

STYLE D / DS DUPLEX & SUPER DUPLEX HIGH PRESSURE

Working pressure:
 1200 psi (82 bar) for all sizes.

TYPICAL APPLICATIONS

1. SWRO desalination
 high-pressure systems:
 ERDpressure exchanger,
 seawater and brine racks.



2. Oil & Gas offshore
 platforms seawater treatment:
 sulfate removal units



Housings

Duplex (Style D):

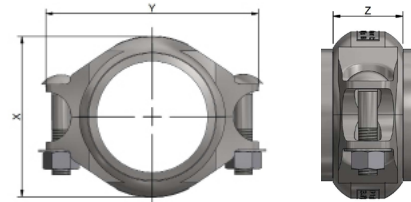
-Duplex stainless steel type CE8MN (UNS # J93345) conform to ASTM A995, Grade 2A, PREN~35.

Super Duplex (Style DS):

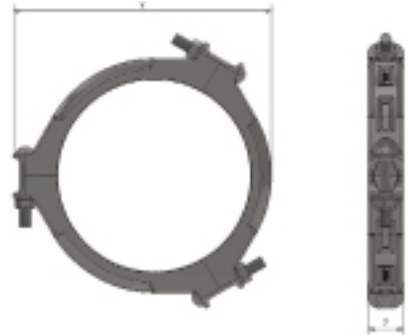
-Super duplex stainless steel type CE8MN (UNS # J93345) conform to ASTM A995, Grade 2A, PREN>40.

-Super duplex stainless steel type CE3MN (UNS # J93404) conform to ASTM A995, Grade 5A, PREN>42.

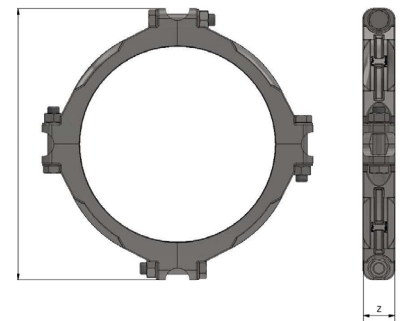
Other alloys are also available;
 contact Piedmont for details.



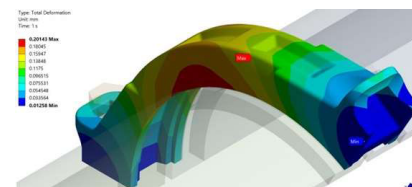
Sizes: 3/4" to 14"



Sizes: 16" to 18"



Sizes: 20"



STYLE D / DS SPECIFICATIONS

Nominal sizes: Inch (DN mm)	Pipe OD: Inch (mm)	Dimensions Inch (mm)			Approx. Weight lb (kg)	Working pressure PSI (bar)	Bolts & Nuts / Qty - size
		X	Y	Z			
3/4" (DN20)	1.050" (26.67)	1.91 (48.5)	3.04 (77.2)	1.68 (42.7)	0.81 (0.37)	1200 (82)	2 - M10 x 60
1" (DN25)	1.315" (33.40)	2.29 (58.2)	3.42 (86.9)	1.68 (42.7)	0.97 (0.44)	1200 (82)	2 - M10 x 60
1-1/4" (DN32)	1.660" (42.16)	2.50 (63.5)	3.65 (92.7)	1.71 (43.4)	1.08 (0.49)	1200 (82)	2 - M10 x 60
1-1/2" (DN40)	1.900" (48.26)	2.76 (70.1)	4.06 (103.1)	1.71 (43.4)	1.21 (0.55)	1200 (82)	2 - M10 x 60
2" (DN50)	2.375" (60.33)	3.24 (82.3)	4.38 (111.3)	1.85 (47.0)	1.92 (0.87)	1200 (82)	2 - M12 x 65
2-1/2" (DN65)	2.875" (73.03)	3.74 (95.0)	5.30 (134.6)	1.85 (47.0)	2.14 (0.97)	1200 (82)	2 - M14 x 65
3" (DN80)	3.500" (88.90)	4.48 (113.8)	6.03 (153.3)	1.85 (47.0)	2.64 (1.20)	1200 (82)	2 - M14 x 65
4" (DN100)	4.500" (114.30)	5.70 (144.8)	7.60 (193.0)	2.02 (51.3)	4.54 (2.06)	1200 (82)	2 - M16 x 85
5" (DN125)	5.563" (141.30)	7.22 (183.4)	9.50 (241.5)	2.02 (51.3)	9.30 (4.23)	1200 (82)	2 - M20 x 110
6" (DN150)	6.625" (168.28)	8.18 (207.8)	10.25 (260.4)	2.02 (51.3)	9.74 (4.42)	1200 (82)	2 - M20 x 110
8" (DN200)	8.625" (219.08)	10.89 (276.6)	13.44 (341.5)	2.34 (60.7)	24.50 (11.10)	1200 (82)	2 - M22 x 130
10" (DN250)	10.750" (273.05)	13.28 (337.3)	15.88 (403.3)	2.55 (64.8)	33.46 (15.18)	1200 (82)	2 - M27 x 170
12" (DN300)	12.750" (323.85)	15.28 (388.1)	17.38 (441.4)	2.55 (64.8)	34.82 (15.80)	1200 (82)	2 - M27 x 170
14" (DN350)	14.000" (355.60)	16.45 (417.7)	20.30 (515.7)	2.99 (75.8)	44.91 (20.38)	1200 (82)	2 - M27 x 170
16" (DN400)	16.000" (406.40)	-	20.86 (529.8)	2.94 (74.7)	76.56 (34.73)	1200 (82)	3 - M27 x 170
18" (DN450)	18.000" (457.2)	-	23.83 (596.8)	3.20 (80.1)	95.07 (43.12)	1200 (82)	3 - M27 x 170
20" (DN500)	20.000" (508.0)	-	27.08 (687.8)	3.20 (80.1)	109.55 (49.69)	1200 (82)	4 - M30 x 150

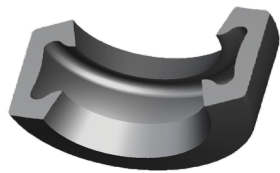
24" coupling size available upon request, contact Piedmont for details.

Working pressure: Working pressures have been determined based on generally accepted standard specifications for performance of gasketed mechanical couplings, in accordance with ASTM F1476 and/or ANSI AWWA C606, and are applicable for schedule 40s pipes with cut grooves only (sh80 for 16"- 18"-20"). For use on pipes thinner than schedule 40s and for roll grooves, please consult with Piedmont. Pipe's schedule, working pressure and material must comply with the requirements of ASME B31.1.

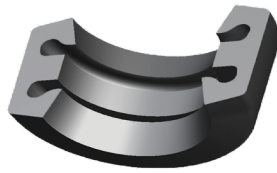
Gaskets

- EPDM rubber, suitable for hot and cold water services. Peroxide cured manufactured to improve resistance against chloramines.
- Two shapes of gaskets are available: C-shaped or Flush-fit.
- NSF/ANSI 61 approved or equivalent (FDA) for drinking water system components. Not suitable for petroleum service.
- Other materials (Nitrile, Viton) are also available, contact Piedmont for details.

GASKET TYPES



C-SHAPED



FLUSH-FIT

Hardware

a) Design:

1. Standard components are iso metric thread type.
 - Bolts are round-head oval neck track bolts (own design based on DIN-5903)
 - Nuts are according to DIN-934 (ISO-4032).
 - Washers are according to DIN-125 (ISO 7089).
 - Hexagonal head bolts (DIN-931/933) also used in 6" - 20" couplings.
2. Optional:
 - Threaded rods (DIN-976) for sizes up to 6" available upon request.
 - Inches series thread components available upon request.

b) Material:

1. Standard:

- SS Duplex 2205 / S32205 as per ASTM A1082 (PREN>35).
It is recommended to improve against chloride stress cracking, crevice and pitting bolts corrosion.

2. Optional:

- SS Super duplex 2507 / S32750 or S32760 (Zeron-100) as per ASTM A1082 (PREN>40)
- SS316L bolts & SS316 nuts & washers as per ASTM A276 (PREN>23) (up to 14").
- Silicon bronze nuts (ASTM B98 C65100) avoid the use of any additional antigalling paste on stainless steel bolts.
- Antigalling / antiseize dry lubricated bolts/rods & nuts (Gleitmo 615 or similar).

c) Isolation washer (optional):

In addition to duplex / super duplex material bolting upgrading, to improve against bolting crevice corrosion, some isolation washers are available upon request.

Standard Quality Certificates

Piedmont is ISO 9001:2015 certified.

The following quality certificates are provided with the order:

- EN10204 3.1 metallic components (castings, hardware)
- EN10204 2.2 certificate for EPDM gaskets
- EN10204 2.1 PO certificate of conformity

ADDITIONAL INFORMATION

Quality Tests (optional)

[Consult our website](#)

Complementary Products

[Consult our website](#)

Coatings (optional)

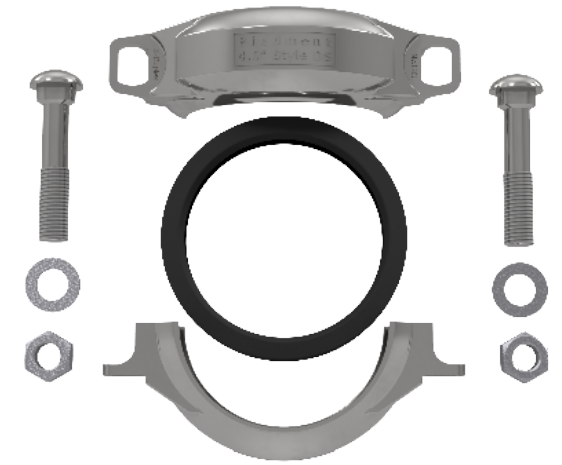
[Consult our website](#)

Installation Manual

[Link to PDF file](#)

Spare Parts

[Consult our website](#)



STYLE D/DS