



شرکت دانش بنیان مه راد صنعت خلاق (رادکو)

Pipeline Repair Products

High Pressure & High Temperature
Offshore & Onshore Pipeline

MahRad Sanat Khallagh co (RADCO), Ltd

Main Office:

Science and Technology Park

Qazvin, Iran

P.O.BOX 3471991831

Manufacturing Workshop:

Caspian Industrial Estate

Qazvin, Iran

P.O.BOX 3445183141

EPRS Brochure



Pipeline Repair Products

COMPANY INTRODUCTION

RADCO (MahRad Sanat Khallagh), established in 2017, is a knowledge-based company specializing in engineering and manufacturing of advanced products for the repair of onshore and offshore pipelines. With all required licenses and a strong R&D foundation, RADCO has developed the infrastructure including a specialized production facility and dedicated testing labs to design and manufacture Emergency Pipeline Repair products (EPRS).

Core Competencies:



Innovation



Engineering



Education



Manufacturing



Quality Control



After Sale Service

Selected Products:



Smart Flange



Smart Clamp



Split Sleeve Clamp



Weld Ends Coupling



Weld Ends Flange

PRODUCT DETAIL

MATERIAL SPECIFICATIONS:

ASTM A106, ASTM A516, ASTM A216

ASTM A105, ASTM A694 FORGING, AISI 4140

Elastomer Seals: HNBR, Viton or Buna-N

Studs & Nuts: ASTM A193 Gr. B7 , A194 Gr. 2HM heavy hex nuts

Coating: Epoxy / Col Tar Epoxy/ Mastic Epoxy/ Glass Flake Epoxy

DESIGN PARAMETERS:

Nominal Pipe Size (NPS): any API Specification 5L pipe and wall thickness

Service: Standard (i.e. crude oil, natural gas, hydrocarbons, water, chemical, etc.)

Design Pressure Rating: up to ANSI Class 2500

Hydrostatic Test Pressure : 1.2-1.5 times Design Pressure Rating

Design Life: 25 years

APPLICABLE DESIGN CODES & STANDARDS:

ASME Section VIII, Division 1 and 2

ASME B31.4 , ASME B31.8

ASME B18.2.1,

API SPEC 5L,

ASME PCC-2,

DNV-OS-F101, DNVGL-RP-F113,

API SPEC 6H,

NACE MR0175, ISO 15156.

CERTIFICATIONS:

IPICB Oil & Gas Type Approval Certificate

ISO 9001:2015– Accredited by BRSM Quality Management



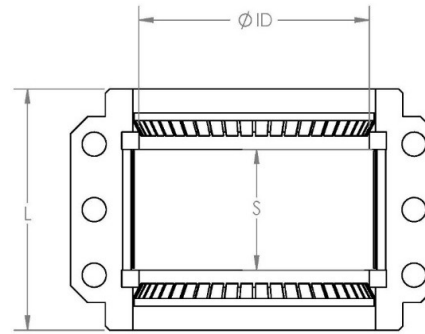
Pipeline Clamps are split mechanical fittings designed for permanent repair of damaged or leaking pipelines. These fittings are manufactured in both structural and non-structural configurations. The non-structural type is intended for pipelines with minor defects such as pinhole leaks, localized wall thinning, or shallow dents. The structural type is engineered to restore the mechanical integrity of pipelines experiencing more severe damage, including cracked girth welds, kinks, or punctures.

Service	Oil / Gas/ Condensate /Hydrocarbons/ Petrochemical/Water
Application	Subsea / Onshore/ Underground
Design Code	ASME SECVIII, DNV GL RP F113, ASME PCC2
Nominal pipe size (NPS)	3 inch~56 inch
Sealing Length	Standard and non standard length – Upon Client Request
ANSI Pressure Rating	#150 ~#2500
Main Body Material	Acc to API Specification 6H, A694, A105, A516, A216, ...
Inboard seal	Buna-N packing is standard. HNBR, Viton, Silicone and other packings are available upon request.
Coating	Epoxy / Col Tar Epolxy/ Mastic Epoxy/ Marine Epoxy/ Glass Flake Epoxy

Split Sleeve Clamp



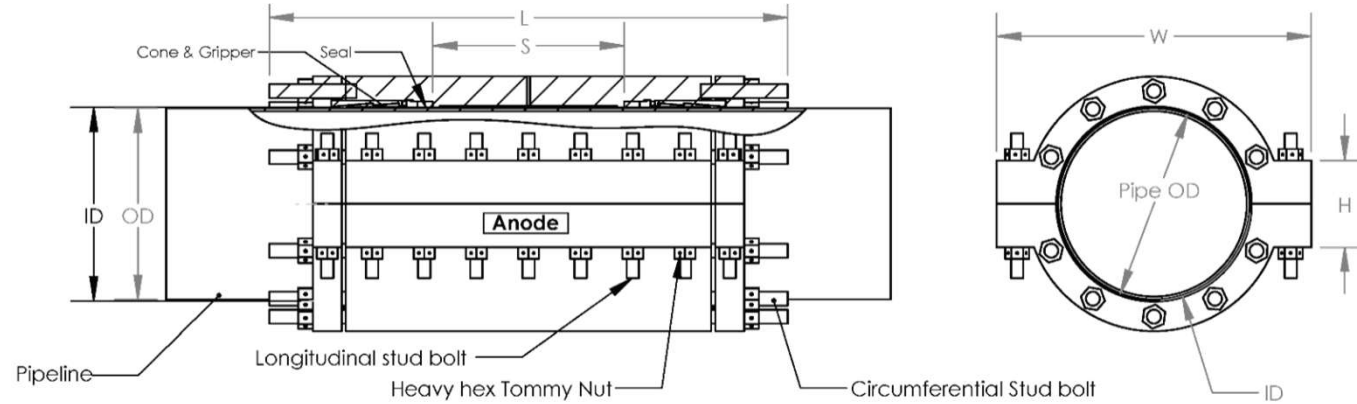
Split Sleeve Clamp General Dimension



Pipeline Nominal Size (in)	Clamp Inside Diameter (ID)	Seal Active STANDARD Length (S)	Clamp Overall STANDARD Length (L)
3	4	5 ¼	8 ½
4	5	5 ¼	8 ½
6	7 1/8	5 ¼	8 ½
8	9 1/8	5 ¼	9
10	11 ¼	5 ½	10
12	13 ¼	5 ½	10 ½
14	14 ½	8	10 ½
16	16 ½	8	14
18	18 ½	8	14
20	20 ½	8	14
22	22 ½	8	14
24	24 ½	8	14
26	26 ½	8	14
28	28 ½	8	14
30	30 ½	8	14
32	32 ½	8	14
34	34 ½	8	14
36	36 ½	8	14 1/8
38	38 ½	8	14 ¼
40	40 ½	8	14 ¼
42	42 ½	8	14 7/8
48	48 ½	8	16
56	56 ½	8	17

In addition to this standard range, RADCO can respond to client request for customized solutions, such as increased sealing lengths, increased overall lengths and etc.

Smart Clamp General Dimension



Pipeline Nominal Size (in)

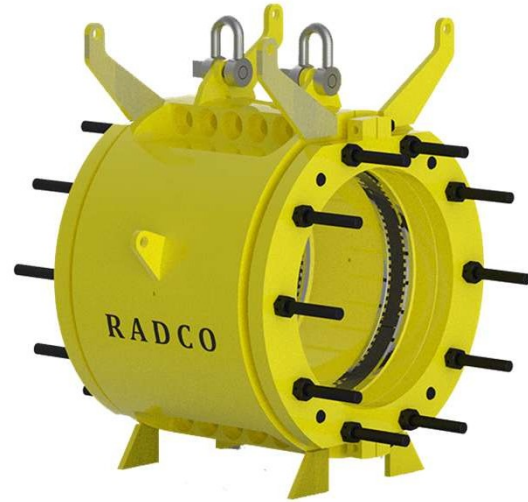
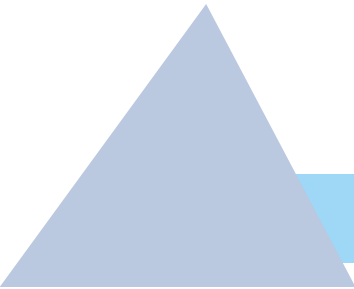
4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	48	56
---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

ANSI Rating

150	300	600	900	1500	2500
-----	-----	-----	-----	------	------

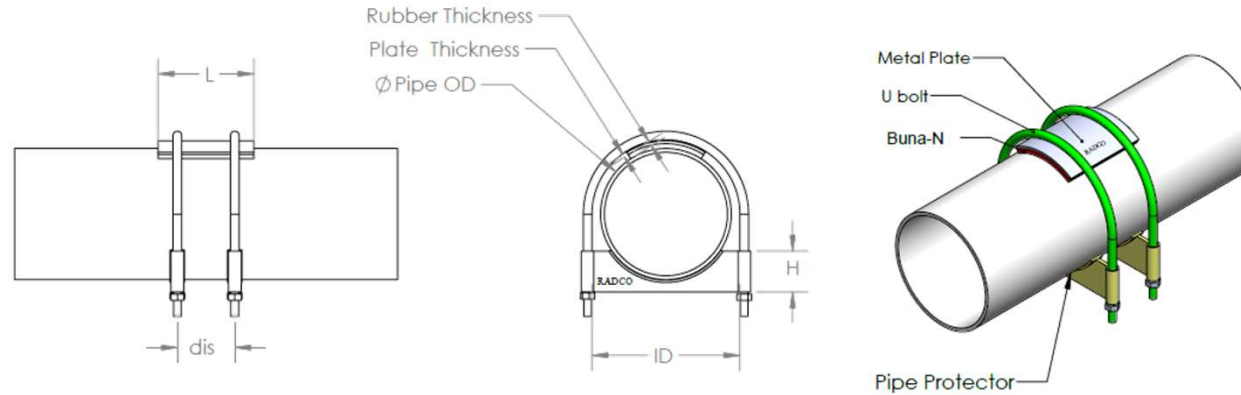
ITEM	DESCRIPTION	DATA	ITEM	DESCRIPTION	DATA
1	Nominal PIPE Size (NPS)	30 in	4	Pipe Ovality tolerance	2%
2	Design Pressure Rating	300	5	Sacrificial Anode	YES
3	Clamp Active Length (S)	350 mm	6	Qty.	TBD
DIMENSION					
7	L	1450 mm	14	W	TBD
8	S	350 mm	15	H	380 mm
9	φID	770 mm	16	Num. of long. Bolts	14
10	φOD	762 mm	17	Num. of Cir. Bolts	10
11	Test/injection Port	1/2" NPT			
12	Hinge Assembly	YES			
13	Lifting Lug	YES			

Table shows details for 30in smart Clamp # 300, indicative only. Data may change as client specification.
Product details for any sizes and ANSI ratings will be issued upon client request.



U Clamp

U-Clamps are mechanical fittings designed for temporarily repair of leaking pipelines.



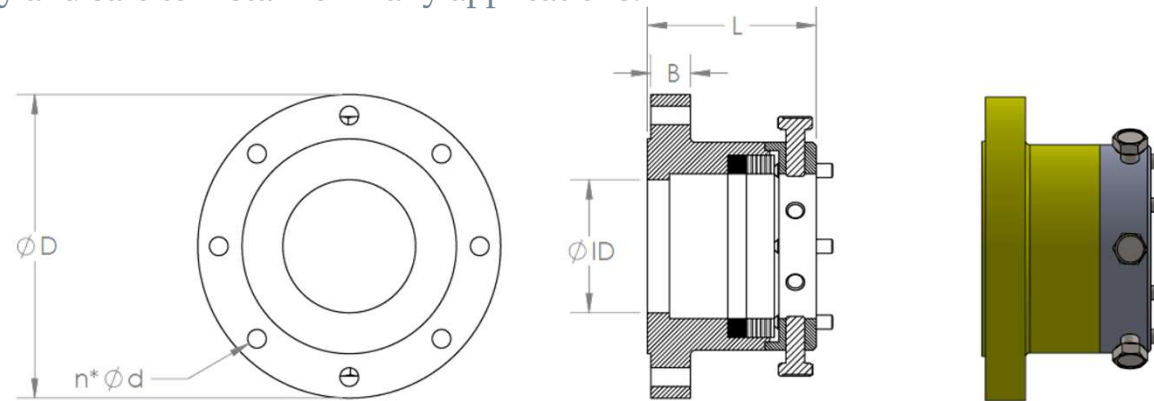
Service	Oil / Gas/ Condensate/ Water/ Chemical
Nominal pipe size (NPS)	4 inch~56 inch
Material	ASTM A516, St52, A106 or Eq.
Seal	Buna-N packing is standard
Coating	Zinc Rich / Epoxy

U-Clamp



Weld Ends Flange

The RADCO Weld Ends Flange is a mechanical fitting for making tie-in connections which does not require welding. Flanges are easy and safe to install for many applications.



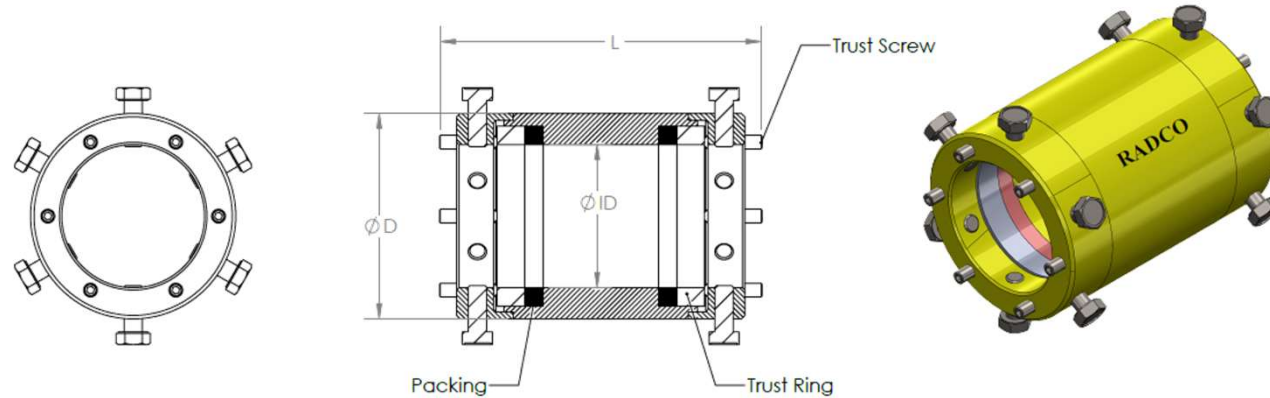
Service	Oil / Gas/ Condensate/ Water/ Chemical
Nominal pipe size (NPS)	4 inch~56 inch
ANSI Pressure Rating	ASME/ANSI B16.5 , 16.47 #150 ~#2500
Main Body Material	ASTM A105/ASTM A 516/ ASTM A694/ ASTM A106 For any other requirement contact RADCO
Inboard seal	Buna-N packing is standard. HNBR, Viton, Silicone and other packings are available upon request.
Coating	Epoxy / Col Tar Epoxy/ Mastic Epoxy

Pipeline Nominal Size (in)	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	48	56
ANSI Rating	150			300			600			900			1500			2500						

Product details for any sizes and ANSI ratings will be issued upon client request.

Weld Ends Coupling

Weld Ends Coupling are used to quickly join pipe to resume operation immediately so that costly downtime is avoided. RADCO couplings are easy and safe to install for many applications.



Service Oil / Gas/ Condensate/ Water/ Chemical

Nominal pipe size (NPS) 4 inch~56 inch

ANSI Pressure Rating ASME/ANSI B16.5 , 16.47 #150 ~#2500

Main Body Material ASTM A105/ASTM A 516/ ASTM A694/ ASTM A106 For any other requirement contact RADCO

Inboard seal Buna-N packing is standard. HNBR, Viton, Silicone and other packings are available upon request.

Coating Epoxy / Col Tar Epoxy/ Mastic Epoxy



Pipeline Nominal Size (in)	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	48	56
ANSI Rating	150			300			600			900			1500			2500						

Product details for any sizes and ANSI ratings will be issued upon client request.

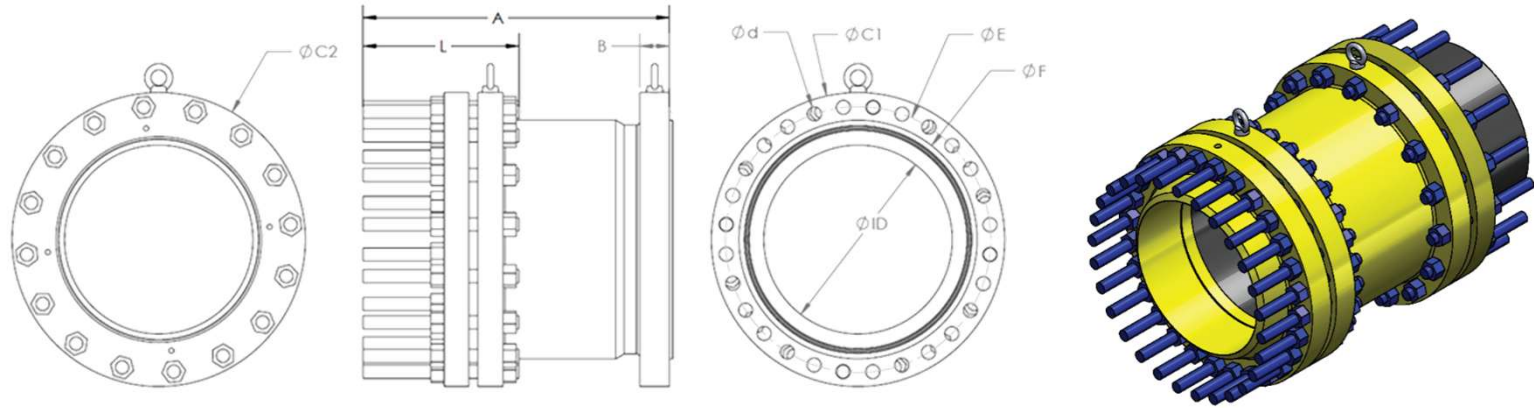
Smart Flange is a mechanical end connector engineered for pipeline repair, rerouting, and abandonment applications. Utilizing robust collet grips, it provides a permanent, structural flanged termination by mechanically engaging the pipe. Dual-barrier seals ensure long-term integrity, supported by an integrated test port for annulus seal verification. The single-set design simultaneously actuates both grips and seals, enabling fast and reliable installation.

Service	Oil / Gas/ Condensate
Design Code	DNV GL RP F113, DNV RP, DNV GL OS F101
Nominal pipe size (NPS)	4 inch~56 inch
RTJ size	ASME B16.20, Octagonal Type
ANSI Pressure Rating	ASME/ANSI B16.5 , 16.47 #150 ~#2500
Main Body Material	A694, A105, AISI 4140 or Eq. , NACE Compliance upon request
Inboard seal	Compatible with Fluid (HNBR, Viton, Buna N...)
Coating	Epoxy / Col Tar Epoxy/ Mastic Epoxy/ Marine Epoxy/ Glass Flake Epoxy

Smart Flange



Smart Flange General Dimension

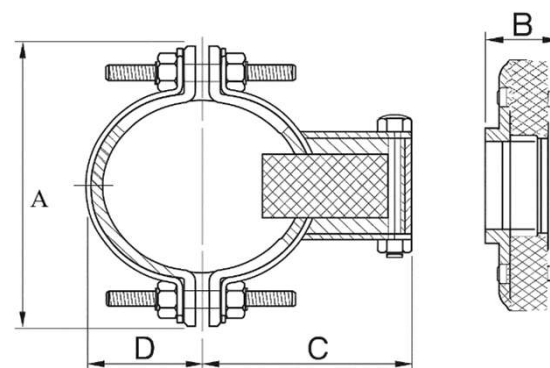


Pipeline Nominal Size (in)	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	48	56
ANSI Rating	150			300			600			900			1500			2500						

ITEM	DESCRIPTION	DATA	ITEM	DESCRIPTION	DATA
1	Nominal PIPE Size (NPS)	30 in	4	WN Flange Weight	395 kg
2	Design Pressure Rating	300	5	Smart Flange Gross Weight	1800 kg
3	RTJ Size	R95	6	Pipe OD	762 mm
DIMENSION					
7	A	1100 mm	14	phi E	997 mm
8	B	90.5 mm	15	phi d	47.5 mm
9	phi C1	1090 mm	16	L	450 mm
10	phi C2	1090 mm	17	phi F	917 mm
11	phi ID	730 mm	18	Y	208 mm
12	E _F	12.7 mm			
13	EGA	350 mm		Num. of Bolts Front Side	28* 1 3/4 in

Table shows details for 30in smart flange # 300, indicative only. Data may change as client specification.
 Product details for any sizes and ANSI ratings will be issued upon client request.

The Yoke Type Quick Opening Closure (QOC) is a specialized pressure vessel component, designed for safe, quick, and reliable access to pipelines, filters, separators, and process vessels. RADCO's closures are engineered to ASME standards, meeting the demands of critical operations in oil, gas, petrochemical, and industrial plants.



This drawing is for general representation only



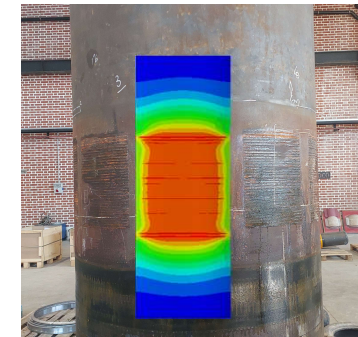
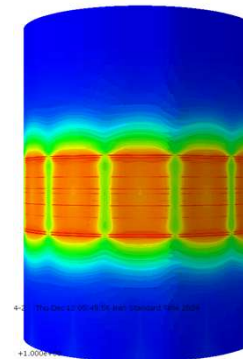
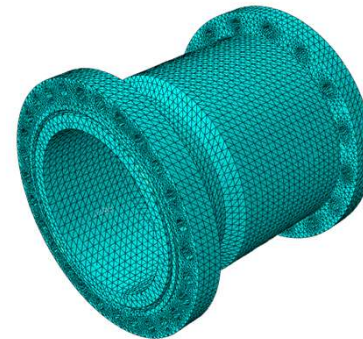
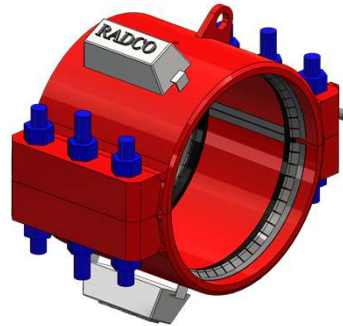
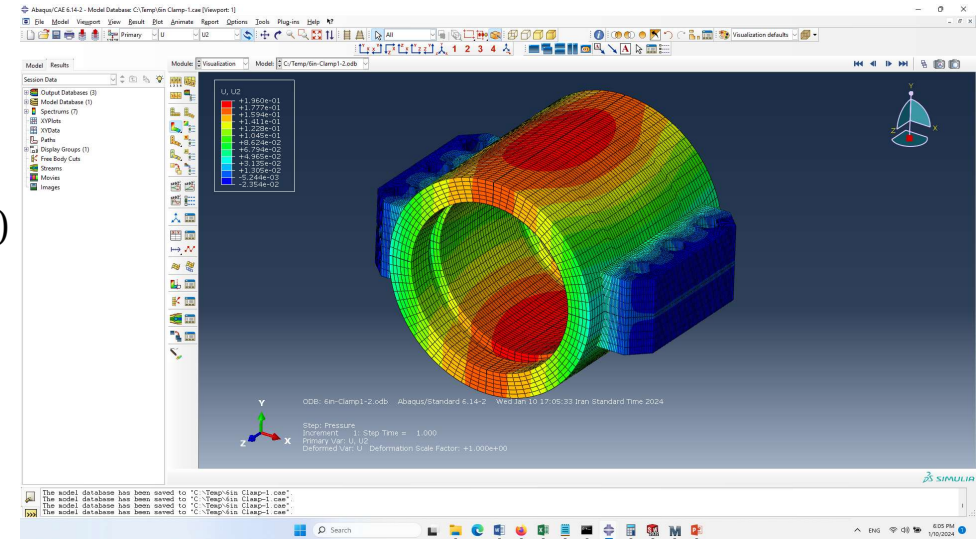
Safety Device	Pressure warning/bleed device, mechanical locking
Nominal pipe size (NPS)	4 inch~56 inch
ANSI Pressure Rating	ASME/ANSI B16.5 , 16.47 #150 ~#2500
Main Body Material	ASTM A516 Gr. 70 / ASTM A105 / Equivalent Carbon Steel
Inboard seal	Buna-N packing is standard. HNBR, Viton, Silicone
End Connections	Welded or Flanged (as specified)
Design Features	External yoke, safety locking, pressure warning device, O-ring seal
Opening Mechanism	Hand-operated yoke & swing-arm)

Nominal Size (in)	Over-all A	OD at Welding Bevel	Back to Hub Length B	Center to Hinge End C	CENTER to Free End D	YOKE CLEARANCE j	Opening Clearance M	Approx. Weight (kg)	Class
18	850	458	200	400	320	730	530	300	150-H
18	975	458	280	450	350	750	570	430	300-H
22	1075	559	320	520	390	920	690	600	300-H

Product details for any sizes and ANSI ratings will be issued upon client request.

ENGINEERING

- 3D Modeling (SolidWorks)
- Advanced Computer Aided Design (CAD)
- Nonlinear Finite Element Analysis (Abaqus)
- Hyper Elastic Sealing Analysis
- Load and Resistance Factor Design (LRFD)
- Standard Based Design
- Bolt Tightening Calculation



MANUFACTURING FACILITY

Heavy Duty Turning Machines

Lathe Machines

Vertical Milling Machines

Shaping Machines

3D Printing Machine

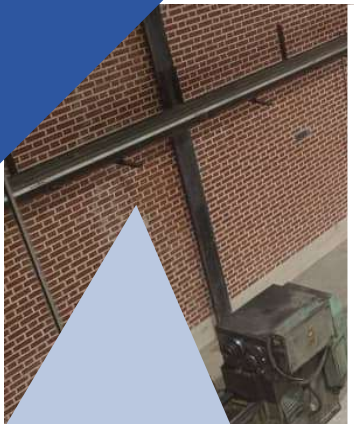
Welding Equipment

Modeling Equipment

Airless Spray

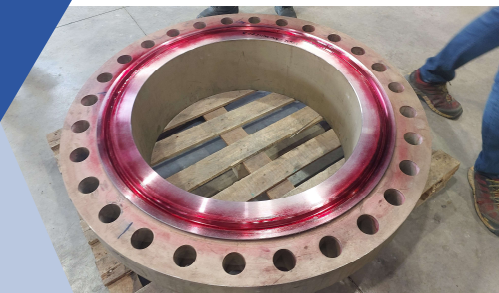
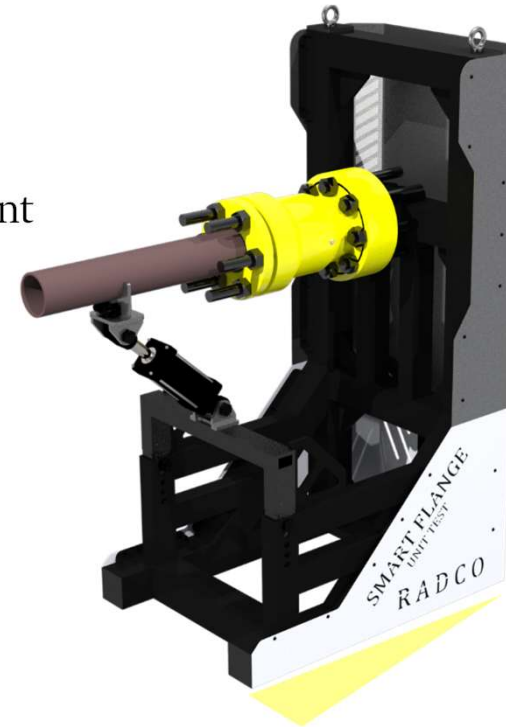


MANUFACTURING



TESTING & INSPECTING EQUIPMENT FACILITY

RADCO Especial Hydrotest Equipment
RADCO Especial Hydro bending Equipment
Calibrated Calipers
Coating Thickness Equipment
X-Cut Facilities
Hardness Tester
UT, PT, MT



SELECTED TRACK RECORD

DATE	PRODUCT	QTY.	SIZE (IN)	CLASS
2021	SMART CLAMP	-	24	600
2022	SMART FLANGE	-	4	1500
2023	SMART FLANGE	-	4	1500
2023	SPLIT SLEEVE CLAMP	-	12 & 14	600
2023	SPLIT SLEEVE CLAMP	-	6	600
2024	SPLIT SLEEVE CLAMP	-	26	600
2024	SPLIT SLEEVE CLAMP	110	6, 8, 10 & 12	600
2025	SMART FLANGE	-	30	600
2025	SPLIT SLEEVE CLAMP	14	32	300



ENTERPRISE HONOR

MOP Approved Vendor List (AVL)

Knowledge-Based Company

IPICB Oil & Gas Type Approval Certificate

ISO 9001:2015– Accredited by BRSM Quality Management

Accreditation Certificate Safe

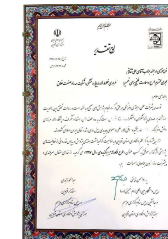
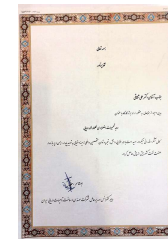
Technology Unit License

Institutional Membership, Sharif University of Technology

National Patent (Smart Flange, Split Sleeve Clamp)

Factory Operating License

R&D Foundation



ردیف	نام شرکت	تاریخ عضویت	وضعیت
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50





RADCO 

شرکت دانش بنیان مه راد صنعت خلاق (رادکو)

 www.radcofix.com  [radcofix](https://www.linkedin.com/company/radcofix)  +989025153297

