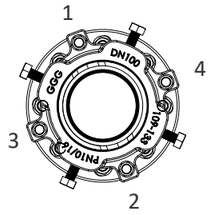


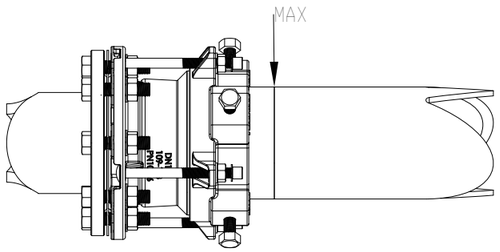
● STEP 7

Insert the pipe until the MIN mark passes beyond the gland face, while ensuring that the MAX mark does not pass beyond the gland face.

Tighten nuts 1, 2, 3, and 4 in several rounds using progressively increasing torque. The recommended tightening torques are as follows:

- M12: 40–50 N·m
- M14: 50–60 N·m
- M16: 60–70 N·m

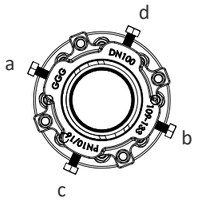


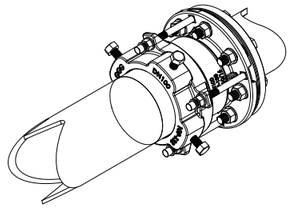


● STEP 8

Tighten the side locking block bolts (a, b, c, and d) until each locking block makes light contact with the outside diameter of the inserted pipe.

After confirming that all locking blocks are in contact with the pipe OD, tighten the locking block bolts in multiple passes along the diagonal sequence of a-b-c-d, applying progressively increasing torque during each round.

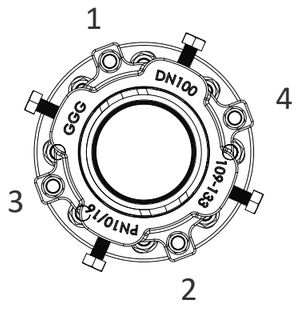




● STEP 9

To compensate for gasket settlement, retighten the gland nuts once more in the diagonal sequence of 1-2-3-4, using the same torque values specified below.

- M12: 40–50 N·m
- M14: 50–60 N·m
- M16: 60–70 N·m



● STEP 10

To confirm that the installation has been completed correctly, perform a hydrostatic pressure test at 1.5 times the pipeline working pressure and inspect the joint for any signs of leakage.

UNIVERSAL COUPLING AND UNIVERSAL FLANGE ADAPTOR

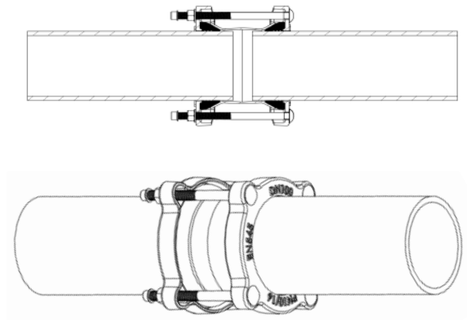
UNIVERSAL COUPLING WITH CARBON STEEL MIDDLE SLEEVE

Designed for underground applications with backfill or above-ground installations with appropriate restraint systems.

Non-restrained design. For above-ground use without anchoring, the maximum working pressure is limited to 6 bar.

Not recommended for HDPE pipes.

Wide tolerance design allows connection of pipes with varying outside diameters within the specified range.





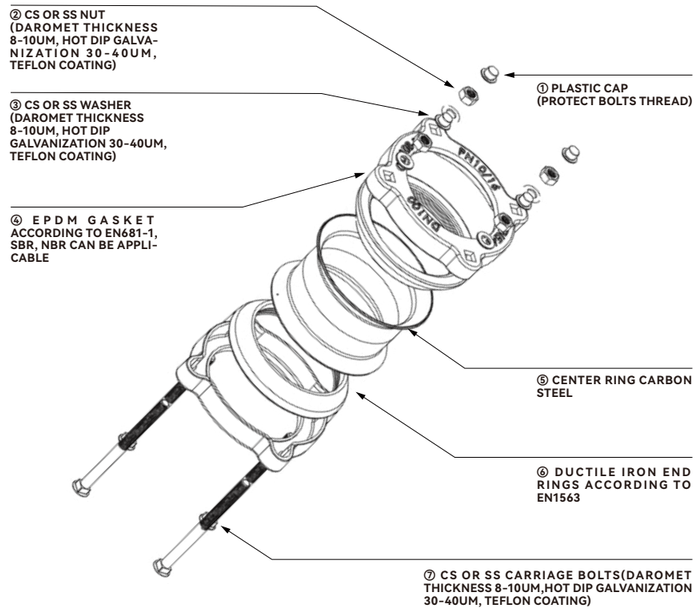
■ GENERAL DATA

Design Standard: EN 545
Coating Standard: EN 14901
Medium: Water, Oil, Gas
Size: DN50-DN1000
Pressure: PN10/16
Temperature: -40°~120°

■ TECHNICAL DATA

Compatible pipe types: Ductile iron, Grey cast iron, Steel, PVC, AC ,GRP pipes
Maximum angular deflection: ±3°for each size
Test Pressure: 1.5 × PN
Coating Type:
Fusion Bonded Epoxy/ Nylon 11/ Epoxy paint for C5-M environment
Coating Thickness: According to project and standard requirement

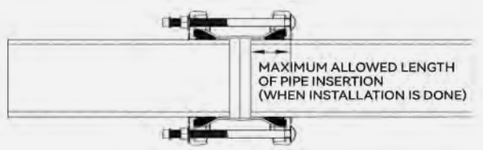
■ MATERIAL SPECIFICATION

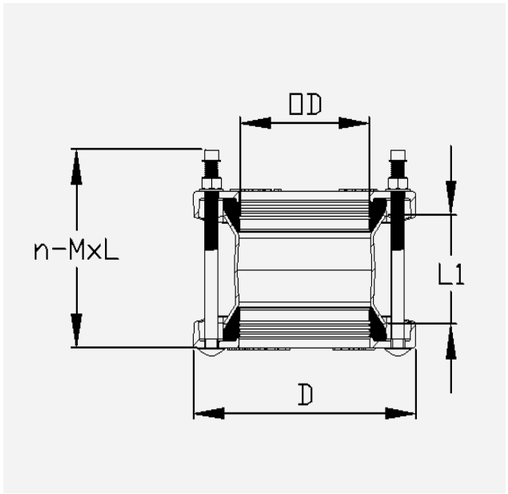


ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624





DIMENSION

SIZE	PIPE OUSTIDE DIAMETER	END RING OUTSIDE DIAMETER	CERTER RING LENGTH	BOLTS NUMBER-BOLTS SIZEXLENGTH
NOMINAL DIAMETER	OD	D	L1	n-MxL
DN40	48-60	155	95	2-M12x170
DN50	59-72	165	95	2-M12x170
DN50	59-78	168	95	4-M12x170
DN65	72-85	180	95	2-M12x170
DN80	88-103	185	95	4-M12x170
DN100	98-118	208	95	4-M12x170
DN100	108-128	225	95	4-M12x180
DN125	132-153	250	95	4-M12x180
DN150	150-170	261	105	4-M12x180
DN150	159-182	275	110	4-M12x190
DN200	190-210	305	130	4-M12x210
DN200	218-235	315	130	4-M12x210
DN250	242-267	350	130	6-M12x220
DN250	272-289	395	130	6-M12x220
DN300	315-332	450	130	6-M12x220
DN300	322-339	460	130	6-M12x220
DN300	340-360	460	130	6-M14x230
DN350	351-378	510	130	8-M14x230
DN350	374-391	520	130	8-M14x230
DN350	386-410	524	130	8-M14x230
DN400	417-437	556	130	8-M14x230
DN450	438-458	594	130	10-M14x230
DN450	476-493	615	130	10-M14x230
DN500	500-516	623	130	10-M14x230
DN500	500-532	667	150	10-M14x250
DN500	526-546	666	150	10-M14x250
DN500	540-570	686	150	10-M14x250
DN600	580-605	746	150	10-M14x250
DN600	600-630	745	150	10-M14x250
DN600	630-650	770	150	10-M14x250
DN700	720-738	867	160	12-M14x260
DN700	730-745	874	160	12-M14x260
DN800	820-842	988	160	12-M16x270

SIZE	OD	MAXIMUM ALLOWED LENGTH OF PIPE INSERTION	ALLOWABLE PIPE OVAL	ALLOWABLE PIPE O.D. TOLERANCE
DN40	48-60	45-65	2	±1
DN50	59-72	45-65	2	±1
DN50	59-78	45-65	2	±1
DN65	72-85	45-65	2	±1
DN80	88-103	45-65	2	±1
DN100	98-118	45-65	2	±1
DN100	108-128	45-65	2	±1
DN125	132-153	45-65	2	±1
DN150	150-170	45-70	2	±1
DN150	159-182	45-70	2	±1
DN200	190-210	45-80	2	±1
DN200	218-235	45-80	2	±1
DN250	242-267	45-85	2	±1
DN250	272-289	45-85	2	±1
DN300	315-332	45-85	2	±1
DN300	322-339	45-85	2	±1
DN300	340-360	50-85	2	±1
DN350	351-378	50-90	2	±1
DN350	374-391	50-90	2	±1
DN350	386-410	55-90	2	±1
DN400	417-437	55-90	2	±1
DN450	438-458	55-90	2	±1
DN450	476-493	55-90	2	±1
DN500	500-516	55-90	2	±1
DN500	500-532	55-100	2	±1
DN500	526-546	55-100	2	±1
DN500	540-570	55-100	2	±1
DN600	580-605	60-100	2	±1
DN600	600-630	60-100	2	±1
DN600	630-650	60-100	2	±1
DN700	720-738	60-105	2	±1
DN700	730-745	60-105	2	±1
DN800	820-842	60-105	2	±1

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

UNIVERSAL COUPLING WITH DUCTILE IRON MIDDLE SLEEVE

Designed for underground applications with backfill or above-ground installations with appropriate restraint systems.

Non-restrained design. For above-ground use without anchoring, the maximum working pressure is limited to 6 bar.

Not recommended for HDPE pipes.

Wide tolerance design allows connection of pipes with varying outside diameters within the specified range.



GENERAL DATA

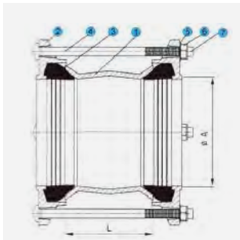
Design Standard: EN 545
Coating Standard: EN 14901
Medium: Water,Oil,Gas
Size: DN50-DN600
Pressure: PN10/16
Temperature: -40°~120°

TECHNICAL DATA

Compatible Pipe Types: Ductile iron, Grey cast iron, Steel, PVC, AC ,GRP pipes
Maximum Angular Deflection: ±3°for each size
Test Pressure: 1.5 × PN
Coating Type: Fusion Bonded Epoxy/Nylon 11/Epoxy paint for C5-M environment
Coating Thickness: According to project and standard requirement

MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1	Center Sleeve	Ductile Iron EN GJS450-10 according to EN1563
2	End Rings	Ductile Iron EN GJS450-10 according to EN1563
3	Gasket	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G
4	Bolts	Grade 4.8 carbon steel or Stainless Steel
5	Washers	Grade 4.8 carbon steel or Stainless Steel
6	Nuts	Grade 4.8 carbon steel or Stainless Steel
7	Cap	Plastic
8	Coating	Rilsan Nylon 11 or FBE coating(Adhesion is not less than 12 N/mm2)





NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624

DIMENSION

DN	OD	PN	ΦA	L
DN50	58-74	PN10/16	77	100
DN65	68-85	PN10/16	88	100
DN80	84-106	PN10/16	109	100
DN100	99-118	PN10/16	121	100
Dn100	109-133	PN10/16	136	100
DN125	129-159	PN10/16	162	100
DN150	157-182	PN10/16	185	115
Dn200	177-207	PN10/16	210	140
DN200	194-225	PN10/16	228	140
DN200	218-242	PN10/16	245	140
DN250	244-276	PN10/16	279	130
DN250	266-291	PN10/16	294	160
DN250	280-305	PN10/16	308	160
DN300	302-327	PN10/16	330	160
DN300	314-356	PN10/16	359	130
DN350	386-410	PN10/16	413	160
DN400	398-433	PN10/16	436	180
DN500	499-534	PN10/16	537	180
DN600	600-635	PN10/16	638	180

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

UNIVERSAL FLANGE ADAPTOR

Designed for underground applications with backfill or above-ground installations with appropriate restraint systems.

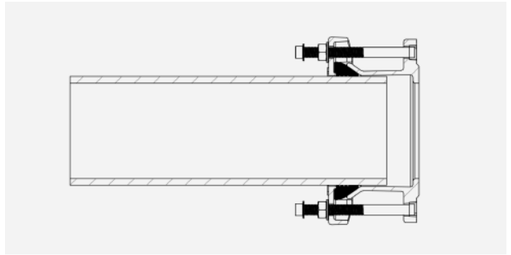
Non-restrained design. For above-ground use without anchoring, the maximum working pressure is limited to 6 bar.

Not recommended for HDPE pipes.

Wide tolerance design allows connection of pipes with varying outside diameters within the specified range.

The flange is compatible with EN 1092 standard flanges, PN10 and PN16.





GENERAL DATA

Design Standard: EN 545

Flange Design Standard: EN1092-2

Coating Standard: EN 14901

Medium: Water,Oil,Gas

Size: DN50-DN1000

Pressure: PN10/16

Temperature: -40°~120°

TECHNICAL DATA

Compatible Pipe Types: Ductile iron, Grey cast iron, Steel, PVC, AC, GRP pipes

Maximum angular deflection: ±3°

Test Pressure: 1.5 × PN

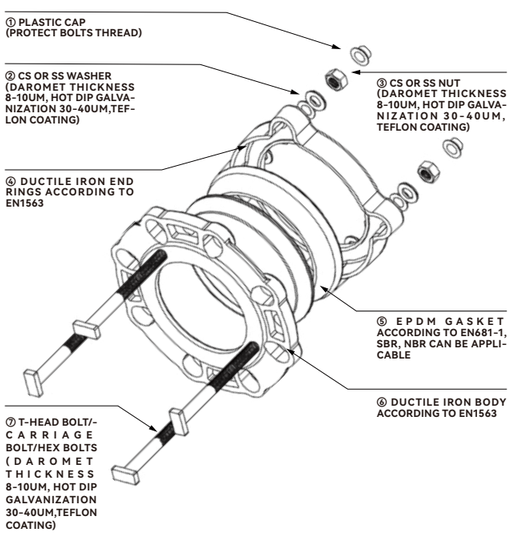
Coating Type: Fusion Bonded Epoxy/Nylon 11/Epoxy paint for C5-M environment

Coating Thickness: According to project and standard requirement

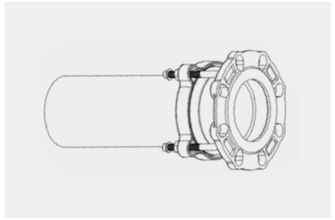
NORMAL COATING SPECIFICATION

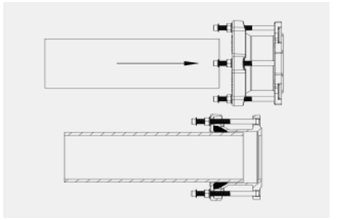
PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624

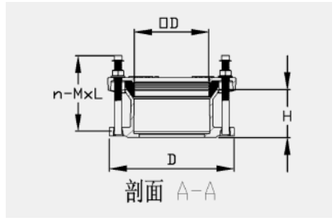
MATERIAL SPECIFICATION



FLANGE SIZE NOMINAL DIAMETER	WORKING PRESSURE PN	OD RANGE PIPE OUTSIDE DIAMETER	MAXIMUM ALLOWED LENGTH OF PIPE INSERTION	ALLOWABLE PIPE OVAL	ALLOWABLE PIPE O.D. TOLERANCE
DN40	PN10/16	48-60	45-85	2	±1
DN50	PN10/16	59-72	45-85	2	±1
DN65	PN10/16	72-85	45-85	2	±1
DN80	PN10/16	88-103	45-85	2	±1
DN100	PN10/16	98-118	45-85	2	±1
DN100	PN10/16	108-128	45-85	2	±1
DN125	PN10/16	132-153	45-85	2	±1
DN150	PN10/16	150-170	45-85	2	±1
DN150	PN10/16	159-182	45-85	2	±1
DN200	PN10/16	190-210	45-85	2	±1
DN200	PN10/16	218-235	45-85	2	±1
DN250	PN10/16	242-267	45-95	2	±1
DN250	PN10/16	272-289	45-95	2	±1
DN300	PN10/16	315-332	45-95	2	±1
DN300	PN10/16	322-339	45-95	2	±1
DN300	PN10/16	340-360	50-90	2	±1
DN350	PN10/16	351-378	50-110	2	±1
DN350	PN10/16	374-391	50-110	2	±1
DN350	PN10/16	386-410	50-100	2	±1
DN400	PN10/16	386-410	55-110	2	±1
DN400	PN10/16	398-429	55-110	2	±1
DN400	PN10/16	417-437	55-110	2	±1
DN450	PN10/16	438-458	55-110	2	±1
DN450	PN10/16	476-493	55-110	2	±1
DN500	PN10/16	500-516	55-110	2	±1
DN500	PN10/16	500-532	55-110	2	±1
DN500	PN10/16	526-546	55-110	2	±1
DN500	PN10/16	540-570	55-100	2	±1
DN600	PN10/16	580-605	60-110	2	±1
DN600	PN10/16	600-630	60-110	2	±1
DN600	PN10/16	630-650	60-110	2	±1
DN700	PN10/16	720-738	60-120	2	±1
DN700	PN10/16	730-745	60-120	2	±1
DN800	PN10/16	820-842	60-120	2	±1







DIMENSION

FLANGE SIZE NOMINAL DIAMETER	WORKING PRESSURE PN	OD RANGE PIPE OUTSIDE DIAMETER	FLANGE OUTSIDE DIAMETER D	FLANGE BODY HEIGHT H	BOLTS NUMBER-BOLTS SIZEXBOLTS LENGTH n-MxL	BOLTS TYPE	MAXIMUM AFFORDABLEPRESSURE (bar)	MAX DEFLECITON (DEGREES)
DN40	PN10/16	48-60	145	82	2-M12x130	T-HEAD BOLT	25	±3°
DN50	PN10/16	59-72	169	82	4-M12x130	T-HEAD BOLT	25	±3°
DN65	PN10/16	72-85	182	82	4-M12x130	T-HEAD BOLT	25	±3°
DN80	PN10/16	88-103	209	82	4-M12x130	T-HEAD BOLT	25	±3°
DN100	PN10/16	98-118	226	85	4-M12x130	T-HEAD BOLT	25	±3°
DN100	PN10/16	108-128	226	85	4-M12x130	T-HEAD BOLT	25	±3°
DN125	PN10/16	132-153	257	82	4-M12x130	T-HEAD BOLT	25	±3°
DN150	PN10/16	150-170	282	82	4-M12x130	T-HEAD BOLT	25	±3°
DN150	PN10/16	159-182	282	82	4-M12x130	T-HEAD BOLT	25	±3°
DN200	PN10/16	190-210	337	82	4-M12x130	T-HEAD BOLT	25	±3°
DN200	PN10/16	218-235	337	82	4-M12x130	T-HEAD BOLT	25	±3°
DN250	PN10/16	242-267	408	95	6-M12x140	T-HEAD BOLT	25	±3°
DN250	PN10/16	272-289	408	95	6-M12x140	T-HEAD BOLT	25	±3°
DN300	PN10/16	315-332	454	95	6-M12x140	T-HEAD BOLT	25	±3°
DN300	PN10/16	322-339	454	95	6-M12x140	T-HEAD BOLT	25	±3°
DN300	PN10/16	340-360	454	130	6-M14x185	CARRIAGE BOLT	25	±3°
DN350	PN10/16	351-378	520	112	8-M14x170	HEX BOLTS	25	±3°
DN350	PN10/16	374-391	520	112	8-M14x170	HEX BOLTS	25	±3°
DN350	PN10/16	386-410	535	140	8-M14x200	HEX BOLTS	25	±3°
DN400	PN10/16	386-410	580	110	8-M14x170	HEX BOLTS	25	±3°
DN400	PN10/16	398-429	580	112	8-M14x170	HEX BOLTS	25	±3°
DN400	PN10/16	417-437	580	110	8-M14x170	HEX BOLTS	25	±3°
DN450	PN10/16	438-458	640	113	10-M14x170	HEX BOLTS	25	±3°
DN450	PN10/16	476-493	640	113	10-M14x170	HEX BOLTS	25	±3°
DN500	PN10/16	500-516	715	110	10-M14x180	HEX BOLTS	25	±3°
DN500	PN10/16	500-532	715	115	10-M14x180	HEX BOLTS	25	±3°
DN500	PN10/16	526-546	715	113	10-M14x180	HEX BOLTS	25	±3°
DN500	PN10/16	540-570	715	150	10-M14x220	HEX BOLTS	25	±3°
DN600	PN10/16	580-605	838	115	10-M14x180	T-HEAD BOLT	25	±3°
DN600	PN10/16	600-630	838	115	10-M14x180	HEX BOLTS	25	±3°
DN600	PN10/16	630-650	838	115	10-M14x180	HEX BOLTS	25	±3°
DN700	PN10/16	720-738	910	125	12-M14x185	HEX BOLTS	25	±3°
DN700	PN10/16	730-745	910	125	12-M14x185	HEX BOLTS	25	±3°
DN800	PN10/16	820-842	1025	125	12-M16x190	HEX BOLTS	25	±3°

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

UNIVERSAL FLANGE ADAPTOR

Designed for underground applications with backfill or above-ground installations with appropriate restraint systems.

Non-restrained design. For above-ground use without anchoring, the maximum working pressure is limited to 6 bar.

Not recommended for HDPE pipes.

Wide tolerance design allows connection of pipes with varying outside diameters within the specified range.

The flange is compatible with EN 1092 standard flanges, PN10 and PN16.



GENERAL DATA

Design Standard: EN 545
Flange Design Standard: EN1092-2
Coating Standard: EN 14901
Medium: Water,Oil,Gas
Size:DN50-DN600
Pressure: PN10/16
Temperature: -40°~120°

TECHNICAL DATA

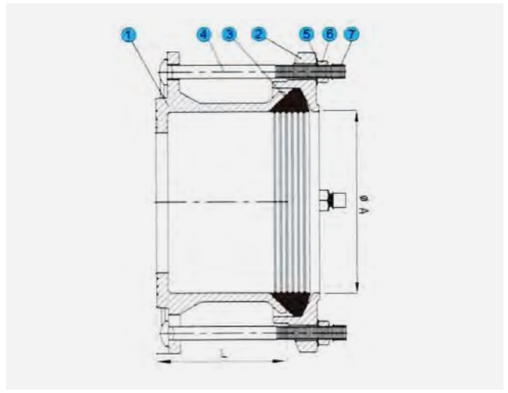
Compatible Pipe Types: Ductile iron, Grey cast iron, Steel, PVC, AC,GRP pipes
Maximum Angular Deflection: ±3°
Test Pressure: 1.5 × PN
Coating Type: Fusion Bonded Epoxy/Nylon 11/epoxy paint for C5-M environment
Coating Thickness: According to project and standard requirement

MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1	Body	Ductile Iron EN GJS450-10 according to EN1563
2	End Rings	Ductile Iron EN GJS450-10 according to EN1563
3	Gasket	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G
4	Bolts	Grade 4.8 carbon steel or Stainless Steel
5	Washers	Grade 4.8 carbon steel or Stainless Steel
6	Nuts	Grade 4.8 carbon steel or Stainless Steel
7	Cap	Plastic
8	Coating	Rilsan Nylon 11 or FBE coating(Adhesion is not less than 12 N/mm2)

NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624



DIMENSION

DN	OD	PN	ΦA	L
DN50	58-74	PN10/16	77	100
DN65	68-85	PN10/16	88	100
DN80	84-106	PN10/16	109	100
DN100	99-118	PN10/16	121	100
Dn100	109-133	PN10/16	136	100
DN125	129-159	PN10/16	162	100
DN150	157-182	PN10/16	185	110
Dn200	177-207	PN10/16	210	120
DN200	194-225	PN10/16	228	120
DN200	218-242	PN10/16	245	120
DN250	244-276	PN10/16	279	100
DN250	266-291	PN10/16	294	120
DN250	280-305	PN10/16	308	120
DN300	302-327	PN10/16	330	120
DN300	314-356	PN10/16	359	130
DN350	386-410	PN10/16	413	140
DN400	398-433	PN10/16	436	135
DN500	499-534	PN10/16	537	145
DN600	600-635	PN10/16	638	145

Customized dimension which is different from above table is also available upon requirement.

For unreasonable dimension specifications, we reserve the right to make technical recommendations.

Scan for datasheet, drawings and installation guide

HEAVY TYPE GIBAULT FOR PVC PIPE



GENERAL DATA

Design Standard: EN 545
Coating Standard: EN 14901
Medium: Water,Oil,Gas
Size: OD50-OD315
Pressure: PN10/16
Temperature: -40°~120°

TECHNICAL DATA

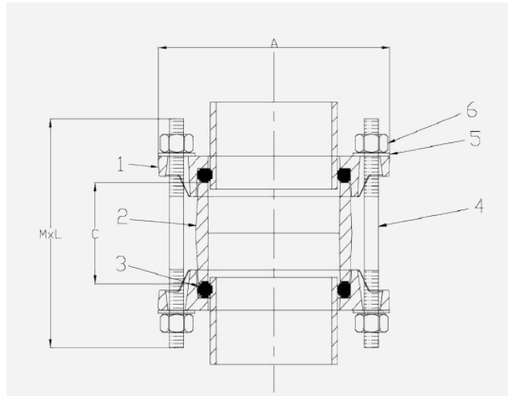
Compatible Pipe Types: PVC pipe
Test Pressure: 1.5 × PN
Coating Type: Fusion Bonded Epoxy/Nylon 11/Epoxy paint for C5-M environment
Coating Thickness: According to project and standard requirement

MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1	End Rings	Ductile Iron EN GJS450-10 according to EN1563/Gray cast iron
2	Center sleeve	Ductile Iron EN GJS450-10 according to EN1563/Gray cast iron
3	Gasket	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G
4	Bolts	Grade 4.8 carbon steel or Stainless Steel
5	Washers	Grade 4.8 carbon steel or Stainless Steel
6	Nuts	Grade 4.8 carbon steel or Stainless Steel
7	Coating	Rilsan Nylon 11 or FBE coating(Adhesion is not less than 12 N/mm2)

NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624



DIMENSION

SIZE	A(MM)	C(MM)	BOLTS NO.	MXL
50	124	64	2	M10x140
63	137	64	2	M10x140
75	149	64	2	M10x140
90	164	64	2	M10x140
110	184	64	3	M10x140
125	204	64	3	M12x145
140	220	74	3	M12x155
160	242	74	3	M12x155
180	266	72	3	M12x155
200	286	72	3	M12x155
225	326	80	3	M14x175
250	349	78	4	M14x175
280	380	78	4	M14x175
315	416	96	4	M14x200

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

GIBAULT JOINT FOR PVC PIPE (NEW TYPE)



GENERAL DATA

Design Standard: EN 545
Coating Standard: EN 14901
Medium: Water,Oil,Gas
Size: OD63-OD400
Pressure: PN10/16
Temperature: -40°~120°

TECHNICAL DATA

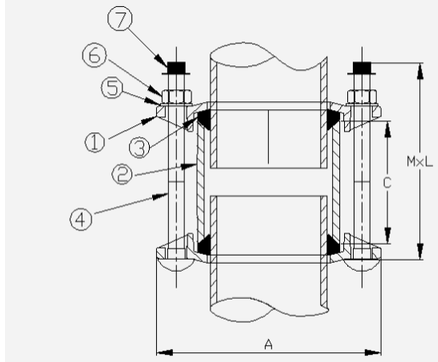
Compatible Pipe Types: PVC pipe
Test Pressure: 1.5 × PN
Coating Type: Fusion Bonded Epoxy/Nylon 11/Epoxy paint for C5-M environment
Coating Thickness: According to project and standard requirement

MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1	End Rings	Ductile Iron EN GJS450-10 according to EN1563
2	Center sleeve	Carbon Steel
3	Gasket	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G
4	Bolts	Grade 4.8 carbon steel or Stainless Steel
5	Washers	Grade 4.8 carbon steel or Stainless Steel
6	Nuts	Grade 4.8 carbon steel or Stainless Steel
7	Cap	Plastic
8	Coating	Rilsan Nylon 11 or FBE coating(Adhesion is not less than 12 N/mm2)

NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624



DIMENSION

SIZE	A(MM)	C(MM)	BOLTS NO.	MXL
63	142	300	2/3	M12x360
75	154.4	300	2/3	M12x360
90	169.4	300	2/3	M12x360
110	192.4	300	3	M12x360
125	207.4	300	3	M12x360
140	222.4	300	3	M12x360
160	246.4	300	4	M12x360
180	270	300	4	M12x360
200	287	300	4	M12x360
225	315	300	4	M12x360
250	338	300	6	M12x360
280	370	300	6	M12x360
315	403	300	6	M12x360
355	450	300	8	M12x380
400	514	300	8	M12x380

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

GIBAULT JOINT FOR PVC PIPE (WITH ROUND GASKET)



GENERAL DATA

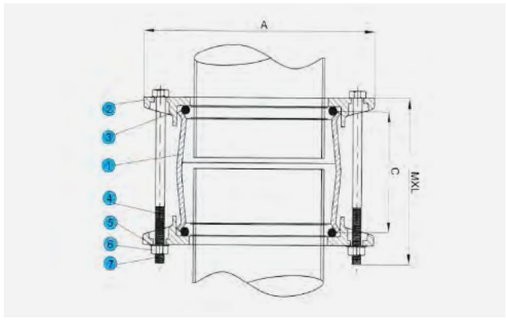
Design Standard: EN 545
Coating Standard: EN 14901
Medium: Water,Oil,Gas
Size: OD63-OD500
Pressure: PN10/16
Temperature: -40°~120°

TECHNICAL DATA

Compatible Pipe Types: PVC pipe
Test Pressure: 1.5 × PN
Coating Type: Fusion Bonded Epoxy/Nylon 11/Epoxy paint for C5-M environment
Coating Thickness: According to project and standard requirement

MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1	Center Sleeve	Carbon Steel
2	End Rings	Ductile Iron EN GJS450-10 according to EN1563
3	Gasket	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G
4	Bolts	Grade 4.8 carbon steel or Stainless Steel
5	Washers	Grade 4.8 carbon steel or Stainless Steel
6	Nuts	Grade 4.8 carbon steel or Stainless Steel
7	Cap	Plastic
8	Coating	Rilsan Nylon 11 or FBE coating(Adhesion is not less than 12 N/mm2)



NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624

DIMENSION

PVC PIPE OD	A(MM)	C(MM)	BOLTS NO.	MXL	WEIGHT(KG)
63	136	125	2	M12x180	1.7
75	150	125	2	M12x180	2.12
90	164	125	3	M12x180	2.48
110	185	145	3	M12x200	3.31
125	205	145	3	M12x200	3.69
140	224	153	4	M12x200	4.66
160	240	185	4	M12x240	6.57
180	275	181	4	M12x240	7.5
200	288	185	6	M12x240	8.02
250	339.5	202	6	M12x260	13.9
315	412	202	6	M12x260	17.14
400	495	202	8	M12x260	21.79
500	592	202	10	M12x260	26.76

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

GIBAULT JOINT FOR PVC PIPE (WITH SQUARE GASKET)



GENERAL DATA

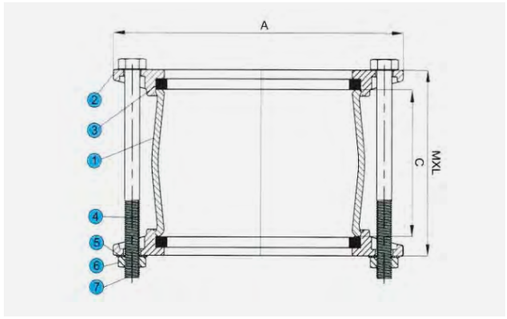
Design Standard: EN 545
Size: OD50-OD500
Coating Standard: EN 14901
Pressure: PN10/16
Medium: Water,Oil,Gas
Temperature: -40°~120°

TECHNICAL DATA

Compatible Pipe Types: PVC pipe for irrigation system
Test Pressure: 1.5 × PN
Coating Type: Fusion Bonded Epoxy/Nylon 11/Epoxy paint for C5-M environment/ Paint bitumen
Coating Thickness: According to project and standard requirement

MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1	Center sleeve	Grey cast iron/ Ductile Iron EN GJS450-10 according to EN1563
2	End Rings	Grey cast iron/ Ductile Iron EN GJS450-10 according to EN1563
3	Gasket	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G
4	Bolts	Grade 4.8 carbon steel or Stainless Steel
5	Washers	Grade 4.8 carbon steel or Stainless Steel
6	Nuts	Grade 4.8 carbon steel or Stainless Steel
7	Cap	Plastic
8	Coating	Rilsan Nylon 11 or FBE coating(Adhesion is not less than 12 N/mm2) or Paint bitumen



NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy/ Paint bitumen
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624

DIMENSION

PVC PIPE OD	A(MM)	C(MM)	BOLTS NO.	MXL	WEIGHT(KG)
50	130	80	2	M10x160	2.2
63	137	100	2	M10x160	2.2
75	149	100	2	M10x160	2.7
90	164	120	2	M10x180	3
110	184	120	3	M10x180	4.5
125	199	120	3	M12x190	6.5
140	214	120	3	M12x190	7
160	234	140	3	M12x210	8
180	254	140	3	M12x210	10
200	274	140	3	M12x210	12
250	341	160	4	M14x240	19
315	406	160	4	M14x240	25
400	495	160	6	M14x240	30
500	600	160	6	M14x240	40

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

COUPLING FOR HIGH PRESSURE STEEL PIPE -WORKING PRESSURE 330PSI

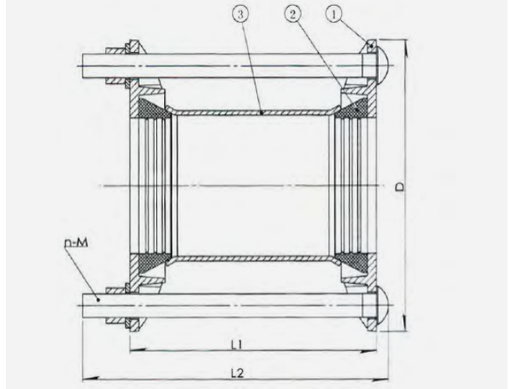


GENERAL DATA

Design Standard: EN 545
Coating Standard: EN 14901
Medium: Water,Oil,Gas
Size: 2.375"-6.625"
Pressure: 330PSI
Temperature: -40°~120°

TECHNICAL DATA

Compatible Pipe Types: Steel pipe
Test Pressure: 1.5 × working pressure
Coating Type: Fusion Bonded Epoxy/Nylon 11/Epoxy paint for C5-M environment
Coating Thickness: According to project and standard requirement



MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1	Eng Ring	Ductile Iron EN GJS450-10 according to EN1563
2	Gasket	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G
3	Center Sleeve	Carbon steel
4	Coating	Rilsan Nylon 11 or FBE coating(Adhesion is not less than 12 N/mm2)

NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624

DIMENSION

SIZE	PIPE OD	OD	LENGTH	N-M
2"	2.375"	60.3	5"	3x5/8"
2"	2.375"	60.3	7"	3x5/8"
2"	2.375"	60.3	12"	3x5/8"
2"	2.375"	60.3	14"	3x5/8"
3"	3.5"	88.9	5"	4x5/8"
3"	3.5"	88.9	7"	4x5/8"
3"	3.5"	88.9	12"	4x5/8"
3"	3.5"	88.9	27"	4x5/8"
4"	4.5"	114.3	5"	4x5/8"
4"	4.5"	114.3	7"	4x5/8"
4"	4.5"	114.3	12"	4x5/8"
4"	4.5"	114.3	24"	4x5/8"
6"	6.625"	168.3	5"	6x5/8"
6"	6.625"	168.3	7"	6x5/8"
6"	6.625"	168.3	12"	6x5/8"
6"	6.625"	168.3	16"	6x5/8"
6"	6.625"	168.3	24"	6x5/8"

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

STEP COUPLING PN10/PN16/CLASS125&150

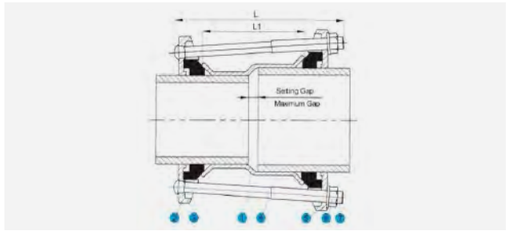


GENERAL DATA

Design Standard: EN 545
Coating Standard: EN 14901
Medium: Water,Oil,Gas
Size: DN50-DN2000
Pressure: PN10/16/Class125&150
Temperature: -40°~120°

TECHNICAL DATA

Compatible Pipe Types: Ductile iron, Grey cast iron, Steel, PVC, AC ,GRP pipes
Maximum Angular Deflection: ±3° for each size
Test Pressure: 1.5 × PN
Coating Type: Fusion Bonded Epoxy/Nylon 11/epoxy paint for C5-M environment
Coating Thickness: According to project and standard requirement



Different pipe sizes, materials and applications require different connection designs.
We offer customized solutions to meet specific project requirements. Below are some of our other designs.





MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1	Center Sleeve	Carbon Steel
2	End Ring	Ductile Iron EN GJS450-10 according to EN1563
3	Gasket	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G
4	Bolts	Grade 4.8 carbon steel or Stainless Steel
5	Washers	Grade 4.8 carbon steel or Stainless Steel
6	Nuts	Grade 4.8 carbon steel or Stainless Steel
7	Cap	Plastic
8	Coating	Rilsan Nylon 11 or FBE coating(Adhesion is not less than 12 N/mm2)

NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624

DIMENSION

SIZE RANGE				OVERALL LENGTH	SLEEVE LENGTH	SETTING GAP	MAX GAP	BOLTS NO.&SIZE	WEIGHT
SMALL PIPE O.D.		LARGE PIPE O.D.							
MIN	MAN	MIN	MAN	L	L1				KG
59	72	68	84	210	115	20	40	4-M12x190	2.5
59	72	88	103	210	115	20	40	4-M12x190	3.9
68	84	88	103	210	115	20	40	4-M12x190	4
88	103	107	128	210	115	20	40	4-M12x190	5.1
107	128	132	153	220	115	20	40	4-M12x210	6.8
132	153	159	182	220	125	20	40	4-M12x220	8.2
159	182	192	210	230	125	25	50	4-M12x220	9.2
192	210	218	235	230	135	25	50	4-M12x230	10.1
218	235	242	267	230	135	25	50	4-M12x230	14
242	267	272	289	230	135	25	50	4-M12x230	15.5
272	289	315	332	230	135	25	50	4-M12x230	20.3

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

QUICK FLANGE ADAPTOR FOR PVC/HDPE PIPES PN10/PN16



GENERAL DATA

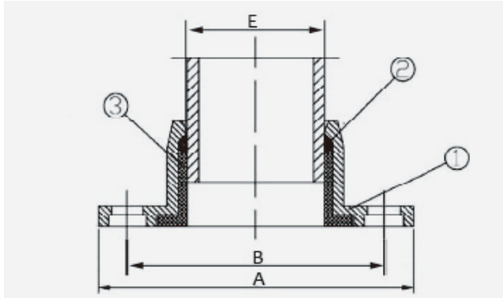
Design Standard: EN 545
Flange Standard: EN1092-2
Coating Standard: EN 14901
Medium: Water,Oil,Gas
Size: DN40-DN400
Pressure: PN10/16
Temperature: -40°~120°

TECHNICAL DATA

Compatible Pipe Types: HDPE pipes
Important: For HDPE pipes, an internal pipe stiffener is required. Scan the QR code below for stiffener selection guidelines and detailed installation instructions.


pipe stiffener

Test Pressure: 1.5 × PN
Coating Type: Fusion Bonded Epoxy/Nylon 11/Epoxy paint for C5-M environment
Coating Thickness: According to project and standard requirement



NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624

MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1	Body	Ductile Iron EN GJS450-10 according to EN1563
2	Grip ring	Brass
3	Gasket	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G
4	Coating	Rilsan Nylon 11 or FBE coating(Adhesion is not less than 12 N/mm2)

DIMENSION

SIZE	PIPE OD	A	B	E	WEIGHT (KG)	
					PVC(MM)	HDPE
DN40	50	166	118	55	1.74	1.79
DN50/65	63	184	156	68	1.84	1.9
DN60/65	63	184	156	68	1.72	1.78
DN60/DN65	75	185	139	80	1.89	1.96
DN80	75	201	161	80	2.46	2.54
DN80	90	196	151	96	2.46	2.57
DN100	110	220	181	113	3.09	3.24
DN125	125	254	211	131	4.14	4.46
DN125	140	254	212	140	4.32	4.83
DN150	160	283	244	165	5.45	6.07
DN200	200	338	297	206	6.25	7.14
DN200	225	338	299	231	7.18	8.11
DN250	250	402	360	257	9.73	10.93
DN300	315	454	412	321	14.04	15.44
DN400	400	570	529	410	21.8	23.54

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

DEDICATED FLANGE ADAPTOR PN10/PN16



GENERAL DATA

Design Standard: EN 545
Coating Standard: EN 14901
Medium: Water,Oil,Gas
Size: DN40-DN2000
Pressure: PN10/16
Temperature: -40°~120°

TECHNICAL DATA

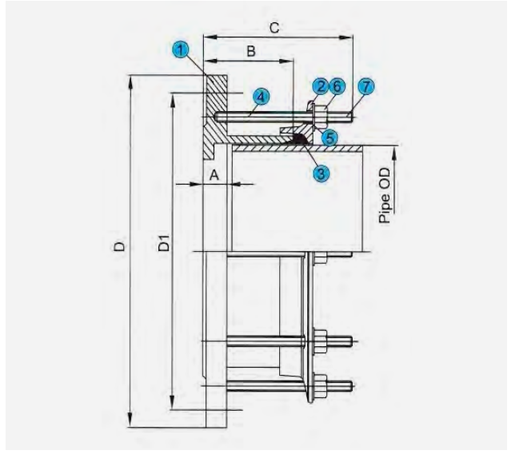
Compatible Pipe Types: EN545/ISO2531 ductile iron pipe
Test Pressure: 1.5 × PN
Coating Type: Fusion Bonded Epoxy/Nylon 11/Epoxy paint for C5-M environment
Coating Thickness: According to project and standard requirement

NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624

MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1	Body	Ductile Iron EN GJS450-10 according to EN1563
2	End Ring	Ductile Iron EN GJS450-10 according to EN1563
3	Gasket	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G
4	Bolts	Grade 4.8 carbon steel or Stainless Steel
5	Washers	Grade 4.8 carbon steel or Stainless Steel
6	Nuts	Grade 4.8 carbon steel or Stainless Steel
7	Cap	Plastic
8	Coating	Rilsan Nylon 11 or FBE coating(Adhesion is not less than 12 N/mm2)



DIMENSION

SIZE	PIPE OD	B	C	A	PN10 FLANGE DRILLING			PN16 FLANGE DRILLING			BOLTS NO	BOLTS SIZE (MXL)
					D	D1	N-ØD	D	D1	N-ØD		
DN40	56	73	105	19	150	110	4-19	150	110	4-19	4	M12X100
DN50	66	73	105	19	165	125	4-19	165	125	4-19	4	M12X100
DN60	77	73	105	19	175	135	4-19	175	135	4-19	4	M12X100
DN65	82	73	105	19	185	145	4-19	185	145	4-19	4	M12X100
DN80	98	73	105	19	200	160	8-19	200	160	8-19	4	M12X100
DN100	118	73	105	19	220	180	8-19	220	180	8-19	4	M12X100
DN125	144	76	115	19	250	210	8-19	250	210	8-19	4	M12X100
DN150	170	76	115	19	285	240	8-23	285	240	8-23	4	M12X110
DN200	222	76	115	20	340	295	8-23	340	395	12-23	4	M12X110
DN250	274	90	130	22	400	350	12-23	400	355	12-28	6	M12X120
DN300	326	90	130	24.5	455	400	12-23	455	410	12-28	6	M12X120
DN350	378	110	180	24.5	505	460	16-23	520	470	16-28	8	M16X170
DN400	429	110	180	24.5	565	515	16-28	580	525	16-31	8	M16X170
DN450	480	110	190	24.5	615	565	20-28	640	585	20-31	10	M16X170
DN500	532	115	190	26.5	670	620	20-28	715	650	20-34	10	M16X180
DN600	635	115	190	30	780	725	20-31	840	770	20-37	10	M16X180
DN700	738	115	190	32.5	895	840	24-31	910	840	24-37	12	M16X180
DN800	842	115	190	35	1015	950	24-34	1025	950	24-40	12	M16X180
DN900	942	120	190	37.5	1115	1050	28-34	1125	1050	28-40	14	M16X180
DN1000	1048	120	190	40	1230	1160	28-37	1255	1170	28-43	14	M16X180
DN1200	1255	130	190	45	1455	1380	32-40	1485	1390	32-49	16	M16X180
DN1400	1462	130	190	46	1675	1590	36-43	1685	1590	36-49	18	M20X200
DN1600	1668	190	275	49	1915	1820	40-49	1930	1820	40-56	20	M20X240
DN1800	1875	190	275	52	2115	2020	44-49	2130	2020	44-56	22	M20X240
DN2000	2082	190	275	55	2325	2230	48-49	2345	2230	48-62	24	M20X240

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

DEDICATED COUPLING FOR DUCTILE IRON PIPE PN10/PN16



GENERAL DATA

Design Standard: EN 545
Coating Standard: EN 14901
Medium: Water,Oil,Gas
Size: DN40-DN2000
Pressure: PN10/16
Temperature: -40°~120°

TECHNICAL DATA

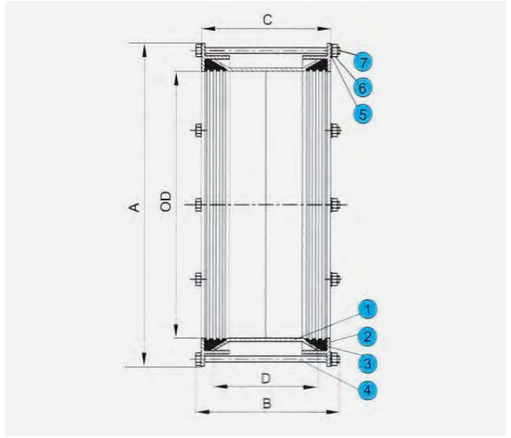
Compatible Pipe Types: EN545/ISO2531 ductile iron pipe
Maximum angular deflection: ±4°for each side
Test Pressure: 1.5 × PN
Coating Type: Fusion Bonded Epoxy/Nylon 11/epoxy paint for C5-M environment
Coating Thickness: According to project and standard requirement

NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624

MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1	Center sleeve	Carbon Steel
2	End Ring	Ductile Iron EN GJS450-10 according to EN1563
3	Gasket	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G
4	Bolts	Grade 4.8 carbon steel or Stainless Steel
5	Washers	Grade 4.8 carbon steel or Stainless Steel
6	Nuts	Grade 4.8 carbon steel or Stainless Steel
7	Cap	Plastic
8	Coating	Rilsan Nylon 11 or FBE coating(Adhesion is not less than 12 N/mm2)



DIMENSION

SIZE	PIPE OD	A	B	C	D	BOLTS NO.	BOLTS SIZE (MXL)
DN40	56	120	166	125	102	2	M12X158
DN50	66	126	166	125	102	2	M12X158
DN60	77	135	166	125	102	2	M12X158
DN65	82	156	166	125	102	2	M12X158
DN80	98	184	166	130	102	4	M12X158
DN100	118	205	166	130	102	4	M12X158
DN125	144	232	166	130	102	4	M12X158
DN150	170	264	173	133	102	4	M12X165
DN200	222	315	173	133	102	6	M12X165
DN250	274	374	173	136	102	6	M12X165
DN300	326	426	173	136	102	6	M12X165
DN350	378	494	254	200	152	8	M16X240
DN400	429	544	254	200	152	8	M16X240
DN450	480	595	254	200	152	10	M16X240
DN500	532	650	254	210	152	10	M16X240
DN600	635	753	254	210	152	12	M16X240
DN700	738	858	254	210	152	12	M16X240
DN800	842	962	254	210	152	12	M16X240
DN900	942	1070	280	238	178	14	M16X280
DN1000	1048	1173	280	238	178	14	M16X280
DN1100	1152	1282	280	240	178	16	M16X280
DN1200	1255	1385	280	240	178	18	M16X280
DN1400	1462	1592	295	250	178	20	M20X280
DN1600	1668	1798	295	250	178	24	M20X280
DN1800	1875	2015	375	320	254	32	M20X360
DN2000	2082	2222	375	320	254	36	M20X360

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

RESTRAINED FLANGE ADAPTOR FOR HDPE PIPE



GENERAL DATA

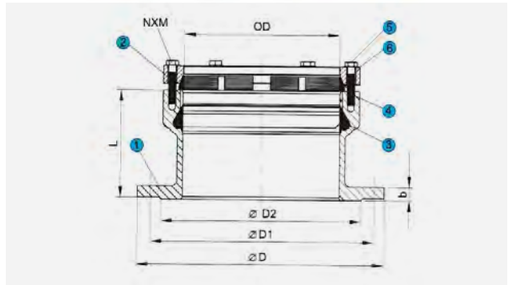
Design Standard: EN 545
Flange Standard: EN1092-2
Coating Standard: EN 14901
Medium: Water,Oil,Gas
Size: DN50-DN300
Pressure: PN10/16
Temperature: -40°~120°

TECHNICAL DATA

Compatible Pipe Types: HDPE pipe
Important: For HDPE pipes, an internal pipe stiffener is required. Scan the QR code below for stiffener selection guidelines and detailed installation instructions.


pipe stiffener

Test Pressure: 1.5 × PN
Coating Type: Fusion Bonded Epoxy/Nylon 11/epoxy paint for C5-M environment
Coating Thickness: According to project and standard requirement



MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1	Body	Ductile Iron EN GJS450-10 according to EN1563
2	End Ring	Ductile Iron EN GJS450-10 according to EN1563
3	Gasket	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G
4	Grip ring	Brass
5	Bolts	Grade 4.8 carbon steel or Stainless Steel
6	Washers	Grade 4.8 carbon steel or Stainless Steel
7	Coating	Rilsan Nylon 11 or FBE coating(Adhesion is not less than 12 N/mm2)

NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624

DIMENSION

DN	PIPE OD	D1	D	L	NXM
50	63	125	165	74	M10×2
65	75	145	185	74	M10×4
80	90	160	200	76	M10×4
100	110	180	220	76	M10×4
125	125	210	250	80	M10×4
125	140	210	250	80	M10×4
150	160	240	285	90	M10×4
150	180	240	285	96	M10×4
200	225	295	340	110	M10×4
250	250	350	400	130	M10×6
250	280	350	400	125	M10×6
300	315	410	455	150	M10×6

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

RESTRAINED COUPLING FOR HDPE PIPE PN10/PN16



GENERAL DATA

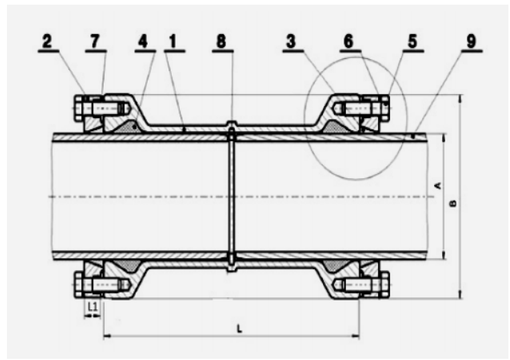
Design Standard: EN 545
Coating Standard: EN 14901
Medium: Water,Oil,Gas
Size: DN50-DN300
Pressure: PN10/16
Temperature: -40°~120°

TECHNICAL DATA

Compatible Pipe Types: HDPE pipe
Important: For HDPE pipes, an internal pipe stiffener is required. Scan the QR code below for stiffener selection guidelines and detailed installation instructions.


pipe stiffener

Test Pressure: 1.5 × PN
Coating Type: Fusion Bonded Epoxy/Nylon 11/epoxy paint for C5-M environment
Coating Thickness: According to project and standard requirement



NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624

MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1	Body	Ductile Iron EN GJS450-10 according to EN1563
2	End Rings	Ductile Iron EN GJS450-10 according to EN1563
3	Grip rings	Bronze/brass(MS 58)
4	Gasket	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G
5	Bolts	SS304
6	Washers	SS304
7	Bolt holder	PE-HD
8	Limit ring	Polyacetal
9	Pipe	PE-HD/PVC
10	Coating	Rilsan Nylon 11 or FBE coating(Adhesion is not less than 12 N/mm2)

DIMENSION

A	L1	L	B	BOLT MxN
63	20	125	130	M10x2
75	21	126	142	M10x4
90	21	128	160	M10x4
110	22	130	180	M10x4
125	22.5	134	195	M10x4
140	22.5	145	221	M10x4
160	23.5	170	235	M10x4
180	23.5	185	255	M10x4
200	25	210	274	M10x4
225	25	215	302	M10x4
250	25	240	328	M10x6
280	25	250	358	M10x6
315	25	300	392	M10x6

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

RESTRAINED FLANGE ADAPTOR FOR HDPE PIPE -PN10/16



GENERAL DATA

Design Standard: EN 545
Coating Standard: EN 14901
Medium: Water,Oil,Gas
Size: DN50-DN300
Pressure: PN10/16
Temperature: -40°~120°

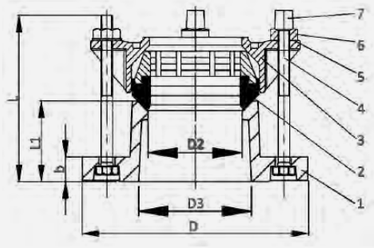
TECHNICAL DATA

Compatible Pipe Types: HDPE pipe
Important: For HDPE pipes, an internal pipe stiffener is required. Scan the QR code below for stiffener selection guidelines and detailed installation instructions.



pipe stiffener

Test Pressure: 1.5 × PN
Coating Type: Fusion Bonded Epoxy/Nylon 11/Epoxy paint for C5-M environment
Coating Thickness: According to project and standard requirement



NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624

MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1	Body	Ductile Iron EN GJS450-10 according to EN1563
2	Sealing ring	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G + Brass
3	End ring	Ductile Iron EN GJS450-10 according to EN1563
4	Bolts	Grade 4.8 carbon steel or Stainless Steel
5	Washers	Grade 4.8 carbon steel or Stainless Steel
6	Nuts	Grade 4.8 carbon steel or Stainless Steel
7	Cap	Plastic
8	Coating	Rilsan Nylon 11 or FBE coating(Adhesion is not less than 12 N/mm2)

DIMENSION

DN	OD	D2	D3	D	B	L1	L	BOLT SIZE
50	50	53.5	62	165	19	63	110	M12x2
50/60/65	63	67	73	185	19	63	110	M12x2
60/65	75	79	87	185	19	63	110	M12x2
80	90	94	102	200	19	63	110	M12x4
100	110	114	122	220	19	63	110	M12x4
125	125	129	137	245	19	63	110	M12x4
150	160	164.5	173	285	19	65	110	M12x4
150	180	184.5	193	285	19	65	110	M12x4
200	200	205	215	340	19	75	120	M12x4
250	250	255	265	400	22	75	120	M12x6
300	315	320	329	465	24	85	130	M12x6

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

RESTRAINED COUPLING FOR HDPE PIPE -PN10/16



GENERAL DATA

Design Standard: EN 545
Coating Standard: EN 14901
Medium: Water,Oil,Gas
Size: DN50-DN300
Pressure: PN10/16
Temperature: -40°~120°

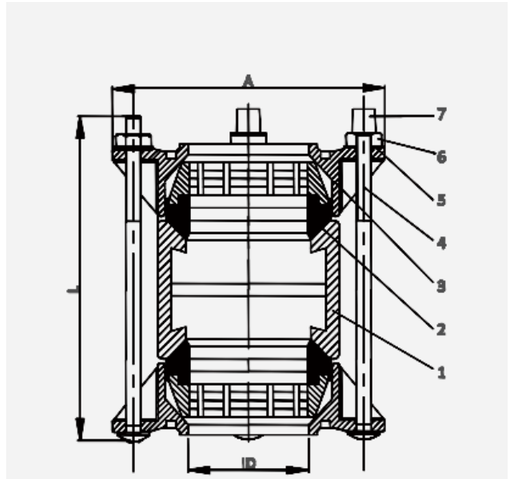
TECHNICAL DATA

Compatible Pipe Types: HDPE pipe
Important:
For HDPE pipes, an internal pipe stiffener is required.
Scan the QR code below for stiffener selection guidelines and detailed installation instructions.



pipe stiffener

Test Pressure: 1.5 × PN
Coating Type: Fusion Bonded Epoxy/Nylon 11/Epoxy paint for C5-M environment
Coating Thickness: According to project and standard requirement



MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1	Center sleeve	Ductile Iron EN GJS450-10 according to EN1563
2	Sealing ring	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G + Brass
3	End ring	Ductile Iron EN GJS450-10 according to EN1563
4	Bolts	Grade 4.8 carbon steel or Stainless Steel
5	Washers	Grade 4.8 carbon steel or Stainless Steel
6	Nuts	Grade 4.8 carbon steel or Stainless Steel
7	Cap	Plastic
8	Coating	Rilsan Nylon 11 or FBE coating(Adhesion is not less than 12 N/mm2)

NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624

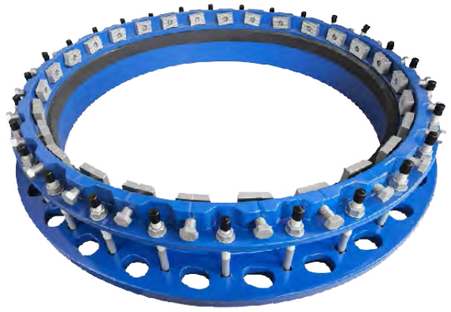
DIMENSION

OD	ID	A	L	BOLT SIZE
50	53.5	140	180	M12x2
63	67	153	180	M12x2
75	79	166	180	M12x2
90	94	193	180	M12x4
110	114	215	180	M12x4
125	129	229	180	M12x4
160	164.5	265	180	M12x4
180	184.5	275	180	M12x4
200	205	306	210	M12x4
250	255	357	210	M12x6
315	320	422	230	M12x6

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

RESTRAINED FLANGE ADAPTOR PN10/PN16-BIG SIZE



GENERAL DATA

Design Standard: EN 545
Size: DN300-DN1200
Flange Standard: EN1092-2
Pressure: PN10/16
Coating Standard: EN 14901
Temperature: -40°~120°
Medium: Water,Oil,Gas

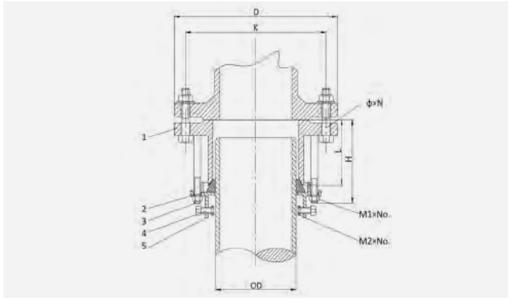
TECHNICAL DATA

Compatible Pipe Types: HDPE pipe
Important: For HDPE pipes, an internal pipe stiffener is required. Scan the QR code below for stiffener selection guidelines and detailed installation instructions.



pipe stiffener

Maximum Angular Deflection: ±3°for each size
Test Pressure: 1.5 × PN
Coating Type: Fusion Bonded Epoxy/Nylon 11/Epoxy paint for C5-M environment
Coating Thickness: According to project and standard requirement



NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624

MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1	Body	Ductile Iron EN GJS450-10 according to EN1563
2	Sealing ring	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G
3	Threaded tie rods	Grade 4.8 carbon steel or Stainless Steel
4	Grip	Zinc plated cast iron + grade 4.8 carbon steel
5	End ring	Ductile Iron EN GJS450-10 according to EN1563
6	Coating	Rilsan Nylon 11 or FBE coating(Adhesion is not less than 12 N/mm2)

DIMENSION

DN	OD	D	K	L	H	ΦxN(mm)	M1xNo.(mm)	M2xNo.(mm)	NOTE
300	355	455	410	140	200	28X12	M16x6	M16x6	Stepped
350	355	520	470	100	170	28X16	M16x8	M16x8	Straight
400	425	580	525	150	220	31X16	M16x8	M16x8	Stepped
400	400	580	525	100	170	31X16	M16x8	M16x8	Straight
450	455	640	585	100	170	31X20	M16x10	M16x10	Straight
500	500	715	650	110	190	34X20	M16x10	M16x10	Straight
600	630	840	770	110	190	37X20	M16x10	M16x10	Straight
700	710	910	840	120	200	37X24	M16x12	M16x12	Straight
800	800	1025	950	120	210	40X24	M16x12	M16x12	Straight
900	900	1125	1050	140	240	40X28	M16x14	M16x14	Straight
1000	1000	1485	1170	140	240	43X28	M16x14	M16x14	Straight
1200	1200	1685	1390	150	260	49X32	M16x16	M16x16	Straight

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

RESTRAINED COUPLING PN10/PN16-BIG SIZE



GENERAL DATA

Design Standard: EN 545
Size: DN300-DN1200
Coating Standard: EN 14901
Pressure: PN10/16
Medium: Water,Oil,Gas
Temperature: -40°~120°

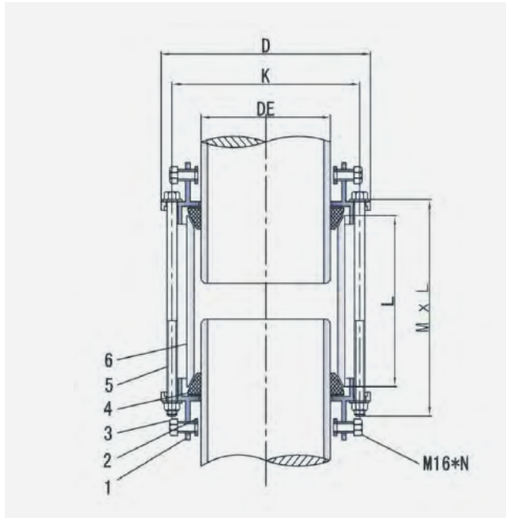
TECHNICAL DATA

Compatible Pipe Types: HDPE pipe
Important: For HDPE pipes, an internal pipe stiffener is required. Scan the QR code below for stiffener selection guidelines and detailed installation instructions.



pipe stiffener

Maximum Angular Deflection: ±4°for each size
Test Pressure: 1.5 × PN
Coating Type: Fusion Bonded Epoxy/Nylon 11/Epoxy paint for C5-M environment
Coating Thickness: According to project and standard requirement



NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624

MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1	End ring	Ductile Iron EN GJS450-10 according to EN1563
2	Gripper	Galvanized cast iron
3	Gripper bolts	Carbon steel
4	Gasket	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G
5	Ring bolts	Grade 4.8 carbon steel or Stainless Steel
6	Body	Ductile Iron EN GJS450-10 according to EN1563
7	Coating	Rilsan Nylon 11 or FBE coating(Adhesion is not less than 12 N/mm2)

DIMENSION

OD	L	D	MXL	K	M16*N
355	170	510	M16x300x6	473	M16x6
400	180	556	M16x320x8	518	M16x8
500	180	658	M16x320x8	620	M16x8
630	200	790	M16x360x10	750	M16x10
710	200	870	M16x360x12	830	M16x12
800	220	965	M16x400x12	922	M16x12
900	220	1070	M16x400x14	1025	M16x14
1000	220	1172	M16x400x14	1128	M16x14
1200	240	1380	M16x430x16	1330	M16x16

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

PRODUCT RANGE

3

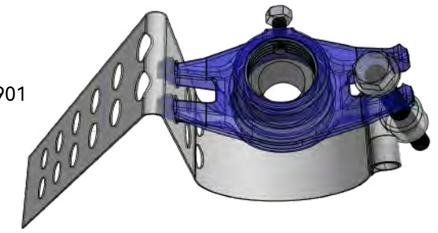
SADDLE CLAMP

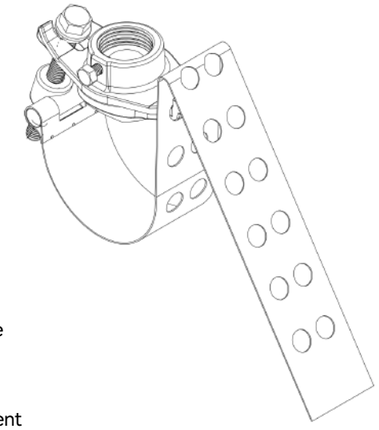


SUPER WIDE RANGE SADDLE FOR DUCTILE IRON/STEEL/PVC/HDPE/GRP ETC PIPES PN10/PN16

GENERAL DATA

Design Standard: EN 545
Coating Standard: EN 14901
Medium: Water,Oil,Gas
Size: DN50-DN1000
Pressure: PN10/16
Temperature: -40°~120°



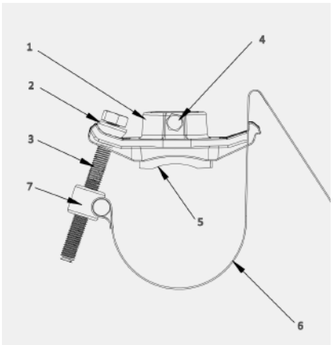


TECHNICAL DATA

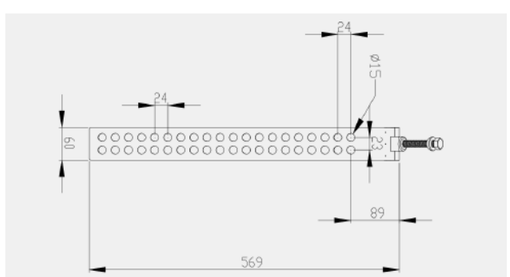
Compatible Pipe Types: DUCTILE IRON/STEEL/PVC/HDPE/GRP ETC which pipe OD is within the design range of our saddles
Test Pressure: 1.5 × PN
Coating Type: Fusion Bonded Epoxy/Nylon 11/Epoxy paint for C5-M environment
Coating Thickness: According to project and standard requirement

MATERIAL SPECIFICATION

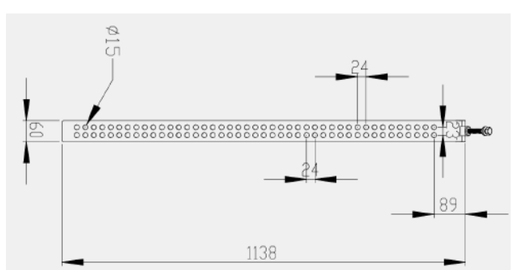
NO.	COMPONENT	MATERIAL
1	Outlet Head	Ductile Iron EN GJS450-10 according to EN1563
2	Semi-Circular Washer	Carbon Steel
3	Bolt	SS304
4	Small Bolt	SS304
5	Gasket	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G
6	Stainless Steel Band	SS304
7	Pivot Nut	Ductile Iron EN GJS450-10 according to EN1563
8	Coating	Rilsan Nylon 11 or FBE coating (Adhesion is not less than 12 N/mm2)



DIMENSION



DN50-DN175

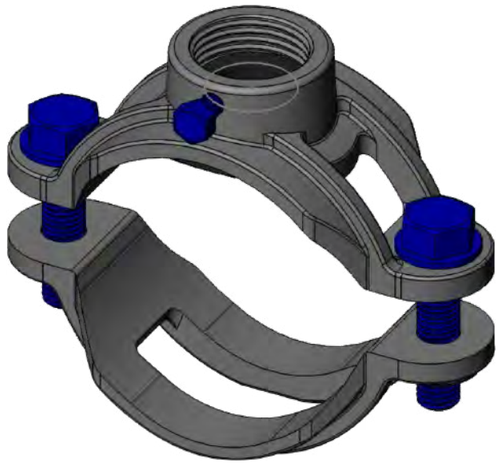


DN50-DN350

Customized dimension which is different from above is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

WIDE-RANGE TAPPING SADDLE (NOT SUITABLE FOR HDPE PIPES) PN10/PN16



GENERAL DATA

Design Standard: EN 545
Coating Standard: EN 14901
Medium: Water,Oil,Gas
Size: DN50-DN300
Pressure: PN10/16
Temperature: -40°~120°

TECHNICAL DATA

Compatible Pipe Types: For DI, steel, GRP, PVC, and other pipes within the specified OD range. Not for HDPE pipes.

⊘ Not Recommended for HDPE Pipes

HDPE pipes are relatively flexible and may deform or ovalize under sustained external compression. Due to their viscoelastic nature, they are also subject to creep and stress relaxation over time.

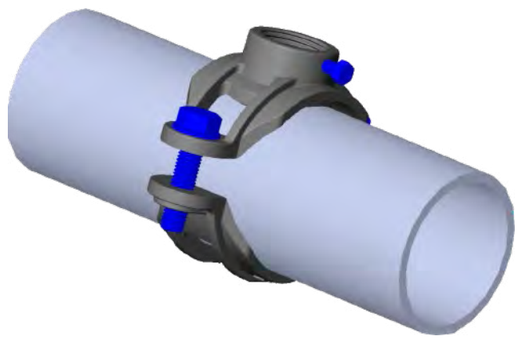
As this saddle design does not provide full circumferential support around the pipe, prolonged compression may cause localized deformation of HDPE pipes and potentially affect the sealing performance. The saddle may pass the initial pressure test, but after depressurization and subsequent repressurization, reliable sealing may not always be maintained.

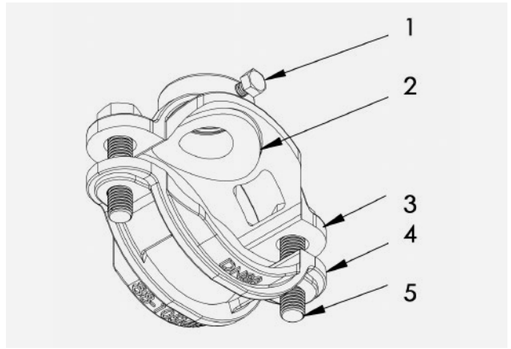
Considering the flexibility, creep, stress relaxation, and deformation characteristics of HDPE pipes, we have developed other saddle designs specifically for HDPE applications. Please see the following pages for details.

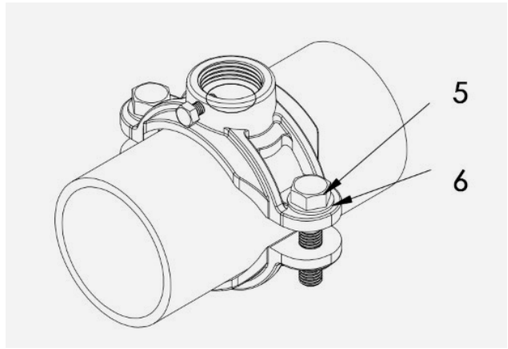
Test Pressure: 1.5 × PN
Coating Type: Fusion Bonded Epoxy/Nylon 11/Epoxy paint for C5-M environment
Coating Thickness: According to project and standard

NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥250 μm
Holiday Test	≥3000V
Adhesion Test	ISO 4624

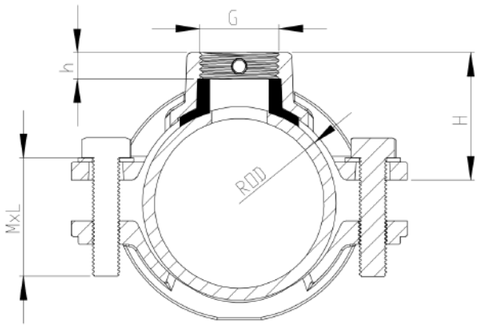






MATERIAL SPECIFICATION

NO.	COMPONENT	MATERIAL
1	Fixing Bolt	Carbon steel or Stainless Steel
2	Gasket	EPDM Compound Grade E to BS EN681-1/Nitrile Compound to Grade G BS EN 682,Type G
3&4	Body	Ductile Iron EN GJS450-10 according to EN1563
5	Bolts	Carbon steel or Stainless Steel Hex Bolt
6	Washers	Carbon steel or Stainless Steel
7	Coating	Rilsan Nylon 11 or FBE coating(Adhesion is not less than 12 N/mm2)



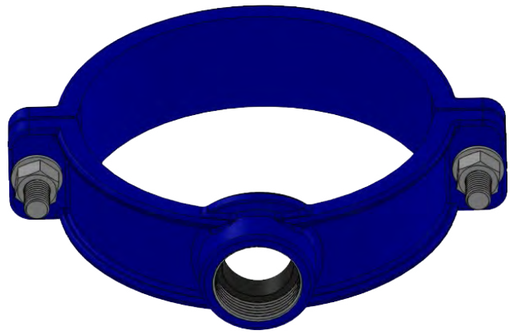
DIMENSION（mm）

OD	L	G	H	h	MxL
DN50	60-71	M40x3	51.5	14	M14x60
DN65	73-85	M40x3	57.5	14	M14x60
		M55x3	60	19	M14x60
DN80	88-105	M40x3	64.5	14	M14x60
		M55x3	67	19	M14x60
DN100	107-126	M40x3	73.5	14	M14x60
		M55x3	76	19	M14x60
DN150	158-179	M40x3	98.5	14	M14x65
		M55x3	101	19	M14x65
DN200	198-222	M40x3	120	14	M14x65
		M55x3	122.5	19	M14x65
DN250	248-274	M40x3	145	14	M14x65
		M55x3	147.5	19	M14x65
DN300	315-346	M40x3	178	14	M14x70
		M55x3	180.5	19	M14x70

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

COST-EFFECTIVE SADDLE FOR PVC/HDPE PIPES PN10/PN16



GENERAL DATA

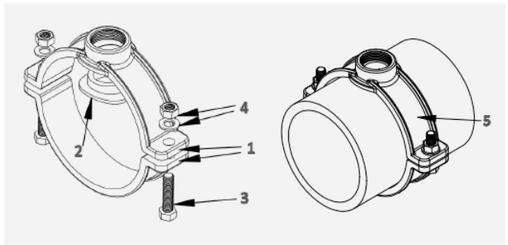
Design Standard: EN 545
Coating Standard: EN 14901
Medium: Water,Oil,Gas
Size: OD50-OD400
Pressure: PN10/16
Temperature: -40°~120°

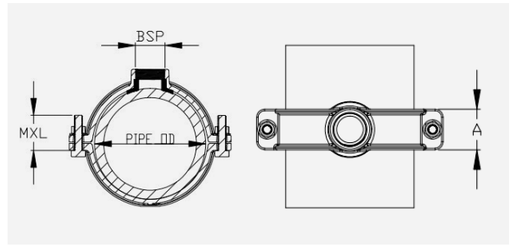
TECHNICAL DATA

Compatible Pipe Types: PVC and HDPE pipe
Test Pressure: 1.5 × PN
Coating Type: Fusion Bonded Epoxy/Nylon 11/Epoxy paint for C5-M environment
Coating Thickness: According to project and standard requirement

NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥250 μm
Holiday Test	≥3000V
Adhesion Test	ISO 4624





MATERIAL SPECIFICATION

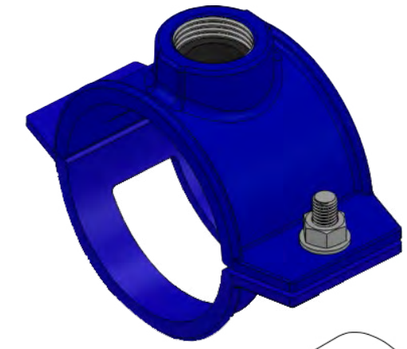
NO.	COMPONENT	MATERIAL
1	Body	Ductile Iron EN GJS450-10 according to EN1563
2	Gasket	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G
3	Bolts	Carbon steel or Stainless Steel
4	Washers &Nuts	Carbon steel or Stainless Steel
5	Coating	Rilsan Nylon 11 or FBE coating(Adhesion is not less than 12 N/mm2)

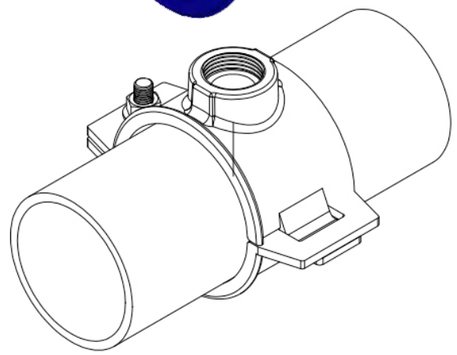
DIMENSION（mm）

PIPE OD	OUTLET SIZE	A	HEXAGON HEAD BOLTS SIZE MXL	BOLTS NUMBER
DE90	1-1/4"	42	M12x50	2
DE110	1-1/4"	50	M12x50	2
DE160	1-1/4"	50	M12x50	2
DE200	1-1/4"	50	M12x60	2
DE315	1-1/4"	52	M12x60	2
DE90	2"	42	M12x50	2
DE110	2"	50	M12x50	2
DE125	2"	50	M12x50	2
DE160	2"	50	M12x50	2
DE200	2"	50	M12x60	2
DE250	2"	52	M12x60	2
DE315	2"	52	M12x60	2

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

SINGLE-BOLT QUICK-FIT SADDLE FOR PVC PIPE PN10/PN16





GENERAL DATA

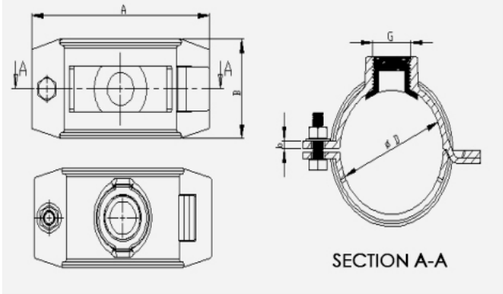
Design Standard: EN 545
Coating Standard: EN 14901
Medium: Water,Oil,Gas
Size: OD50-OD400
Pressure: PN10/16
Temperature: -40°~120°

TECHNICAL DATA

Compatible Pipe Types: PVC pipe
Test Pressure: 1.5 × PN
Coating Type: Fusion Bonded Epoxy/Nylon 11/Epoxy paint for C5-M environment
Coating Thickness: According to project and standard requirement

NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥250 μm
Holiday Test	≥3000V
Adhesion Test	ISO 4624



MATERIAL SPECIFICATION

NO.	COMPONENT	MATERIAL
1&2	Body	Ductile Iron EN GJS450-10 according to EN1563
3	Gasket	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G
4	Bolts	Carbon steel or Stainless Steel
5&6	Washers &Nuts	Carbon steel or Stainless Steel
7	Coating	Rilsan Nylon 11 or FBE coating(Adhesion is not less than 12 N/mm2)

DIMENSION（mm）

Size	ϕ D	G	A	B	b
63PB	63	M40x3	140	85	6
63GB	63	M55x3	140	95	6
75PB	75	M40x3	155	85	6
75GB	75	M55x3	155	95	6
90PB	90	M40x3	170	85	6
90GB	90	M55x3	170	95	6
110PB	110	M40x3	190	85	7
110GB	110	M55x3	190	95	7
160PB	160	M40x3	240	85	7
160GB	160	M55x3	240	95	7

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

SADDLE FOR PVC/HDPE PIPES PN10/PN16

GENERAL DATA

Design Standard: EN 545
Coating Standard: EN 14901
Medium: Water,Oil,Gas
Size: OD50-OD400
Pressure: PN10/16
Temperature: -40°~120°

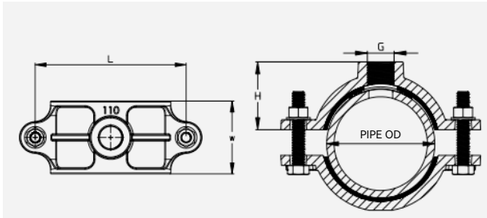
TECHNICAL DATA

Compatible Pipe Types: PVC and HDPE pipe
Test Pressure: 1.5 × PN
Coating Type: Fusion Bonded Epoxy/Nylon 11/Epoxy paint for C5-M environment
Coating Thickness: According to project and standard requirement

MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1	Body	Ductile Iron EN GJS450-10 according to EN1563
2	Gasket	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G
3	Bolts	Grade 4.8 carbon steel or Stainless Steel
4	Washers & Nuts	Grade 4.8 carbon steel or Stainless Steel
5	Coating	Rilsan Nylon 11 or FBE coating(Adhesion is not less than 12 N/mm2)





NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624

DIMENSION

PIPE OD	L,MM	W,MM	BOLT			H,MM
			SIZE X LENGTN	NO.	BOLT HOLE DIMENSION,MM	
DN50	100	60	M12X75	2	15	38.5
DN63	115	60	M12X75	2	15	45
DN75	131	60	M12X75	2	15	51
DN90	147	60	M12X75	2	15	59
DN110	165	80	M12X75	2	15	68
DN125	180	100	M12X75	2	15	77.5
DN140	195	100	M12X75	2	15	85
DN160	215	100	M12X75	2	15	95
DN180	235	100	M12X75	2	15	105
DN200	260	100	M12X75	2	19	115
DN225	285	100	M12X75	2	19	129
DN250	313	100	M12X75	2	19	140
DN280	343	100	M12X75	2	19	155
DN315	380	100	M12X75	2	19	175
DN355	420	100	M12X75	2	19	195

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

SADDLE FOR PVC/HDPE PIPES-PN10/PN16

GENERAL DATA

Design Standard: EN 545
Coating Standard: EN 14901
Medium: Water,Oil,Gas
Size: DN50-DN300
Pressure: PN10/16
Temperature: -40°~120°

TECHNICAL DATA

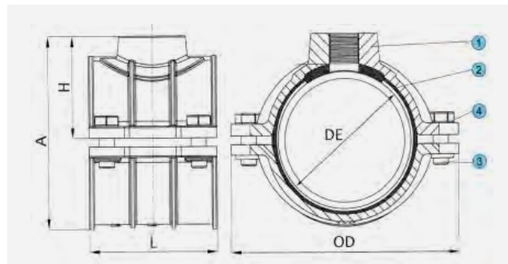
Compatible Pipe Types: PVC and HDPE pipe
Test Pressure: 1.5 × PN
Coating Type: Fusion Bonded Epoxy/Nylon 11/Epoxy paint for C5-M environment
Coating Thickness: According to project and standard requirement

MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1	Body	Ductile Iron EN GJS450-10 according to EN1563
2	Gasket	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G
3	Bolts	SS304
4	Washers	SS304
5	Coating	Rilsan Nylon 11 or FBE coating(Adhesion is not less than 12 N/mm2)







NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624

DIMENSION

PVC/PE PIPE OD(DE)	OUTLET THREAD SIZE	A	H	L	OD	BOLT SIZE
50	3/4"-1 1/4"	85	50	81	116.5	M10X35
63	3/4"-2	95	53.5	91.2	132.7	M10X35
75	3/4"-2	110	61.5	102	147	M10X35
90	3/4"-2	127.5	71	100.5	156.5	M10X35
110	3/4"-2	147	82	101.5	178.5	M10X35
125	3/4"-2	166	93.4	111	201	M12X35
140	3/4"-2	173	94	110	216	M12X35
160	3/4"-2	197.5	106	12.6	236.5	M12X35
200	3/4"-2	244	129	142.5	291	M14X35
250	3/4"-2	296.5	155	145	343	M14X35
315	3/4"-2	319	187	145	408	M14X35

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

SADDLE CLAMP FOR PVC PIPE PN10/PN16

GENERAL DATA

Design Standard: EN 545
Pressure: PN10/16
Medium: Water,Oil,Gas
Temperature: -40°~120°
Size: OD32-OD315

TECHNICAL DATA

Compatible Pipe Types: PVC pipe
Test Pressure: 1.5 × PN
Coating Type: Paint bitumen
Coating Thickness: According to project and standard requirement

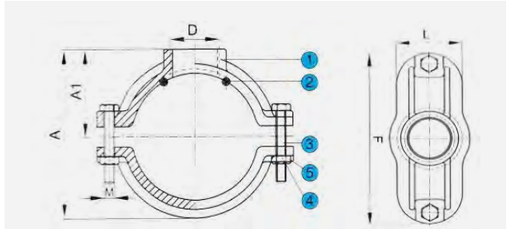
MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1	Body	Grey cast iron
2	Gasket	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G
3	Bolts	Grade 4.8 carbon steel or Stainless Steel
4	Washers	Grade 4.8 carbon steel or Stainless Steel
5	Nuts	Grade 4.8 carbon steel or Stainless Steel
6	Coating	Paint bitumen



NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Parameter	Specification
Coating Type	Paint bitumen
Thickness	According to project and standard requirement



DIMENSION

Pipe OD	F	D	L	A	A1	Bolt Size	Weight (kg)
32	90	1/2"-3/4"	44	57	32	M8x40	0.43
40	95	3/4"	48	65	35	M8x40	0.5
40	95	1"	48	65	42	M8x40	0.62
50	120	3/4"-1"	62	77	42	M10x50	0.94
63	132	3/4"-1"	62	89.5	47.5	M10x50	1.1
75	146	3/4"-1"	62	106	55	M10x50	1.25
75	146	1 1/4"-1 1/2"	68	107	56	M10x50	1.32
90	158	3/4"-1"	62	121	62	M10x50	1.5
90	158	1 1/4"-1 1/2"	68	123	64	M10x70	1.7
110	180	3/4"-1 1/2"	70	151	80	M10x70	2
110	196	2"-3"	70	151	80	M10x70	3
125	194	3/4"-1 1/2"	70	166	86	M10x70	2.4
125	194	2"-3"	70	168	88	M10x70	3
140	215	3/4"-1 1/2"	70	186	98	M10x70	2.7
140	215	2"-3"	70	186	100	M10x70	3
160	235	3/4"-1 1/2"	70	194	106	M10x70	3
160	235	2"-3"	70	198	110	M10x70	4
180	255	1"-1 1/2"	70	223	115	M10x50	3.5
180	255	2"-3"	70	223	115	M10x50	4
200	275	3/4"-1 1/2"	70	241	123	M10x70	4
200	275	2"-3"	70	243	125	M10x70	5
250	340	1"-1 1/2"	70	297	150	M10x50	6
250	340	2"-3"	80	297	150	M10x50	7.5
315	415	2"-3"	75	382.5	195	M12x90	10.5

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

SADDLE FOR PVC AND PE PIPE WITH METRIC THREAD PN10/PN16

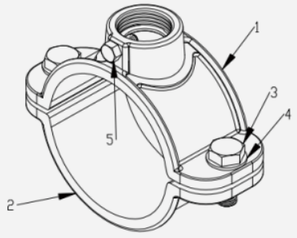
GENERAL DATA

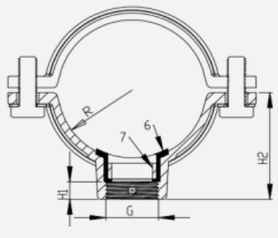
Design Standard: EN 545
Size: DN50-DN300
Coating Standard: EN 14901
Pressure: PN10/16
Medium: Water,Oil,Gas
Temperature: -40°~120°

TECHNICAL DATA

Compatible Pipe Types: PVC and HDPE pipe
Test Pressure: 1.5 × PN
Coating Type: Fusion Bonded Epoxy/Nylon 11/Epoxy paint for C5-M environment
Coating Thickness: According to project and standard requirement







MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1&2	Body	Ductile Iron EN GJS450-10 according to EN1563
3&5	Bolts	Grade 4.8 carbon steel or Stainless Steel
4	Washers	Grade 4.8 carbon steel or Stainless Steel
6	Gasket	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G
7	Support	Plastic
8	Coating	Rilsan Nylon 11 or FBE coating(Adhesion is not less than 12 N/mm2)

NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624

DIMENSION

PIPE OD	G	H1	H2	R
50	M40	14	55	26
63	M40	14	61.2	32.5
63	M55	19	66.5	32.5
75	M40	14	67.5	38.5
75	M55	19	72.5	38.5
90	M40	14	75	46
90	M55	19	80	46
110	M40	14	85	56
110	M55	19	90	56
125	M40	14	92.5	63.5
125	M55	19	97.5	63.5
140	M40	14	100	71
140	M55	19	105	71
160	M40	14	110	81
160	M55	19	115	81
200	M40	14	130	101
200	M55	19	135	101
225	M40	14	142	114
225	M55	19	147	114
250	M40	14	154.5	126.5
250	M55	19	159.5	126.5
315	M40	14	187	159
315	M55	19	192	159

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

SADDLE FOR AC PIPE WITH METRIC THREAD PN10/PN16



GENERAL DATA

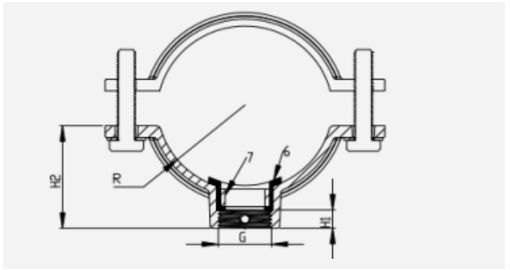
Design Standard: EN 545
Thread Type: Metric thread M40 and M55
Coating Standard: EN 14901
Medium: Water,Oil,Gas
Size: DN60-DN300
Pressure: PN10/16
Temperature: -40°~120°

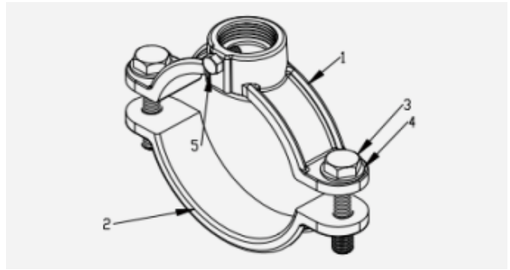
TECHNICAL DATA

Compatible Pipe Types: AC pipe
Test Pressure: 1.5 × PN
Coating Type: Fusion Bonded Epoxy/Nylon 11/Epoxy paint for C5-M environment
Coating Thickness: According to project and standard requirement

NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624





MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1&2	Body	Ductile Iron EN GJS450-10 according to EN1563
3&5	Bolts	Grade 4.8 carbon steel or Stainless Steel
4	Washers	Grade 4.8 carbon steel or Stainless Steel
6	Gasket	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G
7	Support	Plastic
8	Coating	Rilsan Nylon 11 or FBE coating(Adhesion is not less than 12 N/mm2)

DIMENSION

AC PIPE DN	G	H1	H2	R
DN60	M40	14	56	43
DN60	M55	19	61	43
DN80	M40	14	67	54
DN80	M55	19	72	54
DN100	M40	14	79	66
DN100	M55	19	84	66
DN125	M40	14	92	79
DN125	M55	19	97	79
DN150	M40	14	107	94
DN150	M55	19	112	94
DN200	M40	14	138	125
DN200	M55	19	143	125
DN250	M40	14	164	151
DN250	M55	19	169	154
DN300	M40	14	193.5	180.5
DN300	M55	19	193.5	180.5

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

TAPPING SADDLES FOR PVC/PE PIPE WITH LOOSE FLANGE PN10/PN16



GENERAL DATA

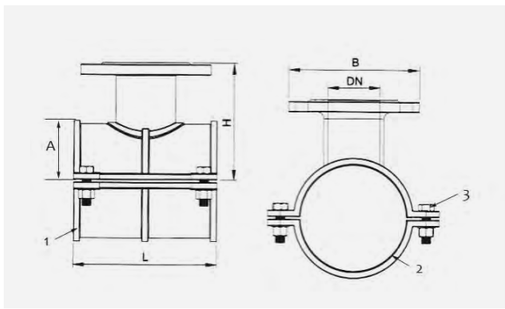
Design Standard: EN 545
Loose Flange Standard:EN1092-2
Coating Standard:EN 14901
Medium: Water,Oil,Gas
Size: DN100-DN400
Pressure: PN10/16
Temperature: -40°~120°

TECHNICAL DATA

Compatible Pipe Types: PVC and HDPE pipe
Test Pressure: 1.5 × PN
Coating Type: Fusion Bonded Epoxy/Nylon 11/Epoxy paint for C5-M environment
Coating Thickness: According to project and standard requirement

NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624



MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1	Body	Ductile Iron EN GJS450-10 according to EN1563
2	Gasket	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G
3	Bolts,nuts and washers	Grade 4.8 carbon steel or Stainless Steel
4	Coating	Rilsan Nylon 11 or FBE coating(Adhesion is not less than 12 N/mm2)

DIMENSION

DN	PVC/PE PIPE OD	A	B	H	L	HEIGHT	WEIGHT(KG)
100	110	65.5	200	160	235	225.5	10.7
125	125	73	200	170	235	243	11.2
125	125	73	220	170	235	243	12.3
140	140	81	200	180	235	261	11.9
140	140	81	220	180	235	261	13
150	160	91	200	190	270	281	13.7
150	160	91	220	190	270	281	14.7
200	200	111	200	210	270	321	16.2
200	200	111	220	210	270	321	17.3
250	250	141	200	240	390	381	30.6
250	250	141	220	240	390	381	31.6
300	315	173	200	280	390	453	36.7
300	315	173	220	280	390	453	37.7
400	400	219.5	200	330	390	549.5	53.2
400	400	219.5	220	330	390	549.5	54.2

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

UNIVERSAL DCI SADDLE WITH STAINLESS STEEL STRAP, THREAD OUTLET--PN10/PN16



GENERAL DATA

Design Standard: EN 545
Coating Standard: EN 14901
Medium: Water,Oil,Gas
Size: DN50-DN400
Pressure: PN10/16
Temperature: -40°~120°

TECHNICAL DATA

Compatible Pipe Types: PVC,HDPE,DI,Steel,GRP etc pipe which pipe OD is in our saddle range
Test Pressure: 1.5 × PN
Coating Type: Fusion Bonded Epoxy/Nylon 11/Epoxy paint for C5-M environment
Coating Thickness: According to project and standard requirement

NORMAL COATING SPECIFICATION

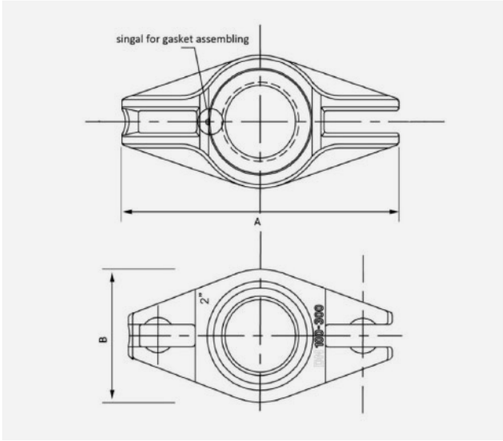
PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624

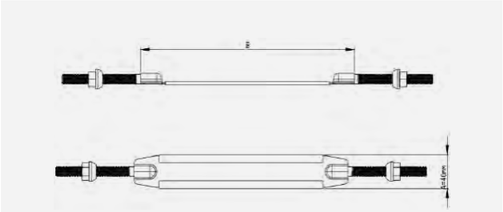
MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1	Body	Ductile Iron EN GJS450-10 according to EN1563
2	Gasket	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G
3	Band	Stainless steel
4	Coating	Rilsan Nylon 11 or FBE coating(Adhesion is not less than 12 N/mm2)

DUCTILE IRON HEAD DIMENSION

HEAD DN	SCREWED OUTLET	BAND NO.	A	B
50-200	3/4"	1	150	70
50-200	1"	1	150	70
50-200	1 1/4"	1	150	70
50-200	1 1/2"	1	150	70
100-300	1"	1	195	92
100-300	1 1/4"	1	195	92
100-300	1 1/2"	1	195	92
100-300	2"	1	195	92
150-400	2"	2	216	157
150-400	1 1/2"	2	216	157
150-400	3"	2	216	157





SS304 BAND FOR METALLIC PIPE



SS304 BAND FOR NONMETALLIC PIPE

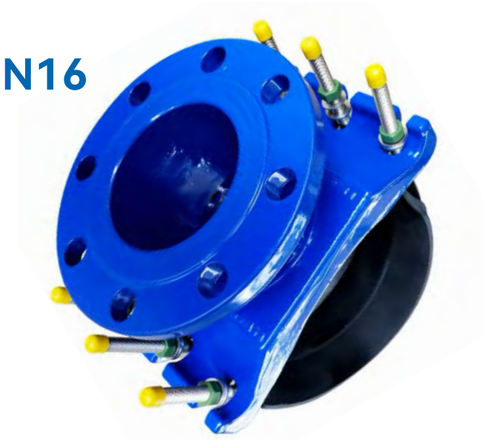
STAINLESS STEEL BAND DIMENSION

SIZE	BANDS THICKNESS	BOLTS LENGTH	BOLTS THREAD LENGTH
54-64	1.5	M12X120	100
60-77	1.5	M12X120	100
77-95	1.5	M12X120	100
98-119	1.5	M12X120	100
102-122	1.5	M12X120	100
120-150	1.5	M12X150	130
125-135	1.5	M12X120	100
139-160	1.5	M12X120	100
150-180	1.5	M12X150	130
151-171	1.5	M12X120	100
160-185	1.5	M12X120	100
170-195	1.5	M12X120	100
173-198	1.5	M12X120	100
195-220	1.5	M12X120	100
200-230	1.5	M12X150	130
223-248	1.5	M12X120	100
230-250	1.5	M12X120	100
250-280	1.5	M12X150	130
285-315	1.5	M12X150	130
315-340	1.5	M12X120	100
320-345	1.5	M12X120	100
330-355	1.5	M12X120	100
355-380	1.5	M12X120	100
385-400	1.5	M12X120	100
400-425	1.5	M12X120	100
410-435	1.5	M12X120	100

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

UNIVERSAL DCI SADDLE WITH STAINLESS STEEL STRAP, FLANGE OUTLET-PN10/PN16

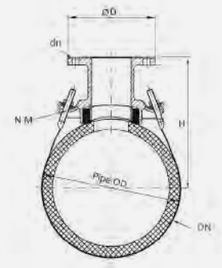


GENERAL DATA

Design Standard: EN 545
Flange Standard: EN 1092-2
Coating Standard: EN 14901
Medium: Water,Oil,Gas
Size: DN50-DN2000
Pressure: PN10/16
Temperature: -40°~120°

TECHNICAL DATA

Compatible Pipe Types: PVC,HDPE,DI,Steel,GRP etc pipe which pipe OD is in our saddle range
Test Pressure: 1.5 × PN
Coating Type: Fusion Bonded Epoxy/Nylon 11/Epoxy paint for C5-M environment
Coating Thickness: According to project and standard requirement



MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1	Body	Ductile Iron EN GJS450-10 according to EN1563
2	Gasket	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G
3	Band	Stainless steel
4	Coating	Rilsan Nylon 11 or FBE coating(Adhesion is not less than 12 N/mm2)

NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624

DIMENSION

DN	OD	DN	ΦD		H	N-M
			PN10	PN16		
50	48-62	50	165	165	140	4-M12
65	57-78	50	165	165	150	4-M12
80	75-98	50	165	165	155	4-M12
80	75-98	65	185	185	155	4-M12
100	108-133	50	165	165	165	4-M12
100	108-133	65	185	185	165	4-M12
100	108-133	80	200	200	170	4-M12
125	122-146	50	165	165	180	4-M12
125	122-146	65	185	185	180	4-M12
125	122-146	80	200	200	185	4-M12
125	122-146	100	220	220	195	4-M12
150	158-177	50	165	165	190	4-M12
150	158-177	65	185	185	190	4-M12
150	158-177	80	200	200	200	4-M12
150	158-177	100	220	220	205	4-M12
200	206-235	80	200	200	225	4-M12
200	206-235	100	220	220	230	4-M12
200	206-235	150	285	285	245	6-M12
250	248-274	80	200	200	265	4-M12
250	248-274	100	220	220	270	4-M12
250	248-274	150	285	285	280	6-M12
250	248-274	200	340	340	290	6-M12
300	313-338	80	200	200	295	4-M16
300	313-338	100	220	220	300	4-M16
300	313-338	150	285	285	310	6-M16
300	313-338	200	340	340	320	6-M16
300	313-338	250	395	405	330	8-M16
500	508-532	100	220	220	405	4-M16

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

PRODUCT RANGE 4

REPAIR CLAMP



ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

HIGH PRESSURE PIPE REPAIR CLAMP



GENERAL DATA

Medium: Oil,Gas

Size: 38mm-1219mm

Pressure: PN64/PN100/PN140

Temperature: -40°~120°

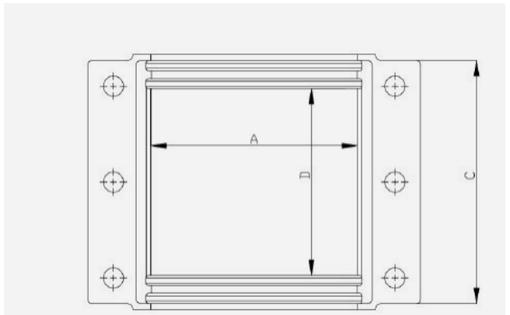
TECHNICAL DATA

Compatible Pipe Types: High-pressure pipe

Test Pressure: 1.5 × PN

Coating Type: Spray, paint with epoxy paint or with a corrosion protection coating

Coating Thickness: According to project and standard requirement



MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1	Body	Carbon steel
2	Gasket	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G
3	Bolts,nuts and washers	Carbon steel or Stainless Steel
4	Coating	Spray, paint with epoxy paint or with a corrosion protection coating

OTHER CUSTOMIZED DESIGNS





NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Coating Type	Epoxy Paint
Thickness	According to project and standard requirement

DIMENSION

PIPE SIZE	A	B	C	WORKING PRESSURE PN BAR
38	73	139	228	140
50	79	146	228	140
63	85	133	215	140
76	101	133	215	140
101	127	133	215	140
152	180	133	228	140
203	231	133	254	140
254	285	139	266	140
304	336	139	266	100
355	368	203	355	100
406	419	203	355	100
457	469	203	355	100
508	520	203	355	64
558	571	203	355	64
609	622	203	355	64
660	673	203	355	64
711	723	203	355	64
762	774	203	355	64
812	825	203	355	64
863	876	203	355	64
914	927	203	361	64
965	977	203	361	64
1016	1028	203	361	64
1066	1079	203	403	64
1219	1231	203	406	64

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

WIDE RANGE DUCTILE IRON REPAIR CLAMP -PN10/16



GENERAL DATA

Design Standard: EN 545

Coating Standard: EN 14901

Medium: Water,Oil,Gas

Size: DN80-DN300

Pressure: PN10/16

Temperature: -40°~120°

TECHNICAL DATA

Compatible Pipe Types: PVC,HDPE,DI,Steel,GRP etc pipe which pipe OD is in our repair clamp range

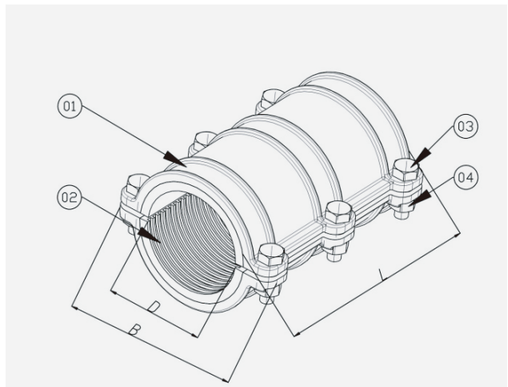
Test Pressure: 1.5 × PN

Coating Type: Fusion Bonded Epoxy/Nylon 11/Epoxy paint for C5-M environment

Coating Thickness: According to project and standard requirement

MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1	Body	Ductile Iron EN GJS450-10 according to EN1563
2	Gasket	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G
3	Band	Grade 4.8 carbon steel or Stainless steel
4	Nuts	Grade 4.8 carbon steel or Stainless steel
5	Coating	Rilsan Nylon 11 or FBE coating(Adhesion is not less than 12 N/mm2)



NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624

DIMENSION

DN	D	L	B
80	88-99	225	219
100	107-119	225	246
150	157-171	225	291
200	219-226	310	352
250	270-276	310	420
300	320-328	310	471

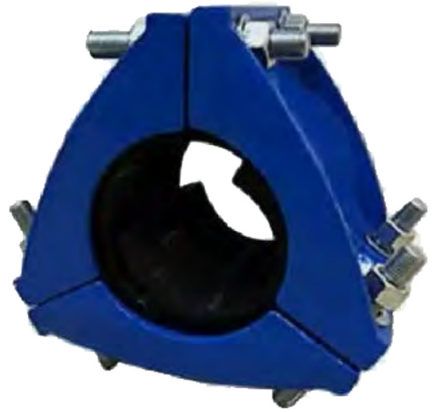
Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

WIDE RANGE 3PCS DUCTILE IRON REPAIR CLAMP--PN10/PN16

GENERAL DATA

Design Standard: EN 545
Coating Standard: EN 14901
Medium: Water,Oil,Gas
Size: DN40-DN300
Pressure: PN10/16
Temperature: -40°~120°



TECHNICAL DATA

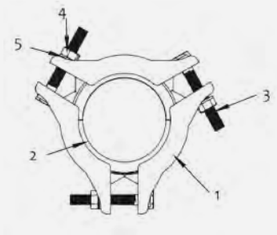
Compatible Pipe Types: PVC,HDPE,DI,Steel,GRP etc pipe which pipe OD is in our repair clamp range
Test Pressure: 1.5 × PN
Coating Type: Fusion Bonded Epoxy/Nylon 11/Epoxy paint for C5-M environment
Coating Thickness: According to project and standard requirement

NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624

MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1	Body	Ductile Iron EN GJS450-10 according to EN1563
2	Gasket	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G
3	Bolts	Grade 4.8 carbon steel or Stainless Steel
4	Nuts	Grade 4.8 carbon steel or Stainless Steel
5	Washers	Grade 4.8 carbon steel or Stainless Steel
6	Coating	Rilsan Nylon 11 or FBE coating(Adhesion is not less than 12 N/mm2)



DIMENSION

DN	RANGE	L	BOLTS SIZE	BOLTS NO.	WEIGHT(KG)
40	53-58	120	M12x80	6	3.43
60	58-75	150	M12x80	6	5.39
80	84-109	150	M14X110	6	8.34
100	108-125	150	M16X120	6	9.22
125	136-159	200	M16X120	6	15.28
150	159-184	210	M16X120	6	16.72
200	211-238	210	M16X120	6	23.4
250	251-283	210	M20X130	6	27.78
300	310-340	210	M20X130	6	35.08

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

ADJUSTABLE BELL JOINT REPAIR CLAMP--PN10

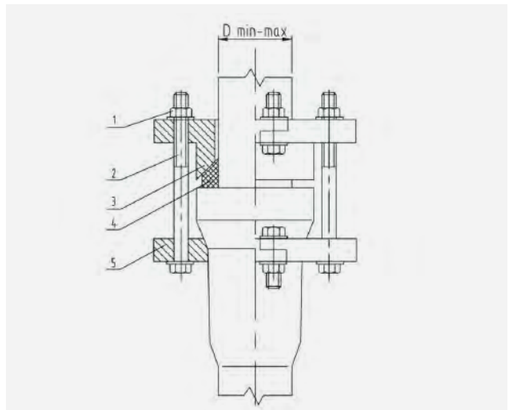
GENERAL DATA

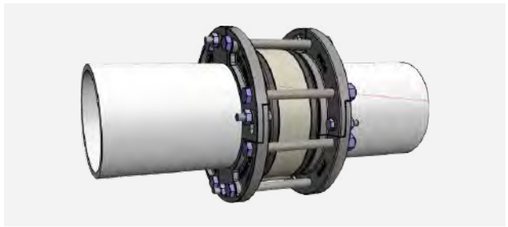
Design Standard: EN 545
Coating Standard: EN 14901
Medium: Water,Oil,Gas
Size: DN50-DN600
Pressure: PN10/16
Temperature: -40°~120°



TECHNICAL DATA

Compatible Pipe Types: Ductile iron pipes, PVC pipes, and other pipes connected by socket-spigot joints.
Test Pressure: 1.5 × PN
Coating Type: Fusion Bonded Epoxy/Nylon 11/epoxy paint for C5-M environment
Coating Thickness: According to project and standard requirement





Bell joint repair clamp for coupling joint leakage

MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1	Nuts	Grade 4.8 carbon steel or Stainless Steel
2	Bolts	Grade 4.8 carbon steel or Stainless Steel
3	Spigot ring	Ductile Iron EN GJS450-10 according to EN1563
4	Gasket	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G
5	Bell ring	Ductile Iron EN GJS450-10 according to EN1563
6	Coating	Rilsan Nylon 11 or FBE coating(Adhesion is not less than 12 N/mm2)

NORMAL COATING SPECIFICATION

PARAMETER	SPECIFICATION
Standard	EN 14901
Coating Type	Fusion Bonded Epoxy
Thickness	≥ 250 μm
Holiday Test	≥ 3000 V
Adhesion Test	ISO 4624

DIMENSION

DN	RANGE DMIN-MAX(MM)
50	62-68
65	75-84
80	94-100
100	114-120
150	166-173
200	217-224
250	270-276
300	321-328
350	373-380
400	424-431
500	527-534
600	630-638

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

FULL STAINLESS STEEL REPAIR CLAMP-PN10/16



GENERAL DATA

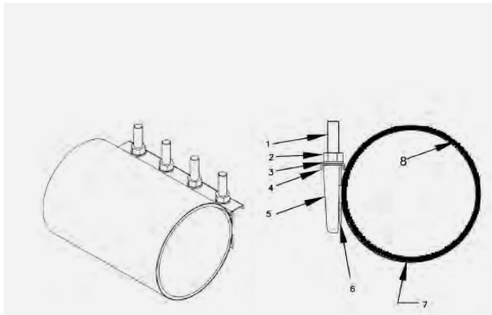
Design Standard: EN 545
Medium: Water,Oil,Gas
Size: DN50-DN2000
Pressure: PN16/PN10/PN6/PN4
Temperature: -40°~120°

TECHNICAL DATA

Compatible Pipe Types: The pipe OD is in our repair clamp range
Test Pressure: 1.5 × PN

MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1	Bolts	Stainless steel
2	Washers	Stainless steel
3	Nuts	Stainless steel
4	Bolts	Stainless steel
5	Washers	Stainless steel
6	Nuts	Stainless steel
7	Cap	Stainless steel
8	Coating	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G

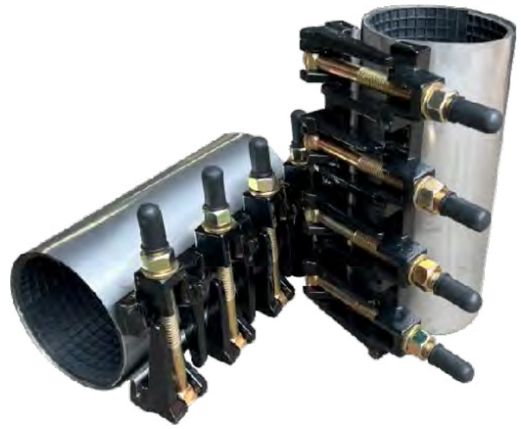


DIMENSION

SIZE	OD RANGE	LENGTH	BOLTS	WORKING PRESSURE
DN50	60-67	150/200	M16x180	PN10/16
DN80	88-98	150/200/300	M16x180	PN10/16
DN80	95-105	150/200/300	M16x180	PN10/16
DN100	108-118	150/200/300	M16x180	PN10
DN100	115-128	150/200/300	M16x180	PN10
DN150	158-172	200/300	M16x180	PN10
DN150	168-182	200/300	M16x180	PN10
DN200	217-229	200/300	M16x180	PN10
DN200	225-240	200/300	M16x180	PN10
DN250	243-260	200/300/450	M16x180	PN6/10
DN250	270-288	200/300/450	M16x180	PN6/10
DN300	313-336	200/300/450	M16x180	PN6/10
DN300	340-360	200/300/450	M16x180	PN6/10

We suggest you use double bands for big size(which is bigger than DN250) or more
Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

STAINLESS STEEL REPAIR CLAMP WITH DCI JAW-PN10/16

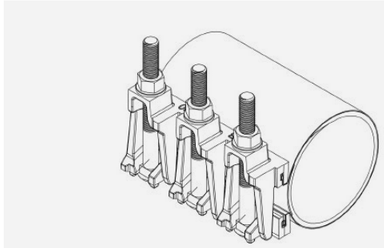


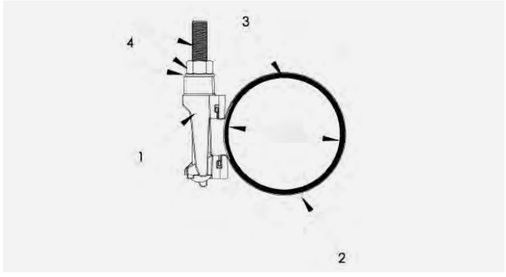
GENERAL DATA

Design Standard: EN 545
Medium: Water,Oil,Gas
Size: DN50-DN2000
Pressure: PN16/PN10/PN6/PN4
Temperature: -40°~120°

TECHNICAL DATA

Compatible Pipe Types: The pipe OD is in our repair clamp range
Test Pressure: 1.5 × PN





MATERIAL SPECIFICATION

ITEM NO.	PART	MATERIAL
1	Lugs	Ductile Iron EN GJS450-10 according to EN1563
2	Band	Stainless steel
3	Gasket	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G
4	Bolts,nuts and wahsers	Grade 8.8 carbon steel or Stainless Steel
5	Coating	Rilsan Nylon 11 or FBE coating(Adhesion is not less than 12 N/mm2)

DIMENSION

SIZE	OD RANGE	LENGTH	BOLTS	WORKING PRESSURE
DN50	60-67	200	M16x180	PN10/16
DN80	88-98	200/300	M16x180	PN10/16
DN80	95-105	200/300	M16x180	PN10/16
DN100	108-118	200/300	M16x180	PN10
DN100	115-128	200/300	M16x180	PN10
DN150	158-172	200/300	M16x180	PN10
DN150	168-182	200/300	M16x180	PN10
DN200	217-229	200/300	M16x180	PN10
DN200	225-240	200/300	M16x180	PN10
DN250	243-260	200/300	M16x180	PN6/10
DN250	270-288	200/300	M16x180	PN6/10
DN300	313-336	200/300	M16x180	PN6/10
DN300	340-360	200/300	M16x180	PN6/10

We suggest you use double bands for big size(which is bigger than DN250) or more
Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

MIN TYPE REPAIR CLAMP

Mini type repair clamp is for small leakage, it can repair pipe under pressure or without pressure, it can repair thin and thick wall pipes, because it is mini type, so the assembling force is small, it is friendly for thin wall pipes. Making installation simple and significantly reducing costs, it is acceptable for axial displacement and angular slope, lip-like structure of the rubber ring enhances, he sealing when the pressure increases.

GENERAL DATA

Design Standard: EN 545
Medium: Water,Oil,Gas
Pressure:PN16
Temperature: -40°~120°



TECHNICAL DATA

Compatible Pipe Types:
The pipe OD is in our repair clamp range
Test Pressure: 1.5 × PN

MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1	Band	SS304
2	Gasket	EPDM Compound Grade E to BS EN 681-1 /Nitrile Compound to Grade G BS EN 682, Type G
3	Lug	Galvanized ductile Iron EN GJS450-10 according to EN1563
4	Bolts	Grade 8.8 carbon steel
5	Washers	Galvanized carbon steel
6	Nuts	Grade 8.8 carbon steel

DIMENSION

SIZE(INCH)	RANGE	WORKING PRESSURE BAR	BOLTS SIZE	GASKET THICKNESS	BAND THICKNESS
1/2"	19-23	16bar	M10X90	M10X90	0.5
3/4"	24-28	16bar	M10X90	M10X90	0.5
1"	29-34	16bar	M10X90	M10X90	0.5
1 1/4"	38-42	16bar	M10X90	M10X90	0.5
1 12/"	44-48	16bar	M10X90	M10X90	0.5
2"	55-61	16bar	M10X90	M10X90	0.5
2 1/2"	69-73/71-76/76-82	16bar	M10X90	M10X90	0.5
3"	82-87/87-93/94-100/99-104	16bar	M10X90	M10X90	0.5
4"	105-111/112-118/120-126	16bar	M10X90	M10X90	0.5
5"	126-131/132-138/140-146	16bar	M10X90	M10X90	0.5

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

FULL STAINLESS STEEL REPAIR CLAMP-PN10/16

GENERAL DATA

Design Standard: EN 545
Medium: Water,Oil,Gas
Size: DN50-DN2000
Pressure: PN16/PN10/PN6/PN4
Temperature: -40°~120°

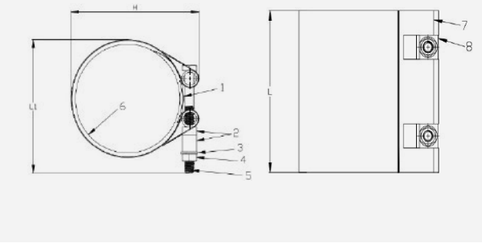


TECHNICAL DATA

Compatible Pipe Types:
The pipe OD is in our repair clamp range
Test Pressure: 1.5 × PN

MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1	Insertion	Stainless steel 304
2	Spigot	Galvanized carbon steel
3	Washers	Galvanized carbon steel
4	Nuts	Galvanized carbon steel
5	Bolt	Galvanized carbon steel
6	Gasket	NBR
7	Band	Stainless steel 304
8	Pipe	Galvanized carbon steel



DIMENSION

SIZE DN	LENGTH	RANGE	BAND MIN. THICKNESS	INSERTION MIN.THICKNESS	BAND NO.
DN50	200	60-65	0.7	0.9	Single Band
DN65	200	75-85	0.7	0.9	Single Band
DN80	200	88-98	0.7	0.9	Single Band
DN100	200	108-118	0.7	0.9	Single Band
DN125	200	140-145	0.7	0.9	Single Band
DN150	200	165-175	0.7	0.9	Single Band
DN200	200	218-228	0.7	0.9	Single Band
DN250	200	270-280	0.7	0.9	Single Band
DN300	200	320-330	0.7	0.9	Single Band
DN50	300	60-65	0.7	0.9	Single Band
DN65	300	75-85	0.7	0.9	Single Band
DN80	300	88-98	0.7	0.9	Single Band
DN100	300	108-118	0.7	0.9	Single Band
DN125	300	140-145	0.7	0.9	Single Band
DN150	300	165-175	0.7	0.9	Single Band
DN200	300	218-228	0.7	0.9	Single Band
DN250	300	270-280	0.7	0.9	Single Band
DN300	300	320-330	0.7	0.9	Single Band
DN50	250	60-64	0.7	0.9	Double Bands
DN65	250	75-78	0.7	0.9	Double Bands
DN80	250	88-94	0.7	0.9	Double Bands
DN100	250	107-115	0.7	0.9	Double Bands
DN125	250	132-140	0.7	0.9	Double Bands
DN150	250	158-162	0.7	0.9	Double Bands
DN200	250	218-226	0.7	0.9	Double Bands
DN250	250	273-289	0.7	0.9	Double Bands
DN300	250	320-330	0.7	0.9	Double Bands

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

STUDDED REDUCER FLANGE – PN10/16

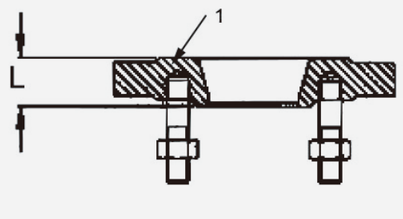
GENERAL DATA

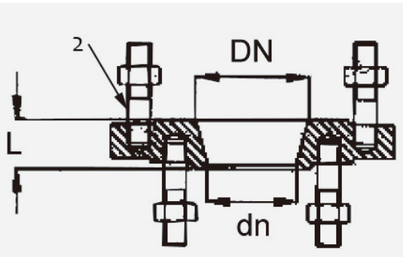
Design Standard: EN 545
Flange Standard: EN 1092-2
Medium: Water,Oil,Gas
Pressure: DN40-DN300
Pressure: PN10/16

TECHNICAL DATA

Coating Type: Fusion Bonded Epoxy/Nylon 11/Epoxy paint for C5-M environment
Coating Thickness: According to project and standard requirement







MATERIAL SPECIFICATION

ITEM NO.	PARTS	MATERIAL
1	Body	Ductile Iron EN GJS450-10 according to EN1563
2	Bolts,nuts and washers	Grade 4.8 carbon steel or Stainless Steel
3	Coating	Rilsan Nylon 11 or FBE coating(Adhesion is not less than 12 N/mm2)

DIMENSION

DN	DN	L	SCREWED	WEIGHT(KG)
60	40	55	D M16(X8)	5.8
80	40	32	D M16(X8)	4.9
80	40	32	D M16(X12)	5.7
80	50	32	D M16(X8)	5.1
80	50	32	D M16(X12)	5.7
80	60	50	D M16(X8)	7.8
80	60	32	D M16(X12)	5.7
80	65	32	D M16(X12)	5.7
100	40	32	D M16(X12)	6.1
100	60	32	D M16(X12)	6
100	65	32	D M16(X12)	6.1
100	80	55	D M16(X12)	9.6
100	80	55	D M16(X12)	9.9
125	60	32	D M16(X12)	7.7
125	65	32	D M16(X12)	7.7
125	80	32	D M16(X12)	8.2
125	80	32	D M16(X16)	8
125	100	55	D M16(X16)	12.4
150	60	37	S M16(X4)	10.2
150	65	37	S M16(X4)	10.2
150	80	32	S M16(X4)	8.1
150	80	32	S M16(X8)	8.7
150	100	32	D M16(X8)M20	10.2
150	125	55	D M16(X8)M20	15.3
200 PN10/16	60	55	S M16(X4)	20.5
200 PN10/16	65	55	S M16(X4)	20.5
200 PN10/16	80	50	S M16(X4)	13.8
200 PN10/16	80	50	S M16(X8)	19
200 PN10/16	100	50	S M16(X8)	13.4
200 PN10/16	125	38	S M16(X8)	14.5
200 PN10	150	32	D M20(X16)	14.3
200 PN16	150	32	D M20(X20)	14.7
250 PN10	100	35	S M20(X8)	17
250 PN10	200	35	D M20(X20)	18.3
300 PN10	200	35	S M20(X8)	20
300PN10	250	35	D M20(X20)	21.8

Customized dimension which is different from above table is also available upon requirement.
For unreasonable dimension specifications, we reserve the right to make technical recommendations.

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.тисистемс.рф
Телефоны для связи: +7 (495) 7774788, (925)7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by