Bolt clamps
U-bolt clamps HRRBS Flat steel bolt clamps HRFBS

## General

U-bolt clamps similar to DIN 3570 are particularly suitable for fastening pipes with thermal expansion and large tanks.
The pipes can either be fastened firmly or with some clearance for sliding.
HY-ROS U-bolt clamps are made up of a round steel U-bolt with nuts and pipe support. The parts are also available as individual units.
Pipe supports are available in short or long versions.
U-bolt clamps are available in 23 sizes for pipe diameters from 17.1 to 762 mm .

DIN 3567 flat steel bolt clamps are used as mounting elements for pipe systems outside hydraulic applications.
They are available in 32 sizes from 20 to 500 mm .

## NOTE

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Subject to technical modifications and errors.

## HYロAC |INTERNATIDNAL U-bolt clamps sim. to DIN 3570 HRRBS

| Size | $\begin{gathered} \hline \text { Pipe outside } \varnothing \\ D \\ {[\mathrm{~mm}]} \end{gathered}$ |
| :---: | :---: |
| 1 | 17.1 |
|  | 21.3 |
| 2 | 25 |
|  | 26.9 |
| 3 | 30 |
|  | 33.7 |
| 4 | 38 |
|  | 42.4 |
| 5 | 44.5 |
|  | 48.3 |
| 6 | 57 |
|  | 60.3 |
| 7 | 76.1 |
| 8 | 88.9 |
| 9 | 108 |
|  | 114.3 |
| 10 | 133 |
|  | 139.7 |
| 11 | 159 |
|  | 168.3 |
| 12 | (191) |
|  | 193.7 |
| 13 | 216 |
|  | 219.1 |
| 14 | 267 |
|  | 273 |
| 15 | 318 |
|  | 323.9 |
| 16 | 355.6 |
|  | 368 |
| 17 | 406.4 |
|  | 419 |
| 18 | 508 |
|  | 521 |
| 19 | 558 |
| 20 | 609 |
| 21 | 660 |
| 22 | 711 |
| 23 | 762 |

Note: sizes given in parentheses should be avoided where possible.

## Model code <br> (also order example)

HRRBS 10 L 139, 7 PP ST ZN

## Range

HRRBS $=$ HY-ROS U-bolt clamp

## Size

1 = size 1
2 = size 2
up to size 23

## Model for complete clamps

A = clamp with four hex nuts
K = clamp with four hex nuts and pipe support, short
$\mathrm{L} \quad=\quad$ clamp with four hex nuts and pipe support, long
Pipe diameter $\mathrm{D}^{*}$

## Material of pipe support*

PP = polypropylene
PA = polyamide
PAFF $=$ polyamide flame-retardant to EN 45545-2 R22, R23, HL3

## Material of steel parts

ST = steel
A2 $=$ stainless steel (on request)
A4 = stainless steel (on request)
Others on request

## Plating of steel parts

$\mathrm{ZN}=$ zinc-plated
Others on request

[^0]
## Dimensions [mm]



For pipe support size $1-4, \mathrm{e}_{2}$ is drawn with a $90^{\circ}$ offset

| Size | $\begin{array}{\|l} \hline \text { U-bolt } \\ \text { BUE } \\ \text { a } \\ {[\mathrm{mm}]} \\ \hline \end{array}$ | $\begin{gathered} \mathbf{b} \\ {[\mathrm{mm}]} \end{gathered}$ | $d_{1}$ | $\begin{gathered} \mathbf{e}_{1} \\ {[\mathrm{~mm}]} \end{gathered}$ | $\begin{gathered} \mathbf{h}_{1} \\ {[\mathrm{~mm}]} \\ \hline \end{gathered}$ | Pipe support short version RUK |  |  |  |  | Pipe support long version RUL |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | $\begin{gathered} \mathbf{d}_{2} \\ {[\mathrm{~mm}]} \\ \hline \end{gathered}$ | $\begin{gathered} \mathbf{e}_{2} \\ {[\mathrm{~mm}]} \end{gathered}$ | $\begin{gathered} \mathbf{h}_{2} \\ {[\mathrm{~mm}]} \\ \hline \end{gathered}$ | $\begin{gathered} \mathrm{L}_{1} \\ {[\mathrm{~mm}]} \\ \hline \end{gathered}$ | $\begin{gathered} \mathbf{b}_{\mathbf{1}} \\ {[\mathrm{mm}]} \\ \hline \end{gathered}$ | $\begin{gathered} \mathbf{h}_{2} \\ {[\mathrm{~mm}]} \\ \hline \end{gathered}$ | $\begin{gathered} \mathbf{h}_{4} \\ {[\mathrm{~mm}]} \\ \hline \end{gathered}$ | $\begin{gathered} \mathrm{L}_{2} \\ {[\mathrm{~mm}]} \\ \hline \end{gathered}$ | $\begin{gathered} \mathbf{b}_{\mathbf{1}} \\ {[\mathrm{mm}]} \\ \hline \end{gathered}$ |
| 1 | 23 | 30 | M10 | 33 | 60 | 8 | 25 | 5 | 24 | 35 | 5 | 10 | 60 | 25 |
| 2 | 30 | 40 | M10 | 40 | 70 | 8 | 25 | 5 | 24 | 35 | 5 | 12 | 75 | 30 |
| 3 | 38 | 40 | M10 | 48 | 75 | 8 | 25 | 5 | 24 | 35 | 5 | 12 | 80 | 30 |
| 4 | 46 | 50 | M10 | 56 | 86 | 8 | 25 | 5 | 24 | 35 | 5 | 12 | 90 | 30 |
| 5 | 52 | 50 | M10 | 62 | 92 | 10 | 25 | 5 | 38 | 50 | 5 | 15 | 95 | 35 |
| 6 | 64 | 60 | M12 | 76 | 109 | 10 | 25 | 5 | 38 | 50 | 5 | 15 | 110 | 35 |
| 7 | 82 | 60 | M12 | 94 | 125 | 10 | 25 | 5 | 38 | 50 | 5 | 15 | 135 | 35 |
| 8 | 94 | 60 | M12 | 106 | 138 | 10 | 25 | 5 | 38 | 50 | 10 | 20 | 145 | 40 |
| 9 | 120 | 80 | M16 | 136 | 171 | 20 | 81 | 9 | 110 | 80 | 10 | 20 | 190 | 40 |
| 10 | 148 | 80 | M16 | 164 | 191 | 20 | 81 | 9 | 110 | 80 | 10 | 20 | 220 | 40 |
| 11 | 176 | 80 | M16 | 192 | 217 | 20 | 81 | 9 | 110 | 80 | 12 | 25 | 250 | 50 |
| 12 | 202 | 80 | M16 | 218 | 249 | 20 | 81 | 9 | 110 | 80 | 12 | 25 | 270 | 50 |
| 13 | 228 | 100 | M20 | 248 | 283 | 25 | 130 | 9 | 175 | 110 | 12 | 25 | 315 | 50 |
| 14 | 282 | 100 | M20 | 302 | 334 | 25 | 130 | 9 | 175 | 110 | 12 | 25 | 370 | 50 |
| 15 | 332 | 100 | M20 | 352 | 385 | 25 | 130 | 9 | 175 | 110 | 15 | 30 | 420 | 60 |
| 16 | 378 | 100 | M24 | 402 | 435 | 30 | 210 | 9 | 250 | 130 | 15 | 30 | 480 | 60 |
| 17 | 428 | 100 | M24 | 452 | 487 | 30 | 210 | 9 | 250 | 130 | 15 | 30 | 540 | 60 |
| 18 | 530 | 100 | M24 | 554 | 589 | 30 | 210 | 9 | 250 | 130 | 15 | 30 | 640 | 60 |
| 19 | 570 | 150 | M30 | 600 | 650 | 30 | 210 | 9 | 250 | 130 | 20 | 40 | 700 | 70 |
| 20 | 622 | 150 | M30 | 652 | 700 | 30 | 210 | 9 | 250 | 130 | 20 | 40 | 750 | 70 |
| 21 | 680 | 150 | M30 | 710 | 760 | 30 | 210 | 9 | 250 | 130 | 20 | 40 | 810 | 70 |
| 22 | 730 | 150 | M30 | 760 | 810 | 30 | 210 | 9 | 250 | 130 | 20 | 40 | 870 | 70 |
| 23 | 785 | 150 | M30 | 815 | 870 | 30 | 210 | 9 | 250 | 130 | 20 | 40 | 910 | 70 |

Models

| Model A <br> Clamp with four hex. nuts | Model L <br> Clamp with four hex. nuts and <br> short pipe support | Model K <br> Clamp with four hex. nuts and <br> long pipe support |
| :--- | :--- | :--- |

## Hex nut positioning



In sizes 1 to 5, both hex nuts are secured underneath the pipe support on both sides of the bolt clamp.

In sizes 6 and above, one hex nut is secured above and one hex nut is secured below the pipe support on both sides of the bolt clamp.

## Individual parts

U-bolt
(BUE)
Size 1-23


## Pipe support long

(RUL)
Size 1-23


Pipe support, short
(RUK)

Size 1-4


Size 9-12
Size 13-23


Size 5-8


## Model code

(also order example)
HRRBS 10 BUE ST ZN

```
Range
```

```
Size
```

Size
1 = size 1
1 = size 1
2 = size 2

```
2 = size 2
```

HRRBS = HY-ROS U-bolt clamp
up to size 23

## Designation

BUE = U-bolt
Material of steel parts
ST = steel
A2 $=$ stainless steel (on request)
A4 = stainless steel (on request)
Others on request

## Plating of steel parts

ZN = zinc-plated
Others on request

## Model code

(also order example) HRRBS 10 RUL 139,7 PP

## Range <br> HRRBS $=$ HY-ROS U-bolt clamp

## Size

| 1 | $=$ | size 1 |
| :--- | :--- | :--- |
| 2 | $=$ | size 2 |

up to size 23

## Designation

RUL = pipe support, long
RUK = pipe support, short
Pipe diameter D
(in acc. with dimensions)
Materials of pipe support
PP = polypropylene
PA $=$ polyamide (on request)
PAFF = polyamide flame-retardant to EN 45545-2 R22, R23, HL3 (on request)
Others on request

## NOTE

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## HYDAC Accessories GmbH

Hirschbachstr. 2

## 66280 Sulzbach/Saar

Tel.: +49 (0)6897-509-01
Internet: www.hydac.com
E-mail: accessories@hydac.com

## HYロAC |NTERNATIDNAL <br> Flat steel bolt clamps in acc. with DIN 3567 HRFBS

## Clamp form

## Form A

Size 1-32
Nom. width 20-500


Model A1
(without bolts and nuts)


Model A
(with bolts and nuts)

## HYDAC Accessories GmbH

Hirschbachstr. 2
66280 Sulzbach/Saar
Tel.: +49 (0)6897-509-01
Internet: www.hydac.com
E-mail: accessories@hydac.com

## Model code <br> (also order example)

HRFBS 12 A1 89 ST ZN Form A

## Range

HRFBS = HY-ROS flat steel bolt clamp

```
Size
1 = size 1
2 = size 2
```

up to size 32

## Model for complete clamps

A1 = flat steel clamp pair
A $\quad=$ flat steel clamp pair with hex. head bolts and nuts

## Pipe diameter $d_{1}$

(in acc. with dimensions)

## Material of steel parts

ST = steel
A2 $=$ stainless steel (on request)
A4 $=$ stainless steel (on request)

## Plating of steel parts

$\mathrm{BL}=$ unplated
ZN = zinc-plated
Clamp form
Form A

Note: Exposed parts may show signs of flash rust!

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## Dimensions

## Form A




Note: sizes given in parentheses should be avoided where possible.


[^0]:    * Not applicable for version A

