



BUSINESS DOSSIER

BANDS & BUCKLES

RAYCHEM RPG PVT. Ltd.
1/62 MG ROAD,
Off. WESTERN EXPRESS
HIGHWAY,
VASAI (E) MAHARASHTRA

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ISO 9001 : 2015

ISO 14001 : 2015

ISO OHSAS 18001 : 2007

PRODUCT CERTIFICATION

DNV-GL

ABS

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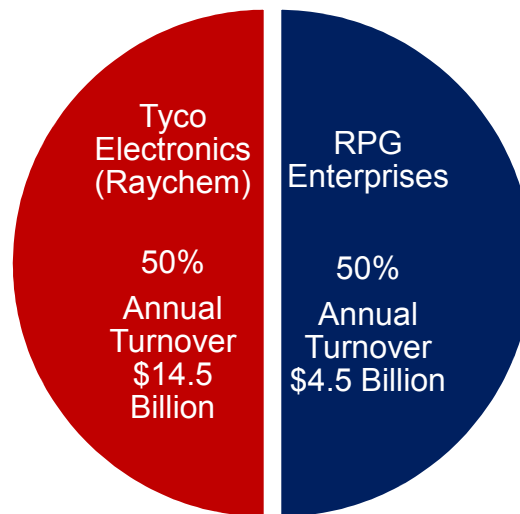
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A. Company Profile

Raychem RPG Limited is a 50:50 Joint Venture between Tyco Electronics, U.S.A. (a US\$ 14.5 billion conglomerate & World's largest manufacturer for passive components business and Engineering Products & Services) and RPG Enterprises, among Top 10 business houses (with interests in Power Generation, Distribution & Transmission, Cables, IT & Communication, Life Sciences, Automotive, Retail & Entertainment Sectors and a revenue exceeding US\$ 4.5 billion).



The JV was incorporated in 1989 and commenced production in 1990. We are ISO 9001, ISO 14001 & OHSAS 18001 Company Certified by the Lloyds Register of Quality Assurance, UK, with six manufacturing facilities, supported by computerized testing facilities and an advanced engineering lab, two warehouses and customer care/logistics support centres at different locations. We manufacture and supply products for various public and private sector companies who run the country's infrastructure, in the core sectors of Electrical Energy, Electronics, Telecom, Petroleum/Oil & Gas and Automotive.

The JV, as an integral part of Tyco's Global Sourcing Program, has supplied Custom made Components for Tyco's (previously known as Raychem Corp.) worldwide requirements. Parts have been shipped to sites in the USA, Germany, Belgium, UK, Ireland, France, Italy Greece, Saudi Arabia, the UAE, Singapore, Malaysia, Thailand, China, Taiwan, etc. Our Exports basket has been continually increasing thereafter with customers in many parts of the world, particularly the Europe and USA.

- A large diversified business group
- Revenue of USD 4.5 billion
- 8 Business Sectors
- 60,000 employees
- 4,00,000 shareholders
- Powered by an accomplished leadership team
- Driven by passion for superior performance

Our International Business Division has also added numerous custom-designed components for varied applications, such as:

- Assemblies & sub-assemblies
- Industrial Cable Glands
- Customized Aluminium Pressure Die Casting Parts
- Turned & machined parts with various base metals
- Stamped parts
- Plastic injection moulded parts and Rubber moulded parts.

Customer Focus is the way of life at Raychem RPG Limited, and this continues to reward us with repeat business by our esteemed customers. We have won numerous awards and accolades over the years, chief among them being Export House Status, and the CII-award for TQM Initiatives and Commitment.

**You are welcome to learn more about us/our products at our website
www.raychemrpg.com
International Business (EBU)**

B. Awards and Recognition



**CII-Exim Bank
Excellence Award**



**Ministry of Power
National Energy Conservation Award**



**India Manufacturing Excellence
IMEA Award**



**Great Place to Work
Institute India**



**TPM
Excellence Award**



**RPG Organizational
Excellence Award**

CATALOGUE SECTION

BANDS & BUCKLES

BAND (STRAPS)

Packing Details

Option 1 : Easy to Use Plastic Dispenser



Option 2 : Strong Corrugated Box



Nomenclature

SPECIFICATIONS : STRAPS

RS U XX A – XX X C

	RS	U	XX	A	XX	X	C
R – Raychem Strap	✓						
Surface Condition							
C: Epoxy Coated							
U: Uncoated		✓					
P: PPP Coated							
VP: PVC Coated							
Width mm							
06 - 6.5							
09 - 9.5							
10 - 10.0							
12 - 12.7			✓				
16 - 16.0							
19 - 19.0							
20 - 20.0							
Raw Material							
A : SS 430				✓			
B : SS 201							
E : SS 316					✓		
F : SS 304							
Roll Length mm							
25, 30, 50, 61							
Thickness mm							
4 - 0.4							
5 - 0.5							
6 - 0.65							
6 - 0.65							
7 - 0.7							
7.5 - 0.75							
Packing							
C - Corrugated box							✓
T - Plastics Totes							

BAND (STRAPS)



Utility Bands



- Specially packed for industrial and utilities requirement
- Bands available in all grades of stainless steel
- Packed in plastic dispensers and Cartons Boxes
- Application Tools: RR-T03

Part No.	Material	Width		Thickness		Finished Length		Avg. Breaking Strength		Package Quantity
		In	mm	In	mm	Feet	Mtrs	N	lbs	
RSU10B304	SS201	2/5	10.00	0.016	0.40	98.5	30.0	3560	800	30 mtr / Roll
RSU10B504	SS201	2/5	10.00	0.016	0.40	164	50.0	3560	800	50 mtr / Roll
RSU10B307	SS201	2/5	10.00	0.028	0.70	98.5	30.0	5340	1200	30 mtr / Roll
RSU10B507	SS201	2/5	10.00	0.028	0.70	164	50.0	5340	1200	50 mtr / Roll
RSU20B304	SS201	4/5	20.00	0.016	0.40	98.5	30.0	6675	1500	30 mtr / Roll
RSU20B504	SS201	4/5	20.00	0.016	0.40	164	50.0	6675	1500	50 mtr / Roll
RSU20B307	SS201	4/5	20.00	0.028	0.70	98.5	30.0	10235	2300	30 mtr / Roll
RSU20B507	SS201	4/5	20.00	0.028	0.70	164	50.0	10235	2300	50 mtr / Roll
RSU10F304	SS304	2/5	10.00	0.016	0.40	98.5	30.0	2114	475	30 mtr / Roll
RSU10F504	SS304	2/5	10.00	0.016	0.40	164	50.0	2114	475	50 mtr / Roll
RSU10F307	SS304	2/5	10.00	0.028	0.70	98.5	30.0	3338	750	30 mtr / Roll
RSU10F507	SS304	2/5	10.00	0.028	0.70	164	50.0	3338	750	50 mtr / Roll
RSU20F304	SS304	4/5	20.00	0.016	0.40	98.5	30.0	4450	1000	30 mtr / Roll
RSU20F504	SS304	4/5	20.00	0.016	0.40	164	50.0	4450	1000	50 mtr / Roll
RSU20F307	SS304	4/5	20.00	0.028	0.70	98.5	30.0	6675	1500	30 mtr / Roll
RSU20F507	SS304	4/5	20.00	0.028	0.70	W164	50.0	6675	1500	50 mtr / Roll
RSU10E304	SS316	2/5	10.00	0.016	0.40	98.5	30.0	2225	500	30 mtr / Roll
RSU10E504	SS316	2/5	10.00	0.016	0.40	164	50.0	2225	500	50 mtr / Roll
RSU10E307	SS316	2/5	10.00	0.028	0.70	98.5	30.0	4005	900	30 mtr / Roll
RSU10E507	SS316	2/5	10.00	0.028	0.70	164	50.0	4005	900	50 mtr / Roll
RSU20E304	SS316	4/5	20.00	0.016	0.40	98.5	30.0	5340	1200	30 mtr / Roll
RSU20E504	SS316	4/5	20.00	0.016	0.40	164	50.0	5340	1200	50 mtr / Roll
RSU20E307	SS316	4/5	20.00	0.028	0.70	98.5	30.0	8010	1800	30 mtr / Roll
RSU20E507	SS316	4/5	20.00	0.028	0.70	164	50.0	8010	1800	50 mtr / Roll
RSU10A304	SS430	2/5	10.00	0.016	0.40	98.5	30.0	2114	475	30 mtr / Roll
RSU10A504	SS430	2/5	10.00	0.016	0.40	164	50.0	2114	475	50 mtr / Roll
RSU10A307	SS430	2/5	10.00	0.028	0.70	98.5	30.0	3338	750	30 mtr / Roll
RSU10A507	SS430	2/5	10.00	0.028	0.70	164	50.0	3338	750	50 mtr / Roll
RSU20A304	SS430	4/5	20.00	0.016	0.40	98.5	30.0	4450	1000	30 mtr / Roll
RSU20A504	SS430	4/5	20.00	0.016	0.40	164	50.0	4450	1000	50 mtr / Roll
RSU20A307	SS430	4/5	20.00	0.028	0.70	98.5	30.0	6675	1500	30 mtr / Roll
RSU20A507	SS430	4/5	20.00	0.028	0.70	164	50.0	6675	1500	50 mtr / Roll



BUCKLES (CLIPS)

Buckle - Jaw Type



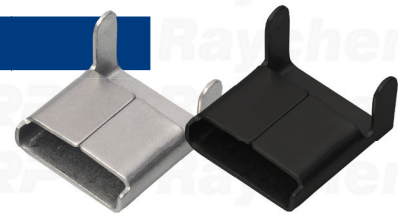
Uncoated Buckles

Part No. for Stainless Steel Grade			Width		Package
SS201	SS304	SS316	In	mm	Quantity
RCU06BJ	RCU06FJ	RCU06EJ	1/4	6.5	100/box
RCU09BJ	RCU09FJ	RCU09EJ	3/8	9.5	100/box
RCU10BJ	RCU10FJ	RCU10EJ	2/5	10	100/box
RCU12BJ	RCU12FJ	RCU12EJ	1/2	12.7	100/box
RCU16BJ	RCU16FJ	RCU16EJ	5/8	16	100/box
RCU19BJ	RCU19FJ	RCU19EJ	3/4	19	100/box
RCU20BJ	RCU20FJ	RCU20EJ	4/5	20	100/box
RCU25BJ	RCU25FJ	RCU25EJ	1/1	25	100/box
RCU32BJ	RCU32FJ	RCU32EJ	1 1/4	32	100/box

Coated Buckles

Part No. for Stainless Steel Grade			Width		Package
SS201	SS304	SS316	In	mm	Quantity
RCC06BJ	RCC06FJ	RCC06EJ	1/4	6.5	100/box
RCC09BJ	RCC09FJ	RCC09EJ	3/8	9.5	100/box
RCC10BJ	RCC10FJ	RCC10EJ	2/5	10	100/box
RCC12BJ	RCC12FJ	RCC12EJ	1/2	12.7	100/box
RCC16BJ	RCC16FJ	RCC16EJ	5/8	16	100/box
RCC19BJ	RCC19FJ	RCC19EJ	3/4	19	100/box
RCC20BJ	RCC20FJ	RCC20EJ	4/5	20	100/box
RCC25BJ	RCC25FJ	RCC25EJ	1/1	25	100/box
RCC32BJ	RCC32FJ	RCC32EJ	1 1/4	32	100/box

Buckle - Wing Type



Uncoated Buckles

Part No. for Stainless Steel Grade			Width		Package
SS201	SS304	SS316	In	mm	Quantity
RCU06BW	RCU06FW	RCU06EW	1-4	6.5	100/box
RCU09BW	RCU09FW	RCU09EW	3-8	9.5	100/box
RCU10BW	RCU10FW	RCU10EW	2-5	10	100/box
RCU12BW	RCU12FW	RCU12EW	1-2	12.7	100/box
RCU16BW	RCU16FW	RCU16EW	5-8	16	100/box
RCU19BW	RCU19FW	RCU19EW	3-4	19	100/box
RCU20BW	RCU20FW	RCU20EW	4-5	20	100/box

Coated Buckles

Part No. for Stainless Steel Grade			Width		Package
SS201	SS304	SS316	In	mm	Quantity
RCC06BW	RCC06FW	RCC06EW	1/4	6.5	100/box
RCC09BW	RCC09FW	RCC09EW	3/8	9.5	100/box
RCC10BW	RCC10FW	RCC10EW	2/5	10	100/box
RCC12BW	RCC12FW	RCC12EW	1/2	12.7	100/box
RCC16BW	RCC16FW	RCC16EW	5/8	16	100/box
RCC19BW	RCC19FW	RCC19EW	3/4	19	100/box
RCC20BW	RCC20FW	RCC20EW	4/5	20	100/box

Buckle - Screw Type

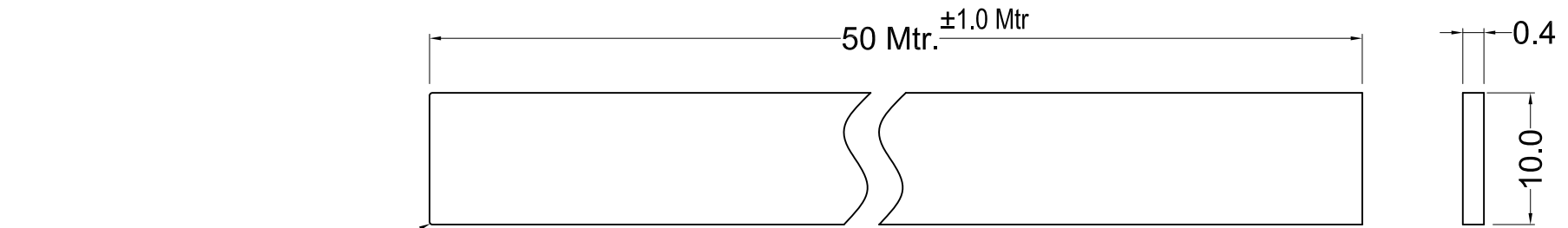
Uncoated Buckles

Part No. for Stainless Steel Grade			Width		Package
SS201	SS304	SS316	In	mm	Quantity
RCU06BS	RCU06FS	RCU06ES	1-4	6.5	100/box
RCU09BS	RCU09FS	RCU09ES	3-8	9.5	100/box
RCU10BS	RCU10FS	RCU10ES	2-5	10	100/box
RCU12BS	RCU12FS	RCU12ES	1-2	12.7	100/box
RCU16BS	RCU16FS	RCU16ES	5-8	16	100/box
RCU19BS	RCU19FS	RCU19ES	3-4	19	100/box
RCU20BS	RCU20FS	RCU20ES	4-5	20	100/box

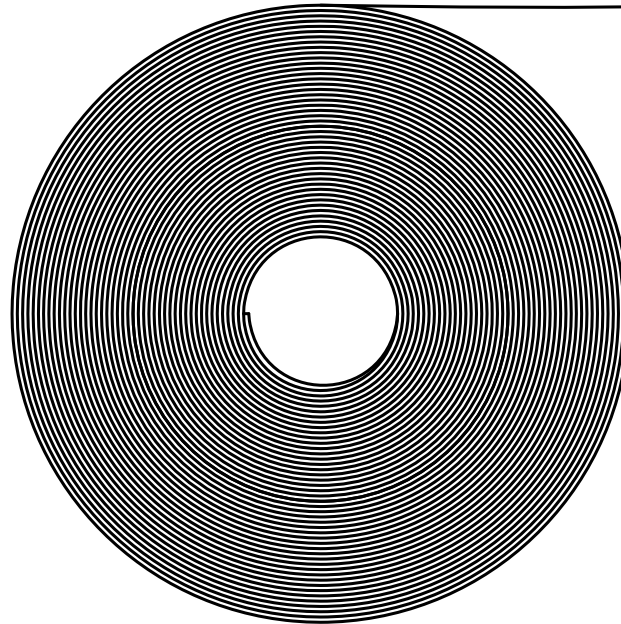


DRAWINGS

BANDS & BUCKLES



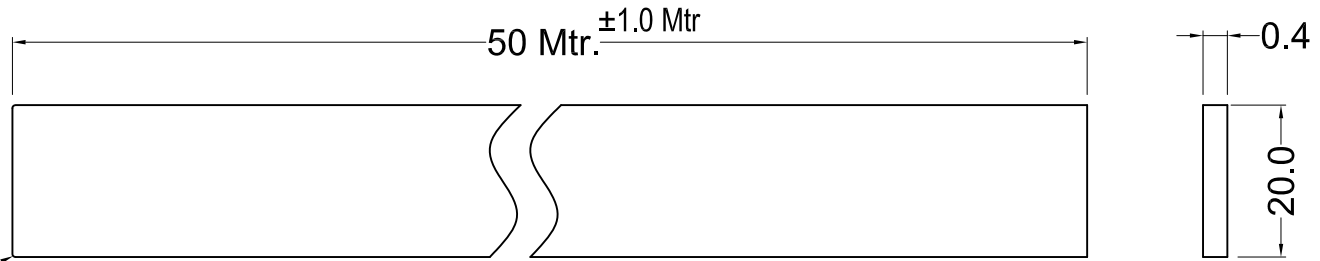
BOTH SIDE WITH
ROUNDED EDGES



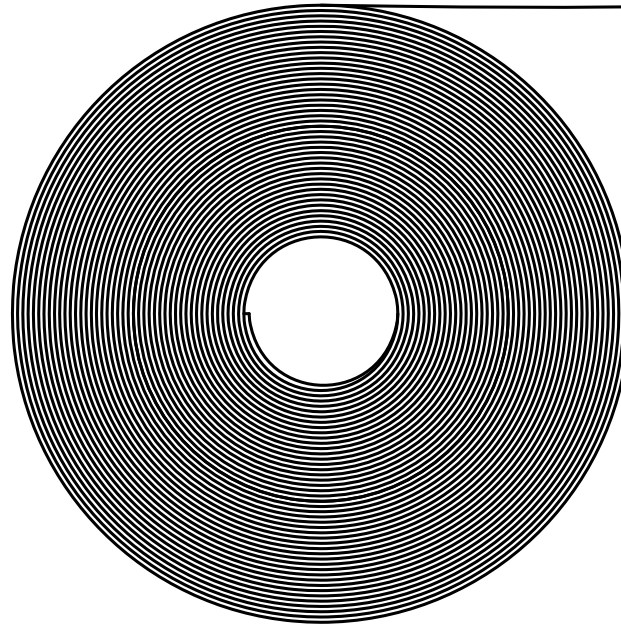
NOTE:-
1) BAND PACKING WITH PLASTIC TOTE

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NO.	REV.	DESCRIPTION	DATE	DRAWN	CHECKED
-	-	-	-	-	-
SCALE :	1:1	MATERIAL :-	TITLE :-	DATE	SIGN
	SS 201	Regular Bands High Tensile Application	21/05/18		RAJESH K.
			21/05/18		ADITY M.
TOLERANCE	WEIGHT:	Raychem RPG (P) Limited Ceat Mahal Annex, Dr. Annie Besant Road . Worli , Mumbai 400030 Web : www.Raychem RPG.com	PARTNO / PCN NO:		A4
±10% DIMENSIONS	-		DRAWING. NO.		REV
±5% HOLES	ALL DIMENSION ARE IN INCH		RSU10B504		00
±5° ANGLES	-				



BOTH SIDE WITH
ROUNDED EDGES

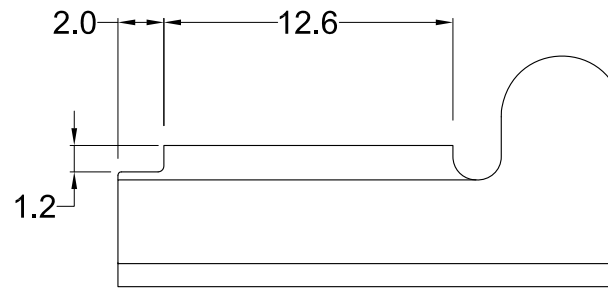
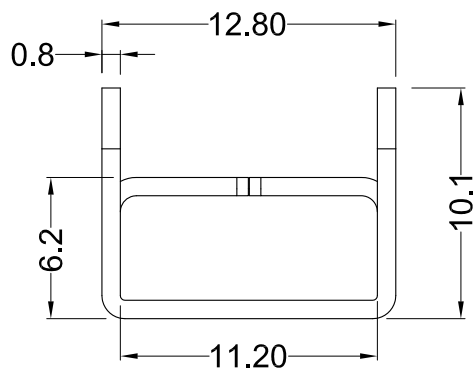
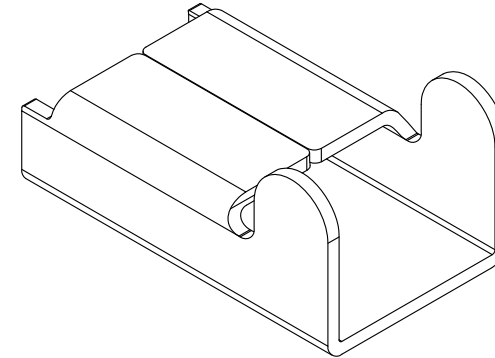
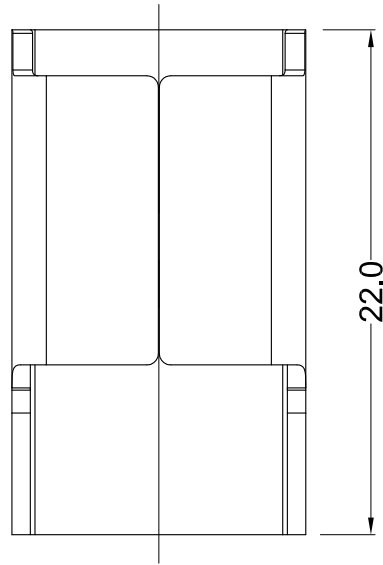


NOTE:-

1) BAND PACKING WITH PLASTIC TOTE

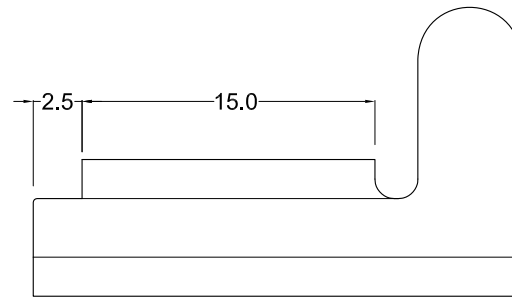
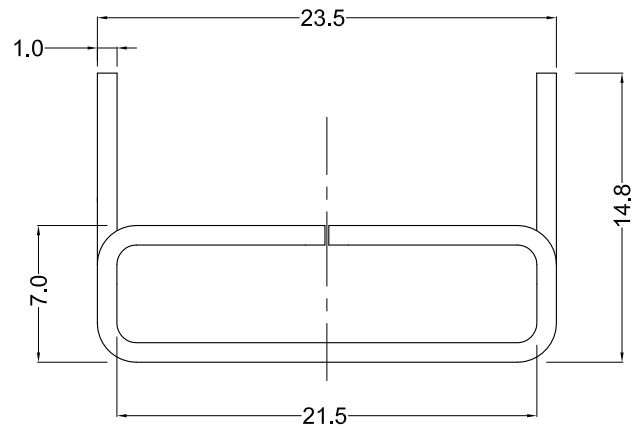
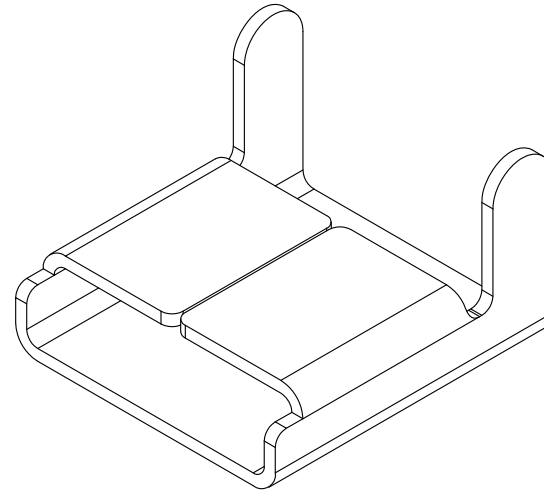
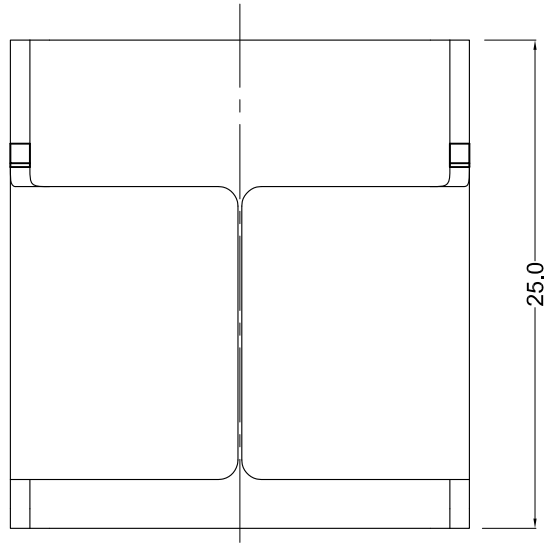
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NO.	REV.	DESCRIPTION	DATE	DRAWN	CHECKED		
SCALE :	1:1	MATERIAL :-	TITLE :-	DATE	SIGN	NAME	
	SS 201	Regular Bands High Tensile Application	21/05/18		RAJESH K.	DRAWN	
			21/05/18		ADITY M.	CHECKED	
TOLERANCE	WEIGHT:	Raychem RPG (P) Limited Ceat Mahal Annexo, Dr. Annie Besant Road . Worli , Mumbai 400030 Web : www.Raychem RPG.com	PARTNO / PCN NO:		-	A4	
±10% DIMENSIONS	-		DRAWING. NO.		RSU20B504	REV	
±5% HOLES	ALL DIMENSION ARE IN INCH					00	
±5° ANGLES	-						



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NO.	REV.	DESCRIPTION	DATE	DRAWN	CHECKED		
SCALE :	1:1	MATERIAL :-	TITLE :-	DATE	SIGN	NAME	
		SS 201	WING TYPE BUCKLES UNCOATED	10/12/18		RAJESH K.	DRAWN
				10/12/18		ADITY M.	CHECKED
				10/12/18		ANIL S.	APPROVED
TOLERANCE	WEIGHT:			PARTNO / PCN NO:		A4	
±10% DIMENSIONS	-	Raychem RPG (P) Limited		DRAWING. NO.		REV	
±5% HOLES	-	Ceat Mahal Annexe, Dr. Annie Besant Road, Worli, Mumbai 400030		RCU10BW		00	
±5° ANGLES	-	Web : www.Raychem RPG.com					



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NO.	REV.	DESCRIPTION			DATE	DRAWN	CHECKED
SCALE:	1:1	MATERIAL :-	TITLE :-	DATE	SIGN	NAME	
		SS 201	WING TYPE BUCKLES UNCOATED	10/12/18		RAJESH K.	DRAWN
				10/12/18		ADITY M.	CHECKED
				10/12/18		ANIL S.	APPROVED
TOLERANCE	WEIGHT:	PARTNO / PCN NO:			-		A4
±10% DIMENSIONS	-	DRAWING NO.			RCU20BW		REV
±5% HOLES	-	Raychem RPG (P) Limited					00
±5° ANGLES	-	Ceat Mahal Annexe, Dr. Annie Besant Road, Worli, Mumbai 400030 Web: www.RaychemRPG.com					

SAMPLE SPECIFICATION SHEETS

TECHNICAL DATA SHEETS

Raychem RPG

Technical Data Sheet

Date of issue: 15.09.2014

Product Descriptions: SS STRAP (Bands)

Issued by: Raychem RPG Limited, India.

Application: Fitting of profiles, clamps and other accessories on the poles.

Raw Material Grade: ASTM 240/A

Chemical Composition:

Grade	C	Mn	P	S	Si	Cr	Ni	Mo	N
SS 316	0.080	2.000	0.045	0.030	0.750	16.0-18.0	10.0-14.0	2.00-3.00	0.100
SS 304	0.070	2.000	0.045	0.030	0.750	17.5-19.5	8.0-10.5		0.100
SS 201	0.15	5.5-7.5	0.060	0.030	1.0	16.0-18.0	3.5-5.5		0.25
SS 430	0.12	1.00	0.040	0.030	1.0	16.0-18.0	0.75		0.75

Technical Specification:

Grade	SS 430	SS 201	SS 304	SS 316
Electrical Properties				
Magnetism	Magnetic	Non Magnetic	Non Magnetic	Non Magnetic
Electrical Resistivity (Nanoohm metre)	600	690	720	740
Mechanical Properties				
Yield Strength(min) Mpa	205	260	205	205
Elongation(%min) in 50mm	22	40	40	40
Ultimate Tensile Strength (min) Mpa	450	515	515	515

Raw Material Specification:

Dimension	Tolerance
WIDTH	± 0.2mm
THICKNESS	± 0.05mm
Camber	3mm in a meter

Product Specifications:

Utility Bands

Part No.	Width		Thickness		Finished length		Package Quantity
	in	mm	In	mm	Feet	Mtrs	
SS201							
RSU10B304	2/5	10	0.016	0.4	100	30	Roll (Tote/Carton Box)
RSU10B504	2/5	10	0.016	0.4	164	50	Roll (Tote/Carton Box)
RSU10B307	2/5	10	0.028	0.7	100	30	Roll (Tote/Carton Box)
RSU10B507	2/5	10	0.028	0.7	164	50	Roll (Tote/Carton Box)
RSU20B304	4/5	20	0.016	0.4	100	30	Roll (Tote/Carton Box)
RSU20B504	4/5	20	0.016	0.4	164	50	Roll (Tote/Carton Box)
RSU20B307	4/5	20	0.028	0.7	100	30	Roll (Tote/Carton Box)
RSU20B507	4/5	20	0.028	0.7	164	50	Roll (Tote/Carton Box)

Product Approval: ABS & DNV



Raychem RPG

Technical Data Sheet

Date of issue: 15.08.2014

Product Descriptions: SS Buckles

Issued by: Raychem RPG Limited, India.

Application: Fitting of profiles and other accessories on the poles or application Parts.

Raw Material Grade: ASTM 240/A

Chemical Composition:

Grade	C	Mn	P	S	Si	Cr	Ni	Mo	N
SS 316	0.080	2.000	0.045	0.030	0.750	16.0-18.0	10.0-14.0	2.00-3.00	0.100
SS 304	0.070	2.000	0.045	0.030	0.750	17.5-19.5	8.0-10.5		0.100
SS 201	0.15	5.5-7.5	0.060	0.030	1.0	16.0-18.0	3.5-5.5		0.25

Technical Specification:

Grade	SS 201	SS 304	SS 316
Electrical Properties			
Magnetism	Non Magnetic	Non Magnetic	Non Magnetic
Electrical Resistivity (Nanoohm metre)	690	720	740
Mechanical Properties			
Yield Strength(min) Mpa	260	205	205
Elongation(%min) in 50mm	40	40	40
Ultimate Tensile Strength (min) Mpa	515	515	515

Raw Material Specification:

Dimensions	Tolerance
WIDTH	± 0.5mm
THICKNESS	± 0.1mm

Product Specification :

Buckles-Wing Type

Part No.	Material	Width		Package Quantity
		In.	mm	
RCU06BW	SS201	1/4	6.5	100/Box
RCU09BW	SS201	3/8	9.5	100/Box
RCU10BW	SS201	2/5	10	100/Box
RCU12BW	SS201	1/2	12.7	100/Box
RCU16BW	SS201	5/8	16	100/Box
RCU19BW	SS201	3/4	19	100/Box
RCU20BW	SS201	4/5	20	100/Box

Product Approval: ABS & DNV



INSTALLATION INSTRUCTION

BANDS & BUCKLES



Installation Instructions

Date of issue: 15.10.2018

Product Descriptions : Band Crimping Tool.(T03)

Issued by: Raychem RPG Limited, India.

Application: Fitting/Tightening of Straps on the poles or bundles of cables.
Raw Material Grade: Casted iron with SS accessories.

Specification of tool:

Parameters	Dimension.
Width of Mouth	25.0mm
Thickness of strap to be cut	1.5 mm

Work Instruction for Band Installation

Product Descriptions: Band (Coated and uncoated Band)

Issued by: Raychem RPG P Limited, India.

Application: Fitting of coated and uncoated profiles, Accessories and clamps on the poles .

Installation Requirements:

- Pole: concrete/Steel pole

- Tool: Band crimping tool.

Steps for installation

- cut the needed length of strap



- fold the strap at one end (about 5cm long)



- introduce the strap into a buckle



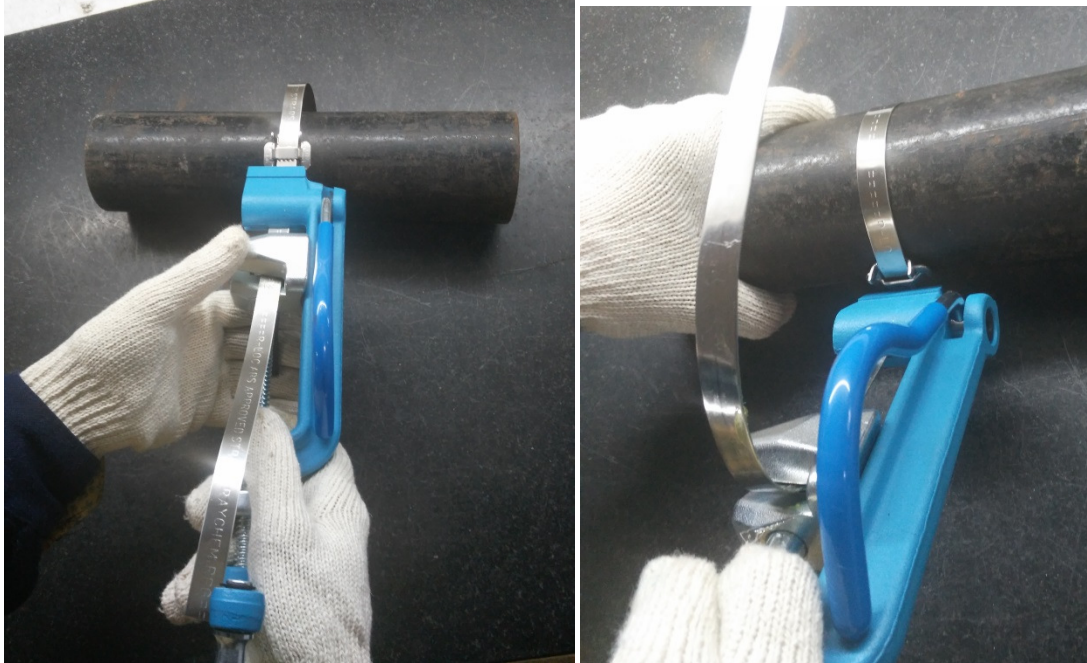
- install manually the strap around the pole



- stretch manually the strap



- Stretch as much as possible the strap by the tool



- cut the strap by tool



- fold back the extra length of strap over the buckle and use Hammer for flat bending of strap on the buckle



- fold back the extra length of strap over the buckle



- fold back both small tongues of the buckle over the strap



- Check whether the clamping is done correctly around the pole by piece of strap.



SYSTEM CERTIFICATIONS

ISO 9001 : 2015

ISO 14001 : 2015

ISO OHSAS 18001 : 2007



Lloyd's Register
LRQA

CERTIFICATE OF APPROVAL

This is to certify that the Management System of:

Raychem RPG Private Limited
RPG House, 463, Dr. Annie Besant Road,
Worli, Mumbai – 400 030,
INDIA

has been approved by Lloyd's Register Quality Assurance
to the following Management System Standard:

ISO 9001:2015

The Management System is applicable to:

Manufacture and sale of

- Power & Telecommunication accessories
- Transmission & Distribution products
- Domestic gas meters & Rotary Positive Displacement gas meters; regulators
- Food grade Epoxy and polyurethane

Design, Manufacture and Sales of

- Distribution, Power, Special & Instrument transformers
- Transformer rectifier units

Sale of Raysulate Products for

- Energy networks, heat tracing equipment, pipe protection systems, cathodic protection system

Manufacture and Export of engineering components

Technical consultancy services and product installation associated with electrical power network for asset protection, power theft prevention & power loss reduction.

This certificate is valid only in association with the certificate schedule bearing the same number on which the locations applicable to this approval are listed.

Approval
Certificate No: MUM0060038

Original Approval: 15 June 1995

Current Certificate: 01 April 2017

Certificate Expiry: 31 March 2020

Issued by: Lloyd's Register Quality Assurance Limited



001

This certificate replaces and supersedes certificate no. MUM0060038, issue dated 30 May 2016.
LRQA Ltd, Unit 63 & 64, 6th Floor, Level 5, Kalpataru Square, Kondivita Lane, Off Andheri - Kurla Road, Andheri (East), Mumbai - 400 059, India
For and on behalf of LRQA Ltd, 1 Trinity Park, Bickenhill Lane, Birmingham, B37 7ES, United Kingdom

This approval is carried out in accordance with the LRQA assessment and certification procedures and monitored by LRQA
The use of the UKAS Accreditation Mark indicates Accreditation in respect of those activities covered by the Accreditation Certificate Number 001



Lloyd's Register
LRQA

CERTIFICATE OF APPROVAL

This is to certify that the Management System of:

Raychem RPG Limited
Near Bharat Petroleum, Valiv, Post Sativali,
Vasai East – 401 208,
Dist Thane, Mumbai,
INDIA

has been approved by Lloyd's Register Quality Assurance
to the following Management System Standards:

ISO 14001:2015
OHSAS 18001:2007

The scope of this approval is applicable to:

**The manufacture of moulded and heat shrinkable components and
joint kits for electrical power products and infocom application.**

Approval
Certificate No: MUM0060657

Original EMS Approval: 12 February 2002

Original OHSAS Approval: 16 November 2011

Current Certificate: 26 March 2017

Certificate Expiry: 25 March 2020

Issued by: Lloyd's Register Quality Assurance Limited



001

This certificate replaces and supersedes certificate no.MUM0060657 issue dated 26 March 2014
LRQA Ltd, Unit 63 & 64, 6th Floor, Level 5, Kalpataru Square, Kondivita Lane, Off Andheri - Kurla Road, Andheri (East), Mumbai - 400 059, India
For and on behalf of LRQA Ltd, 1 Trinity Park, Bickenhill Lane, Birmingham, B37 7ES, United Kingdom
This approval is carried out in accordance with the LRQA assessment and certification procedures and monitored by LRQA.
The use of the UKAS Accreditation Mark indicates Accreditation in respect of those activities covered by the Accreditation Certificate Number 001

Macro Revision 15

PRODUCT CERTIFICATIONS

DNV-GL
ABS

TYPE APPROVAL CERTIFICATE**This is to certify:****That the Clip, Saddle, Band**with type designation(s)
RSU, RSP, RSVP and RCU type cable ties

Issued to

Raychem RPG Ltd.
MUMBAI MAHARASHTRA, India

Is found to comply with

Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norske Veritas' Offshore Standards**Application :****For fixing of cables, outdoor and indoor, onboard ships and mobile offshore units.**This Certificate is valid until **2018-12-31**.Issued at **Høvik** on **2014-10-13**DNV GL local station: **Mumbai**Approval Engineer: **Nicolay Horn**for **DNV GL**

Digitally Signed By: Laumann, Marit

Location: DNV Høvik, Norway

Signing Date: 2014-10-23

Marit Laumann
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed. If any person suffers loss or damage which is proven to have been caused by any negligent act or omission of the Society, then the Society shall pay compensation to such person for his proven direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question. The maximum compensation shall never exceed USD 2 million. In this provision the "Society" shall mean DNV GL AS as well as all its direct and indirect owners, affiliates, subsidiaries, directors, officers, employees, agents and any other person or entity acting on behalf of DNV GL AS.

Certificate No: **E-13648**
 File No: **828.50**
 Job Id: **262.1-012610-2**

Product description

I Raychem Straps ← RS U XX B -50 6

Surface Condition	With, mm	Raw Material	Roll Length, M	Thickness
U- Uncoated	0.6 - 6.5	B: SS201	20	4 - 0.4
P - PPA Coated	0.9 - 9.5	E: SS316	25	5 - 0.5
VP - PVC Coated	0.1 - 10		30	6 - 0.65
	0.12 - 12,7		50	6-5 - 0.65
	0.16 - 16		61	7-5 - 0.75
	0.19 - 19.0			

S. no.	Part numbers
1	RSU06E305
2	RSU06E615
3	RSU09E306-5
4	RSU09E616-5
5	RSU12E307-5
6	RSU12E617-5
7	RSU16E307-5
8	RSU16E617-5
9	RSU19E307-5
10	RSU19E617-5
11	RSU06B305
12	RSU06B615
13	RSU09B306-5

14	RSU09B616-5
15	RSU12B307-5
16	RSU12B617-5
17	RSU16B307-5
18	RSU16B617-5
19	RSU19B307-5
20	RSU19B617-5
21	RSP06E254
22	RSP09E254
23	RSP12E254
24	RSP16E254
25	RSP19E254
26	RSVP12E254
27	RSVP16E254

II Raychem Clips ← RC U 12 B J

Surface Condition	With, mm	Raw Material	Design Type
U- Uncoated	0.6 - 6.5	B: SS201	J - Jaw type
	0.9 - 9.5	E: SS316	W - Wing type
	0.1 - 10		
	0.12 - 12,7		
	0.16 - 16		
	0.19 - 19.0		

S. no.	Part numbers
1	RCU06BJ
2	RCU09BJ
3	RCU10BJ
4	RCU12BJ
5	RCU16BJ
6	RCU19BJ
7	RCU20BJ
8	RCU06EJ
9	RCU09EJ
10	RCU10EJ
11	RCU12EJ

S. no.	Part numbers
12	RCU16EJ
13	RCU19EJ
14	RCU20EJ
15	RCU09BW
16	RCU10BW
17	RCU12BW
18	RCU16BW
19	RCU19BW
20	RCU20BW
21	RCU06EW
22	RCU09EW

Certificate No: **E-13648**
File No: **828.50**
Job Id: **262.1-012610-2**

S. no.	Part numbers
23	RCU10EW
24	RCU12EW
25	RCU16EW

S. no.	Part numbers
26	RCU19EW
27	RCU20EW

Application/Limitation

For fixing of cables, outdoor and indoor, onboard ships and mobile offshore units.
Variants made of stainless steel 316 is considered corrosion resistant according to IEC62275 clause 11.2

Type Approval documentation

Raychem RPG Test reports no. RRPL/PMG/TR/P1/100 dated 07.03.2014
Raychem RPG Test reports no. BB/IT/62275/01 dated 12-09-2013
ELCA LABORATORIES Test Report dated 25.02.2014
ARAI Test Report No. ARAI/AED/DT/OC-1314-7-179/601

Tests carried out

Type Tests in accordance with IEC 62275. Vibration test in accordance with IEC 62275.

Marking of product

Manufacturers name or trade mark
Type designation under which product is type approved
Length / Width
Coated / uncoated
Quantity

The marking is placed on each minimum pack quantity only.

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval is complied with and that no alterations are made to the product design or choice of materials.

The main elements of the survey are:

- Inspection of factory samples, selected at random from the production line (where practicable)
- Results from Production Sample Tests (PST) and Routines (RT) checked (if not available tests according to PST and RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Survey to be performed at least every second year.

END OF CERTIFICATE



CERTIFICATE NUMBER

DATE

14-YO1240743-PDA

14 August 2014

ABS TECHNICAL OFFICE

Yokohama Engineering Services

CERTIFICATE OF DESIGN ASSESSMENT

This is to Certify that a representative of this Bureau did, at the request of
RAYCHEM RPG LIMITED - VASAI (E) MUMBAI

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

PRODUCT: **Stainless Steel Coated Band**

MODEL: **RSU/RSP/RSVP and RCU/RCC**

This Product Design Assessment (PDA) Certificate 14-YO1240743-PDA, dated 14/Aug/2014 remains valid until 14/Aug/2019 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product.

Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA.

Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

AMERICAN BUREAU OF SHIPPING


Motohiro Tamura
Engineer

RAYCHEM RPG LIMITED

PLOT NO. 9 S. NO 62 HISSA NO 2&3, NEAR
BHARAT PETROL PUMP
OFF WESTERN EXPRESS HIGHWAY
VASAI (E) MUMBAI
MAHARASHTRA 401208
India
Telephone: +91-250-248-0048
Fax: +91-250-248-0046

Tier: 2

Product: Stainless Steel Coated Band

Model: RSU/RSP/RSVP and RCU/RCC

Intended Service:

Cable Fixing Stainless Steel Coated and Uncoated Straps and Clips for Marine and Offshore Services

Description:

Cable Straps and Clips as Attached Sheet.

Ratings:

Base Materials : SS (AISI) 304, 316 & 430

Service Restrictions:

- (a) Unit Certification is not required for this product.
- (b) If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined. Details of each particular application including wiring diagram, location/installation of sensors are to be specifically approved by ABS.

Comments:

- (a) The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
- (b) Unless specially directed by Administration, this approval is not to be construed as a substitute for flag Administration's approval.
- (c) If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

Notes / Drawings / Documentation:

- (a) RAYCHEM Dwg. No.RCU-12-AJ dated 13 Jan. 2009
- (b) RAYCHEM Dwg. No.RCU-20-AW dated 13 Jan. 2009
- (c) RAYCHEM Dwg. No.RSC-12A-307-5 dated 13 Jan. 2009
- (d) RAYCHEM Dwg. No.SS-09-03 dated 12 Jan. 2009

Term of Validity:

This Product Design Assessment (PDA) Certificate 14-YO1240743-PDA, dated 14/Aug/2014 remains valid until 14/Aug/2019 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product.

Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA.

Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

STANDARDS

ABS Rules:

- 2014 Steel Vessel Rules 1-1-4/7.7, 1-1-Appendix 3 and 4, and 4-8-4/21.9.3,
- 2014 Steel Vessel (Under 90M) Rules 1-1-4/7.7, 1-1-Appendix 3 and 4, and 4-6-3/5.9.1,
- 2014 Offshore Support Vessel Rules 1-1-4/7.7, 1-1-Appendix 3 and 4, and 4-8-4/21.9.3,
- 2014 High Speed Craft Rules 1-1-4/11.9, 1-1-Appendix 2 and 3, and 4-8-4/19.9.4,
- 2014 Mobile Offshore Drilling Units Rules 1-1-4/9.7, 1-1-Appendix 2 and 3, and 7-1-5/5.9.1,

RAYCHEM RPG LIMITED

PLOT NO. 9 S. NO 62 HISSA NO 2&3, NEAR
BHARAT PETROL PUMP
OFF WESTERN EXPRESS HIGHWAY
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MAHARASHTRA 401208
India
Telephone: +91-250-248-0048
Fax: +91-250-248-0046

Tier: 2

2014 Facilities on Offshore Installations 1-1-4/9.7, 1-1-Appendix 2 and 3, and 3-6/19

National:

NA

International:

NA

Government Authority:

NA

EUMED:

NA

Others:

NA

Design Assessment (DA) Certificate Attachment for Component Details

PDA Certificate No: 14-YO1240743-PDA
Entry Date: 14 August 2014
Expire Date: 14 August 2019
Company: RAYCHEM RPG LIMITED
Factory or Works:
Product/Equipment: Stainless Steel Coated Band
Model: RSU/RSP/RSVP and RCU/RCC

1. Specification : Straps - Model RSU/RSP/RSVP

Typical Mode RSU 06 A - 506

Surface condition	Width -- (mm)	Raw Material	Roll Length -- (m)	Thickness (mm)
U : Uncoated	06 -- 6.5	A : SS430	25	4 -- 0.4
P : PPA Coated	09 -- 9.5	B : SS201	30	5 -- 0.5
VP : PVC Coated	10 -- 10.0	D : SS201J	50	6 -- 0.65
	12 -- 12.7	E : SS316		7 -- 0.7
	16 -- 16.0	F : SS304		7-5 -- 0.75
	19 -- 19.0			
	20 -- 20.0			

2. Specification : Clips - Model RCU/RCC

Typical Mode RCU 12 A J

Surface condition	Width -- (mm)	Raw Material	Design Type
U : Uncoated	06 -- 6.5	A : SS430	J : Jaw Type
C : Coated	09 -- 9.5	B : SS201	W : Wing ype
	10 -- 10.0	D : SS201J	
	12 -- 12.7	E : SS316	
	16 -- 16.0	F : SS304	
	19 -- 19.0		
	20 -- 20.0		



CERTIFICATE NUMBER: 929797-2824698-001

PORT OFFICE: MUMBAI, INDIA

Certificate of **MANUFACTURING ASSESSMENT**

This is to certify that: The Undersigned did evaluate the relevant manufacturing quality procedures for the type of products of the manufacturer:

RAYCHEM RPG PVT. LTD. Plant at VASAI (E), THANE, MAHARASHTRA

The methods of assuring and controlling quality during production as required by the ABS Rules or Guides for the product and the associated specifications or standard were verified to reflect the specific surveys, required by the Rules and Standards for the manufacture of:

Cable Ties and Stainless Steel Coated Band

The manufacturer presented a sample or specimen of the product, representative of the "type" approved, to the undersigned, for the purpose of verifying that the "type" has been manufactured in conformance with the Manufacturer's Product Design Assessments.

This Certificate of Manufacturing Assessment is an evaluation of the manufacturer alone and is neither an approval nor a rejection of the product described above. Unless cancelled, expired or revoked, this certificate remains valid subject to annual audits

Consult the ABS Type Approval website to confirm the continued validity of this certificate and the status of the particular products being manufactured.

ISSUE DATE 3 February 2015 EXPIRATION DATE 2 FEBRUARY 2020

SURVEYOR


Rai, Uma Shankar, Mumbai Port

FIRST ANNUAL
ENDORSEMENT
SECOND ANNUAL
ENDORSEMENT
THIRD ANNUAL
ENDORSEMENT
FOURTH ANNUAL
ENDORSEMENT

Note: This Certificate evidences compliance with one or more of the Rules, guides, standards or other criteria of American Bureau of Shipping and is issued solely for the use of the Bureau, its committees, its clients or other authorized entities. This Certificate is a representation only that the structure, item of material, equipment, machinery or any other item covered by this Certificate has met one or more of the Rules, guides, standards or other criteria of American Bureau of Shipping as of the date of issue. Parties are advised to review the Rules for the scope and conditions of classification and to review the survey records for a fuller description of any restrictions or limitation on the vessel's service or surveys. The validity, applicability and interpretation of this Certificate is governed by the Rules and standards of American Bureau of Shipping who shall remain the sole judge thereof. Nothing contained in this Certificate or in any notation made in contemplation of this Certificate shall be deemed to relieve any designer, builder, owner, manufacturer, seller, supplier, repairer, operator or other entity of any warranty express or implied.

The certificate of Manufacturing Assessment indicates that you have established a systematic quality monitoring system sufficient to show your capacity to consistently manufacture a product that meets the specification. In the concept of ABS Type Approval, the specification is the Design Assessment Certificate.

The certificates will remain valid for five years, subject to annual surveillance audits and no changes to the scope and conditions of approval. Unless the change is submitted to ABS for a new evaluation and audit, any of the following will cause immediate suspension of the certificate of Design or Manufacturing Assessment.

1. Redesign of the product or products covered by the certificate;
2. Change in production methods;
3. Substantial change in management organization;
4. Substantial change in frequency or curriculum for personnel training;
5. Refusing access to ABS personnel for audits during normal business hours;
6. Failure to correct a non-compliance identified in service or during an audit;
7. Failure to pay ABS fees.

We look forward to working with you and encourage you to contact the undersigned for any needed explanations of the ABS Type Approval Program.

Sincerely Yours,
AMERICAN BUREAU OF SHIPPING



Mr. Uma Shankar Rai
Senior Surveyor



Date: 04 February 2015

RAYCHEM RPG PRIVATE LIMITED
PLOT NO. 9 S. NO 62 HISSA NO 2&3,
NEAR BHARAT PETROL PUMP OFF WESTERN
EXPRESS HIGHWAY VALIV VILLAGE,
POST- SATIVALI, VASAI (E), THANE, MAHARASHTRA.

Attn: Mr. Gaurav Khangan / Dy Manager

Dear Sir,

This is to follow up on our recent manufacturing assessment audit at your VASAI (E), THANE, plant.

We are pleased to enclose the reports and certificates of your satisfactory Manufacturing Assessment together with our invoice for the services rendered. Please recognize that the certificates will remain valid subject to annual assessments on or about the anniversary date of the certificate of Manufacturing Assessment. An audit that becomes 90-days overdue will automatically suspend the publishing of your product as "Type Approved" on the ABS Internet Site (note: to remain valid, the expiration date on the certificate of Manufacturing Assessment cannot be exceeded). The undersigned, or a successor, will be your point of contact to schedule the periodic assessments.

Please recognize that Product Type Approval will not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. Should your client require ABS unit-certification of your product, you must call in a Surveyor to witness required testing. This certification cost is not included in the assessments thus far completed.

We also remind you of the implementation of SOLAS II-1, Regulation 3-5 and MSC.1/Circ.1379 which I summarize as "From 1 January 2011, for all ships, new installation of materials which contain asbestos shall be prohibited. In the context of this regulation, new installation of materials containing asbestos means any new physical installation on board. Any material purchased prior to 1 January 2011 being kept in the ship's store or in the shipyard for a ship under construction, should not be permitted to be installed after 1 January 2011 as a working part." We advise you that any shipments you make also contain a declaration of absence of Asbestos.

We must remind you that a Product Design Assessment (PDA) is not an approval. The PDA is a generic assessment of materials, components, products or systems for a specific use in compliance with the Rules, Guides and recognized standards. In the absence of a known vessel, MODU or facility, materials, products, components and systems cannot be fully "Approved". These particular products have generic approvals to provide clients and ABS with pre-approvals of products that will help to reduce back logs and expedite final approvals. Final approval is given when an Engineer or Surveyor accepts the assessed item for a specific user and installation. Therefore, the PDAs are written assuming that the end user and installation of the product are unknown.

.....2/-

AMERICAN BUREAU OF SHIPPING
Incorporated with limited liability in U.S.A.

PACIFIC DIVISION

CITY ICE BUILDING, 3RD FLOOR, 298, PERIN NARIMAN STREET, FORT, MUMBAI-400 001. INDIA
TEL. : (022) 2266 0199 / 2266 2208 FAX : (022) 2266 1510 E-MAIL: absmumbai@eagle.org WEBSITE : www.eagle.org

TEST REPORTS

Pullout Report
Material Test Report



ELCA

Celebrating RUBY (40th) Anniversary Year of Excellence

LABORATORIES

AN ISO/IEC 17025 ACCREDITED MATERIAL TESTING LAB

UNIT - II, W 361, TTC INDUSTRIAL AREA, MIDC, RABALE, NAVI MUMBAI 400 701, INDIA.

PH. 91 (22) 2769 34 83 TELEFAX : 91 (22) 2769 3492

E-MAIL rabale@elcalabs.com WEB : www.elcalabs.com



LAB ACCREDITED BY NABL
CHEM.T / 296 & MECH.T / 297
ELEC.T / 2293

Page 1 / 1

Material Description :-

SS 201 Bands, 10mm & 20 mm width with 0.4 mm thickness

Customer Name:-

Raychem RPG PVT LTD

Test Report No:-

E-8989

The above samples has been tested and the results are as below:

PULL OUT TEST

TEST AT : ELCA LAB RABALE

TEST DATE : 24-08-2018

Sr.No	Parameter/Description	Specified Values	Remark
1	IDENTIFICATION NO. /PART NO	RSU10B504 with RCU10BW	-
3	PULL OUT TEST	3560 N	OK. No Breakage observed in given sample

PULL OUT TEST

TEST DATE : 24-08-2018

Sr.No	Parameter/Description	Specified Values	Remark
1	IDENTIFICATION NO. /PART NO	RSU20B504 with RCU20BW	-
3	PULL OUT TEST	6675 N	OK. No Breakage observed in given sample

END OF REPORT

For ELCA LABORATORIES

Checked By

Harshala wale/Shriram Raichur

Sr.Engineer/Dy.Technical Manager

TEST REPORT

CUSTOMER: M/s. Raychem RPG (P) LTD., 1/62, M.G. Road, Opp. Western Express Highway, Post Sativali, Vasai (E), Thane-401208.

TEST REPORT NO:	ULR-TC654618000003018P	DATE OF SAMPLE RECEIVED:	20.11.2018
CHALLAN REF. NO.	RRPL/EBU/01/201118	DATE OF TEST COMPLETED:	20.11.2018
SAMPLE SIZE / DESCRIPTION	Uncoated Band 10.0 x 0.40 mm		
CUSTOMER SAMPLE I.D.	-----		
MATERIAL SPECIFICATION	SS 201		

CHEMICAL TEST (OES): Test Method: ASTM E 2209:2013

ELEMENT	C %	Si %	Mn %	P %	*S %	Cr %	Ni %	*Cu %
Min. Limit			5.50			16.00	3.50	
RESULT	0.0725	0.405	6.65	0.0293	0.0044	16.24	3.78	1.52
Max. Limit	0.1500	1.000	7.50	0.0600	0.0300	18.00	5.50	

Remarks:- The above sample **Conforms to Grade SS 201** according to chemical composition of test.

*****END OF REPORT*****

Tested By : Yogesh Anap
(Technical Manager)



For **BMT INSTRUMENTATION & LABORATORIES**

Authorized Signatory
Bhimraj Thorat
(Quality Manager)

- Test Results related only to the sample tested.
- This test report is accurate to the best of our knowledge and understanding. Although every effort has been made to ensure accuracy, "BMTIL" cannot accept responsibility for any loss, damage or other consequence resulting from the use of this test report.
- The results reported are valid only at the time of & under the standard condition of the test.
- Test report in full or part shall not be reproduced unless written permission is obtained from M/s. BMTIL.
- Samples are not drawn by BMTIL.
- **The parameter marked with an * are not accredited by NABL.**

(An ISO/IEC 17025, NABL Accredited Lab)

TEST REPORT

CUSTOMER: M/s. Raychem RPG (P) LTD., 1/62, M.G. Road, Opp. Western Express Highway, Post Sativali, Vasai (E), Thane-401208.

TEST REPORT NO:	ULR-TC654618000002728P	DATE OF SAMPLE RECEIVED:	17.11.2018
CHALLAN REF. NO.	RRPL/EBU/07/171118	DATE OF TEST COMPLETED:	17.11.2018
SAMPLE SIZE / DESCRIPTION	Uncoated Band 20.0 x 0.40 mm		
CUSTOMER SAMPLE I.D.	-----		
MATERIAL SPECIFICATION	SS 201		

CHEMICAL TEST (OES): Test Method: ASTM E 2209:2013

ELEMENT	C %	Si %	Mn %	P %	*S %	Cr %	Ni %	*Cu %
Min. Limit			5.50			16.00	3.50	
RESULT	0.0669	0.394	5.87	0.0243	0.0013	16.91	4.14	1.67
Max. Limit	0.1500	1.000	7.50	0.0600	0.0300	18.00	5.50	

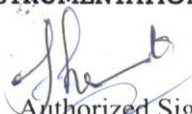
Remarks:- The above sample **Conforms to Grade SS 201** according to chemical composition of test.

*****END OF REPORT*****


Tested By: Yogesh Anap
(Technical Manager)



For BMT INSTRUMENTATION & LABORATORIES


Authorized Signatory
Bhimraj Thorat
(Quality Manager)

- Test Results related only to the sample tested.
- This test report is accurate to the best of our knowledge and understanding. Although every effort has been made to ensure accuracy, "BMTIL" cannot accept responsibility for any loss, damage or other consequence resulting from the use of this test report.
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- **The parameter marked with an * are not accredited by NABL.**

TEST REPORT

CUSTOMER: M/s. Raychem RPG (P) LTD., 1/62, M.G. Road, Opp. Western Express Highway, Post Sativali, Vasai (E), Thane-401208.

TEST REPORT NO:	ULR-TC654618000003018P	DATE OF SAMPLE RECEIVED:	20.11.2018
CHALLAN REF. NO.	RRPL/EBU/01/201118	DATE OF TEST COMPLETED:	20.11.2018
SAMPLE SIZE / DESCRIPTION	10 mm Wing Type Buckle 0.80 mm Thk.		
CUSTOMER SAMPLE I.D.	-----		
MATERIAL SPECIFICATION	SS 201		

CHEMICAL TEST (OES): Test Method: ASTM E 2209:2013

ELEMENT	C %	Si %	Mn %	P %	*S %	Cr %	Ni %	*Cu %
Min. Limit			5.50			16.00	3.50	
RESULT	0.0725	0.405	6.65	0.0293	0.0044	16.24	3.78	1.52
Max. Limit	0.1500	1.000	7.50	0.0600	0.0300	18.00	5.50	

Remarks:- The above sample **Conforms to Grade SS 201** according to chemical composition of test.

*****END OF REPORT*****

Tested By : Yogesh Anap
(Technical Manager)



For **BMT INSTRUMENTATION & LABORATORIES**

Authorized Signatory
Bhimraj Thorat
(Quality Manager)

- Test Results related only to the sample tested.
- This test report is accurate to the best of our knowledge and understanding. Although every effort has been made to ensure accuracy, "BMTIL" cannot accept responsibility for any loss, damage or other consequence resulting from the use of this test report.
- The results reported are valid only at the time of & under the standard condition of the test.
- Test report in full or part shall not be reproduced unless written permission is obtained from M/s. BMTIL.
- Samples are not drawn by BMTIL.
- **The parameter marked with an * are not accredited by NABL.**

(An ISO/IEC 17025, NABL Accredited Lab)

TEST REPORT

CUSTOMER: M/s. Raychem RPG (P) LTD., 1/62, M.G. Road, Opp. Western Express Highway, Post Sativali, Vasai (E), Thane-401208.

TEST REPORT NO:	ULR-TC654618000002728P	DATE OF SAMPLE RECEIVED:	17.11.2018
CHALLAN REF. NO.	RRPL/EBU/07/171118	DATE OF TEST COMPLETED:	17.11.2018
SAMPLE SIZE / DESCRIPTION	20 mm Wing Type Buckle 1.00 mm Thk.		
CUSTOMER SAMPLE I.D.	-----		
MATERIAL SPECIFICATION	SS 201		

CHEMICAL TEST (OES): Test Method: ASTM E 2209:2013

ELEMENT	C %	Si %	Mn %	P %	*S %	Cr %	Ni %	*Cu %
Min. Limit			5.50			16.00	3.50	
RESULT	0.0669	0.394	5.87	0.0243	0.0013	16.91	4.14	1.67
Max. Limit	0.1500	1.000	7.50	0.0600	0.0300	18.00	5.50	

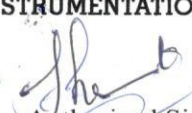
Remarks:- The above sample **Conforms to Grade SS 201** according to chemical composition of test.

*****END OF REPORT*****


Tested By: Yogesh Anap
(Technical Manager)



For BMT INSTRUMENTATION & LABORATORIES


Authorized Signatory
Bhimraj Thorat
(Quality Manager)

- Test Results related only to the sample tested.
- This test report is accurate to the best of our knowledge and understanding. Although every effort has been made to ensure accuracy, "BMTIL" cannot accept responsibility for any loss, damage or other consequence resulting from the use of this test report.
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INSPECTION AND QUALITY ASSURANCE



- **Inspection & Quality Assurance :**

Raychem RPG has built necessary resources in terms of people and equipment and above all, an organization, which guarantees best quality of all Products

Precision control equipment, such as

- ❖ 3D Vision Measurement System (VMS)
- ❖ Coordinate Measurement Machine (CMM)
- ❖ Surface Resistance Test Machine.
- ❖ High Voltage Test Machine.
- ❖ 2D Height gauge (Trimos)
- ❖ Surface roughness tester
- ❖ Hardness tester
- ❖ Coating thickness tester
- ❖ Tensile testing machine
- ❖ Salt Spray Test Machine.
- ❖ Air gauge
- ❖ Standard PIN set from 0.5 to 20 mm in least count of 0.01 mm
- ❖ Slip gauge sets
- ❖ Digimatic height gauge
- ❖ Special Purpose gauges



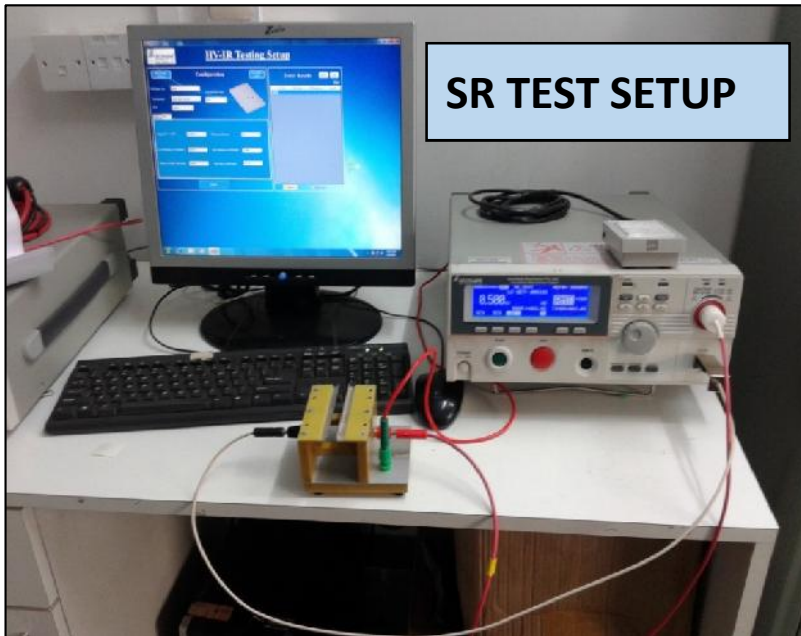
- **Coordinate Measurement Machine (CMM)**



- **3D Vision Measurement System (VMS)**



- Surface Resistance Test Machine



- High Voltage Test Machine

