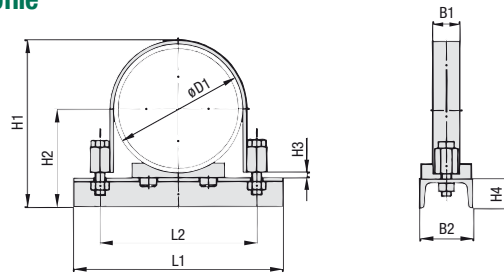
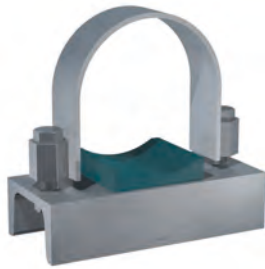


**Flat Steel U-Bolt with Plastic Pipe Saddle (Short) and U-Profile**  
**Type FB+RUK (To be used as Fixed Point Clamps only)**



**Flat Steel U-Bolt (type FB) with Plastic Pipe Saddle (type RUK), U-Profile and Hexagon Head Bolts**

**Order Codes**

**Clamp Assembly \*FB+RUK\*PP\*48,3\*W1**

One clamp assembly is consisting of one Flat Steel U-Bolt (type FB), one Plastic Pipe Saddle (type RUK), one U-Profile (to DIN 1026) with two Nuts (to DIN EN ISO 4032) and two Hexagon Head Bolts (to DIN EN ISO 4014 / 4017).

- \* Clamp Assembly (as listed above) **FB+RUK**
- \* Material of Pipe Saddle (see below) **PP**
- \* Exact outside diameter Ø D1 (mm) **48,3**
- \* Material code Carbon Steel, untreated **W1**  
 Carbon Steel, zinc-plated (Fe/Zn 8 C) **W3**  
 Stainless Steel V4A **W5**  
 1.4401 / 1.4571 (AISI 316 / 316 Ti) **W5**  
 Carbon Steel, Plastic coated **W6**

Please note: All items are supplied non-assembled.

**Standard Materials for Plastic Pipe Saddles**



**Polypropylene**  
 Colour: Green  
 Material code: **PP**



**Polyamide**  
 Colour: Black  
 Material code: **PA**

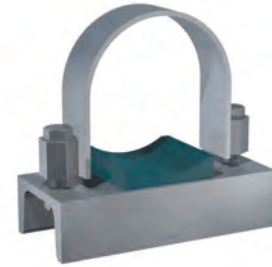
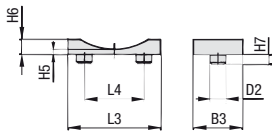
See page A86 for material properties and technical information.

Alternative materials are available upon request.  
 Please consult STAUFF for further information.

Diameter Nominal DN	Outside Diameter Pipe / Tube Ø D1 (mm) (in)		Nominal Bore Pipe (in)	Dimensions (mm/in)						U-Profile (DIN 1026) B2 x H4
	Flat Steel U-Bolt (Type FB)			L1	L2	H1	H2	H3	B1	
40	48,3	1.93	1-1/2	100	76	95	67	5	20 x 3	50 x 38
				3.94	2.99	3.74	2.64	.20	.78 x .12	1.97 x 1.50
50	57	2.28	2	115	85	103	71,5	5	20 x 3	50 x 38
				4.53	3.35	4.06	2.81	.20	.78 x .12	1.97 x 1.50
65	76,1	3.04	2-1/2	132	104	122	81	5	20 x 3	50 x 38
				5.20	4.09	4.80	3.19	.20	.78 x .12	1.97 x 1.50
80	88,9	3.56	3	160	122	146	97,5	8	40 x 4	80 x 45
				6.30	4.80	5.75	3.84	.31	1.57 x .16	3.15 x 1.77
100	108	4.32	4	170	140	165	107	8	40 x 4	80 x 45
				6.69	5.51	6.50	4.21	.31	1.57 x .16	3.15 x 1.77
125	133	5.32	5	210	165	190	119,5	8	40 x 4	80 x 45
				8.27	6.50	7.48	4.70	.31	1.57 x .16	3.15 x 1.77
150	159	6.36	6	210	172	197	123	8	40 x 4	80 x 45
				8.27	6.77	7.76	4.84	.31	1.57 x .16	3.15 x 1.77
175	168,3	6.73	6	265	201	220	132,5	8	40 x 6	80 x 45
				1.43	7.91	8.66	5.22	.31	1.57 x .24	3.15 x 1.77
200	193,7	7.75	8	275	211	230	137	8	40 x 6	80 x 45
				1.83	8.31	9.06	5.39	.31	1.57 x .24	3.15 x 1.77
250	216	8.64	10	305	236	255	150	8	40 x 6	80 x 45
				12.01	9.29	1.04	5.91	.31	1.57 x .24	3.15 x 1.77
300	219,1	8.76	12	320	260	277	161	8	40 x 6	80 x 45
				12.60	1.24	1.91	6.34	.31	1.57 x .24	3.15 x 1.77
350	267	10.68	14	320	261	280	162,5	8	40 x 6	80 x 45
				12.60	1.28	11.02	6.40	.31	1.57 x .24	3.15 x 1.77
400	273	10.92	16	380	325	328	186,5	8	40 x 8	80 x 45
				14.96	12.80	12.91	7.34	.31	1.57 x .31	3.15 x 1.77
450	318	12.72	18	385	330	334	189,5	8	40 x 8	80 x 45
				15.16	12.99	13.15	7.46	.31	1.57 x .31	3.15 x 1.77
500	323,9	12.96	20	440	375	382	212	8	40 x 8	80 x 45
				17.32	14.76	15.04	8.35	.31	1.57 x .31	3.15 x 1.77
550	355,6	14.22	22	450	382	390	215	8	40 x 8	80 x 45
				17.72	15.04	15.35	8.46	.31	1.57 x .31	3.15 x 1.77
600	368	14.72	24	480	420	421	235	12	60 x 8	100 x 50
				18.90	16.54	16.57	9.25	.47	2.36 x .31	3.94 x 1.97
650	406,4	16.26	26	490	430	434	242	12	60 x 8	100 x 50
				19.29	16.93	17.09	9.53	.47	2.36 x .31	3.94 x 1.97
700	419	16.76	28	550	470	472	261	12	60 x 8	100 x 50
				21.65	18.50	18.58	1.28	.47	2.36 x .31	3.94 x 1.97
750	457	18.28	30	550	482	485	267,5	12	60 x 8	100 x 50
				21.65	18.98	19.09	1.53	.47	2.36 x .31	3.94 x 1.97
800	508	20.32	32	585	520	523	286,5	12	60 x 8	100 x 50
				23.03	2.47	2.59	11.28	.47	2.36 x .31	3.94 x 1.97
850	521	20.84	34	630	570	574	312	12	60 x 8	100 x 50
				24.80	22.44	22.60	12.28	.47	2.36 x .31	3.94 x 1.97
900	521	20.84	36	640	585	587	319	12	60 x 8	100 x 50
				25.20	23.03	23.11	12.56	.47	2.36 x .31	3.94 x 1.97

Alternative materials and surface finishings are available upon request. Consult STAUFF for further information.

### Flat Steel U-Bolt with Plastic Pipe Saddle (Short) and U-Profile (To be used as Fixed Point Clamps only) Type FB+RUK


**Plastic Pipe Saddle (type RUK)**

(For size DN 40, dimension L4 is staggered by 90°)

**Hexagon Head Bolt AS**

(according to DIN EN ISO 4014 / 4017)

Diameter Nominal DN	Outside Diameter Pipe / Tube Ø D1		Nominal Bore Pipe (in)	Dimensions (mm/in)							Hexagon Head Bolt (DIN EN ISO 4014 / 4017) Thread G x L
	(mm)	(in)		Plastic Pipe Saddle (type RUK)							
				L3	L4	B3	D2	H5	H6	H7	
40	48,3	1.93	1-1/2	24	25	35	8	5	8	5	M10 x 40
				.94	.98	1.38	.31	.20	.31	.20	
50	57	2.28	2	38	25	50	10	5	10	6	M10 x 40
	60,3	2.41		1.50	.98	1.97	.39	.20	.39	.24	
65	76,1	3.04	2-1/2	38	25	50	10	5	10	6	M10 x 40
				1.50	.98	1.97	.39	.20	.39	.24	
80	88,9	3.56	3	75	40	70	15	8	17	10	M 12 x 55
				2.95	1.57	2.76	.59	.31	.67	.39	
100	108	4.32	4	75	40	70	15	8	17	10	M 12 x 55
	114,3	4.57		2.95	1.57	2.76	.59	.31	.67	.39	
125	133	5.32	5	75	40	70	15	8	17	10	M 12 x 55
				139,7	5.59	2.95	1.57	2.76	.59	.31	
150	159	6.36	6	140	90	75	25	8	26	10	M 16 x 75
	168,3	6.73		5.51	3.54	2.95	.98	.31	1.02	.39	
175	193,7	7.75	8	140	90	75	25	8	26	10	M 16 x 75
				5.51	3.54	2.95	.98	.31	1.02	.39	
200	216	8.64	8	140	90	75	25	8	26	10	M 16 x 75
	219,1	8.76		5.51	3.54	2.95	.98	.31	1.02	.39	
250	267	10.68	10	140	90	75	25	8	26	10	M 20 x 80
	273	10.92		5.51	3.54	2.95	.98	.31	1.02	.39	
300	318	12.72	12	220	150	75	30	8	32	10	M 20 x 80
	323,9	12.96		8.66	5.91	2.95	1.18	.31	1.26	.39	
350	355,6	14.22	14	220	150	75	30	8	32	10	M 24 x 100
	368	14.72		8.66	5.91	2.95	1.18	.31	1.26	.39	
400	406,4	16.26	16	220	150	75	30	8	32	10	M 24 x 100
	419	16.76		8.66	5.91	2.95	1.18	.31	1.26	.39	
500	457	18.28	18	220	150	75	30	8	32	10	M 24 x 100
	508	20.32		8.66	5.91	2.95	1.18	.31	1.26	.39	
	521	20.84		220	150	75	30	8	32	10	M 24 x 100
				8.66	5.91	2.95	1.18	.31	1.26	.39	

#### Order Codes

##### only Flat Steel U-Bolt

**\*FB\*A 48,3\*W1**

- \* Flat Steel U-Bolt **FB**
- \* Exact outside diameter Ø D1 (mm) **A 48,3**
- \* Material code Carbon Steel, untreated **W1**
- Carbon Steel, zinc-plated (Fe/Zn 8 C) **W3**
- Stainless Steel V4A **W5**
- 1.4401 / 1.4571 (AISI 316 / 316 Ti)
- Carbon Steel, Plastic coated **W6**

##### only Plastic Pipe Saddle

**\*RUK\*48,3\*PP**

- \* Plastic Pipe Saddle (Short) **RUK**
- \* Exact outside diameter Ø D1 (mm) **48,3**
- \* Material of Pipe Saddle (see below) **PP**

Please note: All items are supplied non-assembled.

#### Standard Materials for Plastic Pipe Saddles


**Polypropylene**  
 Colour: Green  
 Material code: **PP**

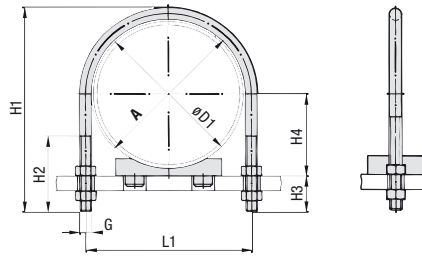
**Polyamide**  
 Colour: Black  
 Material code: **PA**

See page A86 for material properties and technical information.

 Alternative materials are available upon request.  
 Please consult STAUFF for further information.

Alternative materials and surface finishings are available upon request. Consult STAUFF for further information.

**Round Steel U-Bolt with Plastic Pipe Saddle (Short)  
Type RB+RUK**



Round Steel U-Bolt (type RB) with Plastic Pipe Saddle (type RUK)

**Order Codes**

**Clamp Assembly \*RB\*W1\*RUK\*PP\*48,3**

One clamp assembly is consisting of one Round Steel U-Bolt (type RB), one Plastic Pipe Saddle (type RUK) and four Nuts (to DIN EN ISO 4032).

- \* Round Steel U-Bolt **RB**
- \* Material code Carbon Steel, untreated **W1**
- Stainless Steel V4A **W5**
- 1.4401 / 1.4571 (AISI 316 / 316 Ti)
- Carbon Steel, Plastic coated **W6**
- Carbon Steel, zinc-plated and thick-film passivated **W66**
- \* Plastic Pipe Saddle (Short) **RUK/**
- \* Material of Pipe Saddle (see below) **PP**
- \* Exact outside diameter Ø D1 (mm) **48,3**

Please note: All items are supplied non-assembled.

**Standard Materials for Plastic Pipe Saddles**



**Polypropylene**  
Colour: Green  
Material code: **PP**

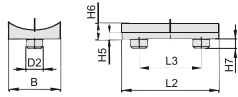
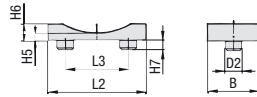


**Polyamide**  
Colour: Black  
Material code: **PA**

See page A86 for material properties and technical information.

Alternative materials are available upon request.  
Please consult STAUFF for further information.

Diameter Nominal DN	Outside Diameter Pipe / Tube Ø D1		Nominal Bore Pipe (in)	Dimensions (mm/in)						
	(mm)	(in)		Round Steel U-Bolt (Type RB)						Thread G
20	25	.98	3/4	30	40	73,5	41	30	17,5	
	26,9	1.06			1.57	2.89	1.61	1.18	.69	
25	30	1.18	1	38	48	81	48	30	20	M10
	33,7	1.33			1.89	3.19	1.89	1.18	.79	
32	38	1.50	1-1/4	46	56	89	48	30	24	M10
	42,4	1.69			2.20	3.50	1.89	1.18	1.03	
40	44,5	1.76	1-1/2	52	62	100	55	35	27,2	M10
	48,3	1.90			2.44	3.94	2.17	1.38	1.07	
50	57	2.28	2	64	76	118	63	39	33,5	M12
	60,3	2.41			2.99	4.65	2.48	1.54	1.32	
65	76,1	3.04	2-1/2	82	94	135	77	39	43	M12
	80	3.56			3.23	3.70	5.31	3.03	1.54	
100	108	4.32	4	120	136	190	105	49	62	M12
	114,3	4.57			4.72	5.35	7.48	4.13	1.93	
125	133	5.32	5	148	164	217	105	49	74,5	M16
	139,7	5.59			5.83	6.46	8.54	4.13	1.93	
150	159	6.36	6	176	192	247	105	51	87,5	M16
	168,3	6.73			6.93	7.56	9.72	4.13	2.01	
175	193,7	7.75	8	202	218	273	105	51	105	M16
	200	8.64			7.96	8.58	10.75	4.13	2.01	
200	216	8.64	8	228	248	311	125	59	116	M20
	219,1	8.76			8.98	9.76	12.24	4.92	2.32	
250	267	10.68	10	282	302	364	125	59	141,5	M20
	273	10.92			11.10	11.89	14.33	4.92	2.32	
300	318	12.72	12	332	352	418	125	62	167	M20
	323,9	12.96			13.07	13.86	16.46	4.92	2.44	
350	355,6	14.22	14	378	402	475	145	70	186	M24
	368	14.72			14.88	15.83	18.70	5.71	2.76	
400	406,4	16.26	16	428	452	526	145	70	211	M24
	419	16.76			16.85	17.80	20.71	5.71	2.76	
500	508	20.32	20	530	554	627	145	70	262	M24
	521	20.84			20.87	21.81	24.69	5.71	2.76	

Round Steel U-Bolt with Plastic Pipe Saddle (Short)  
 Type RB+RUK

 Plastic Pipe Saddle (type RUK)  
 (For sizes DN 20 to DN 40)

 Plastic Pipe Saddle (type RUK)  
 (From size DN 50 on)


Diameter Nominal DN	Outside Diameter Pipe / Tube Ø D1 (mm) (in)		Nominal Bore Pipe (in)	Dimensions (mm/in) Plastic Pipe Saddle (Type RUK)							
	A	L2		L3	B	H5	H6	H7	D2		
20	25	.98		30	35	25	24	5	8	5	8
	26,9	1.06	3/4	1.18	1.38	.98	.94	.20	.31	.20	.31
25	30	1.18		38	35	25	24	5	8	5	8
	33,7	1.33	1	1.50	1.38	.98	.94	.20	.31	.20	.31
32	38	1.50		46	35	25	24	5	8	5	8
	42,4	1.69	1-1/4	1.81	1.38	.98	.94	.20	.31	.20	.31
40	44,5	1.76		52	35	25	24	5	8	5	8
	48,3	1.90	1-1/2	2.05	1.38	.98	.94	.20	.31	.20	.31
50	57	2.28		64	38	25	50	5	10	6	10
	60,3	2.41	2	2.52	1.50	.98	1.97	.20	.39	.24	.39
65	76,1	3.04	2-1/2	82	38	25	50	5	10	6	10
				3.23	1.50	.98	1.97	.20	.39	.24	.39
80	88,9	3.56	3	94	75	40	70	8	17	10	15
				3.70	2.95	1.57	2.76	.31	.67	.39	.59
100	108	4.32		120	75	40	70	8	17	10	15
	114,3	4.57	4	4.72	2.95	1.57	2.76	.31	.67	.39	.59
125	133	5.32		148	75	40	70	8	17	10	15
	139,7	5.59	5	5.83	2.95	1.57	2.76	.31	.67	.39	.59
150	159	6.36		176	140	90	75	8	26	10	25
	168,3	6.73	6	6.93	5.51	3.54	2.95	.31	1.02	.39	.98
175	193,7	7.75		202	140	90	75	8	26	10	25
				7.96	5.51	3.54	2.95	.31	1.02	.39	.98
200	216	8.64		228	140	90	75	8	26	10	25
	219,1	8.76	8	8.98	5.51	3.54	2.95	.31	1.02	.39	.98
250	267	1.68		282	140	90	75	8	26	10	25
	273	1.92	10	11.10	5.51	3.54	2.95	.31	1.02	.39	.98
300	318	12.72		332	220	150	75	8	32	10	30
	323,9	12.96	12	13.07	8.66	5.91	2.95	.31	1.26	.39	1.18
350	355,6	14.22	14	378	220	150	75	8	32	10	30
	368	14.72		14.88	8.66	5.91	2.95	.31	1.26	.39	1.18
400	406,4	16.26	16	428	220	150	75	8	32	10	30
	419	16.76		16.85	8.66	5.91	2.95	.31	1.26	.39	1.18
500	508	2.32	20	530	220	150	75	8	32	10	30
	521	2.84		2.87	8.66	5.91	2.95	.31	1.26	.39	1.18

## Order Codes

only Round Steel U-Bolt \*RB\*A 52\*W1



One Round Steel U-Bolt (type RB) includes four Nuts (to DIN EN ISO 4032).

- \* Round Steel U-Bolt **RB**
- \* Dimension A (mm) **A 52**
- \* Material code Carbon Steel, untreated **W1**
- Stainless Steel V4A 1.4401 / 1.4571 (AISI 316 / 316 Ti) **W5**
- Carbon Steel, Plastic coated **W6**
- Carbon Steel, zinc-plated and thick-film passivated **W66**

only Plastic Pipe Saddle \*RUK\*48,3\*PP

- \* Plastic Pipe Saddle (Short) **RUK**
- \* Exact outside diameter Ø D1 (mm) **48,3**
- \* Material of Pipe Saddle (see below) **PP**

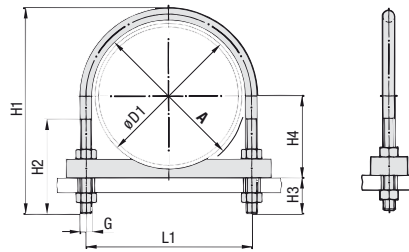
## Standard Materials for Plastic Pipe Saddles

-  **Polypropylene**  
Colour: Green  
Material code: **PP**
-  **Polyamide**  
Colour: Black  
Material code: **PA**

See page A86 for material properties and technical information.

 Alternative materials are available upon request.  
 Please consult STAUFF for further information.

**Round Steel U-Bolt with Plastic Pipe Saddle (Long)  
Type RB+RUL**



Round Steel U-Bolt (type RB) with Plastic Pipe Saddle (type RUL)

**Order Codes**

**Clamp Assembly** \*RB\*W1\*RUL/\*PP\*48,3

One clamp assembly is consisting of one Round Steel U-Bolt (type RB), one Plastic Pipe Saddle (type RUL) and four Nuts (to DIN EN ISO 4032).

- \* Round Steel U-Bolt **RB**
- \* Material code Carbon Steel, untreated **W1**
- Stainless Steel V4A **W5**
- 1.4401 / 1.4571 (AISI 316 / 316 Ti)
- Carbon Steel, Plastic coated **W6**
- Carbon Steel, zinc-plated and thick-film passivated **W66**
- \* Plastic Pipe Saddle (Long) **RUL/**
- \* Material of Pipe Saddle (see below) **PP**
- \* Exact outside diameter Ø D1 (mm) **48,3**

Please note: All items are supplied non-assembled.

**Standard Materials for Plastic Pipe Saddles**

**Polypropylene**  
Colour: Green  
Material code: **PP**

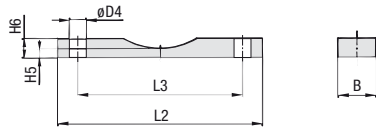
**Polyamide**  
Colour: Black  
Material code: **PA**

See page A86 for material properties and technical information.

Alternative materials are available upon request.  
Please consult STAUFF for further information.

Diameter Nominal DN	Outside Diameter Pipe / Tube Ø D1 (mm) (in)		Nominal Bore Pipe (in)	Dimensions (mm / in)						
	Round Steel U-Bolt (Type RB)			A	L1	H1	H2	H3	H4	Thread G
20	25	.98		30	40	73.5	41	30	17.5	M10
	26,9	1.06	3/4	1.18	1.57	2.89	1.61	1.18	.69	
25	30	1.18		38	48	81	48	30	20	M10
	33,7	1.33	1	1.50	1.89	3.19	1.89	1.18	.79	
32	38	1.50		46	56	89	48	30	24	M10
	42,4	1.69	1-1/4	1.81	2.20	3.50	1.89	1.18	.94	
40	44,5	1.76		52	62	100	55	35	27.2	M10
	48,3	1.90	1-1/2	2.05	2.44	3.94	2.17	1.38	1.07	
50	57	2.28		64	76	118	63	39	33.5	M12
	60,3	2.41	2	2.52	2.99	4.65	2.48	1.54	1.32	
65	76,1	3.04	2-1/2	82	94	135	77	39	43	M12
				3.23	3.70	5.31	3.03	1.54	1.69	
80	88,9	3.56	3	94	106	152	82	39	45.5	M12
				3.70	4.17	5.98	3.23	1.54	1.79	
100	108	4.32		120	136	190	105	47	64	M12
	114,3	4.57	4	4.72	136	190	105	47	67	
125	133	5.32		148	164	217	105	47	76.5	M16
	139,7	5.59	5	5.83	164	217	105	47	80	
150	159	6.36		176	192	247	105	47	91.5	M16
	168,3	6.73	6	6.93	192	247	105	47	96	
175	193,7	7.75		202	218	273	105	47	109	M16
				7.96	8.58	10.75	4.13	1.85	4.29	
200	216	8.64		228	248	311	125	55	120	M20
	219,1	8.76	8	8.98	248	311	125	55	121.5	
250	267	10.68		282	303	364	125	55	145.5	M20
	273	10.92	10	11.10	302	364	125	55	148.5	
300	318	12.72		332	352	418	125	55	175	M20
	323,9	12.96	12	13.07	352	418	125	55	177	
350	355,6	14.22	14	378	402	475	145	63	193	M24
	368	14.72		14.88	402	475	145	63	199	
400	406,4	16.26	16	428	452	526	145	63	218	M24
	419	16.76		16.85	452	526	145	63	224.5	
500	508	20.32	20	530	554	627	145	63	269	M24
	521	20.84		20.87	554	627	145	63	276	
					21.81	24.69	5.71	2.48	10.59	M24
					21.81	24.69	5.71	2.48	10.87	M24

## Round Steel U-Bolt with Plastic Pipe Saddle (Long) Type RB+RUL



Plastic Pipe Saddle (type RUL)

Diameter Nominal DN	Outside Diameter Pipe / Tube Ø D1 (mm) (in)		Nominal Bore Pipe (in)	Dimensions (mm/in)						
	Plastic Pipe Saddle (Type RUK)			A	L2	L3	B	H5	H6	Ø D4
20	25	.98	3/4	30	75	40	30	5	12	11
	26,9	1.06		1.18	2.95	1.57	1.18	.20	.47	.43
25	30	1.18	1	38	80	48	30	5	12	11
	33,7	1.33		1.50	3.15	1.89	1.18	.20	.47	.43
32	38	1.50	1-1/4	46	90	56	30	5	12	11
	42,4	1.69		1.81	3.54	2.20	1.18	.20	.47	.43
40	44,5	1.76	1-1/2	52	95	62	35	5	15	11
	48,3	1.90		2.05	3.74	2.44	1.38	.20	.59	.43
50	57	2.28	2	64	110	76	35	5	15	14
	60,3	2.41		2.52	4.33	2.99	1.38	.20	.59	.55
65	76,1	3.04	2-1/2	82	135	94	35	5	15	14
80	88,9	3.56	3	94	145	106	40	10	20	14
				3.70	5.71	4.17	1.57	.39	.79	.55
100	108	4.32	4	120	190	136	40	10	20	18
	114,3	4.57		4.72	7.48	5.35	1.57	.39	.79	.71
125	133	5.32	5	148	220	164	40	10	20	18
	139,7	5.59		5.83	8.66	6.46	1.57	.39	.79	.71
150	159	6.36	6	176	250	192	50	12	25	18
	168,3	6.73		6.93	9.84	7.56	1.97	.47	.98	.71
175	193,7	7.75		202	270	218	50	12	25	18
				7.96	10.63	8.58	1.97	.47	.98	.71
200	216	8.64	8	228	315	248	50	12	25	22
	219,1	8.76		8.98	12.40	9.76	1.97	.47	.98	.87
250	267	10.68	10	282	370	302	50	12	25	22
	273	10.92		11.10	14.57	11.89	1.97	.47	.98	.87
300	318	12.72	12	332	420	352	60	15	30	22
	323,9	12.96		13.07	16.54	13.86	2.36	.59	1.18	.87
350	355,6	14.22	14	378	480	402	60	15	30	26
	368	14.72		14.88	18.90	15.83	2.36	.59	1.18	1.02
400	406,4	16.26	16	428	540	452	60	15	30	26
	419	16.76		16.85	21.26	17.80	2.36	.59	1.18	1.02
500	508	20.32	20	530	640	554	60	15	30	26
	521	20.84		20.87	25.20	21.81	2.36	.59	1.18	1.02

### Order Codes

**only Round Steel U-Bolt** \*RB\*A 52\*W1

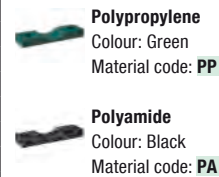
One Round Steel U-Bolt (type RB) includes four Nuts (to DIN EN ISO 4032).

* Round Steel U-Bolt	RB
* Dimension A (mm)	A 52
* Material code	Carbon Steel, untreated W1
	Stainless Steel V4A W5
	1.4401 / 1.4571 (AISI 316 / 316 Ti)
	Carbon Steel, Plastic coated W6
	Carbon Steel, zinc-plated and thick-film passivated W66

**only Plastic Pipe Saddle** \*RUL\*48,3\*PP

* Plastic Pipe Saddle (Long)	RUL
* Exact outside diameter Ø D1 (mm)	48,3
* Material of Pipe Saddle (see below)	PP

### Standard Materials for Plastic Pipe Saddles

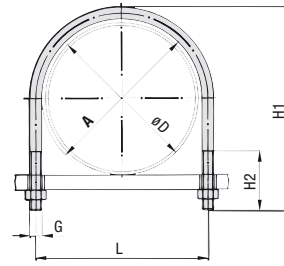


See page A86 for material properties and technical information.

Alternative materials are available upon request. Please consult STAUFF for further information.



**Round Steel U-Bolt (without Plastic Pipe Saddle)  
Type RBD**



Round Steel U-Bolt (type RBD)

**Order Codes**

**Clamp Assembly**

**\*RBD\*W1\*A 30**

One clamp assembly is consisting of one Round Steel U-Bolt (type RBD) and two Nuts (to DIN EN ISO 4032).

\* Clamp Assembly (as listed above)

**RBD**

\* Material code Carbon Steel, untreated

**W1**

Carbon Steel, zinc-plated and thick-film passivated

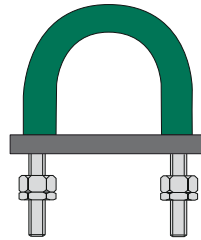
**W66**

\* Dimension A (mm)

**A 30**

Please note: All items are supplied non-assembled.

Diameter Nominal DN	Outside Diameter Pipe / Tube Ø D1		Nominal Bore Pipe (in)	Dimensions (mm/in)				
	(mm)	(in)		Round Steel U-Bolt (Type RBD)				Thread G
20	25	.98	3/4	<b>30</b>	40	70	40	
	26,9	1.06		1.18	1.57	2.76	1.57	
25	30	1.18	1	<b>38</b>	48	76	40	M10
	33,7	1.33		1.50	1.89	2.99	1.57	
32	38	1.50	1-1/4	<b>46</b>	56	86	50	M10
	42,4	1.69		1.81	2.20	3.39	1.97	
40	44,5	1.76	1-1/2	<b>52</b>	62	92	50	M10
	48,3	1.90		2.05	2.44	3.62	1.97	
50	57	2.28	2	<b>64</b>	76	109	50	M12
	60,3	2.41		2.52	2.99	4.29	1.97	
65	76,1	3.04	2-1/2	<b>82</b>	94	125	50	M12
80	88,9	3.56	3	<b>94</b>	106	138	50	M12
				3.70	4.17	5.43	1.97	
100	108	4.32	4	<b>120</b>	136	171	60	M12
	114,3	4.57		4.72	5.35	6.73	2.36	
125	133	5.32	5	<b>148</b>	164	191	60	M16
	139,7	5.59		5.83	6.46	7.52	2.36	
150	159	6.36	6	<b>176</b>	192	217	60	M16
	168,3	6.73		6.93	7.56	8.54	2.36	
175	193,7	7.75		<b>202</b>	218	249	60	M16
200	216	8.64	8	<b>228</b>	248	283	70	M20
	219,1	8.76		8.98	9.76	11.14	2.76	
250	267	10.68	10	<b>282</b>	303	334	70	M20
	273	10.92		11.10	11.93	13.15	2.76	
300	318	12.72	12	<b>332</b>	352	385	70	M20
	323,9	12.96		13.07	13.86	15.16	2.76	
350	355,6	14.22	14	<b>378</b>	402	435	70	M24
	368	14.72		14.88	15.83	17.13	2.76	
400	406,4	16.26	16	<b>428</b>	452	487	70	M24
	419	16.76		16.85	17.80	19.17	2.76	
500	508	20.32	20	<b>530</b>	554	589	70	M24
	521	20.84		20.87	21.81	23.19	2.76	



## Rubber-Shrouded Round Steel U-Bolt Type RSU



### Product Features

By preventing the direct metal-to-metal contact, STAUFF Rubber-Shrouded Round Steel U-Bolts, type RSU are primarily utilised in order to:

- Reduce or eliminate noise and fatigue due to vibration of pipework against the supporting structure
- Prevent galvanic corrosion due to the contact of dissimilar metals in the presence of an electrolyte
- Prevent wear and / or crushing of composite, thin-walled or non ferrous pipework and less resilient cabling

### Applications

STAUFF Rubber-Shrouded Round Steel U-Bolts, type RSU have been developed over a number of years to meet the arduous and very specific requirements of process pipework and cabling engineers worldwide.

### Materials

Standard material for STAUFF Rubber-Shrouded Round Steel U-Bolts, type RSU is Carbon Steel, electroplated with zinc. Both can also be supplied with alternative surface finishings, or can be manufactured from Stainless Steel, grades V2A and V4A. Consult STAUFF for further information.

STAUFF offers a wide range of shroud and pipe support materials that have been developed and selected to provide optimum performance over a wide range of applications.

Materials include a high-temperature Silicone based solution that is suitable for most applications within a temperature range of -60 °C ... +300 °C (-76 °F ... +572 °F) with excellent resistance to fire (flame rating of UL94-V0), very low toxicity and the ability to operate continuously at +300 °C (+572 °F) with only minimum loss of properties.

Please consult STAUFF and ask for detailed material specifications. Alternative materials are available upon request.

### Sizes

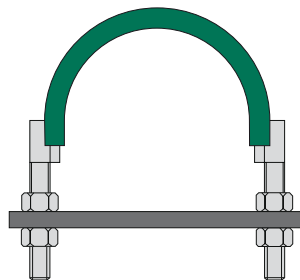
STAUFF Rubber-Shrouded Round Steel U-Bolts, type RSU are available for almost all commonly used pipe and tube diameters, made of Steel, Stainless Steel, Copper as well as Cupro-Nickel:

- Nominal pipe sizes: up to DN 400
- Outside diameters: 21 mm ... 407 mm / .93 in ... 16.02 in

### Approvals

STAUFF Rubber-Shrouded Round Steel U-Bolts, type RSU are particularly specified for use in Defence and Marine applications.

They have been tested and approved for bulk use in surface ships and sub-marines from a fire characteristics point of view according to Def Stan 07-247 („Selection of Materials on the Basis of their Fire Characteristics“) of the UK Ministry of Defence.



## Rubber-Lined Flat Steel U-Bolt Type LUS



### Product Features

By preventing the direct metal-to-metal contact, STAUFF Rubber-Lined Flat Steel U-Bolts, type LUS are primarily utilised in order to:

- Reduce or eliminate noise and fatigue due to vibration of pipework against the supporting structure
- Prevent galvanic corrosion due to the contact of dissimilar metals in the presence of an electrolyte
- Prevent wear and / or crushing of composite, thin-walled or non ferrous pipework and less resilient cabling

### Applications

STAUFF Rubber-Lined Flat Steel U-Bolts, type LUS have been developed over a number of years to meet the arduous and very specific requirements of process pipework and cabling engineers worldwide.

### Materials

Standard material for STAUFF Rubber-Lined Flat Steel U-Bolts, type LUS is Carbon Steel, electroplated with zinc. Both can also be supplied with alternative surface finishings, or can be manufactured from Stainless Steel, grades V2A and V4A. Consult STAUFF for further information.

STAUFF offers a wide range of shroud and pipe support materials that have been developed and selected to provide optimum performance over a wide range of applications.

Materials include a high-temperature Silicone based solution that is suitable for most applications within a temperature range of -60 °C ... +300 °C (-76 °F ... +572 °F) with excellent resistance to fire (flame rating of UL94-V0), very low toxicity and the ability to operate continuously at +300 °C (+572 °F) with only minimum loss of properties.

Please consult STAUFF and ask for detailed material specifications. Alternative materials are available upon request.

### Sizes

STAUFF Rubber-Lined Flat Steel U-Bolts, type LUS are available for almost all commonly used pipe and tube diameters, made of Steel, Stainless Steel, Copper as well as Cupro-Nickel:

- Nominal pipe sizes: up to DN 700
- Outside diameters: 21 mm ... 740 mm / .93 in ... 29.13 in

### Approvals

STAUFF Rubber-Lined Flat Steel U-Bolts, type LUS are particularly specified for use in Defence and Marine applications.

They have been tested and approved for bulk use in surface ships and sub-marines from a fire characteristics point of view according to Def Stan 07-247 („Selection of Materials on the Basis of their Fire Characteristics“) of the UK Ministry of Defence.



## Standard Clamp Body Materials



Material Code	PP	PA	AL	SA
Basic Material	Copolymeric Polypropylene	Polyamide	Aluminium AISi12	Thermoplastic Elastomer
Standard Colour	Green	Black	Natural	Black

Mechanical Properties				
Tensile E-Module	1073 N/mm <sup>2</sup> (ISO 527)	> 1400 N/mm <sup>2</sup> (ISO 527)	> 65000 N/mm <sup>2</sup>	113 N/mm <sup>2</sup> at +23 °C / +73.4 °F (ASTM D412)
Notch Impact Strength	7,5 kJ/m <sup>2</sup> at +23 °C / +73.4 °F (acc. to Charpy / ISO 179/1eA)	> 15 kJ/m <sup>2</sup> at +23 °C / +73.4 °F (acc. to Charpy / ISO 179/1eA)		
Low Temperature Notch Impact Strength	3,1 kJ/m <sup>2</sup> at -30 °C / -22.0 °F (acc. to Charpy / ISO 179/1eA)	> 3 kJ/m <sup>2</sup> at -30 °C / -22.0 °F (acc. to Charpy / ISO 179/1eA)		
Tensile Strength at Yield (Tensile Strength)	25 N/mm <sup>2</sup> (ISO 527)	> 55 N/mm <sup>2</sup> (ISO 527)	> 150 N/mm <sup>2</sup> (ISO EN 10002)	15,9 N/mm <sup>2</sup> (ASTM D412)
Ball Indentation Hardness (Brinell Hardness)	45,4 N/mm <sup>2</sup> (ISO 2039-1)	> 65 N/mm <sup>2</sup> (ISO 2039-1)	> 55 HBS	
Shore Hardness				87 A (ISO 868)

Thermal Properties				
Temperature Resistance (Continuous Exposure, Min ... Max)	-30 °C ... +90 °C / -22 °F ... +194 °F	-40 °C ... +120 °C / -40 °F ... +248 °F (Brief exposure up to +140 °C / +284 °F)	up to +300 °C / up to +572 °F	-40 °C ... +125 °C / -40 °F ... +257 °F

Chemical Properties				
Weak Acids	conditionally consistent	conditionally consistent	conditionally consistent	consistent
Solvents	conditionally consistent	conditionally consistent	conditionally consistent	conditionally consistent
Benzine	conditionally consistent	consistent	consistent	conditionally consistent
Mineral Oils	conditionally consistent	consistent	consistent	conditionally consistent
Other Oils	consistent	consistent	consistent	consistent
Alcohols	consistent	consistent	consistent	consistent
Seawater	consistent	consistent	consistent	consistent

The information for the Polyamide material PA and the Polyamide based materials PAVO and PA-FF have been determined in a conditioned state according to ISO 1110. For Aluminium, the tensile strength (under reversed bending stress) and impact bending strength both rise constantly at decreasing temperatures whilst the value for breaking elongation decreases.

## Standard Rubber Insert Materials



### Thermoplastic Elastomer (73 Shore-A)

Standard Material for STAUFF Group 4 and 6 (Standard Series)  
Standard Material for STAUFF Group 4S to 6S (Heavy Series)

#### Mechanical Properties

Shore Hardness: 73 A (ISO 868)  
Modulus of Elasticity: 16 N/mm<sup>2</sup> at +23 °C / +73.4 °F  
(ASTM D 412)  
Tensile Stress: 8,3 N/mm<sup>2</sup> (ASTM D 412)

#### Thermal Properties

Temperature Resistance: -40 °C ... +125 °C / -40 °F ... +257 °F

#### Chemical Properties

Consistent against weak acids and solvents;  
conditionally consistent against benzine and mineral oils;  
consistent against other oils, alcohols and sea water.

### Elastomer (70 Shore-A)

Standard Material for STAUFF Group 7S to 10S (Heavy Series)

#### Mechanical Properties

Shore Hardness: 70 A (DIN 53505)  
Tensile Strength at Yield: 9 N/mm<sup>2</sup> (DIN 53504)  
Tensile Strain at Break: 400% (DIN 53504)  
Tear-Growth Resistance: 9 N/mm (DIN 53507-A)  
Compression Set: 20% (DIN 53517)  
(22 h at +70 °C / +158 °F)

Consult STAUFF for further information.

**Special Clamp Body Materials (Selection)**  
 Preventive Fire Protection / Corrosion Prevention


PAVO	PA-FF	PPDA	PP6853	PP-AC
Polyamide	Polyamide	Polypropylene	Polypropylene	Polypropylene
Grey	Black	White	White	Natural / Uncoloured

1500 N/mm <sup>2</sup> (ISO 527-1/2)	1100 N/mm <sup>2</sup> (ISO 527-1/2)	2200 N/mm <sup>2</sup> (ISO 527) at +23 °C / +73.4 °F: 50 mm/min	1440 N/mm <sup>2</sup> (ICE 60811-1-1)	1073 N/mm <sup>2</sup> (ISO 527)
35 kJ/m <sup>2</sup> at +23 °C / +73.4 °F (acc. to Charpy / ISO 179/1eA)	20 kJ/m <sup>2</sup> at +23 °C / +73.4 °F (acc. to Charpy / ISO 179/1eA)	11,8 kJ/m <sup>2</sup> at +23 °C / +73.4 °F (acc. to IZOD / ISO 179/1eA)	16 kJ/m <sup>2</sup> at +23 °C / +73.4 °F (acc. to IZOD / ISO 179/1eA)	7,5 kJ/m <sup>2</sup> at +23 °C / +73.4 °F (acc. to Charpy / ISO 179/1eA)
		4,9 kJ/m <sup>2</sup> at -25 °C / -13.0 °F (acc. to IZOD / ISO 179/1eA)		3,1 kJ/m <sup>2</sup> at -30 °C / -22.0 °F (acc. to Charpy / ISO 179/1eA)
45 N/mm <sup>2</sup> (ISO 527-1/2)	50 N/mm <sup>2</sup> (ISO 527-1/2)	15,1 N/mm <sup>2</sup> (ISO 527) at +23 °C / +73.4 °F: 50 mm/min	20,4 N/mm <sup>2</sup> (ICE 60811-1-1)	25 N/mm <sup>2</sup> (ISO 527)
100 N/mm <sup>2</sup> (ISO 2039-1)	100 N/mm <sup>2</sup> (ISO 2039-1)			45,4 N/mm <sup>2</sup> (ISO 2039-1)

-30 °C ... +120 °C / -22 °F ... +248 °F	-30 °C ... +120 °C / -22 °F ... +248 °F	-25 °C ... +90 °C / -13 °F ... +194 °F	-25 °C ... +90 °C / -13 °F ... +194 °F	-30 °C ... +90 °C / -22 °F ... +194 °F
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Approvals / Special Properties				
<p><b>Tested and approved according to UL94 (Vertical Burning Test)</b></p> <ul style="list-style-type: none"> <li>Classification: 94V-0 (thickness: 0,4mm)</li> </ul> <p><b>Tested and approved according to DIN 5510, Part 2</b></p> <ul style="list-style-type: none"> <li>Combustibility classification: S3</li> <li>Smoke development classification: SR2</li> <li>Dripping classification: ST2</li> </ul> <p><b>Tested and approved according to NF F 16-101</b></p> <ul style="list-style-type: none"> <li>Classification: I2 / F2</li> </ul> <p><b>Halogen- and phosphor-free flame retardant system</b></p> <p><b>Oxygen index: 34,0%</b> (according to ISO 4589-2)</p> <p><b>Flammability temperature: 299 °C / 570 °F</b> (according to ISO 4589-3, Annex A)</p> <p><b>High durability, good UV, weathering and chemical resistance</b></p>	<p><b>Tested and approved according to DIN 5510, Part 2</b></p> <ul style="list-style-type: none"> <li>Combustibility classification: S4</li> <li>Smoke development classification: SR2</li> <li>Dripping classification: ST2</li> </ul> <p><b>Oxygen index: 28,0%</b> (according to ISO 4589-2)</p> <p><b>Flammability temperature: 327 °C / 621 °F</b> (according to ISO 4589-3, Annex A)</p> <p><b>High durability (even at low temperatures), mechanical strength and rigidity, good attrition resistance and fatigue strength, good UV resistance</b></p>	<p><b>Tested and approved according to Def Stan 07-247</b></p> <ul style="list-style-type: none"> <li>Assessment: category B</li> </ul> <p><b>Approved by the UK Ministry of Defence (MoD)</b></p> <p><b>Smoke index: 11,1%</b> (according to Def Stan 02-711, thickness: 3,0 mm)</p> <p><b>Halogen-free flame retardant system</b></p> <p><b>Toxicity index: 0,9 / 100 g</b> (according to Def Stan 02-713)</p> <p><b>Oxygen index: 30,9%</b> (according to ISO 4589-2)</p> <p><b>Flammability temperature: 231 °C / 448 °F</b> (according to ISO 4589-3, Annex A)</p>	<p><b>Tested and approved according to BS 6853</b> (Code of practice for fire precautions in the design/construction of passenger carrying trains)</p> <ul style="list-style-type: none"> <li>Assessment: category 1a</li> </ul> <p><b>Compliant to the requirements of London Underground / Metronet</b> (standard 2-01001-002: Fire Safety Performance of Materials)</p> <p><b>Tested and approved according to DIN 5510, Part 2</b></p> <ul style="list-style-type: none"> <li>Combustibility classification: S3</li> <li>Smoke development classification: SR2</li> <li>Dripping classification: ST2</li> </ul> <p><b>Tested and approved according to Def Stan 07-247</b></p> <ul style="list-style-type: none"> <li>Assessment: category B</li> </ul> <p><b>Smoke index: 6,1%</b> (according to Def Stan 02-711, thickness: 3,0 mm)</p> <p><b>Halogen-free flame retardant system</b></p> <p><b>Toxicity index: 0,9 / 100 g</b> (according to Def Stan 02-713)</p> <p><b>Oxygen index: 42,0%</b> (according to ISO 4589-2)</p> <p><b>Flammability temperature: 325 °C / 617 °F</b> (according to ISO 4589-3, Annex A)</p>	<p><b>Successfully tested in salt spray cabinet trials according to ISO 9227 / ASTM B117</b></p> <ul style="list-style-type: none"> <li>Delays the formation of crevice corrosion by depositing a special corrosion protection inhibitor (which is added to the basic PP material during production) in the gap between clamp body and stainless steel pipe</li> <li>Lengthens maintenance intervals</li> <li>Minimises servicing requirements and costs</li> <li>Delivers tremendous potential savings</li> </ul>

## Materials and Surface Finishings of Metal Parts

### Materials

Unless otherwise stated, all metal parts (e.g. weld plates, cover plates, bolts, rail nuts, etc.) are made of **Carbon Steel St37** (surface finishing according to material code).

Besides that, all metal parts are also available **ex stock** in two different stainless steel qualities:

#### Stainless Steel V2A

- 1.4301 / 1.4305 (AISI 304 / 303)
- Material code: W4



#### Stainless Steel V4A

- 1.4401 / 1.4571 (AISI 316 / 316 Ti)
- Material code: W5

Alternative materials are available upon request. Consult STAUFF for further information.

### Surface Finishings

Unless otherwise stated, all metal parts made of Carbon Steel St37 are available with the following standard surface finishings:

#### Carbon Steel St37, untreated

- Material code: W1

#### Carbon Steel St37, phosphated

- Fe/Znph r 10 according to DIN EN 12476
- Material code: W2

#### Carbon Steel St37, zinc/nickel-plated

- Fe/ZnNi (12...16) 6+6//A//T2 according to DIN 50962
- More than 720 hours resistance against red rust / base metal corrosion in the salt spray test to DIN EN ISO 9227
- Free of hexavalent chromium Cr(VI)
- RoHS compliant according to 2002/95/EC (Restrictions of the Use of Hazardous Substances)
- ELV compliant according to 2000/53/EC (End of Life Vehicles Directive)
- Material code: W3

Alternative surface finishings are available upon request. Consult STAUFF for further information.



Original STAUFF Cover Plate with Zinc/Nickel-Coating:  
No signs of corrosion after **528 hours** in the salt spray chamber!



Original STAUFF Cover Plates with alternative surface finishings widely-used by competitors in the market (from left to right):

- Galvanisation and blue-chromating after **96 hours**
- Galvanisation and yellow-chromating after **192 hours**
- Zinc-coating, thick-film passivation and sealing after **192 hours**

In all three cases, signs of corrosion are quite clearly visible!

Consult STAUFF and ask for a detailed report.

## Thread Conversion Chart

### Metric ISO vs. Unified Coarse (UNC) Thread

Unless otherwise stated, all threaded parts available with Metric ISO thread or unified coarse (UNC) thread.

#### Standard Series (DIN 3015, Part 1)

Group STAUFF	DIN	Thread Metric ISO	Unified Coarse
1 to 8	0 to 8	M6	1/4–20 UNC

#### Heavy Series (DIN 3015, Part 2)

Group STAUFF	DIN	Thread Metric ISO	Unified Coarse
3S to 5S	1 to 3	M10	3/8–16 UNC
6S	4	M12	7/16–14 UNC
7S	5	M16	5/8–11 UNC
8S	6	M20	3/4–10 UNC
9S	7	M24	7/8–9 UNC
10S	8	M30	1-1/8–7 UNC
11S to 12S	9 to 10	M30	1-1/4–7 UNC

#### Twin Series (DIN 3015, Part 3)

Group STAUFF	DIN	Thread Metric ISO	Unified Coarse
1D	1	M6	1/4–20 UNC
2D to 5D	2 to 5	M8	5/16–18 UNC

## Property Classes / Grades of Bolts and Screws



#### Hexagon Head Bolt

#### Socket Cap Screw

#### Slotted Head Screw

Bolt / Screw Type	Material Code	Property Class / Grade	
		Metric ISO Threaded Bolts / Screws	Unified Coarse Threaded Bolts / Screws
Hexagon Head Bolt Type AS	W1, W2, W3	8.8 (according to DIN EN ISO 898)	5 (according to SAE J429)
	W4	A2-70 (according to DIN EN ISO 3506)	AISI 304 / B8 (according to ASTM A193)
	W5	A4-70 (according to DIN EN ISO 3506)	AISI 316 / B8M (according to ASTM A193)
Socket Cap Screw Type IS	W1, W2, W3	8.8 (according to DIN EN ISO 898)	5 (according to SAE J429)
	W4	A2-70 (according to DIN EN ISO 3506)	AISI 304 / B8 (according to ASTM A193)
	W5	A4-70 (according to DIN EN ISO 3506)	AISI 316 / B8M (according to ASTM A193)
Slotted Head Screw Type LI	W1, W2, W3	4.8 (according to DIN EN ISO 898)	2 (according to SAE J429)
	W4	A2-70 (according to DIN EN ISO 3506)	AISI 304 / B8 (according to ASTM A193)
	W5	A4-70 (according to DIN EN ISO 3506)	AISI 316 / B8M (according to ASTM A193)

Unless otherwise stated, the above mentioned property classes / grades apply as standards for bolts and screws supplied by STAUFF. The information indicate the minimum requirements; higher property classes are available upon request. Consult STAUFF for details.