



WELL VOID TUBES

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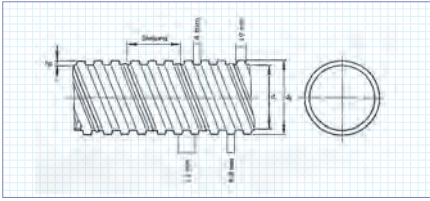
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# WELL VOID TUBE ROUND PROFILE

Please contact CFS technical support for shear resistance calculation.

- Mild steel or galvanised finish
- Available in lengths of 3 or 4 metres
- Length tolerance  $\pm 5$  mm up to 250 mm internal diameter
- Low manufacturing costs
- Low weight
- High mechanical resistance
- Profiled inside and out
- High shear strength
- Compliance with the individual requirements of the application or the construction site



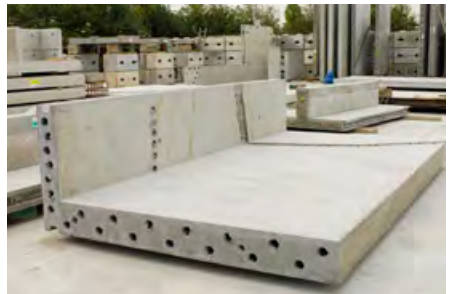
Part No	Internal Diameter	External Diameter	Tolerance	Profiling Depth	Weight	
	d1	d2		hp	kg/m	
Type 7111	CFS-DN-50	50	56	$\pm 0.8$	3.0	0.34
	CFS-DN-60	60	67	$\pm 0.8$	3.5	0.46
	CFS-DN-65	65	72	$\pm 0.8$	3.5	0.56
	CFS-DN-70	70	77	$\pm 0.8$	3.5	0.57
	CFS-DN-80	80	87	$\pm 0.8$	3.5	0.77
	CFS-DN-85	85	92	$\pm 0.8$	3.5	0.80
Type 7511	CFS-DN-90	90	97	$\pm 0.8$	3.5	0.95
	CFS-DN-100	100	108	$\pm 1.0$	3.8	0.85
	CFS-DN-125	125	133	$\pm 1.0$	3.8	1.11
	CFS-DN-150	150	158	$\pm 1.0$	3.8	1.28
	CFS-DN-180	180	188	$\pm 1.0$	3.6	1.55
	CFS-DN-200	200	208	$\pm 1.0$	3.8	1.70
Type 7631	CFS-DN-250	250	260	$\pm 2.0$	4.8	2.24
	CFS-DN-290	290	300	$\pm 2.0$	4.8	2.50
	CFS-DN-300	300	310	$\pm 2.0$	4.8	2.68
	CFS-DN-310	310	320	$\pm 2.0$	4.8	2.80
	CFS-DN-350	350	360	$\pm 2.0$	4.8	3.11
	CFS-DN-400	400	410	$\pm 2.0$	4.8	3.55

Part No	Internal Diameter	External Diameter	Tolerance	Profiling Depth	Weight	
	d1	d2		hp	kg/m	
Type 7631	CFS-DN-450	434	450	$\pm 2.5$	8.0	5.59
	CFS-DN-500	484	500	$\pm 2.5$	8.0	6.22
	CFS-DN-550	534	550	$\pm 2.5$	8.0	6.96
	CFS-DN-600	584	600	$\pm 2.5$	8.0	7.49
	CFS-DN-650	634	650	$\pm 2.5$	8.0	8.12
	CFS-DN-700	685	700	$\pm 2.5$	8.0	10.99
	CFS-DN-750	735	756	$\pm 2.5$	8.0	11.78
	CFS-DN-800	785	800	$\pm 2.5$	8.0	12.58
	CFS-DN-850	835	850	$\pm 2.5$	8.0	13.37
	CFS-DN-900	885	900	$\pm 2.5$	8.0	14.17
	CFS-DN-950	935	950	$\pm 2.5$	8.0	14.96
	CFS-DN-1000	985	1000	$\pm 2.5$	8.0	20.16
	CFS-DN-1050	1035	1050	$\pm 3.5$	8.0	22.30
	CFS-DN-1100	1086	1108	$\pm 3.5$	8.0	24.36
	CFS-DN-1150	1130	1158	$\pm 3.5$	8.0	25.48
CFS-DN-1250	1230	1250	$\pm 3.5$	8.0	27.70	
CFS-DN-1350	1330	1350	$\pm 4.0$	8.0	30.20	
CFS-DN-1500	1480	1500	$\pm 4.0$	8.0	33.28	

## Pull-Out Resistance

The resistance to pull out of these well-void tubes should be considered over the length of the tube within to the punching cone of the anchor that is cast into the tube.

Part No	Pull-Out Resistance
	kN per 100mm length of tube
CFS-WVR-50	21
CFS-WVR-60	20
CFS-WVR-70	22
CFS-WVR-80	25
CFS-WVR-100	31
CFS-WVR-125	39
CFS-WVR-150	47
CFS-WVR-200	63



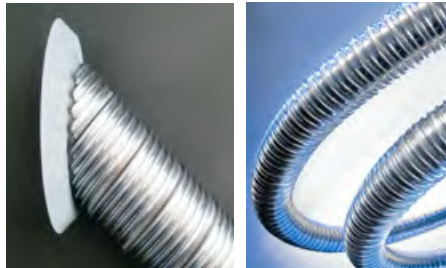
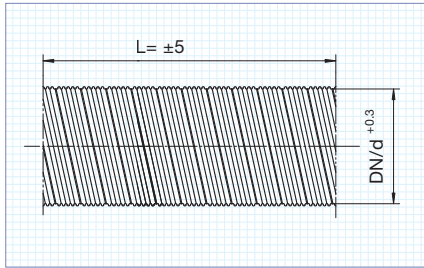
# FLEXIBLE BENDABLE TUBE

CFS tube can be bent into complex shapes for use in concrete elements and the cross section remains unchanged.

Cover plates made of steel or plastic are available for almost all dimensions.

**Designs:** Special materials or other dimensions upon request

**Material:** Mild Steel



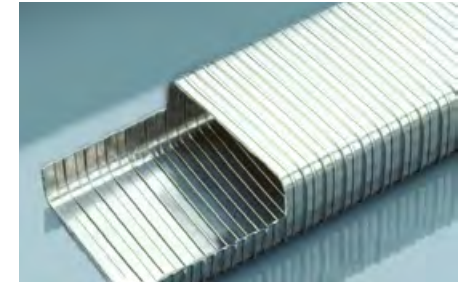
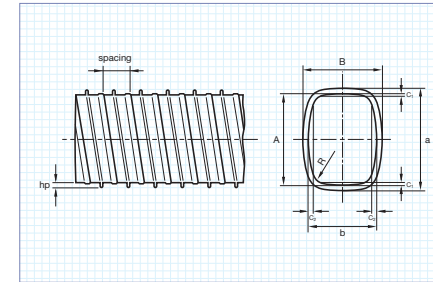
Part No	Internal Diameter d1	External Diameter d2	External Diameter d2	Profiling Depth	Weight kg/m
CFS-RFN-30	30	37	3.5	21	0.25
CFS-RFN-35	35	42	3.5	21	0.30
CFS-RFN-40	40	47	3.5	21	0.35
CFS-RFN-45	45	52	3.5	21	0.40
CFS-RFN-50	50	57	3.5	21	0.45
CFS-RFN-55	55	62	3.5	21	0.52
CFS-RFN-60	60	67	3.5	21	0.55
CFS-RFN-65	65	72	3.5	21	0.66
CFS-RFN-70	70	77	3.5	21	0.77
CFS-RFN-75	75	82	3.5	21	0.83
CFS-RFN-80	80	87	3.5	21	0.88
CFS-RFN-85	85	92	3.5	21	0.94
CFS-RFN-90	90	97	3.5	21	0.99
CFS-RFN-95	95	102	3.5	21	1.05
CFS-RFN-100	100	107	3.5	21	1.10
CFS-RFN-105	105	112	3.5	21	1.16
CFS-RFN-110	110	117	3.5	21	1.21
CFS-RFN-115	115	122	3.5	21	1.27
CFS-RFN-120	120	127	3.5	21	1.32
CFS-RFN-125	125	132	3.5	21	1.38
CFS-RFN-130	130	137	3.5	21	1.43
CFS-RFN-135	135	142	3.5	21	1.49

# WELL VOID TUBE RECTANGULAR PROFILE

- Mild steel or galvanised finish
- Available in lengths of 3 or 4 metres
- Length tolerance  $\pm 5$ mm up to 250mm internal diameter

engineering. The wide range of dimensions and cross-sections allow for optimum application. Mainly with only limited concrete cover of elements or whenever passages or anchor points are specified, the square cavity pipe provides the required flexibility with the additional benefit of an increased tolerance range.

The cavity pipe with square or rectangular cross section is mainly used in prefabricated concrete



Part No	Width x Depth		Tolerance	R ~	Profile Depth hp	Weight kg/m $\pm 10\%$
	Inner A/B	Outer a/b				
CFS-WW-32-32	32 X 32	40x40	$\pm 0.7$	7	3.5	0.26
CFS-WW-41-41	41 x41	49 x49	$\pm 0.7$	7	3.5	0.50
CFS-WW-50-50	49 x49	57 X 57	$\pm 0.7$	7	3.5	0.55
CFS-WW-60-60	60 X 60	68 X 68	$\pm 0.7$	7	3.5	0.76
CFS-WW-57-28	57 X 28	65 X 36	$\pm 0.7$	7	3.5	0.54
CFS-WW-70-70	70 X 70	78 X 78	$\pm 0.7$	7	3.5	0.88
CFS-WW-70-50	70 X 50	78 X 58	$\pm 0.7$	7	3.5	0.74
CFS-WW-70-35	70 X 35	78 x43	$\pm 0.7$	7	3.5	0.66
CFS-WW-80-80	80 X 80	88 X 88	$\pm 0.7$	7	3.5	1.01
CFS-WW-77-42	77 x42	85 X 50	$\pm 0.7$	7	3.5	0.86
CFS-WW-90-60	90 X 60	98 X 68	$\pm 0.7$	7	3.5	1.02
CFS-WW-100-10	100 X 100	108 X 108	$\pm 1.0$	8	3.5	1.15
CFS-WW-100-63	100 X 63	108 X 71	$\pm 1.0$	8	3.5	1.11
CFS-WW-102-52	102 X 52	110 X 60	$\pm 1.0$	8	3.5	0.97
CFS-WW-130-130	130 X 130	138 X 138	$\pm 1.0$	8	3.5	1.65
CFS-WW-130-60	130x60	138 X 68	$\pm 1.0$	8	3.5	1.53
CFS-WW-138-138	138 X 138	146 X 146	$\pm 1.0$	8	3.5	1.70
CFS-WW-140-80	140 X 80	148 X 88	$\pm 1.0$	8	3.5	1.38
CFS-WW-160-100	160 X 100	168 X 108	$\pm 1.0$	8	3.5	1.65
CFS-WW-160-80	160 X 80	168 X 88	$\pm 1.0$	8	3.5	1.51
CFS-WW-200-200	200 X 200	208 X 208	$\pm 1.0$	8	3.5	2.35
CFS-WW-200-150	200 X 150	208 X 158	$\pm 1.0$	8	3.5	1.85
CFS-WW-200-100	200 X 100	208 X 108	$\pm 1.0$	8	3.5	1.60
CFS-WW-230-76	230 X 76	238 X 84	$\pm 1.0$	8	3.5	1.94

# CORRUGATED RECTANGULAR TUBES FOR PRECAST CONCRETE ELEMENTS

The pipes are manufactured from steel strips with corrugated profile in mild steel, optionally galvanized steel, special materials are available on request.

Hydra rectangular tubes have been specifically designed for precast concrete elements. They combine the same advantages as in the classic round well void tubes and have bigger cross-section sizes.

## Advantages

- High shearing strength
- Extraction forces calculable as in round tubes
- Can also be used in tight dimensional tolerances and limited space
- Easy installation
- Execution in bright steel, other materials on request
- Variable in length via plug system

## Application

Wherever precast connections, the bent rectangular tube can be delivered prepared according to customer requirements.

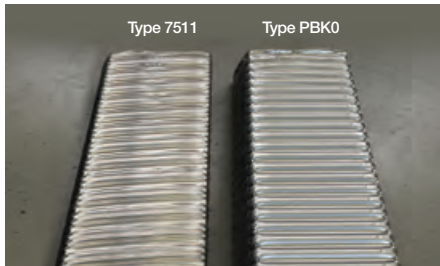
## Dimensions

Possible cross-sections of rigid and curved rectangular tube from 60 x 140mm to 100 x 200mm. Other dimensions available on request.

Maximum tube length without plug-in system is 2m,

Cross tolerance  $\pm 5$ mm,

Length tolerance  $\pm 10$ mm.



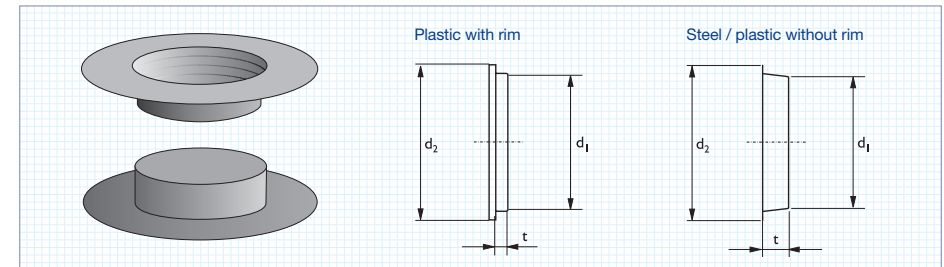
**Type HF 7511** dimensions vary (60x140) – (220x100).

For long precast concrete elements (3m or longer cast vertically) well void tube must be internally braced for the lower 1 metre to resist crushing.

**Type PBK0** dimensions vary (60x140) – (220x100). Is stronger than type HF 7511 and do not require stiffening at the bottom.



# SEAL CAPS FOR WELL VOID TUBE



Part No	Steel			Plastic - Without Rim			Plastic - With Rim		
	Internal Diameter	External Diameter	Depth	Internal Diameter	External Diameter	Depth	Internal Diameter	External Diameter	Depth
	d1	d2	t	d1	d2	t	d1	d2	t
CFS-WVC-21	-	-	-	21.0	24.5	11.0	-	-	-
CFS-WVC-30	-	-	-	30.0	33.0	10.0	-	-	-
CFS-WVC-40	-	-	-	40.0	45.0	10.5	38	88	15.0
CFS-WVC-50	-	-	-	51.0	56.0	11.0	48	102	15.0
CFS-WVC-55	55	64	8	56.0	63.0	12.0	-	-	-
CFS-WVC-60	60	69	8	61.0	67.5	11.0	-	-	-
CFS-WVC-65	64	74	8	66.0	71.0	12.0	62	122	20.0
CFS-WVC-70	71	77	5	71.0	77.0	11.0	-	-	-
CFS-WVC-75	-	-	-	76.0	80.0	10.5	-	-	-
CFS-WVC-80	79	90	8	81.0	85.0	9.5	77	138	20.0
CFS-WVC-85	84	90	9	86.0	90.0	9.5	-	-	-
CFS-WVC-90	88	99	9	90.0	95.5	9.5	-	-	-
CFS-WVC-100	99	105	11	98.5	102.5	10.0	96	162	20.0
CFS-WVC-120	119	130	11	-	-	-	-	-	-
CFS-WVC-125	124	129	10	123.0	127.0	15.0	122	188	20.0
CFS-WVC-150	149	155	17	147.0	153.0	15.0	147	213	20.0
CFS-WVC-200	200	210	15	199.0	204.0	20.0	193	268	25.0
CFS-WVC-250	250	265	10	249.0	254.0	20.0	247	340	25.0
CFS-WVC-290	290	310	17	-	-	-	-	-	-
CFS-WVC-300	300	320	17	298.0	314.0	23.0	303	408	22.0
CFS-WVC-310	-	-	-	-	-	-	-	-	-
CFS-WVC-350	349	363	18	-	-	-	355	455	21.0
CFS-WVC-400	384	400	19	-	-	-	406	510	32.0
CFS-WVC-450	434	450	19	-	-	-	-	-	-
CFS-WVC-500	483	500	20	-	-	-	-	-	-
CFS-WVC-550	535	550	20	-	-	-	-	-	-



