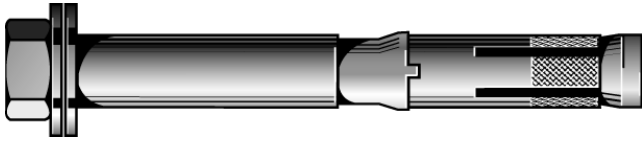




# SPATEC™ SAFETY ANCHORS



**Spatec is a heavy duty anchor ideally suited where security and reliability are paramount.**

#### For fixing to

Concrete and solid brick.

#### Features

- ~ Torque induced setting action provides a “pull down” action, if a gap exists between fixture and concrete, the anchor has the ability to eliminate the gap and retain the preload.
- ~ The heavy duty expansion sleeve provides a large expansion reserve, it is ideal in critical applications including tension zones where cracks may increase hole diameters.
- ~ Heavy duty heat treated washers for strength and easy setting.
- ~ Bolt fixing - low profile head.

#### Applications

Primary construction fixings. Production machinery, heavy plant. Construction props. Lift guide rails. Commercial building facades. Heavy duty and suitable for cyclic loading.

#### Materials

Main components are of high tensile Carbon Steel grade 8.8.

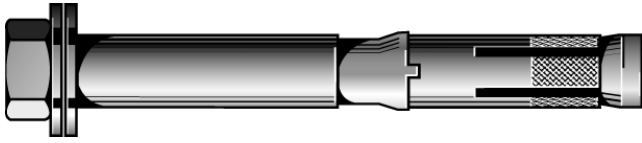
#### Surface Finish

Zinc Cobalt alloy plating with chromate conversion coating.

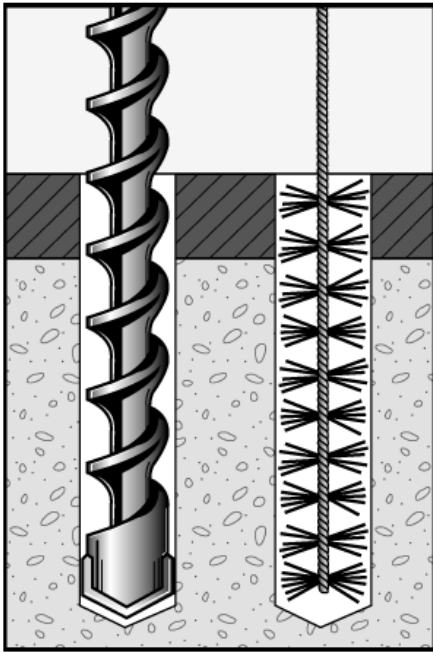




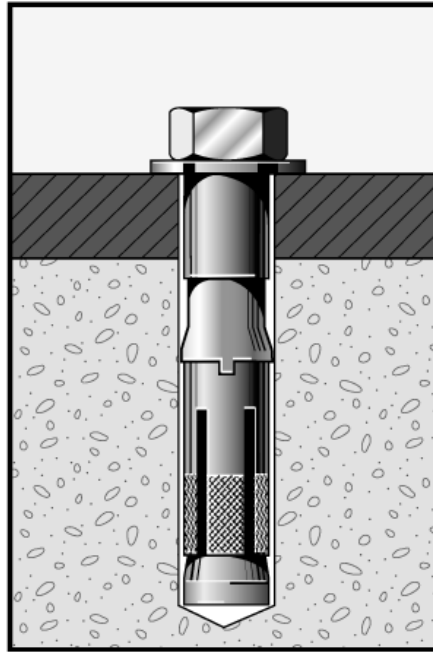
# SPATEC™ SAFETY ANCHORS



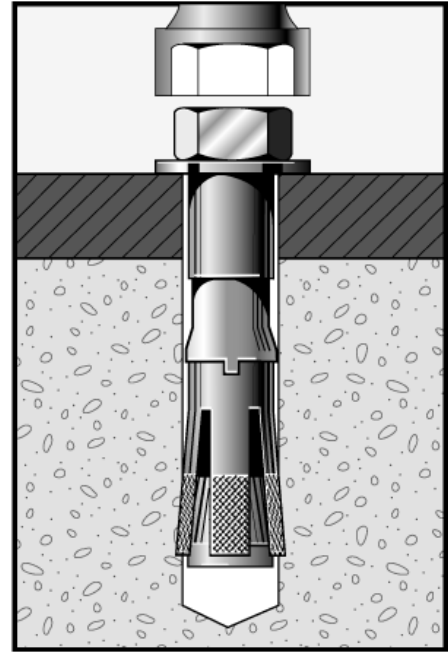
## INSTALLATION



1. Drill recommended sized holes as per technical specifications. Clean hole thoroughly with brush. Remove debris by way of a vacuum pump, compressed air, hand pump, etc.

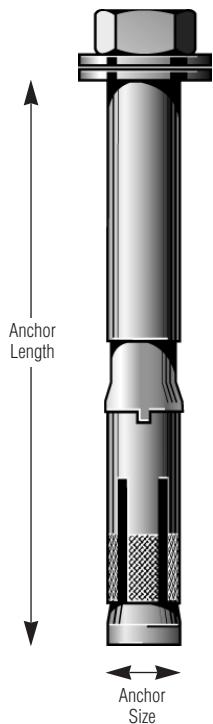
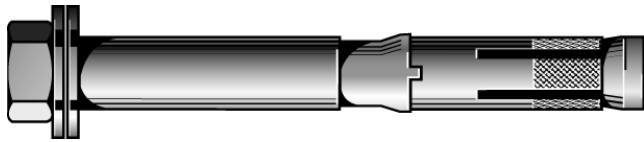


2. After ensuring anchor is assembled correctly, insert anchor through fixture and drive in until washer contacts fixture.



3. Tighten bolt with torque wrench to specified assembly torque.

# SPATEC™ SAFETY ANCHORS



## INSTALLATION AND PERFORMANCE DETAILS

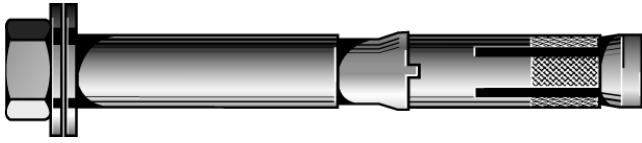
Anchor Size	Hole Ø (mm)	Installation Embedded Depth (mm)	Fixture Clearance Ø (mm)	Tight Torque (Nm)	Edge Dist.Min. (mm)	Structural Limits		Rec. Working Load (kN) See Safety Factors p.11 & 12					
						Anchor Spacing Dist. Min. (mm)	Structural Thickness Min. (mm)	20MPa		30MPa		40MPa	
								Tensile	•Shear	Tensile	•Shear	Tensile	•Shear
10	15	50	17	30	55	115	80	4.3	15.0	5.3	15.0	6.1	15.0
	15	88	17	30	115	230	160	12.2	22.7	15.0	22.7	16.9	22.7
	15	100	17	30	130	265	180	15.2	22.7	16.9	22.7	16.9	22.7
12	18	65	21	50	80	155	110	7.2	21.3	8.9	21.3	10.2	21.3
	18	99	21	50	130	260	180	15.4	32.2	18.9	32.2	21.8	32.2
	18	130	21	50	175	350	240	24.4	32.2	24.5	32.2	24.5	32.2
16	24	70	27	130	80	160	110	8.2	38.4	10.1	38.4	11.6	38.4
	24	124	27	130	160	325	220	23.3	38.4	28.5	38.4	32.9	38.4
	24	156	27	130	210	420	280	34.4	59.5	42.1	59.5	45.7	59.5
20	28	104	32	260	130	255	170	17.2	62.7	21.1	62.7	24.3	62.7
	28	159	32	260	210	420	280	36.3	88.1	44.5	88.1	51.4	88.1
	28	204	32	260	280	555	370	55.2	88.1	67.6	88.1	75.7	88.1
24	32	115	36	450	145	285	190	21.3	90.8	26.0	90.8	30.1	90.8
	32	167	36	450	220	440	300	40.9	120.1	50.1	120.1	57.9	120.1
	32	215	36	450	295	585	390	62.5	120.1	76.6	120.1	88.4	120.1

• For shear loads acting toward the edge(s) of the concrete, the above edge distances and spacings are not applicable, please consult Ramset Technical Consultant. This table should be read in conjunction with the Ramset Engineers Design Manual.



Date of Issue: 9/98

# SPATEC™ SAFETY ANCHORS



## ANCHOR DETAILS

Anchor Size	Thread Size	Anchor Length	Nom Hole Depth	Nom Fixture Thickness	Quantity Per Box	Order No.
10	M10	108	95	20	20	SA10108 (170002)
	M10	128	95	40	20	SA10128 (170026)
12	M12	98	91	13	10	SA12098 (170030)
	M12	124	110	25	10	SA12124 (170040)
	M12	153	110	50	10	SA12153 (170064)
16	M16	149	135	25	10	SA16149 (170088)
	M16	167	135	50	10	SA16167 (170101)
20	M20	189	170	30	6	SA20189 (170125)
	M20	219	170	60	6	SA20219 (170149)
24	M24	197	190	30	4	SA24197 (170163)
	M24	236	190	60	4	SA24236 (170187)