

Advice and Service



JORDAHL® Design Software

With this design aid, you can design efficiently for standard conditions. Of course, there are also special cases which are not covered by these tables: For example, are you planning a project with special anchor channel edge distances or reinforcement conditions?

With our free JORDAHL® EXPERT Software for anchor channels you can make such special calculations easily. This software, CAD drawings and BIM files of anchor channels and toothed straps are available at:

www.jordahl.de → Downloads



JORDAHL Advice

We offer you comprehensive consulting and development services for our products. The JORDAHL experts will gladly help you with all design and installation questions. Our team is very easy to reach: via email to experten@jordahl.de or give us a call at +49 (0) 30 68283-314

One of the JORDAHL Experts:
Product Developer Elisabeth Smith

Additional JORDAHL Services

For all JORDAHL products, ready-made specification texts comprising all relevant technical specifications with regard to material, load bearing capacity, sizes and installation notes are available at www.jordahl.de → Service The data can be exported e.g. in the GAEB format, sent out as an email attachment or saved to file.

Are you interested in other JORDAHL products or do you require additional information about a specific product? A large number of brochures are available to download at www.jordahl.de → Downloads



JORDAHL Application Videos

Are you interested in seeing the JVB-V toothed strap application video? Simply scan the QR code or visit our website: www.jordahl.de → Service → Application videos



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JORDAHL GmbH
Nobelstr. 51,
12057 Berlin, Germany
www.jordahl.de



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Technical Guide for JORDAHL® Toothed Straps JVB

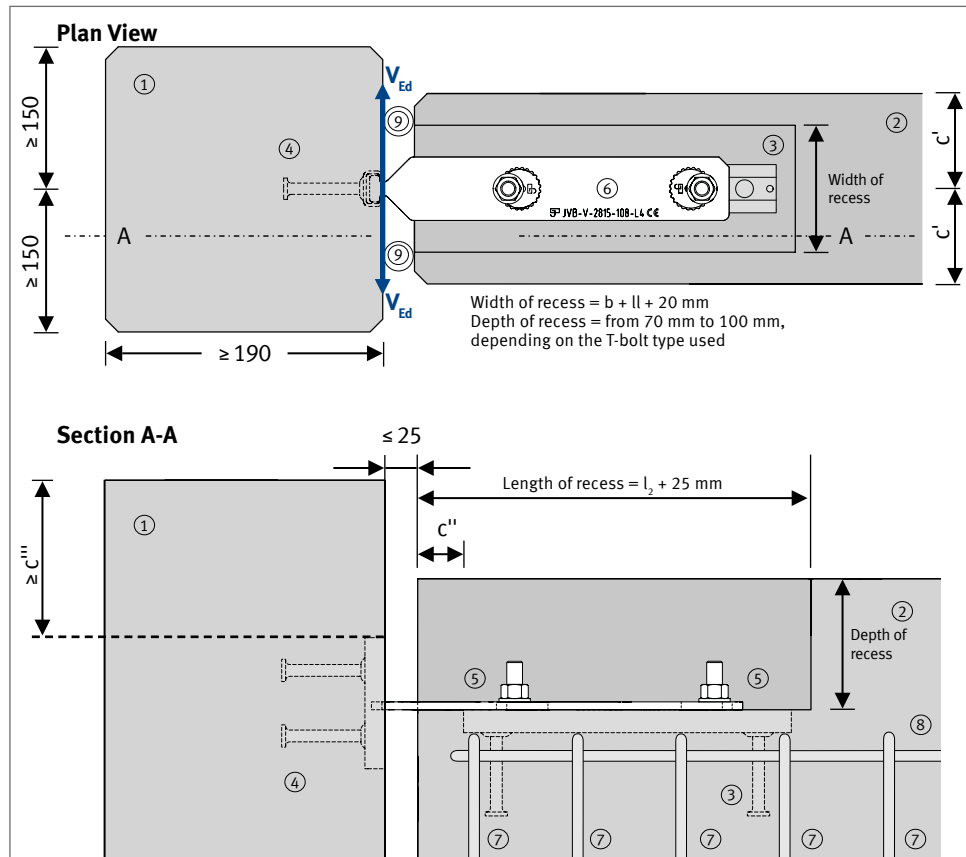
used with JORDAHL® anchor channels JTA-CE complying with ETA-09/0338



JORDAHL® Toothed Straps JVB-V

For Transverse Shear Loads

Construction Drawing [mm]

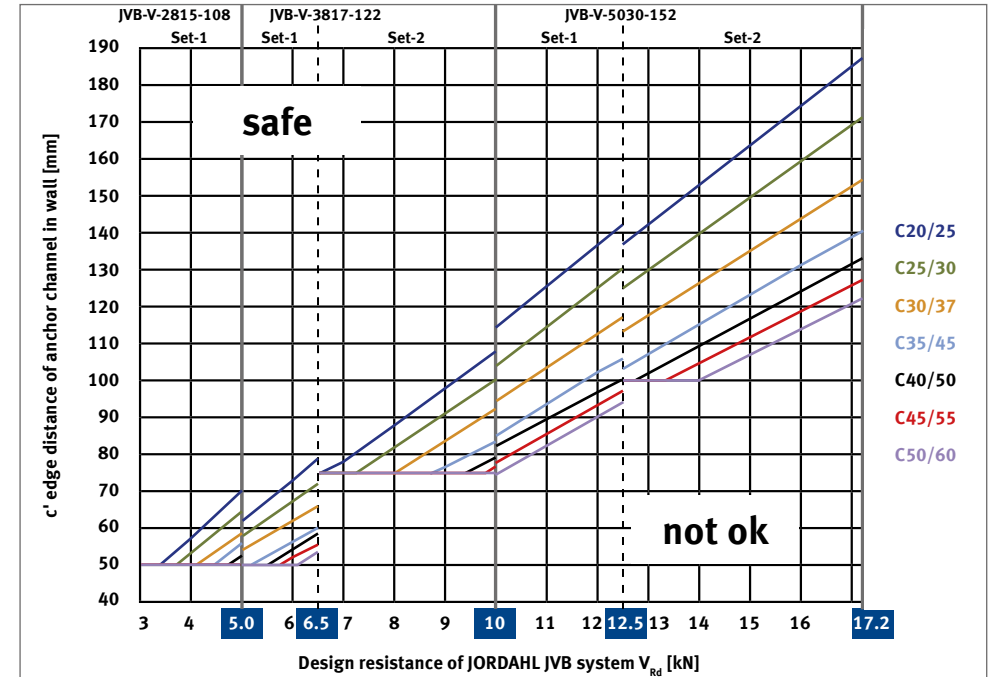


- ① Column: min. C30/37
- ② Wall: C20/25 to C50/60, see diagram
- ③ JORDAHL® anchor channel JTA in the wall
- ④ JORDAHL® anchor channel JTA in the column
- ⑤ JORDAHL® T-bolt, see table
- ⑥ JORDAHL® toothed strap JVB-V with two eccentric inserts
- ⑦ Stirrup min. Ø8/100
- ⑧ Edge reinforcement min. 1Ø12 or $A_s = 1.13 \text{ cm}^2$
- ⑨ Prove fire protection separately

Ordering Example for Toothed Straps JVB-V

Type	Channel Size	l_a	Material
JVB-V	- 2815	- 108	- L4

Design table for verification $V_{Ed} / V_{Rd} \leq 1.0$



System Components

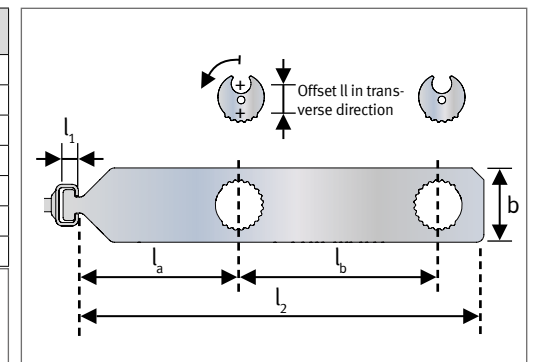
Toothed Strap Set	JVB-V-2815-108 Set-1	JVB-V-3817-122 Set-1	JVB-V-3817-122 Set-2	JVB-V-5030-152 Set-1	JVB-V-5030-152 Set-2
Anchor channel in the wall (edge distance c'')	JTA K 38/17-250 ($c'' = 35 \text{ mm}$)	JTA K 40/25-300 ($c'' = 40 \text{ mm}$)	JTA K 50/30-300 ($c'' = 50 \text{ mm}$)	JTA W 50/30-350 ($c'' = 65 \text{ mm}$)	JTA K 53/34-350 ($c'' = 65 \text{ mm}$)
2 T-bolts	JH M 12 4.6 or A4-50	JC M 12 4.6 or A4-50	JB M 12 8.8 or F4-70	JB M 16 4.6 or A4-50	JB M 16 8.8 or F4-70
2 Washers	US 7089 12	US 7089 12	US 7089 12	US 7093-1 16	US 7093-1 16
Anchor channel in the column (edge distance c''')	JTA K 28/15-150 ($c''' = 25 \text{ mm}$)	JTA K 38/17-150 ($c''' = 55 \text{ mm}$)	JTA K 38/17-150 ($c''' = 55 \text{ mm}$)	JTA K 50/30-150 ($c''' = 165 \text{ mm}$)	JTA K 50/30-150 ($c''' = 165 \text{ mm}$)

Technical Details

	JVB-V-2815-108	JVB-V-3817-122	JVB-V-5030-152
max. V_{Rd} [kN]	5	10	17.2
b [mm]	50	75	100
l_1 [mm]	10	12	22
l_2 [mm]	273	327	392
l_a [mm]	108	122	152
l_b [mm]	135	170	200
ll [mm]	17	27	33

Material of Toothed Straps

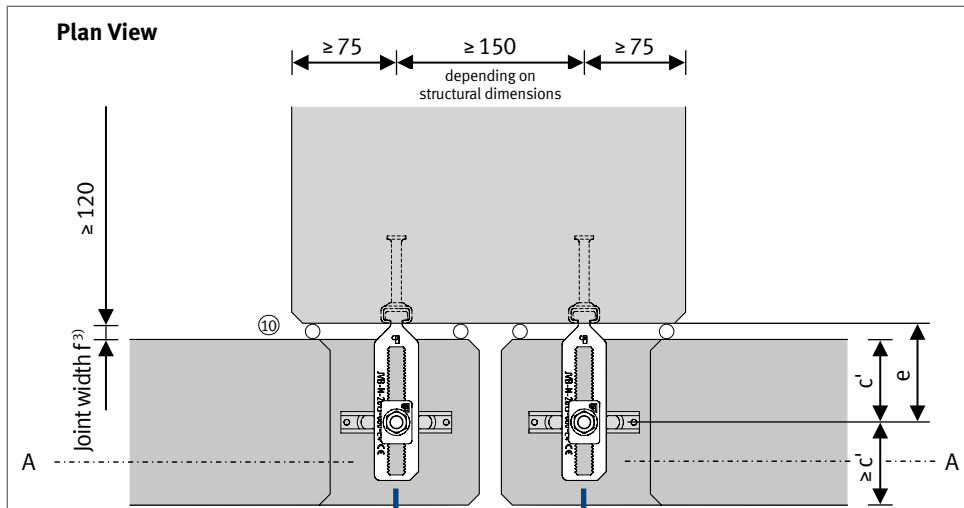
- zinc-plated (zp)
- stainless steel lean duplex (L4)



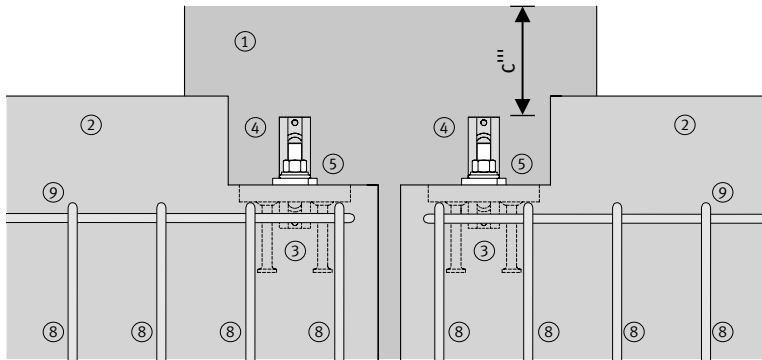
JORDAHL® Toothed Straps JVB-N

For Tension Loads

Construction Drawing [mm]



Section A-A

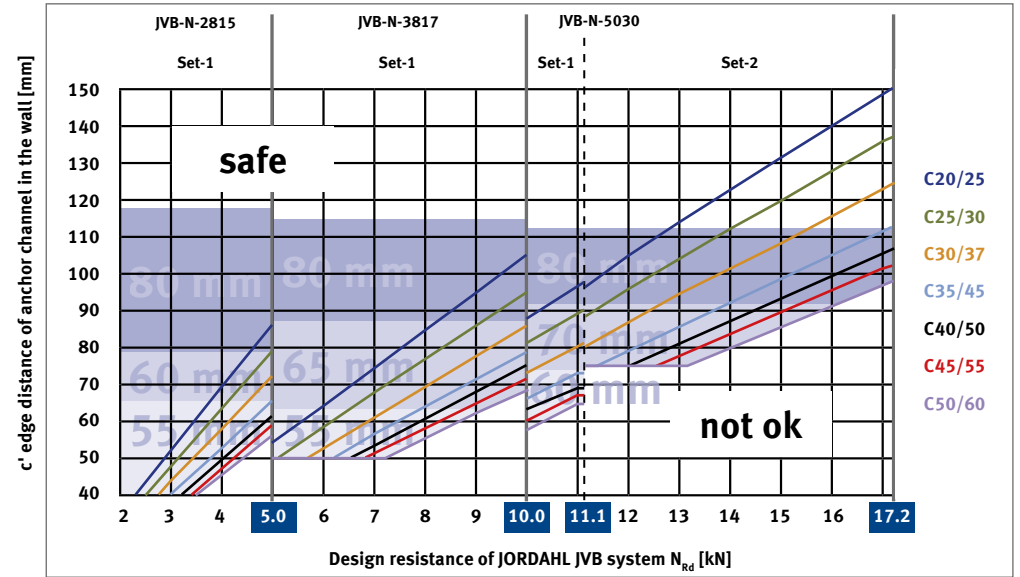


- ① Column: min. C30/37
- ② Wall: from C20/25 to C50/60, see diagram
- ③ JORDAHL® anchor channel JTA in the wall
- ④ JORDAHL® anchor channel JTA in the column
- ⑤ JORDAHL® T-bolt, see table
- ⑥ JORDAHL® toothed straps JVB-N
- ⑦ JORDAHL® X-plate JXS
- ⑧ Stirrup min. Ø8/100 or Ø8/75 for $c' < 50$ mm
- ⑨ Edge reinforcement min. 1Ø12 or $A_s = 1.13$ cm²
- ⑩ Prove fire protection separately

Ordering Example for Toothed Straps JVB-N

Type	Channel Size	Axial Spacing e [mm]	Material
JVB-N -	5030	80	L4

Design table for verification $N_{Ed} / N_{Rd} \leq 1.0$



System Components

Toothed Strap Set	JVB-N-2815 Set-1 ¹⁾	JVB-N-3817 Set-1	JVB-N-5030 Set-1	JVB-N-5030 Set-2
Anchor channel in the wall (edge distance c'')	JTA K 28/15-150 ($c'' = 25$ mm)	JTA K 38/17-150 ($c'' = 55$ mm)	JTA K 40/25-150 ($c'' = 55$ mm)	JTA K 50/30-150 ($c'' = 60$ mm)
T-bolt	JD M 12 4.6 or A4-50	JH M 12 4.6 or A4-50	JC M 16 4.6 or A4-50	JB M 16 8.8 or F4-70
Washer	US 7089 12	US 7089 12	US 7089 16	US 7089 16
Anchor channel in the column (edge distance c''')	JTA K 28/15-150 ($c''' = 50$ mm)	JTA K 38/17-150 ($c''' = 70$ mm)	JTA K 50/30-150 ($c''' = 135$ mm)	JTA K 50/30-150 ($c''' = 135$ mm)

¹⁾ Stainless steel available on request

Technical Details

	JVB-N-2815-55/60/80			JVB-N-3817-55/65/80			JVB-N-5030-60/70/80		
max. N_{Rd} [kN]	5	5	5	10	10	10	17.2	17.2	17.2
e [mm]	55 ²⁾	60	80	55	65	80	60	70	80
b [mm]	40	40	40	55	55	55	75	75	75
l_1 [mm]	10	10	10	12	12	12	22	22	22
l_2 [mm] ²⁾	92 ²⁾	104	143	88	112	142	104	122	143
ll [mm]	24	36	75	21	45	75	27	45	66

²⁾ Special lengths available upon request. ³⁾ Joint width $f \geq 15$ mm at min. component width 80 mm

⁴⁾ zinc-plated toothed straps may require installation with grouting mortar

Material of Toothed Straps

- zinc-plated (gv)⁴⁾
- stainless steel lean duplex(L4)

