

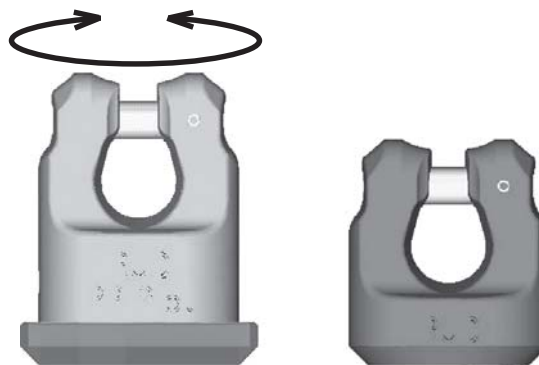
# PowerPoint®

## WPP / WPPH for welding

### Safety instructions

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

Translation of the Original instructions



Lifting points for welding  
able to rotate >WPP<  
and fixed >WPPH<  
in the versions ..-S / ..-B / ..-VIP



MO 075108  
MO 075109



**RUD Ketten**  
**Rieger & Dietz GmbH u. Co. KG**  
D-73428 Aalen/Germany  
Tel. +49 7361 504-1371-1314-1527  
Fax +49 7361 504-1460  
www.rud.com  
info@rud.com

RUD-Art.-Nr.: 8502207-EN / 12.009



#### EG-Konformitätserklärung

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

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

Hiermit erklären wir, dass die nachfolgend bezeichnete Maschine aufgrund ihrer Konzipierung und Bauart, sowie in der von uns in Verkehr gebrachten Ausführung, den grundlegenden Sicherheits- und Gesundheitsanforderungen der EG-Maschinenrichtlinie 2006/42/EG sowie den unten aufgeführten weiteren EG-Richtlinien entspricht. Bei einer nicht mit uns abgestimmten Änderung der Maschine verliert diese Erklärung ihre Gültigkeit.

Produktbezeichnung: Anschlagpunkt PowerPoint  
PP / WPP / WPPH

Folgende harmonisierten Normen wurden angewandt:  
EN 12100-1      EN 12100-2  
EN 14121-1      EN 1677-1  
EN 1677-4

Folgende nationalen Normen und technische Spezifikationen wurden außerdem angewandt:  
BGR 500, KAP2.8

Für die Zusammenstellung der Konformitätsdokumentation bevollmächtigte Person:  
Daniel Klose, RUD Ketten, 73432 Aalen

Aalen, den 14.12.2009      Dr. Ing. Rolf Sinz, (Prokurist/QMB)  
Name, Funktion und Unterschrift Verantwortlicher



#### EG-Declaration of the manufacturer

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

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

We hereby declare that the equipment, as mentioned below, corresponds to the appropriate, basic requirements of safety and health of the corresponding EG-Machinery Directive 2006/42/EG as well as to the below mentioned EG-Directive in the design as it is sold by us because of its design and construction. In case of any modification of the equipment, not being agreed upon with us, this declaration becomes invalid.

Product name: Lifting point PowerPoint  
PP / WPP / WPPH

The following harmonized norms were applied:  
EN 12100-1      EN 12100-2  
EN 14121-1      EN 1677-1  
EN 1677-4

The following national norms and technical specifications were applied:  
BGR 500, KAP2.8

Authorized person for the configuration of the declaration documents:  
Daniel Klose, RUD Ketten, 73432 Aalen

Aalen, 14.12.2009      Dr. Ing. Rolf Sinz, (Prokurist/QMB)  
Name, function and signature of the responsible person

## User Instruction

The weldable RUD PowerPoint® is available in 2 different versions >WPP< turnable and >WPPH< fixed. Both can be assembled with the components:

...-S: the Standard version

...-B: the lifting ring version for hook assemblies

...-VIP: the direct chain connection



WPP-S



WPPH-B



WPPH-VIP

**Attention: Other combinations with non RUD components and chains are dangerous! These are not permitted and RUD will not accept any warranty.**

1. Reference should be made to German Standards accord. BGR 500 or other country specific statutory regulations and inspections are to be carried out by competent persons only.

2. Before installing and every use, visually inspect RUD lifting points, paying particular attention to any evidence of weld cracks, corrosion, wear, deformations, etc.

3. The material construction to which the lifting point will be attached should be of adequate strength to withstand forces during lifting without deformation. The contact areas must be free from impurities, oil, colour, ect.

The material of the forged welding parts is 1.6541 (23MnNiCrMo52)

4. The lifting points must be positioned to the load in such a way that movements are avoided during lifting.

a.) For single leg lifts, the lifting point should be vertically above the centre of gravity of the load.

b.) For two leg lifts, the lifting points must be equidistant to/or above the centre of gravity of the load.

c.) For three and four leg lifts, the lifting points should be arranged symmetrical around the centre of gravity in the same plane if possible.

5. Load symmetry:

The required WLL of the individual RUD lifting point are calculated using the following formula and are based on symmetrical loading:

$$W_{LL} = \frac{G}{n \times \cos \beta}$$

$W_{LL}$  = working load limit / capacity of each lifting point  
 $G$  = load weight (kg)  
 $n$  = number of load bearing legs  
 $\beta$  = angle of inclination of the chain to the vertical

The calculation of the load bearing legs is as follows:

	symmetrical	unsymmetrical
Two leg	2	1
Three/four leg	3	2

(also refer to table 1 and 5)

6. The type WPPH-VIP (rigid, with VIP-clevis connection) has to be aligned in regard of the vertical slot for the chain link, when used in multiple leg usage with inclination angle, straight into the direction of pull.



7. All fittings connected to the PP-versions should be free moving. Also the assembled components on the PP must be free moveable and should not used over sharp corners.

When connecting and disconnecting the lifting means (wire ropes, chain slings, roundslings) pinches and impacts should be avoided. Damage of the lifting means caused by sharp corners should be avoided as well. Before lifting, the hooks must be installed without twists in the direction of pull.

8. Effect of temperature:

During use in overheated areas the WLL of the PowerPoint® has to be reduced according as follows:

-40° up to 200°C no reduction  
 200° up to 300°C minus 10 % (392°F up to 572°F)  
 300° up to 400°C minus 25 % (572°F up to 752°F)  
 Temperatures above 400°C (752°F) are not allowed.

9. RUD-Lifting points must not be used under chemical influences such as acids, alkaline solutions and vapours e.g. in pickling baths or hot dip galvanising plants. If this cannot be avoided, please contact the manufacturer indicating the concentration, period of penetration and temperature of use.

10. The position where the lifting points should be attached should be clearly marked with colour.

11. If the lifting points are used **exclusively** for lashing the value of the working load limit can be doubled:

$$LC = 2 \times WLL$$

12. After welding, an annual inspection or sooner if conditions dictate should be undertaken by a competent person examining the continued suitability. Also after damage and special occurrences.

Method of lift										
Number of legs	1	1	2	2	2	2	2	3 and 4	3 and 4	3 and 4
Angle of inclination <math>\beta</math>	0°	90°	0°	90°	0-45°	45-60°	unsymm.	0-45°	45-60°	unsymm.
Factor	1	1	2	2	1,4	1	1	2,1	1,5	1
Type	<b>Max weight of load &gt;G&lt; in metric tons for all PowerPoint types with different sling methodes</b>									
WPP / WPPH - ... - 0,63t	0,63	0,63	1,26	1,26	0,88	0,63	0,63	1,32	0,95	0,63
WPP / WPPH - ... - 1,5t	1,5	1,5	3,0	3,0	2,1	1,5	1,5	3,15	2,25	1,5
WPP / WPPH - ... - 2,5t	2,5	2,5	5,0	5,0	3,5	2,5	2,5	5,25	3,75	2,5
WPP / WPPH - ... - 4t	4,0	4,0	8,0	8,0	5,6	4,0	4,0	8,4	6,0	4,0
WPP / WPPH - ... - 5t	6,5	5,0	13,0	10,0	7,0	5,0	5,0	10,5	7,5	5,0
WPP / WPPH - ... - 8t	10,0	8,0	20,0	16,0	11,2	8,0	8,0	16,8	12,0	8,0

Table 1

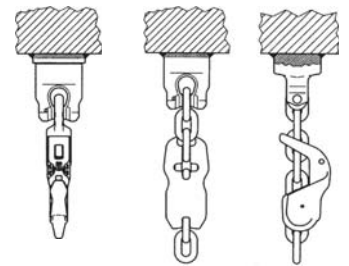
**Inspection criteria concerning paragraphs 2 and 12:**

- The lifting point should be complete
- The WLL, thread size, batch code and manufacturers stamping should be clearly visible on the lifting point.
- Deformations of the components parts such as body, fittings and thread.
- Mechanical damages such as notches, especially in high stress areas.
- Wear should be not more than 10 % of cross sectional diameter.
- Evidence of corrosion.
- Evidence of cracks
- Cracks or other damages to the welding
- The upper fork head part of the PP-version >WPP< must rotate smoothly
- The PP-version >WPP< should only be used within the nom WLL. See RUD chart.
- The PowerPoint® version are not allowed for proof load test. Magnetic crack test only.
- The maximum gap between upper- and lower part of the PowerPoint® >WPP< must not be exceeded:  
 PP-...-0,63t up to PP-...-2,5t      max. 1,5 mm  
 PP-...-4t up to PP-...-8t          max. 2,5 mm



The welding should only be carried out according to EN 287 or AWS Standards by an authorized certified welder. Welding sequence:

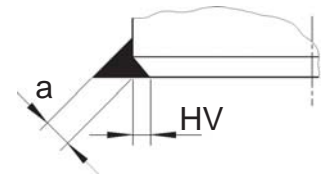
- Tack Weld at the right position
- Before carrying out the top seam, carefully clean the root weld
- The welding process must not be interrupted for such a time that the welding block loses the welding temperature
- The fillet welding process had to be carried out circulated
- Attention: Do not weld on the connecting elements (eyehook, ovallink, ...)!



	weld seam		
	size	length	volume
WPP-...-0,63t	▷ 3,5	125 mm	approx. 2,3 cm <sup>3</sup>
WPP-...-1,5t	▷ 4,5	140 mm	approx. 3,2 cm <sup>3</sup>
WPP-...-2,5t	(HV) 3 + (a) 5	190 mm	approx. 5,0 cm <sup>3</sup>
WPP-...-4t	(HV) 3 + (a) 6	250 mm	approx. 8,0 cm <sup>3</sup>
WPP-...-5t	(HV) 3 + (a) 8	300 mm	approx. 13,0 cm <sup>3</sup>
WPP-...-8t	(HV) 3 + (a) 10	315 mm	approx. 23,3 cm <sup>3</sup>
WPPH-...-0,63t	▷ 3,5	106 mm	approx. 2,0 cm <sup>3</sup>
WPPH-...-1,5t	▷ 4,5	125 mm	approx. 2,8 cm <sup>3</sup>
WPPH-...-2,5t	(HV) 3 + (a) 5	165 mm	approx. 4,5 cm <sup>3</sup>
WPPH-...-4t	(HV) 3 + (a) 6	215 mm	approx. 6,8 cm <sup>3</sup>
WPPH-...-5t	(HV) 3 + (a) 8	260 mm	approx. 11,4 cm <sup>3</sup>
WPPH-...-8t	(HV) 3 + (a) 10	275 mm	approx. 20,6 cm <sup>3</sup>

A non-adherence to this advice may damages of persons and materials!

**Welding seam definition:**



Measurements „a“ have to be acc. weld seam chart. Double-ply weld is prescribed! The specific processing informations of the welding fillers have to be attended.

Table 2

**Welding procedure + Welding filler metals:**

	Europe (DE, GB, FR, ... )		USA, Canada, ...
	Mild steel, low alloyed steel		Mild steel, low alloyed steel
<b>MAG / MIG</b> (135)	EN 440: G4 Si 1 z.B. Castolin 45250	<b>GAS SHIELDED WIRE WELDING</b>	AWS A 5.18 : ER 70 S-6 z.B. Eutectic MIG-Tec A88
<b>E-Hand Direct current</b> = (111)	EN ISO 2560-A - E 42 6 B 3 2; EN ISO 2560-A - E 38 2 B 12 H10 z.B. Castolin 6666 * Castolin 6666N *	<b>Stick Electrode Direct Current</b>	AWS A 5.5 : E 8018-G * AWS A 5.1 : E 7016 * z.B. Eutectic Castolin 6666 / 6666N / 35066
<b>E-Hand Alternating current</b> (111)	DIN 8556: E- 18 8 6 B (1.4370) EN 14700: E-Fe 10 EN 14700: E-Fe 11 z.B. Castolin 640 Castolin 33033	<b>Stick Electrode Alternating Current</b>	AWS A 5.4 : E 309 Mo L-16 z.B. Castolin 33700 CP
<b>WIG</b> (141)	EN ISO 636-A: W3 Si 1 z.B. Castolin 45255W	<b>TIG Tungsten Arc Welding</b>	AWS A 5.18 : ER 70 S-G z.B. Eutectic TIG-Tec-Tic A 88

Table 3

\* Follow the drying instructions!

WPP-S		WPP-B						WPP-VIP Only for original VIP chain				
Type	WLL (t)	A	B	C	D	G	T	weight (kg)	Welding beam HV+filled weld	Ref-no. WPP	Ref-no. WPPH	
<b>WPP(WPPH)-S-0,63t</b>	0,63	13	75	18	40 (34)	40 (34)	115 (109)	0,4 (0,35)	▷ 3,5	7990721	7990722	
<b>WPP(WPPH)-S-1,5t</b>	1,5	20	97	25	46 (40)	50 (44)	147 (141)	1,0 (0,9)	▷ 4,5	7989944	7989966	
<b>WPP(WPPH)-S-2,5t</b>	2,5	28	126	30	61 (53)	61 (53)	187 (179)	1,7(1,5)	3 + 5	7989945	7989967	
<b>WPP(WPPH)-S-4t</b>	4,0	36	150	35	78 (68)	77 (67)	227 (217)	3,7 (3,2)	3 + 6	7989946	7989968	
<b>WPP(WPPH)-S-5t</b>	5,0	37	174	40	95 (83)	93 (79)	267 (253)	7,2 (6,3)	3 + 8	7989947	7989969	
<b>WPP(WPPH)-S-8t</b>	8,0	49	208	48	100 (88)	102 (88)	310 (296)	9,5 (8,8)	3 + 10	7989948	7989970	
<b>WPP(WPPH)-B-0,63t</b>	0,63	9	65	35	40 (34)	40 (34)	105 (99)	0,35 (0,3)	▷ 3,5	7989954	7989976	
<b>WPP(WPPH)-B-1,5t</b>	1,5	11	65	35	46 (40)	50 (44)	115 (106)	0,46 (0,36)	▷ 4,5	7989955	7989977	
<b>WPP(WPPH)-B-2,5t</b>	2,5	13	74	40	61 (53)	61 (53)	135 (127)	1,05 (0,85)	3 + 5	7989956	7989978	
<b>WPP(WPPH)-B-4t</b>	4,0	16	95	45	78 (68)	77 (67)	172 (162)	2,4 (1,9)	3 + 6	7989957	7989979	
<b>WPP(WPPH)-B-5t</b>	5,0	19	130	60	95 (83)	93 (79)	223 (209)	5,1 (4,3)	3 + 8	7989958	7989980	
<b>WPP(WPPH)-B-8t</b>	8,0	24	140	65	100 (88)	102 (88)	242 (228)	5,9 (5,2)	3 + 10	7989959	7989981	
<b>WPP(WPPH)-VIP-0,63t</b>	0,63	4	-	-	40 (34)	-	40 (34)	0,25 (0,2)	▷ 3,5	7989960	7989982	
<b>WPP(WPPH)-VIP-1,5t</b>	1,5	6	-	-	46 (40)	-	50 (44)	0,32 (0,22)	▷ 4,5	7989961	7989983	
<b>WPP(WPPH)-VIP-2,5t</b>	2,5	8	-	-	61 (53)	-	61 (53)	0,85 (0,65)	3 + 5	7989962	7989984	
<b>WPP(WPPH)-VIP-4t</b>	4,0	10	-	-	78 (68)	-	77 (67)	2,1 (1,6)	3 + 6	7989963	7989985	
<b>WPP(WPPH)-VIP-5t</b>	5,0	13	-	-	95 (83)	-	93 (79)	4,1 (3,3)	3 + 8	7989964	7989986	
<b>WPP(WPPH)-VIP-8t</b>	8,0	16	-	-	100 (88)	-	102 (88)	4,5 (3,8)	3 + 10	7989965	7989987	

Table 4 ( ) = dimensions for WPPH

Method of lift										
Number of legs	1	1	2	2	2	2	2	3 & 4	3 & 4	3 & 4
Angle of inclination <math>\alpha</math>	0°	90°	0°	90°	0-45°	45-60°	unsymm.	0-45°	45-60°	unsymm.
Factor	1	1	2	2	1,4	1	1	2,1	1,5	1
Type	<b>Max weight of load &gt;G&lt; in lbs for all PowerPoint types with different sling methodes</b>									
WPP / WPPH - .. - 0,63t	1385	1385	2770	2770	1940	1385	1385	2900	2080	1385
WPP / WPPH - .. - 1,5t	3300	3300	6600	6600	4620	3300	3300	6930	4950	3300
WPP / WPPH - .. - 2,5t	5500	5500	11000	11000	7700	5500	5500	11550	8250	5500
WPP / WPPH - .. - 4t	8800	8800	17600	17600	12320	8800	8800	18480	13200	8800
WPP / WPPH - .. - 5t	14300	11000	28600	22000	15400	11000	11000	23100	16500	11000
WPP / WPPH - .. - 8t	22000	17600	44000	35200	24640	17600	17600	36960	26400	17600

Table 5