UNIVERSAL

# R-POK ROUND STEEL WASHER

Steel washer with special form for roofing applications, for use with all types of roofing screws.

## FEATURES AND BENEFITS

Round washer made of zinc plated sheet. Its sculpted shape allows for trouble-free installation using a dedicated rigid mounting screws for hard roof insulation.

## SUBSTRATES

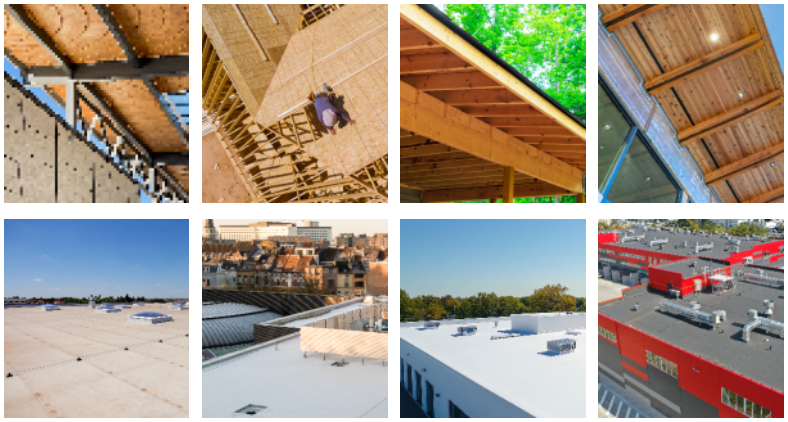
- Concrete
- Metal sheet & profiles
- Timber
- Plywood
- Chipboard
- Concrete slab





## APPLICATIONS

Flat roofs





# R-POK ROUND STEEL WASHER

## INSTALLATION GUIDE



1. Drill a hole of required diameter and depth.
2. Position POK washer on insulation and insert: WCS,WW screw.
3. Using drilling machine, drive the screw into substrate until fixing depth is reached.

## INSTALLATION DATA

| SKU | Steel Flange | | |
|---|---|---|---|
| | Hole Diameter | Plate Diameter | Thickness |
| | d | D | t |
| | mm | mm | mm |
| R-POK-041-ALZN | 6,5 | 40 | 0,7 |
| R-POK-06-ALZN | 6,5 | 76 | 0,7 |

| Type of fixing | | | R-WBT | R-LX | R-WCS | R-WO-T | R-WX-T | R-WX-T | R-WW-T |
|---|---|---|---|---|---|---|---|---|---|
| Thread diameter | d | [mm] | 6,1 | 6,2 | 6,3 | 4,8 | 4,8 | 6,0 | 5,0 |
| Min. edge distance | $c_{min}$ | [mm] | 40 | 40 | 40 | 30 | 30 | 30 | 30 |
| Min. spacing | $s_{min}$ | [mm] | 120 | 120 | 120 | 120 | 120 | 120 | 120 |
| Wrench size | - | [mm] | T25 | SW8 | SW8 | T25 | T25 | T25 | T25 |
| **CONCRETE SUBSTRATES** | | | | | | | | | |
| Min. substrate thickness - Steel sheet | $h_{min}$ | [mm] | 100 | 100 | 100 | - | - | - | - |
| Hole diameter in substrate | $d_0$ | [mm] | 5,0 | 5,0 | 5,0 | - | - | - | - |
| Min. hole depth in substrate | $h_0$ | [mm] | 25 / 35 | 25 / 35 | 25 / 35 | - | - | - | - |
| Installation depth | $h_{nom}$ | [mm] | 20 / 30 | 20 / 30 | 20 / 30 | - | - | - | - |
| **STEEL DECKS** | | | | | | | | | |
| Min. substrate thickness - Steel sheet | $h_{min} = t$ | [mm] | - | - | - | 0,5 | 0,63 | 0,63 | - |
| Max. drilling capacity | $t_I + t_{II}$ | [mm] | - | - | - | 1,0 | 1,5 | 1,5 | - |
| **TIMBER AND WOODEN BASED STRUCTURES** | | | | | | | | | |
| Min. substrate thickness - Timber structures | $h_{min}$ | [mm] | 24 | - | - | 24 | - | - | 24 |
| Min. substrate thickness - Wooden based structures | $h_{min}$ | [mm] | 18 | - | - | 18 | - | - | 18 |

## DESIGN PERFORMANCE DATA

Characteristic values of axial load resistance

Concrete substrates

| Type of fixing | | | R-WBT | R-WBT | R-LX | R-LX | R-WCS | R-WCS |
|---|---|---|---|---|---|---|---|---|
| Embedment depth | $h_{ef}$ | [mm] | 20 | 30 | 20 | 30 | 20 | 30 |
| **TENSION LOAD** | | | | | | | | |
| **R-POK-040 / R-POK-041 + SCREW** | | | | | | | | |
| **CONCRETE class ≥ C12/15 acc. to EN 206** | | | | | | | | |
| Characteristic resistance | $N_{Rk}$ | [kN] | 1,73 | 3,06 | 1,73 | 3,06 | 1,73[1)] | 3,06[1)] |
| Partial safety factor | $\gamma_M$ | [-] | 1,33 | 1,33 | 1,33 | 1,33 | 1,33 | 1,33 |
| **CONCRETE class ≥ C20/25 acc. to EN 206** | | | | | | | | |
| Characteristic resistance | $N_{Rk}$ | [kN] | 2,48 | 4,15 | 2,48 | 4,15 | 2,48[1)] | 4,15[1)] |
| Partial safety factor | $\gamma_M$ | [-] | 1,33 | 1,33 | 1,33 | 1,33 | 1,33 | 1,33 |
| **CONCRETE HOLLOW CORE SLABS / CONCRETE CHANNELS SLABS class ≥ C16/20 acc. to EN 206** | | | | | | | | |
| Characteristic resistance | $N_{Rk}$ | [kN] | 1,59 | 2,48 | 1,59 | 2,48 | 1,59[1)] | 2,48[1)] |
| Partial safety factor | $\gamma_M$ | [-] | 1,33 | 1,33 | 1,33 | 1,33 | 1,33 | 1,33 |
| **R-POK-06 + SCREW** | | | | | | | | |
| **CONCRETE class ≥ C12/15 acc. to EN 206** | | | | | | | | |
| Characteristic resistance | $N_{Rk}$ | [kN] | 1,73 | 2,24 | 1,73 | 2,24 | - | - |
| Partial safety factor | $\gamma_M$ | [-] | 1,33 | 1,33 | 1,33 | 1,33 | - | - |
| **CONCRETE class ≥ C20/25 acc. to EN 206** | | | | | | | | |
| Characteristic resistance | $N_{Rk}$ | [kN] | 2,24 | 2,24 | 2,24 | 2,24 | - | - |
| Partial safety factor | $\gamma_M$ | [-] | 1,33 | 1,33 | 1,33 | 1,33 | - | - |

# R-POK ROUND STEEL WASHER

| Type of fixing | | | R-WBT | R-WBT | R-LX | R-LX | R-WCS | R-WCS |
|---|---|---|---|---|---|---|---|---|
| **CONCRETE HOLLOW CORE SLABS / CONCRETE CHANNELS SLABS class ≥ C16/20 acc. to EN 206** | | | | | | | | |
| Characteristic resistance | $N_{Rk}$ | [kN] | 1,59 | 2,24 | 1,59 | 2,24 | - | - |
| Partial safety factor | $\gamma_M$ | [-] | 1,33 | 1,33 | 1,33 | 1,33 | - | - |

[1] Applicable only to R-POK-041 + R-WCS

Characteristic values of axial load resistance

Steel substrates

| Type of fixing | | | R-WO-T | R-WX-T 4.8 | R-WX-T 6.0 |
|---|---|---|---|---|---|
| **TENSION LOAD** | | | | | |
| **R-POK-040 / R-POK-041 + SCREW** | | | | | |
| **CHARACTERISTIC RESISTANCE - STEEL DECK S280GD** | | | | | |
| Thickness of steel substructure $t_{II}$ = 0,50mm | $N_{Rk}$ | [kN] | 0,61 | - | - |
| Thickness of steel substructure $t_{II}$ = 0,63mm | $N_{Rk}$ | [kN] | 0,83 | 0,74 | 1,21 |
| Thickness of steel substructure $t_{II}$ = 0,75mm | $N_{Rk}$ | [kN] | 1,19 | 1,00 | 1,34 |
| Thickness of steel substructure $t_{II}$ = 0,88mm | $N_{Rk}$ | [kN] | 1,22 | 1,08 | 1,45 |
| Thickness of steel substructure $t_{II}$ = 1,00mm | $N_{Rk}$ | [kN] | 1,59 | 1,50 | 2,35 |
| Thickness of steel substructure $t_{II}$ = 1,25mm | $N_{Rk}$ | [kN] | - | 1,86 | 2,92 |
| Thickness of steel substructure $t_{II}$ = 1,50mm | $N_{Rk}$ | [kN] | - | 2,60 | 3,74 |
| Partial safety factor | $\gamma_M$ | [-] | 1,33 | 1,33 | 1,33 |
| **CHARACTERISTIC RESISTANCE - STEEL DECK S320GD** | | | | | |
| Thickness of steel substructure $t_{II}$ = 0,50mm | $N_{Rk}$ | [kN] | 0,66 | - | - |
| Thickness of steel substructure $t_{II}$ = 0,63mm | $N_{Rk}$ | [kN] | 0,90 | 0,80 | 1,31 |
| Thickness of steel substructure $t_{II}$ = 0,75mm | $N_{Rk}$ | [kN] | 1,29 | 1,08 | 1,45 |
| Thickness of steel substructure $t_{II}$ = 0,88mm | $N_{Rk}$ | [kN] | 1,32 | 1,17 | 1,57 |
| Thickness of steel substructure $t_{II}$ = 1,00mm | $N_{Rk}$ | [kN] | 1,73 | 1,62 | 2,11 |
| Thickness of steel substructure $t_{II}$ = 1,25mm | $N_{Rk}$ | [kN] | - | 2,01 | 2,69 |
| Thickness of steel substructure $t_{II}$ = 1,50mm | $N_{Rk}$ | [kN] | - | 2,82 | 3,36 |
| Partial safety factor | $\gamma_M$ | [-] | 1,33 | 1,33 | 1,33 |
| **CHARACTERISTIC RESISTANCE - STEEL DECK S350GD** | | | | | |
| Thickness of steel substructure $t_{II}$ = 0,50mm | $N_{Rk}$ | [kN] | 0,71 | - | - |
| Thickness of steel substructure $t_{II}$ = 0,63mm | $N_{Rk}$ | [kN] | 0,97 | 0,87 | 1,41 |
| Thickness of steel substructure $t_{II}$ = 0,75mm | $N_{Rk}$ | [kN] | 1,38 | 1,16 | 1,56 |
| Thickness of steel substructure $t_{II}$ = 0,88mm | $N_{Rk}$ | [kN] | 1,41 | 1,26 | 1,69 |
| Thickness of steel substructure $t_{II}$ = 1,00mm | $N_{Rk}$ | [kN] | 1,85 | 1,74 | 2,27 |
| Thickness of steel substructure $t_{II}$ = 1,25mm | $N_{Rk}$ | [kN] | - | 2,17 | 2,89 |
| Thickness of steel substructure $t_{II}$ = 1,50mm | $N_{Rk}$ | [kN] | - | 3,04 | 3,62 |
| Partial safety factor | $\gamma_M$ | [-] | 1,33 | 1,33 | 1,33 |
| **R-POK-06 + SCREW** | | | | | |
| **CHARACTERISTIC RESISTANCE - STEEL DECK S280GD** | | | | | |
| Thickness of steel substructure $t_{II}$ = 0,50mm | $N_{Rk}$ | [kN] | 0,61 | - | - |
| Thickness of steel substructure $t_{II}$ = 0,63mm | $N_{Rk}$ | [kN] | 0,83 | 0,74 | 1,21 |
| Thickness of steel substructure $t_{II}$ = 0,75mm | $N_{Rk}$ | [kN] | 1,19 | 1,00 | 1,34 |
| Thickness of steel substructure $t_{II}$ = 0,88mm | $N_{Rk}$ | [kN] | 1,22 | 1,08 | 1,45 |
| Thickness of steel substructure $t_{II}$ = 1,00mm | $N_{Rk}$ | [kN] | 1,59 | 1,50 | 2,35 |
| Thickness of steel substructure $t_{II}$ = 1,25mm | $N_{Rk}$ | [kN] | - | 1,86 | 2,54 |
| Thickness of steel substructure $t_{II}$ = 1,50mm | $N_{Rk}$ | [kN] | - | 2,54 | 2,54 |
| Partial safety factor | $\gamma_M$ | [-] | 1,33 | 1,33 | 1,33 |
| **CHARACTERISTIC RESISTANCE - STEEL DECK S320GD** | | | | | |
| Thickness of steel substructure $t_{II}$ = 0,50mm | $N_{Rk}$ | [kN] | 0,66 | - | - |
| Thickness of steel substructure $t_{II}$ = 0,63mm | $N_{Rk}$ | [kN] | 0,90 | 0,8 | 1,31 |
| Thickness of steel substructure $t_{II}$ = 0,75mm | $N_{Rk}$ | [kN] | 1,29 | 1,08 | 1,45 |
| Thickness of steel substructure $t_{II}$ = 0,88mm | $N_{Rk}$ | [kN] | 1,32 | 1,17 | 1,57 |
| Thickness of steel substructure $t_{II}$ = 1,00mm | $N_{Rk}$ | [kN] | 1,73 | 1,62 | 2,11 |
| Thickness of steel substructure $t_{II}$ = 1,25mm | $N_{Rk}$ | [kN] | - | 2,01 | 2,54 |
| Thickness of steel substructure $t_{II}$ = 1,50mm | $N_{Rk}$ | [kN] | - | 2,54 | 2,54 |
| Partial safety factor | $\gamma_M$ | [-] | 1,33 | 1,33 | 1,33 |
| **CHARACTERISTIC RESISTANCE - STEEL DECK S350GD** | | | | | |
| Thickness of steel substructure $t_{II}$ = 0,50mm | $N_{Rk}$ | [kN] | 0,71 | - | - |
| Thickness of steel substructure $t_{II}$ = 0,63mm | $N_{Rk}$ | [kN] | 0,97 | 0,87 | 1,41 |
| Thickness of steel substructure $t_{II}$ = 0,75mm | $N_{Rk}$ | [kN] | 1,38 | 1,16 | 1,56 |
| Thickness of steel substructure $t_{II}$ = 0,88mm | $N_{Rk}$ | [kN] | 1,41 | 1,26 | 1,69 |
| Thickness of steel substructure $t_{II}$ = 1,00mm | $N_{Rk}$ | [kN] | 1,85 | 1,74 | 2,27 |
| Thickness of steel substructure $t_{II}$ = 1,25mm | $N_{Rk}$ | [kN] | - | 2,17 | 2,54 |
| Thickness of steel substructure $t_{II}$ = 1,50mm | $N_{Rk}$ | [kN] | - | 2,54 | 2,54 |
| Partial safety factor | $\gamma_M$ | [-] | 1,33 | 1,33 | 1,33 |

Characteristic values of axial load resistance

Wooden and wooden-based substrates

# R-POK ROUND STEEL WASHER

| Type of fixing | | | R-WO-T | R-WX-T 4.8 | R-WX-T 6.0 |
|---|---|---|---|---|---|
| **TENSION LOAD** | | | | | |
| **R-POK-040 / R-POK-041 / R-POK-06 + SCREW** | | | | | |
| **TIMBER STRUCTURES - WOOD class ≥ C24 acc. to EN 14081-1** | | | | | |
| Embedment depth | $h_{ef}$ | [mm] | 24 | 24 | 24 |
| Characteristic resistance | $N_{Rk}$ | [kN] | 1,73 | 1,02 | 1,57 |
| Partial safety factor | $\gamma_M$ | [-] | 1,33 | 1,33 | 1,33 |
| **OSB SHEETS acc. to EN 300, density ≥ 650kg/m³** | | | | | |
| Embedment depth | $h_{ef}$ | [mm] | 18 | 18 | 18 |
| Characteristic resistance | $N_{Rk}$ | [kN] | 1,31 | 0,88 | 1,40 |
| Partial safety factor | $\gamma_M$ | [-] | 1,33 | 1,33 | 1,33 |
| **WOOD WOOL PANELS MEB GREEN SUPREMA GB 600 acc. to EN 13168, density ≥ 600kg/m³** | | | | | |
| Embedment depth | $h_{ef}$ | [mm] | 25 | 25 | - |
| Characteristic resistance | $N_{Rk}$ | [kN] | 0,29 | 0,28 | - |
| Partial safety factor | $\gamma_M$ | [-] | 1,33 | 1,33 | - |
| **WOOD WOOL PANELS MEB GREEN SUPREMA GB 1050 acc. to EN 13168, density ≥ 1050kg/m³** | | | | | |
| Embedment depth | $h_{ef}$ | [mm] | 18 | 18 | - |
| Characteristic resistance | $N_{Rk}$ | [kN] | 0,75 | 0,92 | - |
| Partial safety factor | $\gamma_M$ | [-] | 1,33 | 1,33 | - |
| **WOOD-BASED PANELS MIAMI ECO BOARD acc. to EN 13986, density ≥ 1300kg/m³** | | | | | |
| Embedment depth | $h_{ef}$ | [mm] | 20 | 20 | - |
| Characteristic resistance | $N_{Rk}$ | [kN] | 1,62 | 1,69 | - |
| Partial safety factor | $\gamma_M$ | [-] | 1,33 | 1,33 | - |
| **PARTICLEBOARDS MFP acc. to EN 312, density ≥ 740kg/m³** | | | | | |
| Embedment depth | $h_{ef}$ | [mm] | 22 | 22 | - |
| Characteristic resistance | $N_{Rk}$ | [kN] | 1,85 | 1,85 | - |
| Partial safety factor | $\gamma_M$ | [-] | 2 | 2 | - |

## LOGISTICAL DATA

| SKU | Base-sales unit | Unit pack | Bulk pack | Pallet | Single Package - Gross Weight | Bulk Package - Gross Weight | Palette - Gross Weight | Barcode |
|---|---|---|---|---|---|---|---|---|
| R-POK-041-ALZN | pcs. | 100.0 | 1200.0 | 57600.0 | 1.0 | 12.1 | 585.2 | 5906675102559 |
| R-POK-06-ALZN | pcs. | 100.0 | 1200.0 | 28800.0 | 2.5 | 29.4 | 705.6 | 5906675431994 |

## RELATED PRODUCTS

**ANCHORING – Manual**

Screw for concrete **R-WBT**



Screw for concrete **R-WCS**



Screw for steel **R-WO-T**



Self-drilling screws for steel **R-WX-T**



Screws for timber **R-WW-T**



**DRILLING – Manual**

Drill bits Roof System with collar **RT-TDC**



Drill bits Aggressor SDS plus **RT-SDSA**



Drill bits Roof System **RT-TD**



Long screwdriver bits **RT-BIT-TORX25**



Adapters with thread M6 and M5 **RT-TBIT-ADAP**



**DRILLING – Automatic**

Cordless Hammer 18V SDS plus **R-PRH18**



Cordless RawlDriver 18V **R-PDD18**



Cordless drywall RawlDriver 18V, set **R-PDS18-M2A**

