

“Seek  
innovation

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“find  
fischer.”

**WELCOME TO  
FISCHER  
PRESENTATION**

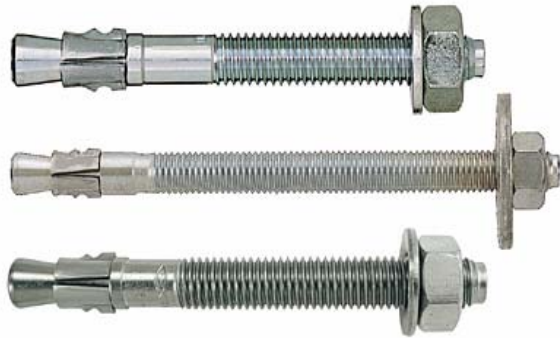


20 patents per 1000 employees registered each year.  
This places fischer far ahead of the German industrial  
average of 1.5. And our inventions aren't just filed away.  
35% of our patents are implemented in practice.  
Another top result. Fischer, the factory for ideas.



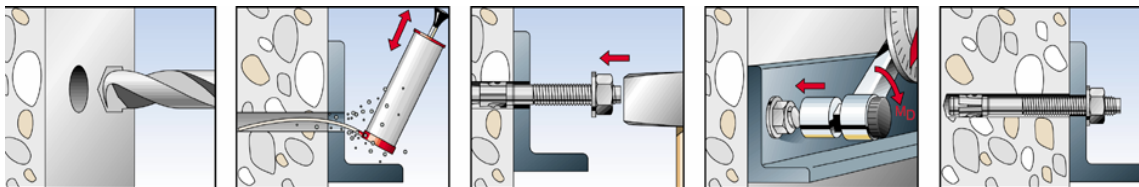
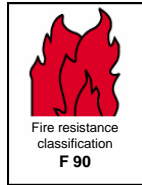
**fischer**   
UNTERNEHMENSGRUPPE

# Fischer Bolt FBN II

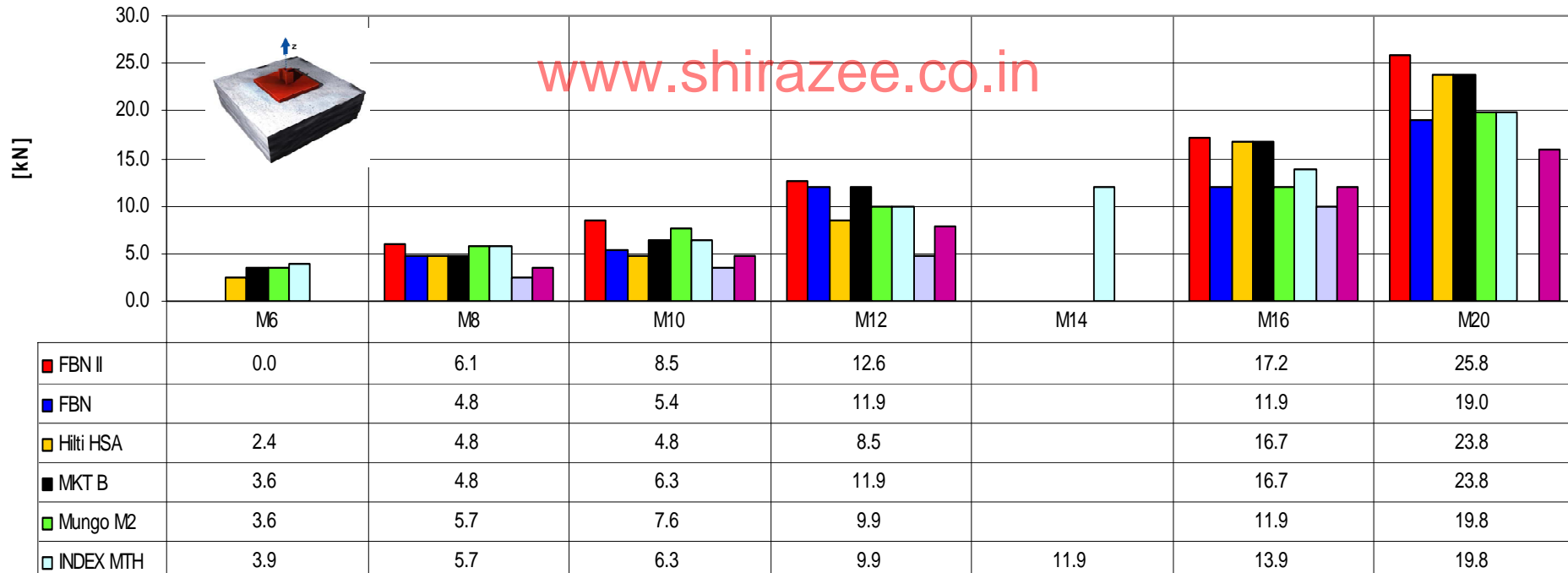


- Large range from M 6 to M 20
- Tension load capacities from 6.1 to 25.8 KN
- Two different maximum fixture thicknesses, can be checked by imprint on head
- Also suitable for M15 concrete and natural stone with dense structure

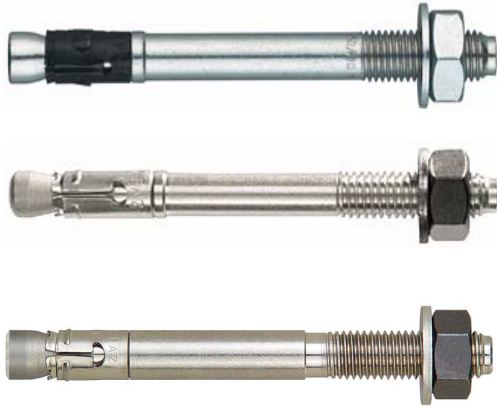
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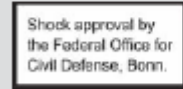
**Tensile load capacity Nperm bolt anchor GVZ compressive zone**  
*Single anchor without edge influence in non-cracked concrete C20/25*



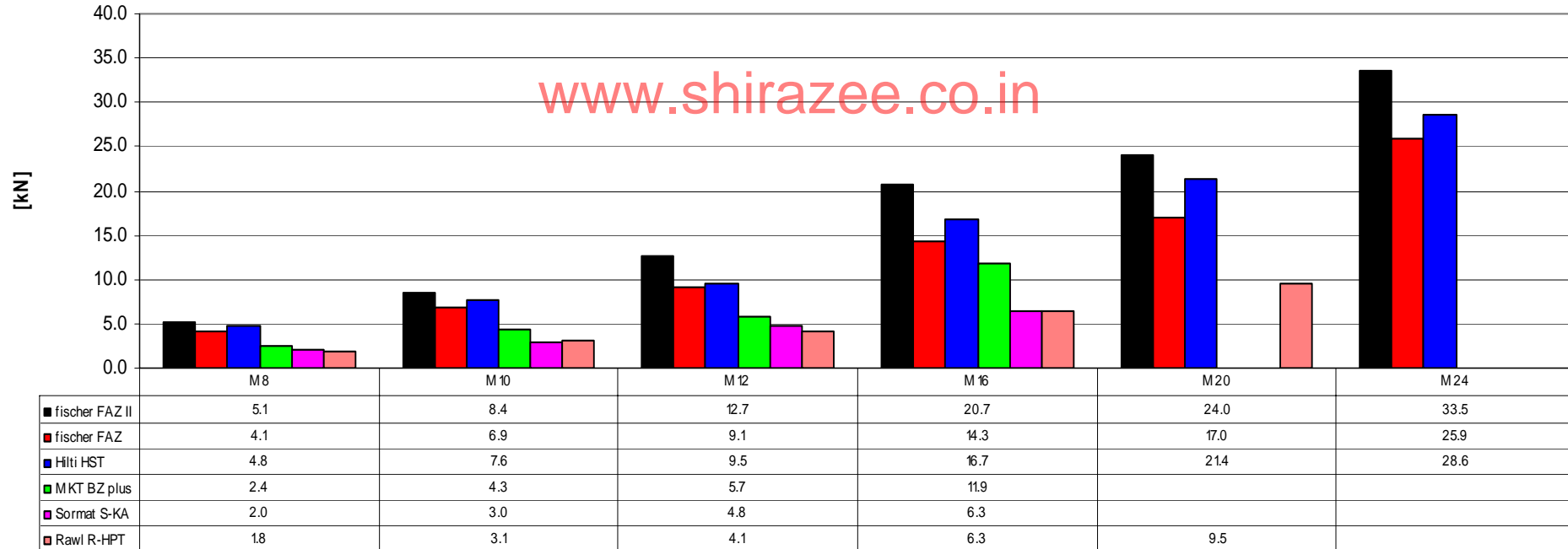
# fischer Anchor bolt FAZ II, FAZ A4, FAZ II



- Highest load capacity in cracked concrete – upto 33.5 KN in tension & 49.1 KN in shear
- Small axial spacings and free edge distances due to the new double-expansion clip
- Fast tightening and minimum slip due to the new expansion-clip



Tensile load capacity Nzul  
concrete C20/25



# FH II HIGH PERFORMANCE ANCHOR

B

H

SK

S



- Complete Cavity compensation in cracked concrete due to additional sleeve
- High Shear Load capacity upto 97 KN
- Small axial spacings and free edge distances through stress free installation
- Difference Head shapes available to suit your purpose



**Railings**



**Generators/ turbines**

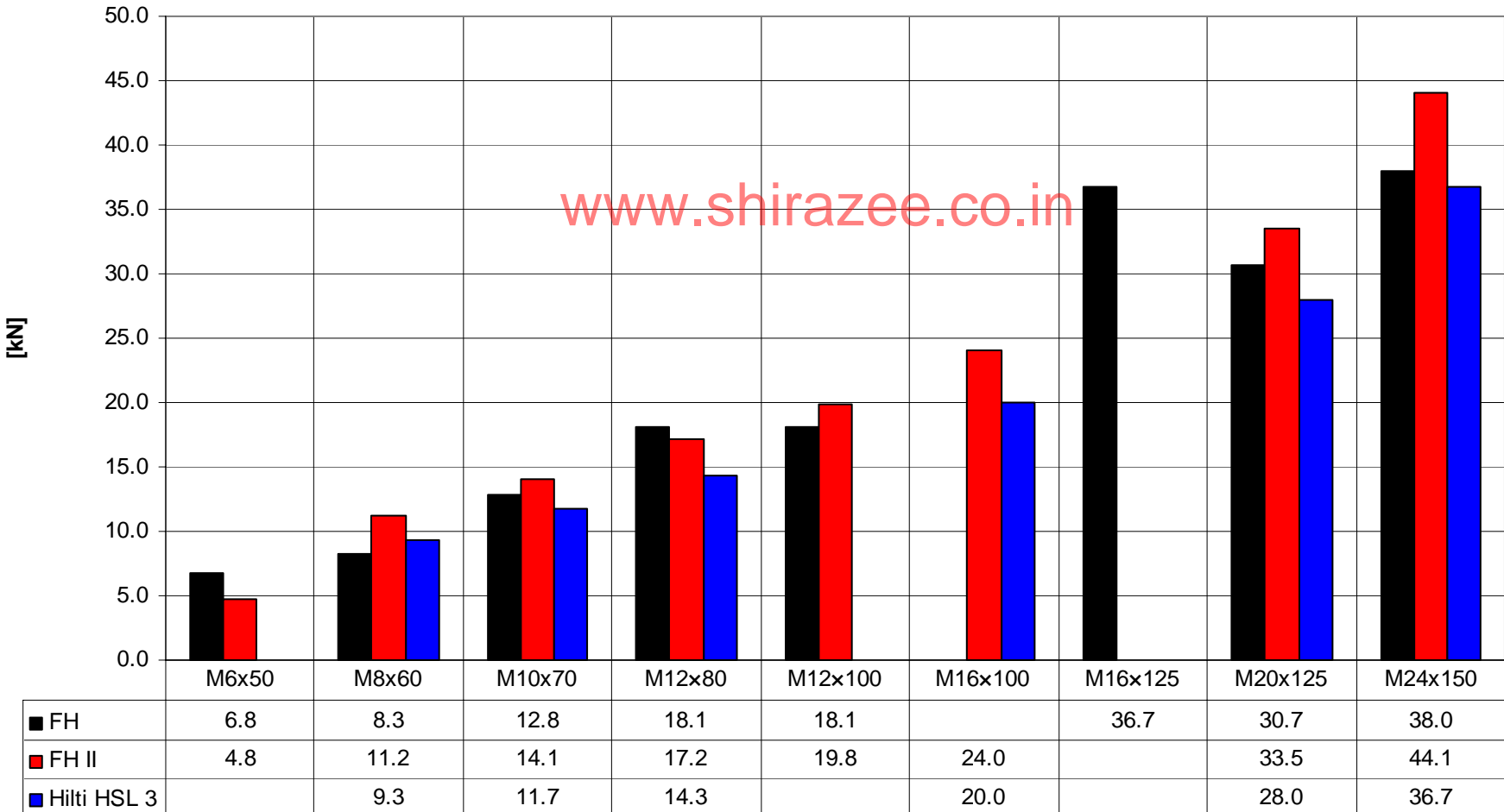


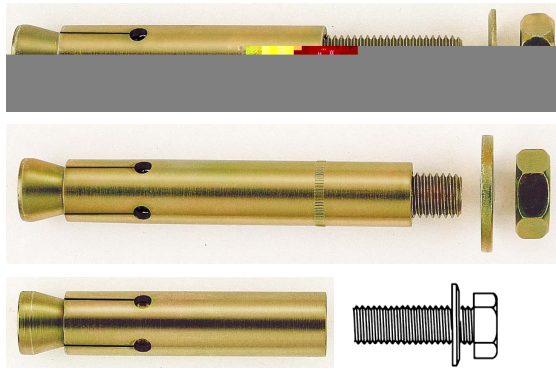
**Power Plants**



Recommended Tensile loads in non-cracked concrete M25

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- Maximum safety through form locking working principle
- Smallest axial spacings (min.40mm) and free edge distances (min 35mm) through stress free installation.

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- High load capacities in tension & shear at low component thickness upto 100mm
- Seismic zone approvals



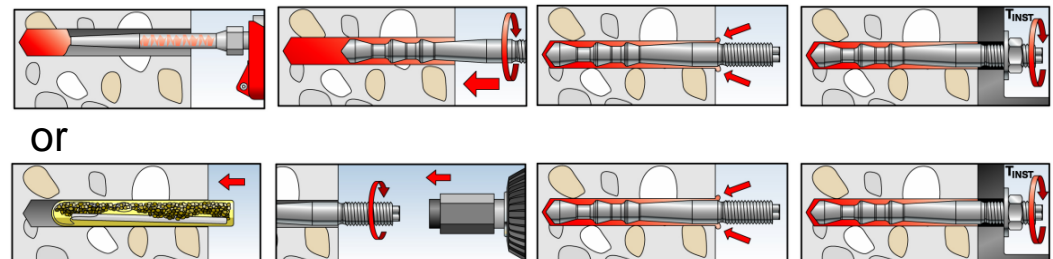
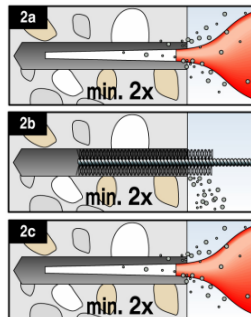
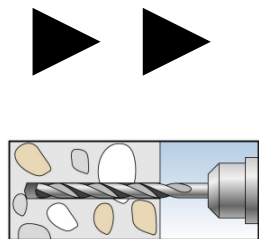
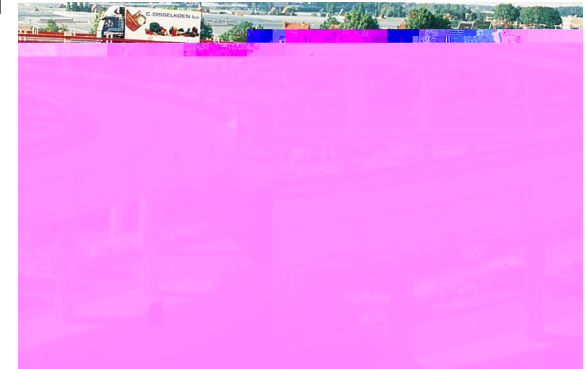
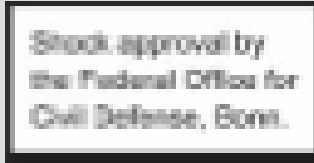


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# fischer Highbond FHB II



- Strongest composite anchor for cracked concrete  
Suitable for seismic zone structures
- Most flexible heavy load anchor:  
Tensile loads upto 53 KN and shear loads upto 65 KN.
- Better usage options:
  - Smallest axial and edge spacings
  - Smallest component thicknesses



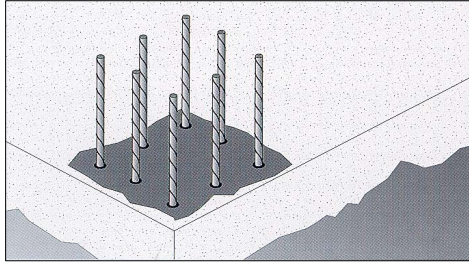
# FIS V 360 S

- Flexible – Three anchorage depth per thread size are available
- Push through installation
- Minimum structural component thickness is required.
- High range of temperature from -40 C to +80 C
- Shortest Curing Time 35 min at 30 C to 40 C
- Small axial spacing and edge distances
- High tensile load can be achieved at high anchoring depth.
- Fire resistance up to 120 mins in concrete.
- High shear load can be achieved at smallest anchoring depth.
- Can be use in dry concrete.

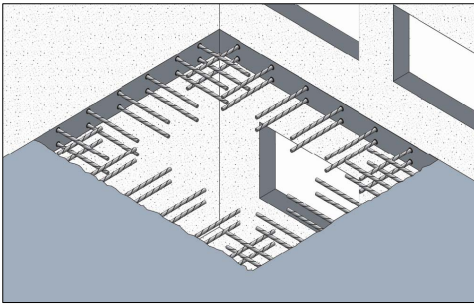
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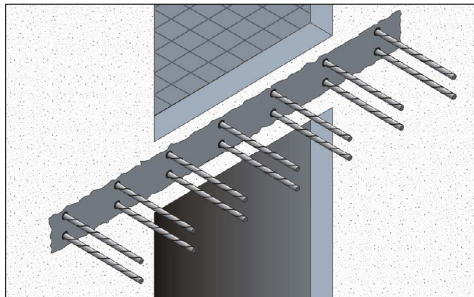
## Drawings - Examples



additional column



closing of openings



additional cantilever slab  
e.g. balcony



Column Strengthening



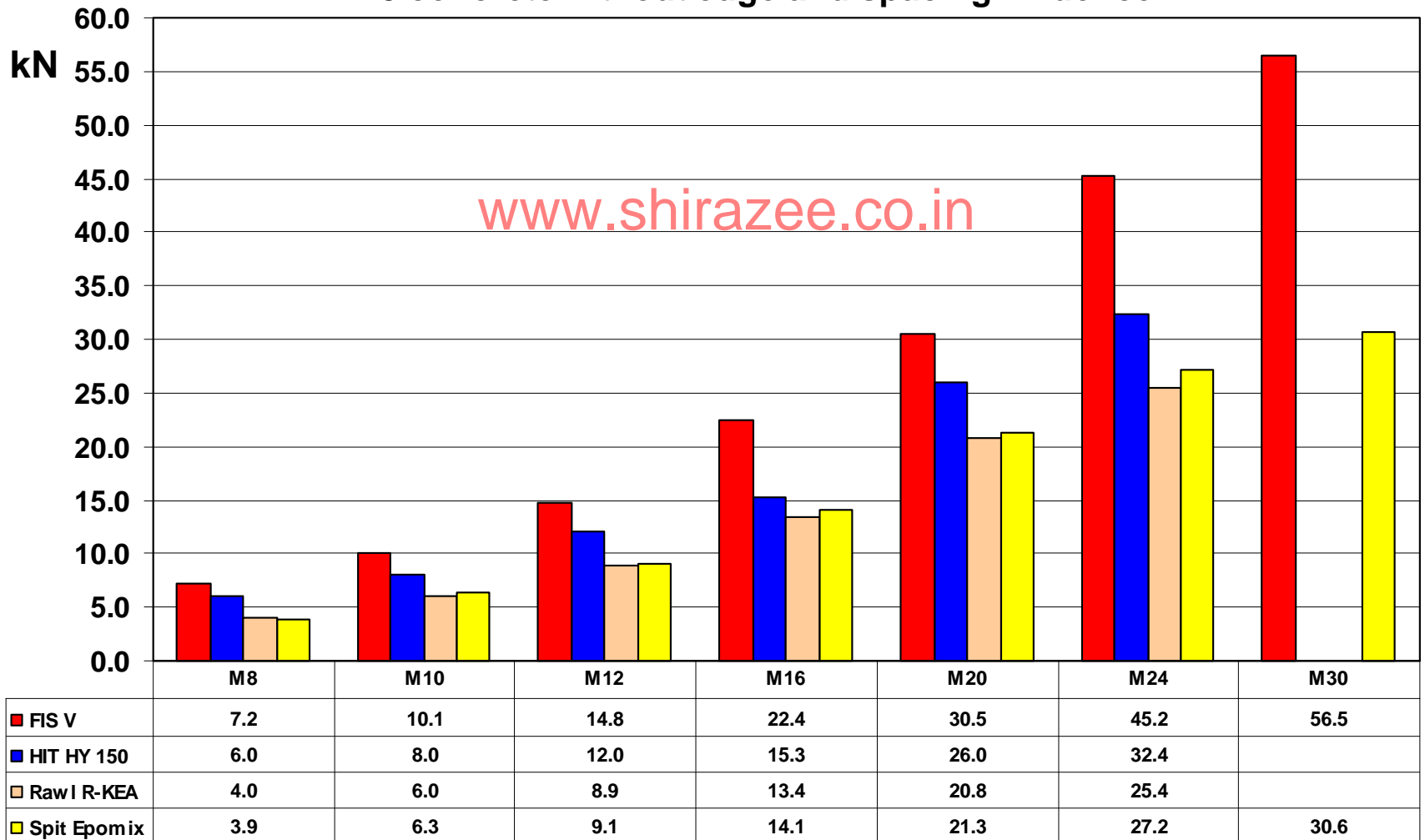
Connecting Beam to Column



Drop panel

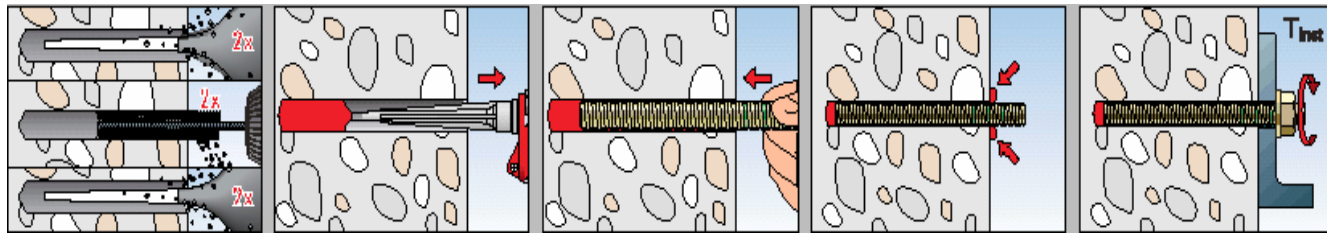
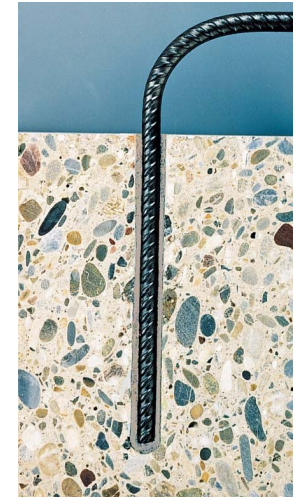
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## Comparison Recommended tensile loads in M25 concrete without edge and spacing influence

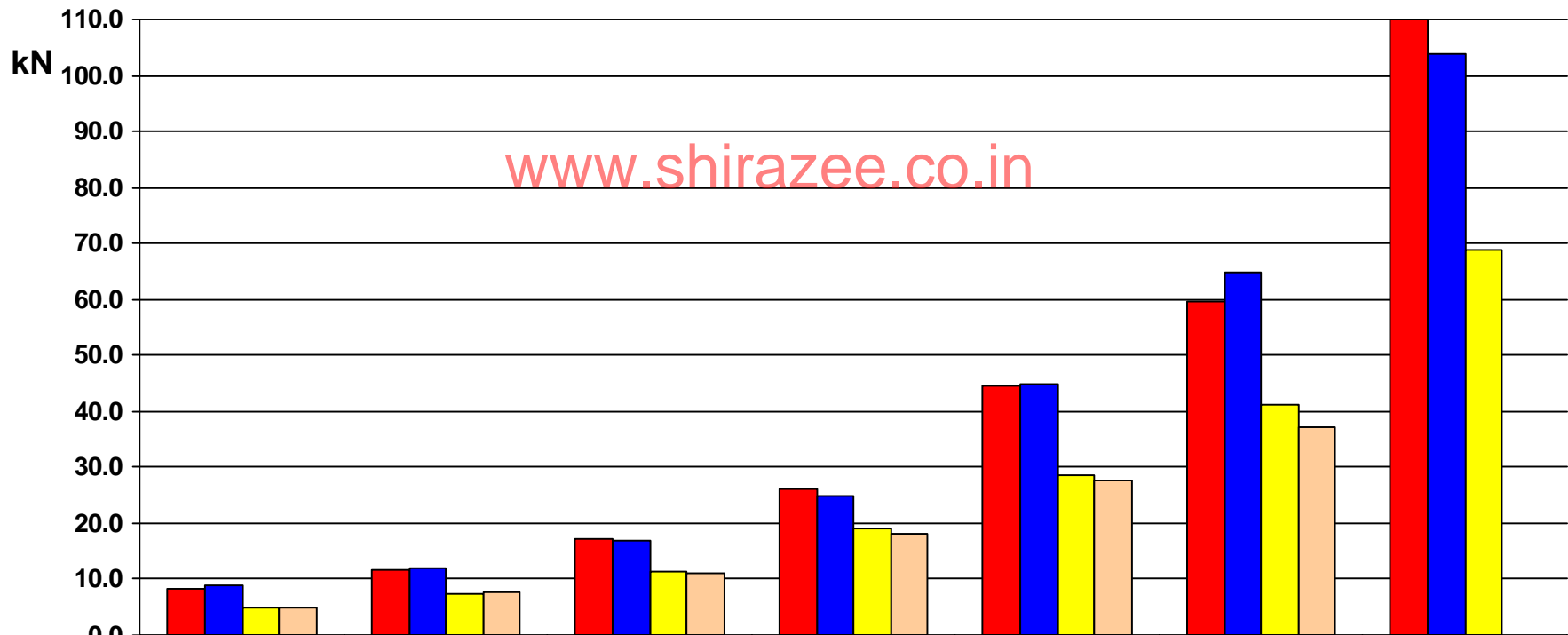




- Top performance epoxy resin based injection mortar
- The problem solver in injection technique for concrete, solid natural stone and post-fixed reinforcement bars
- Very good cling-/ stick performance for highest loads with a smaller drill hole depth and less drill hole cleaning
- Suitable for submerged use (installation and use)

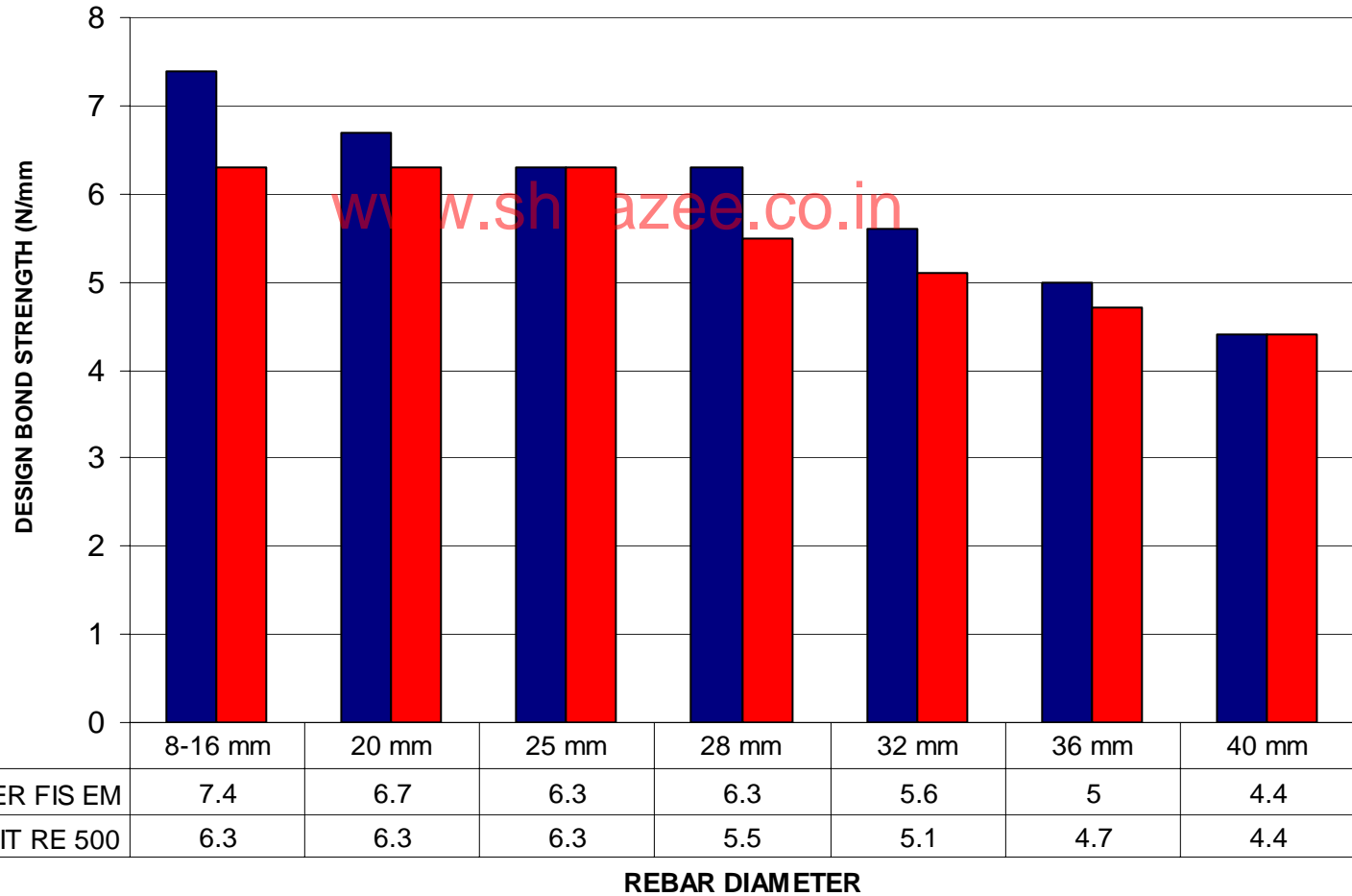


## Comparison Recommended tensile loads in M25 concrete without spacing & edge influence



	M8	M10	M12	M16	M20	M24	M30
<span style="color: red;">■</span> FIS EM	8.4	11.8	17.3	26.2	44.5	59.7	110.0
<span style="color: blue;">■</span> HIT RE 500	8.9	11.9	17.0	24.8	44.9	64.7	104.0
<span style="color: yellow;">■</span> Spit Epcon	5.0	7.5	11.5	19.0	28.7	41.2	68.7
<span style="color: orange;">■</span> Rawl R-KEX	4.8	7.7	11.2	18.2	27.8	37.3	

## COMPARISON OF CHEMICAL BOND STRENGTHS







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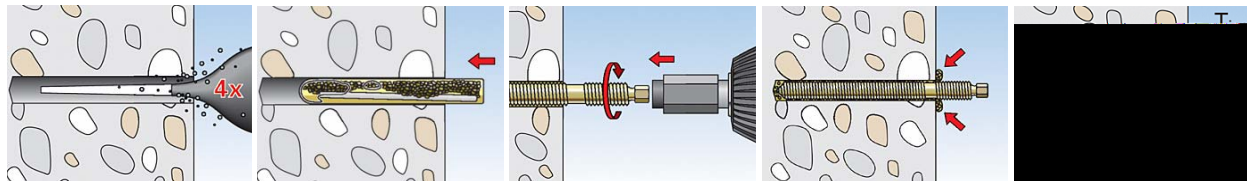
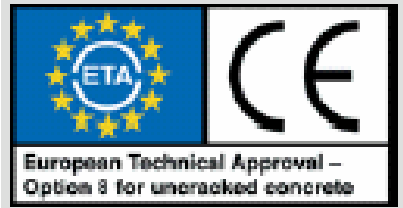
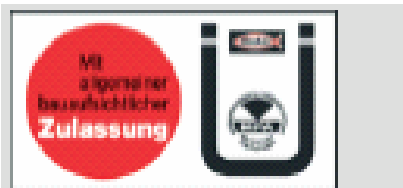




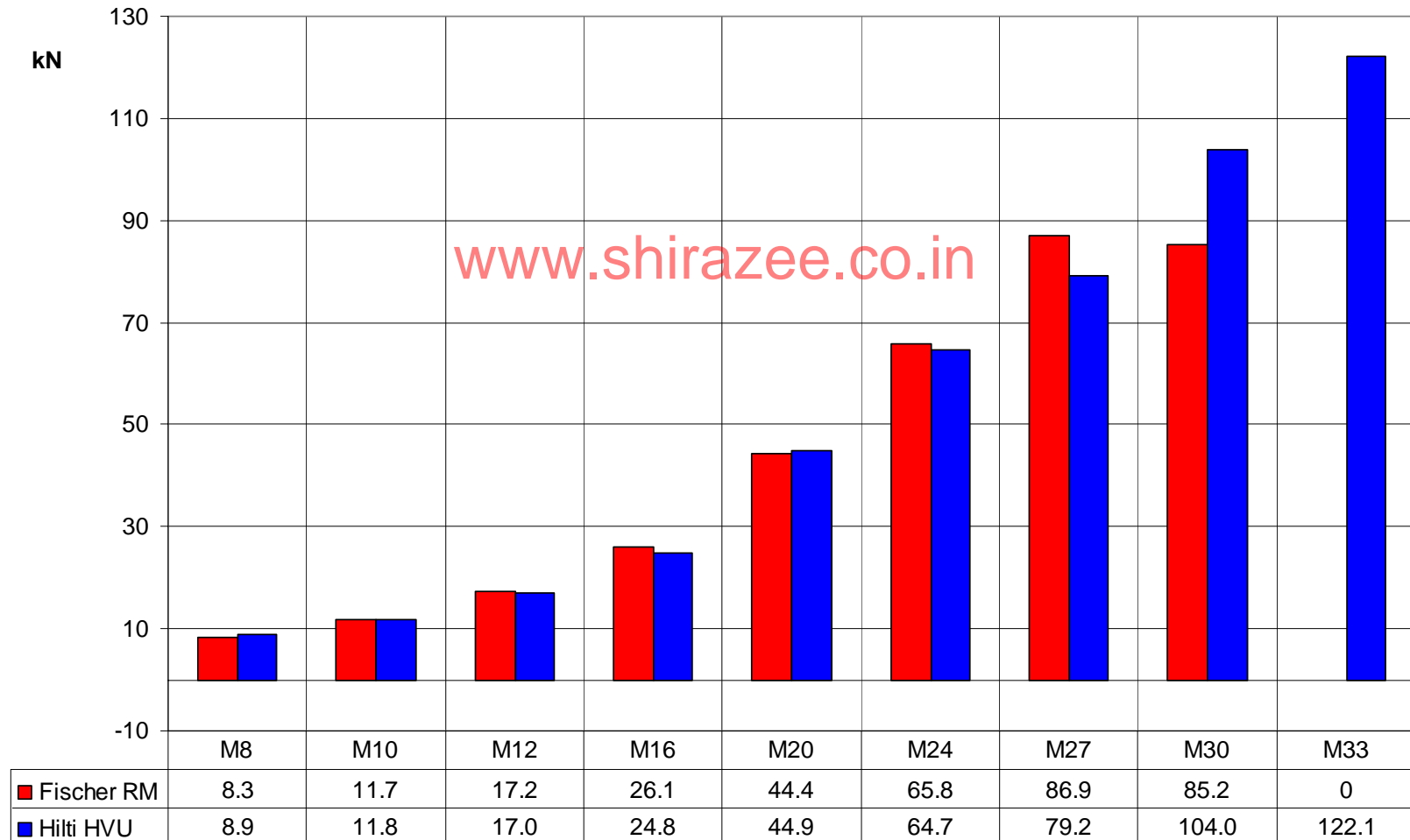
- Higher permissible tensile and shear loads for anchor groups and at reduced edge distances

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- Reduced minimum spacings
- Additional embedment depths for M16, M 20 und M 24, leading to even higher loads



## Comparison permissible tensile loads

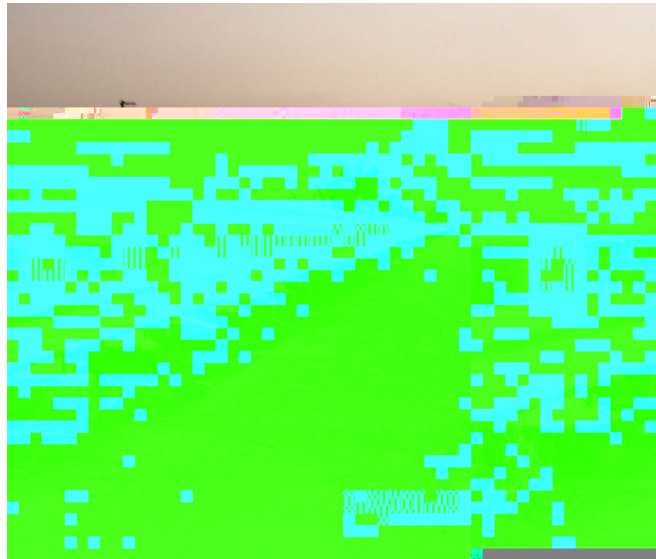


Note : For <27mm dia. Both Hilti & Fischer have 5.8 gr.steel; For >27mm Hilti uses 8.8 gr.steel

# fischer Resin Anchor RM & RGM



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**Thank You**