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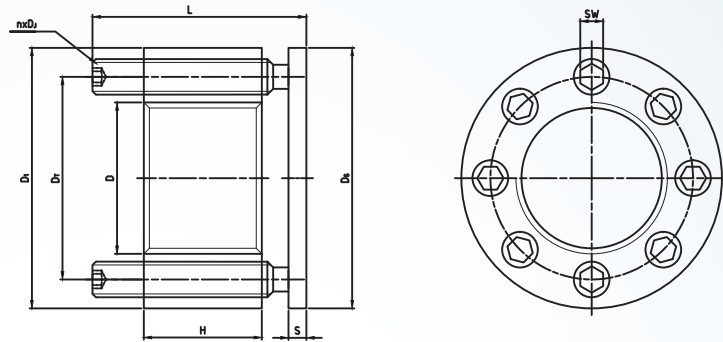
UH

Universal Holder

guaranteed **preload systems**

Achieves the preload
on main stud through torque
tightening procedure
of smaller satellite studs

UH - Universal Holder Class 8



U.H.	Nut body			Height Tot. L (mm)	Jackbolt			Washer		Preload		Torque		Weight (Kg)
	D ₁	H	D _T		D _J (mm)	n	SW	D _S (mm)	S	Nominal F ₁ (kN)	Max F ₂	Nominal M ₁ (Nm)	Max M ₂	
M16x2	35	17	25	33	M6	4	3	33	3	71,18	91,65	14	18	0,11
M20x2,5	39	17	29	34	M6	6	3	39	4	107,25	136,50	14	18	0,14
M22x2,5	42	17	31	34	M6	6	3	42	4	107,25	136,50	14	18	0,16
M24x3	45	17	33	34	M6	8	3	44	4	141,38	182,33	14	18	0,19
M27x3	51	25	39	45	M8x1	6	4	51	5	208,65	277,88	36	48	0,35
M30x3,5	54	25	42	45	M8x1	6	4	54	5	208,65	277,88	36	48	0,37
M33x3,5	60	25	45	45	M8x1	8	4	60	5	277,88	370,50	36	48	0,48
M36x4	67	33	51	57	M10x1,25	6	5	67	5	334,43	445,58	72	96	0,76
M39x4	71	33	54	57	M10x1,25	8	5	71	5	445,58	594,75	72	96	0,90
M42x4,5	76	33	57	57	M10x1,25	8	5	74	5	445,58	594,75	72	96	1,01
M45x4,5	84	39	63	68	M12x1,25	8	6	82	6	682,50	911,63	131	175	1,23
M48x5	86	39	66	68	M12x1,25	8	6	86	6	682,50	911,63	131	175	1,50
M52x5	92	39	70	68	M12x1,25	8	6	91	6	682,50	911,63	131	175	1,64
M56x5,5	99	39	74	68	M12x1,25	10	6	95	6	853,13	1131,00	131	175	1,96
M60x5,5	103	39	78	68	M12x1,25	10	6	101	6	853,13	1131,00	131	175	2,04
M64x6	114	54	87	92	M16x1,5	10	8	113	8	1238,25	1647,75	315	420	3,65
M68x6	118	54	91	92	M16x1,5	10	8	118	8	1238,25	1647,75	315	420	3,85
M72x6	121	57	95	92	M16x1,5	8	8	121	8	1238,25	1647,75	315	420	4,00
M76x6	133	57	100	92	M16x1,5	12	8	128	8	1852,50	2466,75	315	420	5,10
M80x6	133	57	103	92	M16x1,5	12	8	128	8	1852,50	2466,75	315	420	4,80
M85x5	138	57	108	92	M16x1,5	12	8	138	8	1852,50	2466,75	315	420	5,10
M90x6	146	60	113	99	M16x1,5	16	8	138	8	2466,75	3295,50	315	420	6,00
M100x6	158	62	123	101	M16x1,5	16	8	152	10	2466,75	3295,50	315	420	7,00
M110x6	178	80	139	125	M20x1,5	12	10	173	10	3071,25	4095,00	645	860	11,40
M120x6	190	82	149	125	M20x1,5	16	10	180	10	4095,00	5460,00	645	860	13,00
M125x6	195	82	154	125	M20x1,5	16	10	191	10	4095,00	5460,00	645	860	13,50
M130x6	206	95	159	140	M20x1,5	18	10	203	10	4582,50	6142,50	645	860	17,50
M140x6	216	95	169	140	M20x1,5	20	10	216	10	5117,75	6825,00	645	860	18,70
M150x6	226	95	179	142	M20x1,5	20	10	226	12	5118,75	6825,00	645	860	20,00
M160x6	235	108	189	162	M20x1,5	24	10	235	12	6142,50	8190,00	645	860	24,10

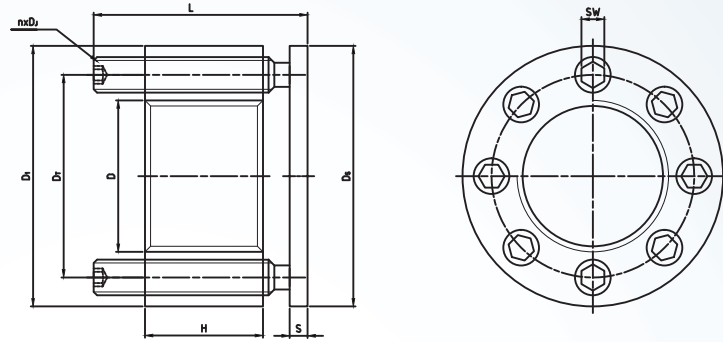
Universal preload system

Preloading system that achieves the preload on main stud through torque tightening procedure of smaller satellite studs.



UH - Universal Holder

Class 10

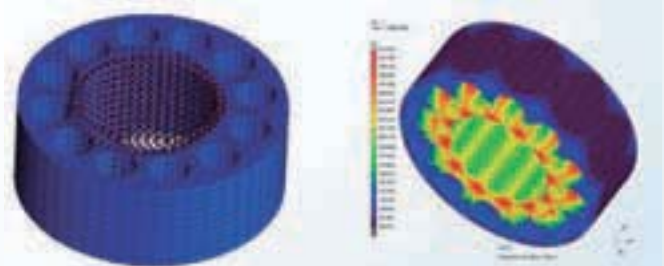
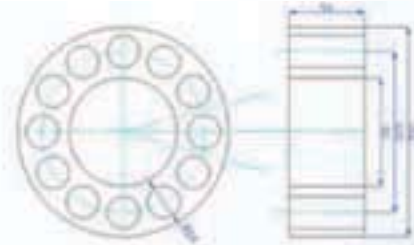


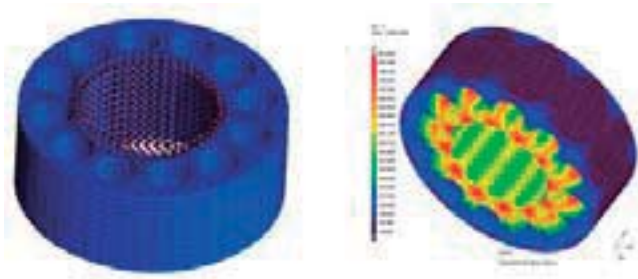
U.H.	Nut body			Height Tot. L (mm)	Jackbolt			Washer		Preload		Torque		Weight (Kg)
	D ₁	H	D _T		D _J (mm)	n	SW	D _S (mm)	S	Nominal F ₁ (kN)	Max F ₂	Nominal M ₁ (Nm)	Max M ₂	
M16x2	35	17	25	33	M6	6	3	33	3	107,25	136,50	14	18	0,12
M20x2,5	39	18	29	34	M6	8	3	39	4	141,38	180,38	14	18	0,15
M22x2,5	42	18	31	34	M6	8	3	42	4	141,38	180,38	14	18	0,17
M24x3	48	25	36	44	M6	6	4	48	4	209,63	277,88	36	48	0,30
M27x3	52	25	39	45	M8x1	8	4	51	5	277,88	370,50	36	48	0,37
M30x3,5	55	25	42	45	M8x1	8	4	54	5	277,88	370,50	36	48	0,38
M33x3,5	64	33	48	57	M8x1	8	5	64	5	443,63	594,75	72	96	0,72
M36x4	67	33	51	57	M10x1,25	8	5	67	5	443,63	594,75	72	96	0,79
M39x4	73	33	54	57	M10x1,25	10	5	71	5	555,75	741,00	72	96	0,97
M42x4,5	77	33	57	57	M10x1,25	12	5	74	5	667,88	892,13	72	96	1,10
M45x4,5	85	39	63	68	M12x1,25	10	6	82	6	853,13	1140,75	131	175	1,26
M48x5	86	39	66	68	M12x1,25	10	6	86	6	853,13	1140,75	131	175	1,54
M52x5	95	39	70	68	M12x1,25	12	6	91	6	1023,75	1365,00	131	175	1,80
M56x5,5	99	39	74	68	M12x1,25	12	6	95	6	1023,75	1365,00	131	175	1,93
M60x5,5	110	60	83	99	M12x1,25	10	8	107	8	1540,50	2047,50	315	420	3,90
M64x6	114	60	87	99	M16x1,5	10	8	113	8	1540,50	2047,50	315	420	4,10
M68x6	118	60	91	99	M16x1,5	12	8	118	8	1852,50	2466,75	315	420	4,30
M72x6	122	60	95	99	M16x1,5	12	8	121	8	1852,50	2466,75	315	420	4,30
M76x6	133	62	102	99	M16x1,5	16	8	128	8	2466,75	3285,75	315	420	5,60
M80x6	134	62	103	99	M16x1,5	16	8	128	8	2466,75	3285,75	315	420	5,40
M85x5	140	62	108	99	M16x1,5	16	8	138	8	2466,75	3285,75	315	420	5,80
M90x6	159	82	119	125	M16x1,5	12	10	152	10	3071,25	4095,00	645	860	10,30
M100x6	169	82	129	125	M16x1,5	14	10	161	10	3578,25	4777,50	645	860	11,10
M110x6	179	82	139	125	M20x1,5	16	10	173	10	1095,00	5460,00	645	860	12,10
M120x6	190	82	149	125	M20x1,5	18	10	180	10	4582,50	6142,50	645	860	13,10
M125x6	195	82	154	125	M20x1,5	18	10	191	10	4582,50	6142,50	645	860	13,70
M130x6	206	95	159	140	M20x1,5	20	10	203	10	5118,75	6825,00	645	860	17,60
M140x6	216	95	169	140	M20x1,5	22	10	216	10	5606,25	7507,50	645	860	18,80
M150x6	226	95	179	142	M20x1,5	22	10	226	12	5606,25	7507,50	645	860	20,10
M160x6	236	108	189	162	M20x1,5	24	10	235	12	6142,50	8190,00	645	860	24,50

Engineering

Calculation and development

Calculation and development of bolted joints for automotive, aeolian, construction, equipment, etc. For the calculation of the unions, the engineering of TSF has a powerful simulation tool using finite elements. The program used is the prestigious MSC.MARC. The customer is offered the solution with our design and geometry and the certification of such unions in government agencies. TSF could calculate, design and manufacture any part adapted to each customer requirements.





global fastening solutions
UH



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