



JF375E  
Vol. 385ml

## INFORMATION

Pure Epoxy Resin is a two part red resin (3:1) suitable for use in the vast majority of base materials. It can be used for installing threaded studs, rebar or internal threaded sockets for structural applications such as:

- Columns
- Guard rails
- Façades
- Staircases
- Silo installation
- Machines
- Cantilever beams

## BASE MATERIAL

- Concrete C20/25 To C50/60
- Cracked/Non-Cracked Concrete
- Dry/Wet/Flooded Holes
- Solid Brickwork
- Concrete Block
- Natural Stone

## FEATURES

- Expansion Free
- High Performance
- Close Spacing And Edge Distance
- Can be used in Contact with Potable (Drinking) Water

## APPROVALS

European Technical Approval  
Option 1 Cracked Concrete



ETA17/0011

Water Regulations Advisory Scheme



WRAS Listing Number 1506530

## RELATED PRODUCTS



JTOOL375

Injection Resin Gun



Hole Cleaning Brushes and Pump



Mixer Nozzle  
JMN150E

Injection Accessories

## WORKING/LOADING TIME

Note:

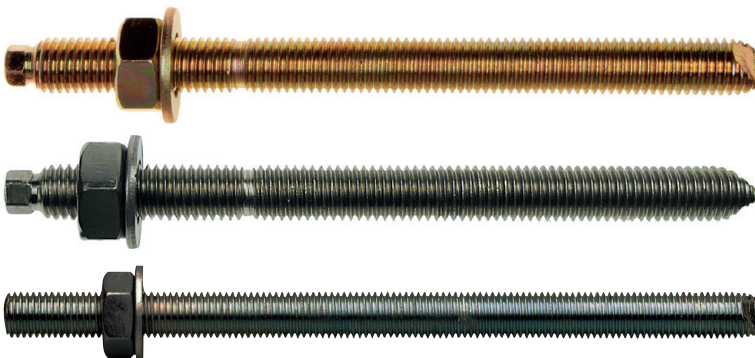
$T_{work}$  = The highest temperature in the range

$T_{load}$  = The lowest temperature in the range

Cartridge Temperature °C	Base Material Temperature °C	Usable Time	Load Time
		$T_{work}$ (mins)	$T_{load}$ (hrs)
Minimum +10°C	+5°C	300	24
	+5°C to +10°C	150	
+10°C to +15°C	+10°C to +15°C	40	18
+15°C to +20°C	+15°C to +20°C	25	12
+20°C to +25°C	+20°C to +25°C	18	8
+25°C to +30°C	+25°C to +30°C	12	6
+30°C to +35°C	+30°C to +35°C	8	4
+35°C to +40°C	+35°C to +40°C	6	2

Ensure Cartridge Temperature is > 10°C

## EMBEDDED THREADED ROD



- High Tensile Grade 8.8 Chisel End Studs
- Zinc plated & yellow passivated min. 5µm
- Setting Tool Included

- Stainless Steel Grade A4/316
- Chisel End Studs
- Setting Tool Included

- Stainless Steel Grade A4/316
- Chisel End Studs
- Plain Ended



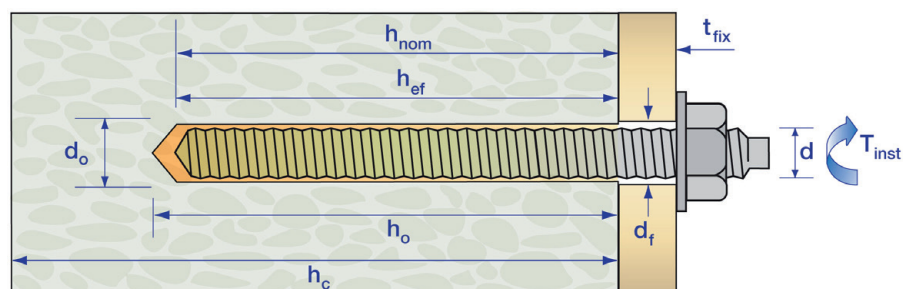


## RANGE AND LOAD DATA

RANGE DATA											
Part Number	Thread Diam (d) mm	Stud Length (L) mm	Drill Hole Diam. (d <sub>o</sub> ) mm	Fixture Clearance Hole (d <sub>f</sub> ) mm	Standard Embedment		Shallow Embedment		Deep Embedment		Tightening Torque (T <sub>inst</sub> ) Nm
					Max. Fix. Thickness (t <sub>fix</sub> ) mm	Min. Hole Depth (h <sub>o</sub> ) mm**	Max. Fix. Thickness (t <sub>fix</sub> ) mm	Min. Hole Depth (h <sub>o</sub> ) mm	Max. Fix. Thickness (t <sub>fix</sub> ) mm	Min. Hole Depth (h <sub>o</sub> ) mm	
High Tensile Grade 8.8 Zinc Plated Yellow Passivated Chisel End Studs											
JSTUD08110HT	M8	110	10	10	18	80	42	65	17	90	10
JSTUD10130HT	M10	130	12	12	25	90	60	65	5	120	20
JSTUD12160HT	M12	160	14	14	34	110	77	75	7	145	40
JSTUD16190HT	M16	190	18	18	45	125	92	85	*	215	80
JSTUD20260HT	M20	260	22	22	55	170	149	95	*	265	150
JSTUD24300HT	M24	300	26	26	55	210	178	101	*	345	200
JSTUD30380HT	M30	380	35	32	55	280	230	125	*	535	300
Stainless Steel Grade A4/316 Chisel End Studs											
JSTUD08110SSA4	M8	110	10	10	18	80	42	65	17	90	10
JSTUD10130SSA4	M10	130	12	12	25	90	60	65	*	125	20
JSTUD12160SSA4	M12	160	14	14	34	110	77	75	*	160	40
JSTUD16190SSA4	M16	190	18	18	45	125	92	85	*	235	80
JSTUD20260SSA4	M20	260	22	22	55	170	149	95	*	310	150
JSTUD24300SSA4	M24	300	26	26	55	210	178	101	*	390	200
Stainless Steel Grade A4/316 Plain Ended and Chisel End Studs											
JSTUD08150PESS	M8	150	10	10	62	80	80	65	NA	NA	10
JSTUD10105PESS	M10	105	12	12	5	90	35	65	NA	NA	20
JSTUD10150PESS		150			50		80				
JSTUD10200PESS		200			100		130				
JSTUD12110PESS	M12	110	14	14	*	110	25	75	NA	NA	40
JSTUD12150PESS		150			27		65				
JSTUD12200PESS		200			77		115				
JSTUD16110PESS	M16	110	18	18	*	125	10	85	2	235	80
JSTUD16250PESS		250			107		150				
JSTUD16350PESS		350			207		250				
JSTUD20200PESS	M20	200	22	22	9	170	85	95	*	310	150
JSTUD20400PESS		400			209		285				74

\* Deep Embedment Depth can be achieved by using suitable threaded rod cut to length:  $L = h_{ef} + (t_{fix} + t_{Nut+Washer})$

\*\* For the Pure Epoxy:  $h_o = h_{ef} + 5$





## GRADE 8.8 ZINC PLATED STUDS - NON-CRACKED CONCRETE

### SHALLOW EMBEDMENT

Grade 8.8 Zinc Plated Studs Performance Data (C20/25 non-cracked concrete)													
Thread Diam (d) mm	Minimum Hole Depth (h <sub>0</sub> ) mm	Minimum Concrete Thickness (h <sub>min</sub> ) mm	Characteristic Resistance kN		Design Resistance kN		Approved Resistance kN		Design Spacing (S) mm		Design Edge Distance (C) mm		
			Tensile (N <sub>Rk</sub> )	Shear (V <sub>Rk</sub> )	Tensile (N <sub>Rd</sub> )	Shear (V <sub>Rd</sub> )	Tensile (N <sub>Ap</sub> )	Shear (V <sub>Ap</sub> )	Tensile	Shear	Tensile	Shear	
8	65	100	21.1	15.0	14.1	12.0	10.1	8.6	200	40	110	130	
10	65	100	23.4	23.0	15.6	18.3	11.1	13.1	240	40	120	200	
12	75	105	29.5	34.0	19.7	27.1	14.1	19.4	270	80	140	300	
16	85	120	36.1	72.7	24.1	48.1	17.2	34.4	310	240	160	490	
20	95	140	43.1	86.2	28.7	57.4	20.5	41.0	340	270	180	530	
24	101	155	47.5	95.0	31.6	63.3	22.6	45.2	360	290	190	550	
30	125	195	66.3	132.7	44.2	88.5	31.6	63.2	470	360	240	660	

### STANDARD EMBEDMENT

Grade 8.8 Zinc Plated Studs Performance Data (C20/25 non-cracked concrete)													
Thread Diam (d) mm	Minimum Hole Depth (h <sub>0</sub> ) mm	Minimum Concrete Thickness (h <sub>min</sub> ) mm	Characteristic Resistance kN		Design Resistance kN		Approved Resistance kN		Design Spacing (S) mm		Design Edge Distance (C) mm		
			Tensile (N <sub>Rk</sub> )	Shear (V <sub>Rk</sub> )	Tensile (N <sub>Rd</sub> )	Shear (V <sub>Rd</sub> )	Tensile (N <sub>Ap</sub> )	Shear (V <sub>Ap</sub> )	Tensile	Shear	Tensile	Shear	
8	80	110	26.4	15.0	17.6	12.0	12.6	8.6	220	40	120	120	
10	90	120	34.7	23.0	23.1	18.3	16.5	13.1	260	50	150	170	
12	110	140	51.5	34.0	34.3	27.1	24.5	19.4	360	60	200	230	
16	125	160	66.4	63.0	44.2	50.3	31.6	35.9	470	60	250	400	
20	170	215	107.0	98.0	71.3	78.3	51.0	55.9	640	90	340	530	
24	210	260	148.2	141.0	98.8	112.7	70.6	80.5	810	110	420	680	
30	280	350	230.3	224.0	153.5	179.1	109.6	127.9	1080	140	560	920	

### DEEP EMBEDMENT

Grade 8.8 Zinc Plated Studs Performance Data (C20/25 non-cracked concrete)													
Thread Diam (d) mm	Minimum Hole Depth (h <sub>0</sub> ) mm	Minimum Concrete Thickness (h <sub>min</sub> ) mm	Characteristic Resistance kN		Design Resistance kN		Approved Resistance kN		Design Spacing (S) mm		Design Edge Distance (C) mm		
			Tensile (N <sub>Rk</sub> )	Shear (V <sub>Rk</sub> )	Tensile (N <sub>Rd</sub> )	Shear (V <sub>Rd</sub> )	Tensile (N <sub>Ap</sub> )	Shear (V <sub>Ap</sub> )	Tensile	Shear	Tensile	Shear	
8	90	120	29.0	15.0	19.3	12.0	13.8	8.6	210	50	110	110	
10	120	150	46.0	23.0	30.6	18.3	21.9	13.1	250	60	150	150	
12	145	175	67.0	34.0	44.6	27.1	31.9	19.4	320	70	210	200	
16	215	250	126.0	63.0	83.9	50.3	59.9	35.9	530	110	320	290	
20	265	310	196.0	98.0	130.6	78.3	93.3	55.9	860	130	470	400	
24	345	395	282.0	141.0	187.9	112.7	134.2	80.5	1050	170	590	490	
30	535	605	449.0	224.0	299.3	179.1	213.8	127.9	960	270	680	570	





## GRADE 8.8 ZINC PLATED STUDS - CRACKED CONCRETE

### SHALLOW EMBEDMENT

Grade 8.8 Zinc Plated Studs Performance Data (C20/25 cracked concrete)												
Thread Diam (d) mm	Minimum Hole Depth (h <sub>0</sub> ) mm	Minimum Concrete Thickness (h <sub>min</sub> ) mm	Characteristic Resistance kN		Design Resistance kN		Approved Resistance kN		Design Spacing (S) mm		Design Edge Distance (C) mm	
			Tensile (N <sub>Rk</sub> )	Shear (V <sub>Rk</sub> )	Tensile (N <sub>Rd</sub> )	Shear (V <sub>Rd</sub> )	Tensile (N <sub>Ap</sub> )	Shear (V <sub>Ap</sub> )	Tensile	Shear	Tensile	Shear
8	65	100	12.0	15.0	8.0	12.0	5.7	8.6	180	80	90	190
10	65	100	15.0	23.0	10.0	18.3	7.1	13.1	180	150	90	290
12	75	105	19.7	39.6	13.1	26.4	9.4	18.9	210	210	110	430
16	85	120	25.7	51.5	17.1	34.4	12.2	24.5	240	240	120	490
20	95	140	30.7	61.4	20.4	40.9	14.6	29.2	270	270	140	540
24	101	155	33.8	67.7	22.5	45.1	16.1	32.2	290	290	150	550
30	125	195	47.3	94.6	31.5	63.0	22.5	45.0	360	360	180	670

### STANDARD EMBEDMENT

Grade 8.8 Zinc Plated Studs Performance Data (C20/25 cracked concrete)												
Thread Diam (d) mm	Minimum Hole Depth (h <sub>0</sub> ) mm	Minimum Concrete Thickness (h <sub>min</sub> ) mm	Characteristic Resistance kN		Design Resistance kN		Approved Resistance kN		Design Spacing (S) mm		Design Edge Distance (C) mm	
			Tensile (N <sub>Rk</sub> )	Shear (V <sub>Rk</sub> )	Tensile (N <sub>Rd</sub> )	Shear (V <sub>Rd</sub> )	Tensile (N <sub>Ap</sub> )	Shear (V <sub>Ap</sub> )	Tensile	Shear	Tensile	Shear
8	80	110	15.1	15.0	10.1	12.0	7.2	8.6	220	40	110	170
10	90	120	21.4	23.0	14.2	18.3	10.2	13.1	260	50	140	250
12	110	140	29.7	34.0	19.8	27.1	14.1	19.4	320	100	160	340
16	125	160	45.2	63.0	30.2	50.3	21.5	35.9	360	240	190	590
20	170	215	72.6	98.0	48.4	78.3	34.6	55.9	500	310	250	790
24	210	260	105.7	141.0	70.4	112.7	50.3	80.5	620	370	320	1010
30	280	350	129.6	259.2	86.4	172.8	61.7	123.4	660	660	330	1320

### DEEP EMBEDMENT

Grade 8.8 Zinc Plated Studs Performance Data (C20/25 cracked concrete)												
Thread Diam (d) mm	Minimum Hole Depth (h <sub>0</sub> ) mm	Minimum Concrete Thickness (h <sub>min</sub> ) mm	Characteristic Resistance kN		Design Resistance kN		Approved Resistance kN		Design Spacing (S) mm		Design Edge Distance (C) mm	
			Tensile (N <sub>Rk</sub> )	Shear (V <sub>Rk</sub> )	Tensile (N <sub>Rd</sub> )	Shear (V <sub>Rd</sub> )	Tensile (N <sub>Ap</sub> )	Shear (V <sub>Ap</sub> )	Tensile	Shear	Tensile	Shear
8	150	180	29.0	15.0	19.3	12.0	13.8	8.6	220	80	110	120
10	190	220	46.0	23.0	30.6	18.3	21.9	13.1	260	100	130	160
12	245	275	67.0	34.0	44.6	27.1	31.9	19.4	310	120	160	200
16	325	360	120.6	63.0	80.4	50.3	57.4	35.9	410	160	210	320
20	405	450	175.9	98.0	117.2	78.3	83.7	55.9	510	200	280	440
24	485	535	253.3	141.0	168.8	112.7	120.6	80.5	590	240	400	570
30	605	675	282.7	224.0	188.4	179.1	134.6	127.9	660	300	330	800





## GRADE A4-70 STAINLESS STEEL STUDS - NON-CRACKED CONCRETE

### SHALLOW EMBEDMENT

Grade A4-70 Stainless Steel Studs Performance Data (C20/25 non-cracked concrete)												
Thread Diam (d) mm	Minimum Hole Depth (h <sub>0</sub> ) mm	Minimum Concrete Thickness (h <sub>min</sub> ) mm	Characteristic Resistance kN		Design Resistance kN		Approved Resistance kN		Design Spacing (S) mm		Design Edge Distance (C) mm	
			Tensile (N <sub>Rk</sub> )	Shear (V <sub>Rk</sub> )	Tensile (N <sub>Rd</sub> )	Shear (V <sub>Rd</sub> )	Tensile (N <sub>Ap</sub> )	Shear (V <sub>Ap</sub> )	Tensile	Shear	Tensile	Shear
8	65	100	26.0	13.0	13.9	8.3	9.9	5.9	190	40	110	90
10	65	100	23.4	20.0	15.6	12.8	11.1	9.1	240	40	120	140
12	75	105	29.5	30.0	19.7	19.2	14.1	13.7	270	50	140	200
16	85	120	36.1	55.0	24.0	35.2	17.1	25.1	310	120	160	340
20	95	140	43.1	86.0	28.7	55.1	20.5	39.4	340	250	180	500
24	101	155	47.5	95.0	31.6	63.3	22.6	45.2	360	290	190	540
30	125	195	66.3	132.7	44.2	88.5	31.6	63.2	470	360	240	650

### STANDARD EMBEDMENT

Grade A4-70 Stainless Steel Studs Performance Data (C20/25 non-cracked concrete)												
Thread Diam (d) mm	Minimum Hole Depth (h <sub>0</sub> ) mm	Minimum Concrete Thickness (h <sub>min</sub> ) mm	Characteristic Resistance kN		Design Resistance kN		Approved Resistance kN		Design Spacing (S) mm		Design Edge Distance (C) mm	
			Tensile (N <sub>Rk</sub> )	Shear (V <sub>Rk</sub> )	Tensile (N <sub>Rd</sub> )	Shear (V <sub>Rd</sub> )	Tensile (N <sub>Ap</sub> )	Shear (V <sub>Ap</sub> )	Tensile	Shear	Tensile	Shear
8	80	110	26.0	13.0	13.9	8.3	9.9	5.9	120	40	80	80
10	90	120	41.0	20.0	21.9	12.8	15.6	9.1	230	50	130	120
12	110	140	59.0	30.0	31.5	19.2	22.5	13.7	300	60	170	160
16	125	160	66.4	55.0	44.2	35.2	31.6	25.1	470	70	240	270
20	170	215	107.0	86.0	71.3	55.1	51.0	39.4	640	90	330	360
24	210	260	148.2	124.0	98.7	79.4	70.5	56.7	810	110	410	460
30	280	350	230.3	196.0	153.5	125.6	109.6	89.7	1080	140	550	600

### DEEP EMBEDMENT

Grade A4-70 Stainless Steel Studs Performance Data (C20/25 non-cracked concrete)												
Thread Diam (d) mm	Minimum Hole Depth (h <sub>0</sub> ) mm	Minimum Concrete Thickness (h <sub>min</sub> ) mm	Characteristic Resistance kN		Design Resistance kN		Approved Resistance kN		Design Spacing (S) mm		Design Edge Distance (C) mm	
			Tensile (N <sub>Rk</sub> )	Shear (V <sub>Rk</sub> )	Tensile (N <sub>Rd</sub> )	Shear (V <sub>Rd</sub> )	Tensile (N <sub>Ap</sub> )	Shear (V <sub>Ap</sub> )	Tensile	Shear	Tensile	Shear
8												*
10												*
12												* Increased embedment depth limited by steel strength
16	235	270	110.0	55.0	58.2	35.2	41.6	25.1	120	120	130	180
20	310	355	172.0	86.0	91.9	55.1	65.6	39.4	160	160	180	230
24	390	440	247.0	124.0	132.0	79.4	94.3	56.7	200	200	240	290
30	535	605	393.0	196.0	210.1	125.6	150.1	89.7	270	270	310	380





## GRADE A4-70 STAINLESS STEEL STUDS - CRACKED CONCRETE

### SHALLOW EMBEDMENT

Grade A4-70 Stainless Steel Studs Performance Data (C20/25 cracked concrete)													
Thread Diam (d) mm	Minimum Hole Depth (h <sub>0</sub> ) mm	Minimum Concrete Thickness (h <sub>min</sub> ) mm	Characteristic Resistance kN		Design Resistance kN		Approved Resistance kN		Design Spacing (S) mm		Design Edge Distance (C) mm		
			Tensile (N <sub>Rk</sub> )	Shear (V <sub>Rk</sub> )	Tensile (N <sub>Rd</sub> )	Shear (V <sub>Rd</sub> )	Tensile (N <sub>Ap</sub> )	Shear (V <sub>Ap</sub> )	Tensile	Shear	Tensile	Shear	
8	65	100	12.0	13.0	8.0	8.3	5.7	5.9	180	40	90	130	
10	65	100	15.0	20.0	10.0	12.8	7.1	9.1	180	50	90	200	
12	75	105	19.7	30.0	13.1	19.2	9.4	13.7	210	100	110	300	
16	85	120	25.7	51.2	17.1	34.3	12.2	24.5	240	240	120	490	
20	95	140	30.7	61.4	20.4	40.9	14.6	29.2	270	270	140	530	
24	101	155	33.8	67.7	22.5	45.1	16.1	32.2	290	290	150	540	
30	125	195	47.3	94.6	31.5	63.0	22.5	45.0	360	360	180	660	

### STANDARD EMBEDMENT

Grade A4-70 Stainless Steel Studs Performance Data (C20/25 cracked concrete)													
Thread Diam (d) mm	Minimum Hole Depth (h <sub>0</sub> ) mm	Minimum Concrete Thickness (h <sub>min</sub> ) mm	Characteristic Resistance kN		Design Resistance kN		Approved Resistance kN		Design Spacing (S) mm		Design Edge Distance (C) mm		
			Tensile (N <sub>Rk</sub> )	Shear (V <sub>Rk</sub> )	Tensile (N <sub>Rd</sub> )	Shear (V <sub>Rd</sub> )	Tensile (N <sub>Ap</sub> )	Shear (V <sub>Ap</sub> )	Tensile	Shear	Tensile	Shear	
8	80	110	15.1	13.0	10.0	8.3	7.2	5.9	220	40	110	120	
10	90	120	21.4	20.0	14.2	12.8	10.2	9.1	260	50	130	170	
12	110	140	29.7	30.0	19.8	19.2	14.1	13.7	320	60	160	230	
16	125	160	45.2	55.0	30.1	35.2	21.5	25.1	360	70	180	400	
20	170	215	72.6	86.0	48.3	55.1	34.5	39.4	500	90	250	530	
24	210	260	105.7	124.0	70.4	79.4	50.3	56.7	620	110	310	680	
30	280	350	129.6	196.0	86.3	125.6	61.7	89.7	660	260	330	910	

### DEEP EMBEDMENT

Grade A4-70 Stainless Steel Studs Performance Data (C20/25 cracked concrete)													
Thread Diam (d) mm	Minimum Hole Depth (h <sub>0</sub> ) mm	Minimum Concrete Thickness (h <sub>min</sub> ) mm	Characteristic Resistance kN		Design Resistance kN		Approved Resistance kN		Design Spacing (S) mm		Design Edge Distance (C) mm		
			Tensile (N <sub>Rk</sub> )	Shear (V <sub>Rk</sub> )	Tensile (N <sub>Rd</sub> )	Shear (V <sub>Rd</sub> )	Tensile (N <sub>Ap</sub> )	Shear (V <sub>Ap</sub> )	Tensile	Shear	Tensile	Shear	
8	110	140	26.0	13.0	13.9	8.3	9.9	5.9	220	60	110	100	
10	140	170	41.0	20.0	21.9	12.8	15.6	9.1	250	70	130	130	
12	175	205	59.0	30.0	31.5	19.2	22.5	13.7	310	90	160	170	
16	240	275	110.0	55.0	58.8	35.2	42.0	25.1	400	120	210	260	
20	320	365	172.0	86.0	91.9	55.1	65.6	39.4	500	160	280	340	
24	385	435	247.0	124.0	132.0	79.4	94.3	56.7	570	190	380	440	
30	605	675	282.7	196.0	188.4	125.6	134.6	89.7	660	300	330	510	





## SUPPLEMENTARY DATA

INFLUENCE OF CONCRETE STRENGTH					
Concrete strength		C20/25	C30/37	C40/50	C50/60
Cylinder	N/mm <sup>2</sup>	20	30	40	50
Cube	N/mm <sup>2</sup>	25	37	50	60
Factor	Non-cracked	1.0	1.04	1.07	1.09
	Cracked	1.0	1.04	1.07	1.09

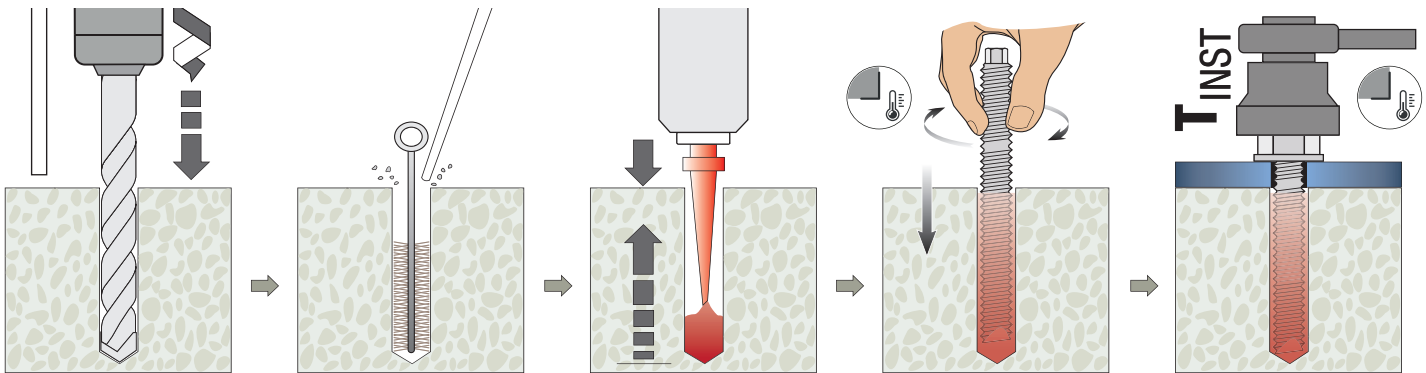
Important Note:

When using concrete factors ensure that loads do not exceed Steel Design Resistance.

STEEL DESIGN RESISTANCE FOR SINGLE ANCHOR								
Load Type	Steel Grade	Threaded Rod Size						
		M8	M10	M12	M16	M20	M24	M30
Tensile (kN)	Grade 8.8	19.3	30.6	44.6	83.9	130.6	187.9	299.3
	Stainless Steel Grade A4-70	13.9	21.9	31.5	58.2	91.9	132.0	210.1
Shear (kN)	Grade 8.8	11.9	18.3	27.1	48.1	78.3	112.7	179.1
	Stainless Steel Grade A4-70	8.3	12.8	19.2	35.2	55.1	79.4	125.6

For variations in structure thickness, reduced spacing and edge calculations download the free **Anchor Calculation Program** from [www.jcpfixings.co.uk](http://www.jcpfixings.co.uk)

## INSTALLATION INSTRUCTIONS



-Drill correct diameter hole to corresponding depth

-Clean hole by brushing, blowing to remove drilling debris and dust:  
2xBlowing  
2xBrushing  
2xBlowing  
2xBrushing  
2xBlowing

-Attach nozzle to cartridge  
-Extrude first part to waste until an even colour is achieved  
-Fill hole 1/3 to 1/2 full starting from the bottom of the hole

-Insert stud into base material by hand using a twisting motion

-Allow resin to cure  
-Attach fixture  
-Tighten with torque wrench to recommended torque

