>VIP Connecting link-VVS<

Safety instruction

This safety instruction/declaration has to be kept on file for the whole lifetime of the product.

Translation of the original safety instruction

This safety instruction is valid in addition to the safety instructions for RUD Sling chains (VIP-No. 7101649 and MAXI-Nr. 7900639).

RUD®

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VIP Connecting link-VVS
VIP Round sling connector RS-VVS
to attach roundslings

RUD®

EC-Mounting declaration

According to the EC-Machinery Directive 2006/42/EC, annex II B and amendments

Manufacturer:
RUD Ketten
Rieger & Dietz GmbH u. Co. KG
Friedensinsel
73432 Aalen

We hereby declare that the following incomplete machines correspond to the basic requirements of the Machinery Directive 2006/42/EC (annex 1). The following incomplete machine, in the delivered version, may only be put into operation when the machine in which the incomplete machine shall be assembled, has been tested according to the requirements of the EC-Machinery Directive 2006/42/EC.

Product name: Chain coupling
                     VVS

The following harmonized norms were applied:

DIN EN 1677-1 : 2009-03   DIN EN ISO 12100 : 2011-03

The following national norms and technical specifications were applied:

BGR 500, KAP2.8 : 2008-04

The special documents about the incomplete machine according to annex VII part B have been created and can be handed over in a suitable form on request.

Authorized person for the configuration of the declaration documents:
Michael Betzler, RUD Ketten, 73432 Aalen

Aalen, den 26.09.2016   Dr.-Ing. Arne Kriegsmann,(Prokurist/QMB)
                           Name, function and signature of the responsible person

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EG-Einbauerklärung

entsprechend der EG-Maschinenrichtlinie 2006/42/EG, Anhang II B und ihren Änderungen

Hersteller:
RUD Ketten
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Hiermit erklären wir, dass die nachfolgend bezeichnete unvollständige Maschine den grundlegenden Anforderungen der Maschinenrichtlinie 2006/42/EG (Anhang 1) entspricht. Die nachfolgend bezeichnete unvollständige Maschine darf, in der gelieferten Ausführung erst dann in Betrieb genommen werden, wenn festgestellt wurde, dass die Maschine, in die diese unvollständige Maschine eingebaut werden soll, den Anforderungen der EG-Maschinenrichtlinie 2006/42/EG entspricht.

Produktbezeichnung: Verbindungsschloss
                          VVS

Folgende harmonisierten Normen wurden angewandt:

DIN EN 1677-1 : 2009-03   DIN EN ISO 12100 : 2011-03

Folgende nationalen Normen und technische Spezifikationen wurden außerdem angewandt:

BGR 500, KAP2.8 : 2008-04

Die speziellen Unterlagen zur unvollständigen Maschine nach Anhang VII Teil B wurden erstellt und werden auf begründetes Verlangen in geeigneter Form übermittelt.

Für die Zusammenstellung der Konformitätsdokumentation bevollmächtigte Person:
Michael Betzler, RUD Ketten, 73432 Aalen

Aalen, den 26.09.2016   Dr.-Ing. Arne Kriegsmann,(Prokurist/QMB)
                           Name, Funktion und Unterschrift Verantwortlicher

Before initial usage of the VIP Connecting link, please read carefully the safety instructions. Make sure that you understand all subjected matters. Nonobservance can lead to serious personal injuries and material damage and eliminates warranty.

1   Safety instructions

ATTENTION
Wrong assembled or damaged lifting and lashing means as well as improper use can lead to injuries of persons and damage of objects when load drops down. Please inspect all lifting and lashing means before each use.

- Remove all body parts (fingers, hands, arms, etc.) out of the hazard area (danger of crushing or squeezing) during the lifting process resp. for the transport of loads.

- VIP connecting links must be used only by authorised and trained people in adherence to BGR/DGUV regulations 100-500 (BGR 500), Chapter 2.8 and, outside Germany, when observing the relevant specific national regulations.

- In each half of the connecting link only one load bearing strand or a corresponding component must be attached.

- No technical alterations must be implemented on the VIP connecting links.

- No people may stay in the danger zone.

- Jerky lifting (strong impacts) should be prevented.

- Please be also aware of extreme circumstances or shock loads when selecting the used Connecting link or the components.

- Always ensure a stable position of the load when lifting. Swinging must be prevented.

- Damaged or worn VIP connecting links must never be utilised.

2   Intended use

VIP connecting links are designed to connect components with an eye to sling chains or wire rope fittings.

They must only be used in the hereby described operation purpose for lifting resp. for the transport of loads and as lashing component in combination with VIP lashing chains.

3   Assembly- and instruction manual

3.1 General information

- Capability of temperature usage:
  When using the VIP-Connecting links at temperatures beyond 200°C the permissible WLL of the VIP-Connecting links has to be reduced as follows:

  - 		-40°C up to 200°C		no reduction
  - 		200°C up to 300°C		minus 10 %
  - 		300°C up to 380°C		minus 40 %
  - 		Temperatures exceeding 380°C are prohibited!

The temperature characteristics of the whole sling assembly depends in the properties of the sling components. F.e. polyester round slings, and other components with an eye.

- VIP-Connecting links must not be used with aggressive chemicals such as acids, alkaline solutions and their vapours.

3.2 Hints for the assembly

Please observe the following during the assembly of the VVS: At the max. an eye with a diameter of a 2-leg-VIP Masterlink can be assembled.

ATTENTION
*Overloading or wrong loading of the connecting link can lead to fall of load. Doing this serious injuries or property damage can occur. In each half of the connecting link **only one load bearing strand** or a corresponding component must be attached.*
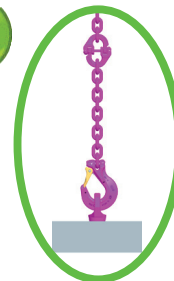
Pic 1:
Correct assembly
and usage

Pic. 2:
Wrong assembly and usage.
Only one load bearing strand is permissible

HINT
Lifting points, shakles and plate clamps can be attached into the halves of the connecting link.

Basically essential:

- Observe in any case during assembly the correct dimensioning of the connecting parts.

- Permitted loading of the complete compound depends on the single component with the lowest working load limit.

- Only VVS-connecting link components with H1-10 stamping must be assembled

- Use only original RUD spare parts.

- The VIP control link VCG can be used as an overload indicator when assembled with a VIP 3-link piece (bypass) as a middle part between the two halves of the connector (pic. 3).

- Check finally the correct assembly (see chapter 4 Inspection / repair).

Pic. 3:
VIP-
control
link VCG

3.3 Sequence of assembly

In the following description the assembly of the connecting link will be described exemplarily with the example of a masterlink and an VIP chain.

1. Install last chain link into the single bow eye (Pic. 4).
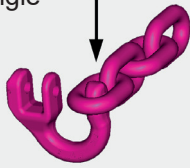   In this case there is no additional connector necessary.

HINT

At the beginning of the bow rounding, chain link can be turned by 90° within the bow (Pic. 5).
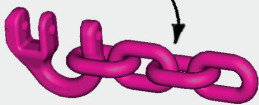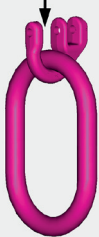
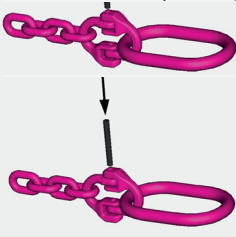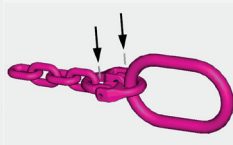Pic. 5   Pic. 6

2. Position chain strand to the bottom of the bow part (Pic. 6).

3. Put into the second bow part a desired connecting part, f.e. a masterlink (Pic. 7).

Pic. 7   Pic. 8 / 9   Pic. 10

4. Assemble both bow parts together in such a way that components are aligned (Pic. 8).

5. Install pin into the bore of the eye (Pic. 9). Both bow parts are now connected with each other.

6. Secure the assembled connecting link as follows (Pic. 10):
   - Position both securing pins/sleeve pins in such a way, that the slot faces the outside.
   - Knock both sleeve pins in with a hammer.

7. Finally Check the correct assembly (see chapter 4 Inspection / repair).

3.4 User instructions

- Check before each loading of the connecting link, that connecting pin is installed correct in the bow eye. Secure pin by hammering the sleeve pins in.
- Make sure that the load force happens in the straight leg without being twisted, fold-over or kinked.
- Always regularly observe the appearance of the whole lifting mean (e.g. by the person responsible für attachment) before using it (strong corrosion, wear, cracks on load-bearing parts, deformations). Refer to chapter 4 *Inspection / repair*.

ATTENTION

Wrong assembled or damaged lifting and lashing means as well as improper use can lead to injuries of persons and damage of objects when load drops down. Please inspect all lifting and lashing means before each use.

- RUD components are designed according to DIN EN 818 and DIN EN 1677 for a dynamic load of 20,000 load cycles.
  - Keep in mind that several load cycles can occur with a lifting procedure.
  - Keep in mind that, due to the high dynamic stress with high numbers of load cycles, that there is a danger that the product will be damaged
  - The BG/DGUV recommends: For higher dynamic loading with a high number of load cycles (continuous operation), the working load stress must be reduced according to the driving mechanism group 1Bm (M3 in accordance with DIN EN 818-7). Use a lifting mean with a higher working load limit.
- Leave hazardous area when possible.
- Watch always attached loads.
- Read for all lifting means the RUD sling chain Safety instructions for RUD lifting means.

4   Inspection / repair

4.1 Hints for periodical inspections

The operator must determine and specify the nature and scope of the required tests as well as the periods of repeating tests by means of a risk assessment (see sections 4.2 and 4.3).

The continuing suitability of the lifting mean must be checked at least 1x year by an expert.

Depending on the usage conditions, f.e. frequent usage, increased wear or corrosion, it might be necessary to check in shorter periods than one year. The inspection has also to be carried out after accidents and special incidents. The operator must specify the test cycles.

### 4.2 Test criteria for the regular visual inspection by the user

- Completeness of the VIP Connecting link
- Complete readable size and manufacturer sign
- Deformations on load-bearing parts
- Mechanical damage like strong notches, especially in areas where tensile stress occurs

4.3 Additional test criteria for the competent person / repair worker

- Damaging and reduction of cross section caused by wear > 10 %, especially at connecting pins and at the eyes of the VVS bows.
- Strong corrosion
- further checks may be required, depending on the result of the risk assessment (e.g. testing for cracks in load-bearing parts).

5   Hints for repairing

- Repairings must only be carried out by competent persons, which can show that they have the therefor necessary skills.
- Only RUD original spare parts (spare part set consists of 1x bolt and 2 pins, see chart 1 and pic. 13) must be used and all repairing and overhauling operations must be documented in the chain card file (of the complete lifting mean) or use the AYE-D. NET-System.
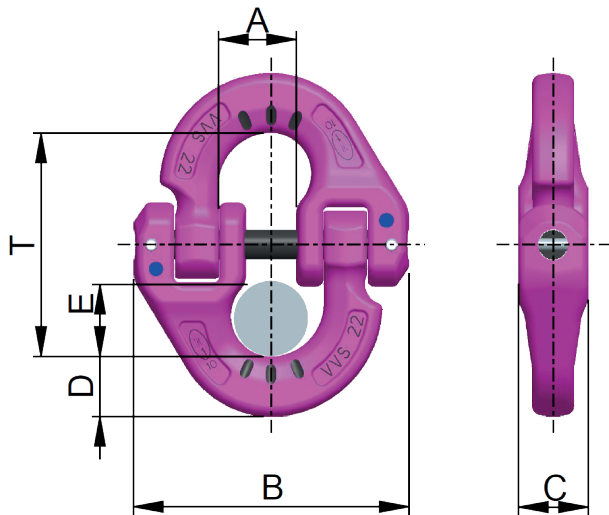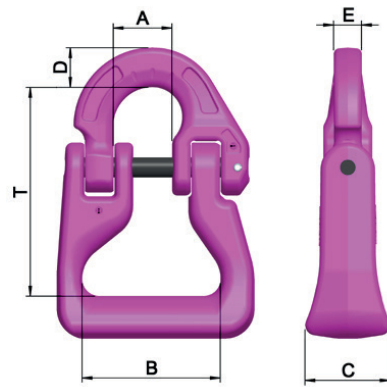

Abb./Pic. 12:
RS-VVS-28

Pic. 11:
VVS 6 up to 28

Pic. 13:
spare part set

Type	WLL [kg]	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	T [mm]	weight [kg/pc]	Ref.-no.	spare part set Ref.-No.
VVS 6	1,500	18	55	13	11	17	46	0.12	7901438	7903886
VVS 8	2,500	24	70	18	14	23	61	0.29	7901439	7903887
VVS 10	4,000	28	88	22	17	27	74	0.57	7901440	7903888
VVS 13	6,700	34	111	28	23	33	93	1.2	7901441	7903889
VVS 16	10,000	39	130	33	27	37	108	2.0	7901442	7903890
VVS 20	16,000	42	154	41	34	41	124	3.7	7901443	7903891
VVS 22	20,000	48	172	44	37	46	138	4.8	7901444	7903892
VVS 28 - MAXI	31,500	69	228	58	47	67	189	10.6	7901445	7903893
RS-VVS 28*	31,500	69	160	100	47	33	245	20.1	7903511	7903893

Chart 1: Dimensioning   * to attach roundslings   Technical alterations subject to change