

JUNG BLODT

SPEZIALSCHRAUBEN SEIT 1848

KPMBOLT™ ENGINEERING

Special Fasteners



Designed For Easy Handling, Engineered For High Loads

Easy to Use and High Loads Supported

KPMBOLT™ ENGINEERING



KPMBOLT™ Multi-Jackbolt Pretensioners (MJP) are an ideal solution for highly loaded bolted connections, enabling precise generation and reliable retention of the designed pretensioning force, while also allowing easy and safe release when required. Designed in accordance with ISO 898-2, they are suitable for general bolting applications across all industrial sectors.

KPMBOLT™ Radial Pretensioning Bolts are the ideal solution for large couplings requiring safe transmission of high torques.

We are an experienced German engineering company specializing in globally unique bolting solutions based on mechanical Multi-Jackbolt Pretensioner technology, designed to absorb extreme forces.

Our expertise covers all applications requiring large, secure, and fully releasable bolted connections. We calculate, develop, design, and manufacture technically and economically optimized solutions for large dimensions and high, precisely adjustable pretensioning forces, tailored to our customers' specific requirements.

We provide our products and services across Europe, offering on-site, professional support through our sales engineers and distribution partners, including assistance during installation and maintenance.

The pretensioning and loosening of Multi-Jackbolt Pretensioners (MJP) are performed using standard torque wrenches. These simple hand tools enable effortless, controlled, and precise tightening of the jackbolts, ensuring the required pretensioning force is achieved accurately.

Founded in 2018, with engineering experience dating back to 1848.

KPMBOLT™ benefits from decades of expertise as a technology leader in highly stressed, large-diameter bolted joints.



Designed For Easy Handling, Engineered For High Loads



AS Multi-Jackbolt Pretensioners

- Mechanical Multi-Jackbolt Pretensioners (MJP) are an ideal solution for purely axial pretensioning. Designed in accordance with ISO 898-2, they are suitable for general bolting applications across all industrial sectors.
- Thanks to the captive-mounted KPMBOLT™ Jackbolts, MJPs are particularly well suited for highly dynamic applications such as turbine runners.
- The hexalobular jackbolt head is extremely wear-resistant and ensures safe, reliable handling.

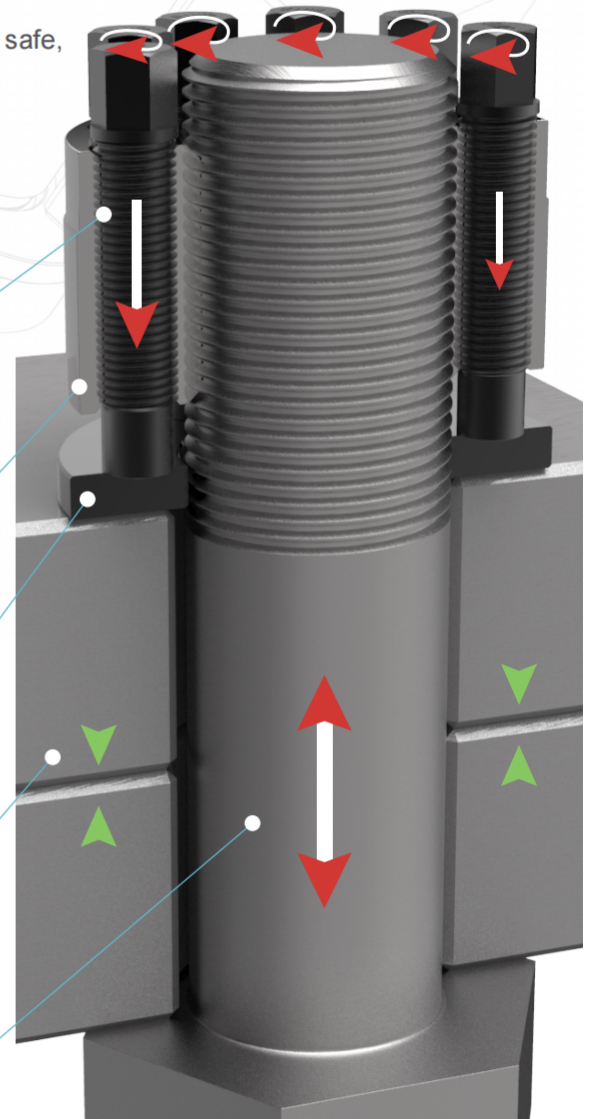
Pretensioning the KPMBOLT™ Jackbolts generates a high thrust force, while the small friction diameters ensure minimal torque requirements.

Nut body transfers the load and is positioned by hand on the threaded bolt.

Thrust washer protects the component from high stresses.

Clamping force results from the thrust forces of the KPMBOLT™

Clamping force is generated torsion-free by the KPMBOLT™ jackbolts experience only axial force between the bolts, with no torsional force.



KPMBOLT Multi-Jackbolt Pretensioners (MJP) are protected by patent:
China Patent No.: 202522022988.8

Standard Series

ASM-MJP can replace Grade 8 nuts to apply precise preload to bolts.

- Operational temperature from -25 up to +250°C
- Standard diameters M30-M150
- For pretensioning forces $F_{nom.}$ 214-5250kN



ASH-MJP can replace Grade 10 nuts to provide precise preload to bolts.

- Operational temperature from -25 up to +250°C
- Standard diameters M30-M150
- For pretensioning forces $F_{nom.}$ 285-5750kN



CHHM-MJP is a Superbolt designed to secure the top of the piston rod.

- Operational temperature from -25 up to +250°C
- Standard diameters M30-M125
- For pretensioning forces $F_{nom.}$ 210-3070kN



CHSM-MJP is designed for applications with limited space above the screw head.

- Operational temperature from -25 up to +250°C
- Standard diameters M30-M150
- For pretensioning forces $F_{nom.}$ 135-1550kN



Standard Series

BSM–MJP bolts provide a preload equivalent to Grade 8 nuts.

- Operational temperature from -25 up to +250°C
- Standard diameters M30-M150
- For pretensioning forces $F_{nom.}$ 214-4880kN



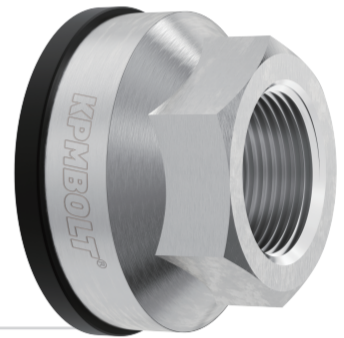
BSH–MJP bolts offer higher strength with a preload equivalent to Grade 10 nuts.

- Operational temperature from -25 up to +250°C
- Standard diameters M30-M90
- For pretensioning forces $F_{nom.}$ 286-2700kN



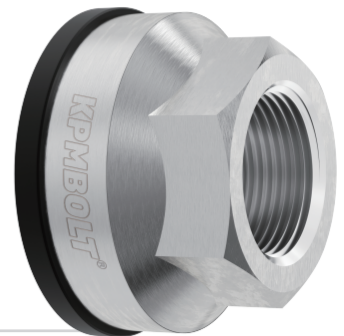
FNM–Flexnuts replace Grade 8 nuts while providing protection for the bolts.

- Operational temperature from -25 up to +250°C
- Standard diameters M30-M150
- Flexnuts cannot apply torque directly



FNH–Flexnuts replace Grade 10 nuts while protecting the bolts.

- Operational temperature from -25 up to +250°C
- Standard diameters M30-M150
- Flexnuts cannot apply torque directly

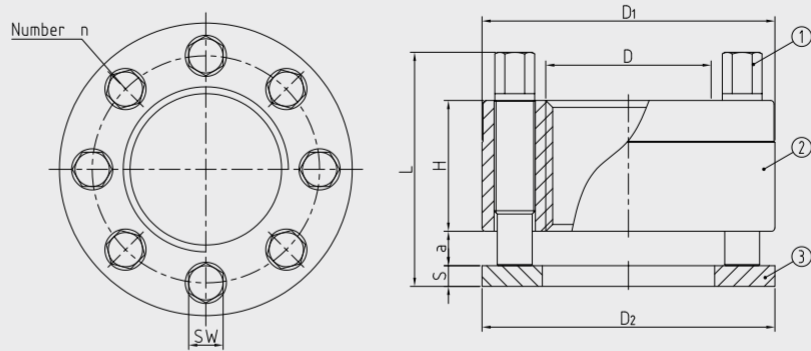


ASM - Multi-Jackbolt Pretensioners(MJP)

1 Jacking screw

2 Nut body

3 Hardened washer



Part No.	Nut body			Jackbolt			Hardened washer		Total Height	Preload total		Torque
ASM-DXP	D	D1 mm	H mm	SW mm	n	a mm	D2 mm	S mm	L mm	Fnom kN	Fmax kN	Mnom Nm
ASM-30X3.5	M30	58	24	8	6	6	56	5	45	214	285	42
ASM-33X3.5	M33	61	24	8	8	6	59	5	45	285	380	42
ASM-36X4	M36	69	32	9	6	9	66	5	57	343	457	80
ASM-39X4	M39	73	32	9	8	9	72	5	57	457	610	80
ASM-42X4.5	M42	77	32	9	8	9	76	5	57	457	610	80
ASM-45X4.5	M45	84	38	11	8	10	83	6	68	700	935	141
ASM-48X5	M48	87	38	11	8	10	86	6	68	700	935	141
ASM-52X5	M52	94	38	11	8	10	92	6	68	700	935	141
ASM-56X5.5	M56	100	38	11	8	10	98	6	68	700	935	141
ASM-60X5.5	M60	107	38	11	10	10	105	6	68	875	1160	141
ASM-64X6	M64	117	53	15	8	13	115	8	92	1270	1690	352
ASM-68X6	M68	121	53	15	8	13	119	8	92	1270	1690	352
ASM-72X6	M72	125	56	15	8	10	123	8	92	1270	1690	352
ASM-76X6	M76	132	56	15	12	10	130	8	92	1900	2530	352
ASM-80X6	M80	133	56	15	12	10	131	8	92	1900	2530	352
ASM-85X6	M85	138	56	15	12	10	136	8	92	1900	2530	352
ASM-90X6	M90	146	59	15	14	14	144	8	99	2260	2950	352
ASM-100X6	M100	164	61	15	16	12	162	8	99	2530	3380	352
ASM-110X6	M110	178	79	18	12	15	176	10	125	3150	4200	674
ASM-120X6	M120	189	81	18	16	13	187	10	125	4200	5600	674
ASM-125X6	M125	194	81	18	16	13	192	10	125	4200	5600	674
ASM-130X6	M130	205	94	18	18	15	203	10	140	4700	6300	674
ASM-140X6	M140	215	94	18	20	15	213	10	140	5250	7000	674
ASM-150X6	M150	225	94	18	20	15	223	12	142	5250	7000	674

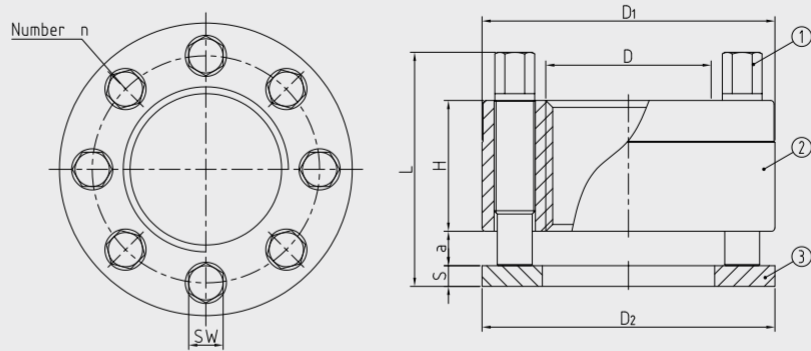
The maximum tensile force, Fmax, provides a long-term, effective load on the bolted joint, including the operating load. Leveraging our design and manufacturing capabilities, we can also accommodate special requirements, such as unique materials, surface treatments, or custom thread clearances.

ASH - Multi-Jackbolt Pretensioners(MJP)

1 Jacking screw

2 Nut body

3 Hardened washer



Part No.	Nut body			Jackbolt			Hardened washer		Total Height	Preload total		Torque
ASM-DXP	D	D1 mm	H mm	SW mm	n	a mm	D2 mm	S mm	L mm	Fnom kN	Fmax kN	Mnom Nm
ASH-30X3.5	M30	58	24	8	8	6	56	5	45	285	380	42
ASH-33X3.5	M33	66	32	8	6	9	65	5	57	345	460	80
ASH-36X4	M36	69	32	9	8	9	66	5	57	455	610	80
ASH-39X4	M39	73	32	9	10	9	72	5	57	570	760	80
ASH-42X4.5	M42	77	32	9	12	9	76	5	57	685	915	80
ASH-45X4.5	M45	84	38	11	8	11	83	6	68	700	935	141
ASH-48X5	M48	87	38	11	10	11	86	6	68	875	1170	141
ASH-52X5	M52	94	38	11	12	11	92	6	68	1050	1400	141
ASH-56X5.5	M56	100	38	11	12	11	98	6	68	1050	1400	141
ASH-60X5.5	M60	113	53	15	8	13	111	8	92	1270	1690	352
ASH-64X6	M64	117	53	15	10	13	115	8	92	1580	2100	352
ASH-68X6	M68	121	59	15	12	14	119	8	99	1900	2530	352
ASH-72X6	M72	125	59	15	12	14	122	8	99	1900	2530	352
ASH-76X6	M76	132	61	15	14	12	130	8	99	2260	2950	352
ASH-80X6	M80	133	61	15	14	12	132	8	99	2260	2950	352
ASH-85X6	M85	139	61	15	16	12	136	8	99	2530	3370	352
ASH-90X6	M90	146	61	15	16	12	144	8	99	2530	3370	352
ASH-100X6	M100	164	61	15	18	12	162	8	99	2900	3750	352
ASH-110X6	M110	178	79	18	16	15	176	10	125	4200	5600	674
ASH-120X6	M120	189	81	18	18	13	187	10	125	4700	6300	674
ASH-125X6	M125	194	81	18	18	13	192	10	125	4700	6300	674
ASH-130X6	M130	205	94	18	20	15	203	10	140	5250	7000	674
ASH-140X6	M140	215	94	18	22	15	213	10	140	5750	7700	674
ASH-150X6	M150	225	94	18	22	15	223	12	142	5750	7000	674

The maximum tensile force, Fmax, provides a long-term, effective load on the bolted joint, including the operating load. Leveraging our design and manufacturing capabilities, we can also accommodate special requirements, such as unique materials, surface treatments, or custom thread clearances.

CHHM - Multi-Jackbolt Pretensioners(MJP)

1

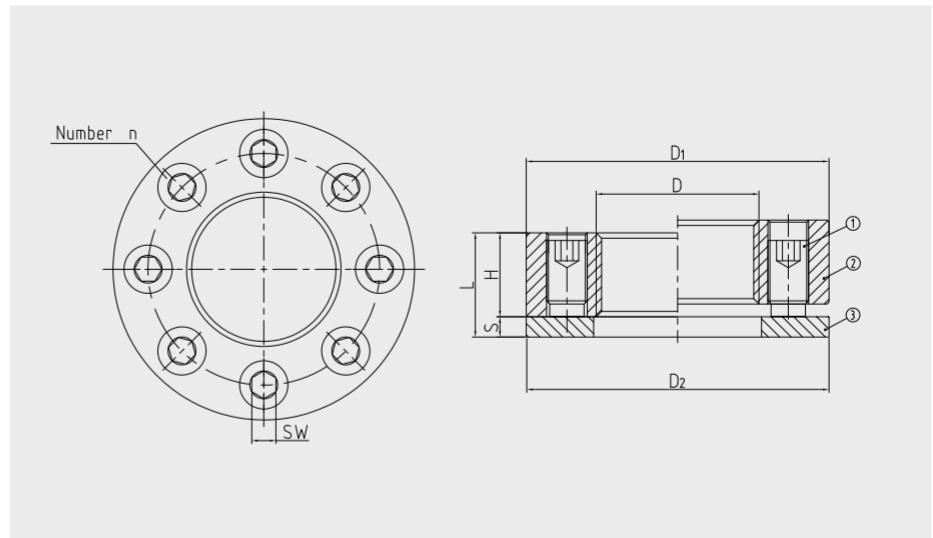
Jacking screw

2

Nut body

3

Hardened washer



Part No.	Nut body			Jackbolt		Hardened washer		Total Height	Preload total		Torque
CHHM-DXP	D	D1 mm	H mm	SW mm	n	D2 mm	S mm	L mm	Fnom kN	Fmax kN	Mnom Nm
CHHM-30X3.5	M30	60	27	7	8	60	6	33	210	275	31.4
CHHM-33X3.5	M33	66	33	7	10	63	6	39	260	340	31.4
CHHM-36X4	M36	72	38	8	8	70	8	46	300	400	52.2
CHHM-39X4	M39	78	38	8	10	76	8	46	375	495	52.2
CHHM-42X4.5	M42	84	42	8	12	82	8	50	450	595	52.2
CHHM-45X4.5	M45	90	45	10	8	90	10	55	510	670	101.3
CHHM-48X5	M48	96	48	10	10	95	10	58	640	840	101.3
CHHM-52X5	M52	104	48	10	12	104	10	58	810	1095	107
CHHM-56X5.5	M56	112	58	10	12	112	10	68	810	1095	107
CHHM-60X5.5	M60	120	64	13	10	120	12	76	1140	1520	250
CHHM-64X6	M64	128	64	13	10	128	12	76	1140	1520	250
CHHM-68X6	M68	136	70	13	12	136	12	82	1370	1825	250
CHHM-72X6	M72	144	70	13	12	144	12	82	1370	1825	250
CHHM-76X6	M76	152	80	13	14	152	12	92	1600	2135	250
CHHM-80X6	M80	160	80	13	14	160	12	92	1600	2135	250
CHHM-90X6	M90	170	86	13	16	170	12	98	1830	2440	250
CHHM-100X6	M100	190	102	16	12	190	16	118	2310	3070	498
CHHM-110X6	M110	209	102	16	14	209	16	118	2690	3575	498
CHHM-120X6	M120	228	102	16	14	228	16	118	2690	3575	498
CHHM-125X6	M125	238	102	16	16	238	16	118	3070	4080	498

The maximum tensile force, Fmax, provides a long-term, effective load on the bolted joint, including the operating load. Leveraging our design and manufacturing capabilities, we can also accommodate special requirements, such as unique materials, surface treatments, or custom thread clearances.

CHSM-Multi-Jackbolt Pretensioners(MJP)

1

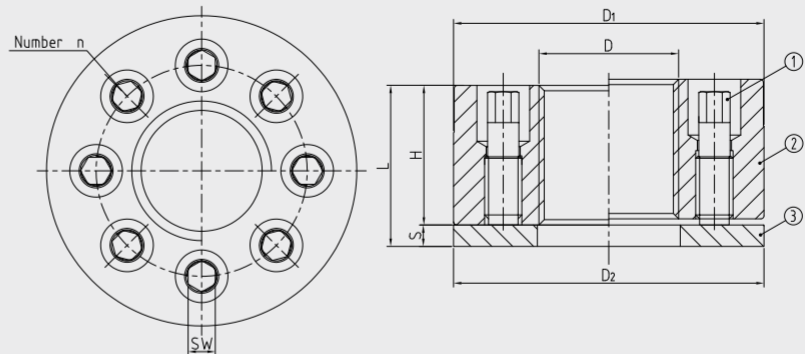
Jacking screw

2

Nut body

3

Hardened washer



Part No.	Nut body			Jackbolt		Hardened washer		Total Height	Preload total		Torque
CHSM-DXP	D	D1 mm	H mm	SW mm	n	D2 mm	S mm	L mm	Fnom kN	Fmax kN	Mnom Nm
CHSM-30X3.5	M30	60	21	6	8	59	5	26	135	180	23
CHSM-33X3.5	M33	63	22	6	10	63	5	27	155	200	22
CHSM-36X4	M36	70	28	7	8	69	5	33	190	245	38
CHSM-39X4	M39	75	28	7	10	75	5	33	255	335	40
CHSM-42X4.5	M42	81	28	7	12	78	5	33	315	420	41
CHSM-45X4.5	M45	88	28	7	12	81	6	34	315	420	41
CHSM-48X5	M48	101	31	9	8	94	6	37	380	500	104
CHSM-52X5	M52	101	33	9	8	94	6	39	380	500	104
CHSM-56X5.5	M56	113	33	9	12	100	6	39	570	760	104
CHSM-60X5.5	M60	117	33	9	12	106	6	39	570	760	104
CHSM-64X6	M64	119	33	9	12	119	8	41	570	760	104
CHSM-68X6	M68	138	38	11	12	125	8	46	710	950	153
CHSM-72X6	M72	151	38	11	12	138	8	46	910	1200	186
CHSM-76X6	M76	151	38	11	12	138	8	46	860	1130	196
CHSM-80X6	M80	158	38	11	12	145	10	48	910	1200	196
CHSM-90X6	M90	170	51	13	12	170	10	61	1160	1530	307
CHSM-100X6	M100	177	53	13	12	170	10	63	1160	1530	307
CHSM-110X6	M110	190	59	13	14	190	10	69	1350	1780	307
CHSM-120X6	M120	202	59	13	16	202	10	69	1550	2040	307
CHSM-125X6	M125	205	59	13	16	202	10	69	1550	2040	307
CHSM-130X6	M130	210	59	13	16	202	10	69	1550	2040	307
CHSM-140X6	M140	221	59	13	16	215	12	71	1550	2040	307
CHSM-150X6	M150	230	59	13	16	225	12	71	1550	2040	307

The maximum tensile force, Fmax, provides a long-term, effective load on the bolted joint, including the operating load. Leveraging our design and manufacturing capabilities, we can also accommodate special requirements, such as unique materials, surface treatments, or custom thread clearances.

BSM-Multi-Jackbolt Pretensioners(MJP)

1

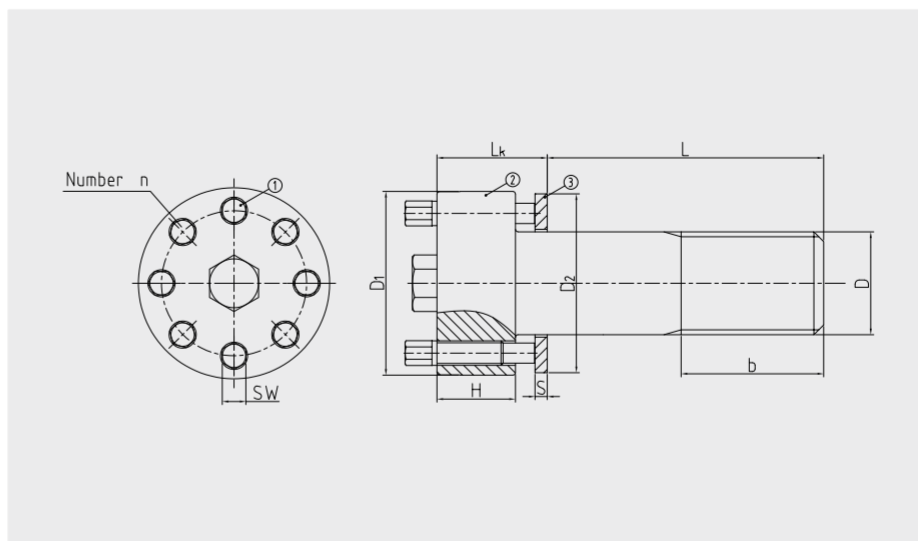
Jacking screw

2

Nut body

3

Hardened washer



Part No.	Bolt body			Jackbolt		Hardened washer		Total Height	Preload total		Torque
BSM - DXP	D	D1 mm	H mm	SW mm	n	D2 mm	S mm	LK mm	Fnom kN	Fmax kN	Mnom Nm
BSM - 30X3.5	M30	54	23	8	6	54	5	45	214	286	43
BSM - 33X3.5	M33	60	28	9	6	60	5	52	285	380	67
BSM - 36X4	M36	63	28	9	6	63	5	52	333	443	78
BSM - 39X4	M39	66	28	9	8	66	5	52	406	540	72
BSM - 42X4.5	M42	69	28	9	8	69	5	52	457	610	80
BSM - 45X4.5	M45	76	37	11	8	76	6	64	535	720	107
BSM - 48X5	M48	79	37	11	8	79	6	64	605	800	121
BSM - 52X5	M52	83	37	11	10	83	6	64	735	970	118
BSM - 56X5.5	M56	87	37	11	10	87	6	64	835	1120	134
BSM - 60X5.5	M60	91	37	11	12	91	6	64	985	1310	132
BSM - 64X6	M64	104	46	15	8	104	8	83	950	1270	259
BSM - 68X6	M68	108	46	15	8	108	8	83	1090	1450	297
BSM - 72X6	M72	112	46	15	10	112	8	83	1230	1640	268
BSM - 76X6	M76	116	46	15	12	116	8	83	1390	1870	253
BSM - 80X6	M80	120	56	15	12	120	8	92	1570	2080	285
BSM - 90X6	M90	130	56	15	16	130	8	92	2010	2700	274
BSM - 100X6	M100	148	60	18	12	148	10	99	2540	3370	544
BSM - 110X6	M110	158	60	18	14	158	10	99	2850	3750	523
BSM - 120X6	M120	170	64	18	16	170	10	105	3380	4500	544
BSM - 125X6	M125	175	64	18	16	175	10	105	3650	4880	586
BSM - 130X6	M130	180	76	18	18	180	10	118	3950	5270	564
BSM - 140X6	M140	190	76	18	20	190	10	118	4550	6100	584
BSM - 150X6	M150	200	76	18	20	200	10	118	4880	6500	627

The maximum tensile force, Fmax, provides a long-term, effective load on the bolted joint, including the operating load. Leveraging our design and manufacturing capabilities, we can also accommodate special requirements, such as unique materials, surface treatments, or custom thread clearances.

BSH- Multi-Jackbolt Pretensioners (MJP)

1

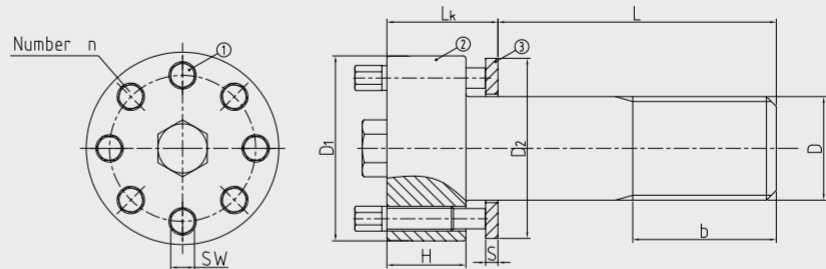
Jacking screw

2

Nut body

3

Hardened washer



Part No.	Bolt body			Jackbolt		Hardened washer		Total Height	Preload total		Torque
BSH - DXP	D	D1 mm	H mm	SW mm	n	D2 mm	S mm	LK mm	F _{nom} kN	F _{max} kN	M _{nom} Nm
BSH - 30X3.5	M30	54	23	8	10	54	5	45	286	317	37
BSH - 33X3.5	M33	60	28	9	8	60	5	52	380	406	69
BSH - 36X4	M36	64	28	9	10	64	5	52	443	508	69
BSH - 39X4	M39	66	28	9	12	66	5	52	540	570	65
BSH - 42X4.5	M42	69	28	9	12	69	5	52	610	645	74
BSH - 45X4.5	M45	76	37	11	10	76	6	64	720	760	119
BSH - 48X5	M48	79	37	11	10	79	6	64	800	855	133
BSH - 52X5	M52	83	37	11	12	83	6	64	970	995	129
BSH - 56X5.5	M56	87	37	11	12	87	6	64	1120	995	129
BSH - 60X5.5	M60	92	37	11	14	92	6	64	1310	1160	129
BSH - 64X6	M64	104	46	15	10	104	8	83	1270	1310	283
BSH - 68X6	M68	108	46	15	10	108	8	83	1450	1480	319
BSH - 72X6	M72	112	46	15	12	112	8	83	1640	1690	303
BSH - 76X6	M76	116	46	15	14	116	8	83	1870	1900	293
BSH - 80X6	M80	120	56	15	14	120	8	92	2080	2110	325
BSH - 90X6	M90	139	56	18	12	139	8	92	2700	2740	581

The maximum tensile force, F_{max}, provides a long-term, effective load on the bolted joint, including the operating load. Leveraging our design and manufacturing capabilities, we can also accommodate special requirements, such as unique materials, surface treatments, or custom thread clearances.

FN-Flexnuts

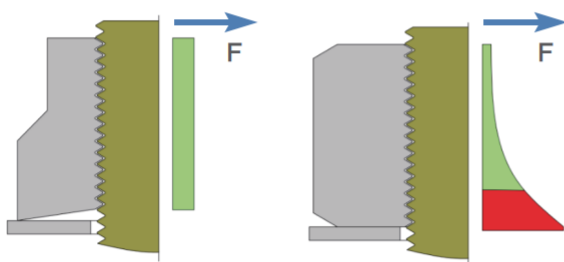
- Mechanical Multi-Jackbolt Pretensioners (MJP) are an ideal solution for purely axial pretensioning.
- FN Flexnuts are designed according to ISO 898-2 and are suitable for general bolting applications across all industrial sectors.

Flexnut expands outward at the base and contracts inward at the top when subjected to radial forces thanks to the unique design.

Thrust Washer protects the components from high stress.

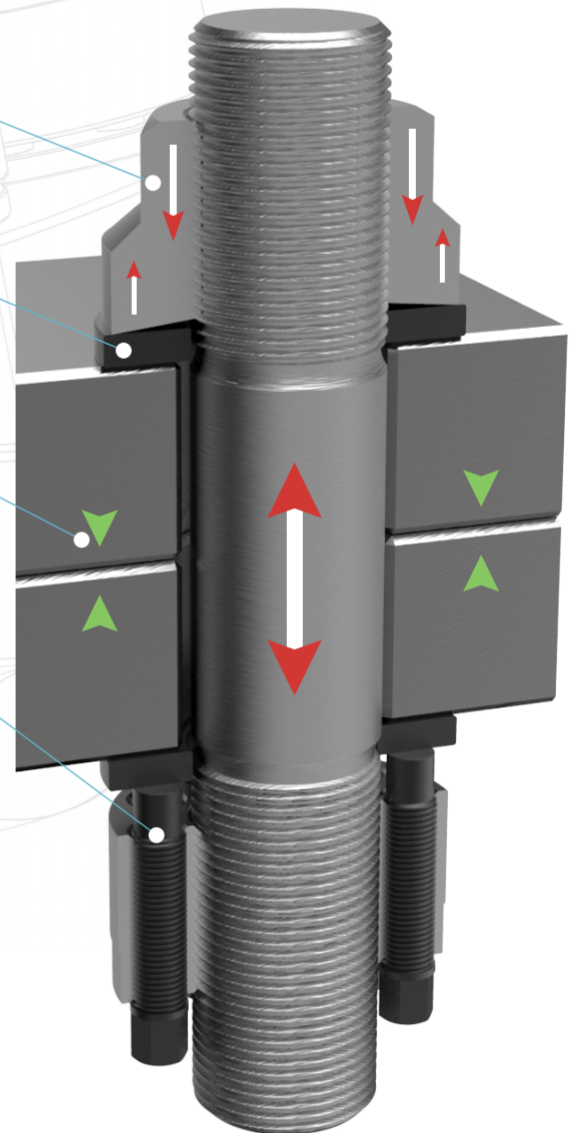
Clamping force is generated by the thrust of the KPMBOLT™ Jackbolts and the reaction of the threaded bolt.

Flexnut cannot be tightened with direct torque; it must be used in conjunction with a Multi-Jackbolt Pretensioner.



Schematic Diagram of Thread Stress

Flexnut evenly distribute stress on the threads, protecting them, extending bolt service life, and improving connection stability.



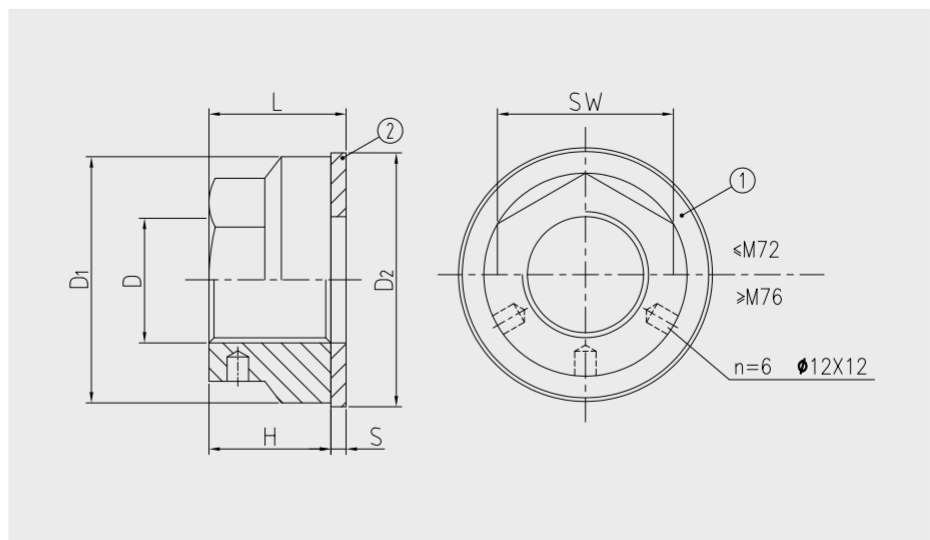
KPMBOLT Multi-Jackbolt Pretensioners (MJP) are patent-protected:
China Patent No. 202522022988.8.

1

Nut body

2

Hardened washer



Part No.	Nut body				Hardened washer		Total Height	Maximum preload
FNM - DXP	D	D1 mm	H mm	SW mm	D2 mm	S mm	L mm	Fmax kN
FNM - 30X3.5	M30	52	25	39	56	5	30	286
FNM - 33X3.5	M33	57	28	42	63	6	34	380
FNM - 36X4	M36	62	31	48	69	6	37	460
FNM - 39X4	M39	66	33	51	72	6	39	610
FNM - 42X4.5	M42	73	36	56	76	6	42	610
FNM - 45X4.5	M45	77	38	57	81	6	44	935
FNM - 48X5	M48	83	41	64	86	6	47	935
FNM - 52X5	M52	88	44	67	94	6	50	970
FNM - 56X5.5	M56	97	48	72	100	6	54	1120
FNM - 60X5.5	M60	105	51	76	110	8	59	1310
FNM - 64X6	M64	111	54	80	120	8	62	1690
FNM - 72X6	M72	125	61	90	130	8	69	1690
FNM - 76X6	M76	132	64	/	138	10	74	2530
FNM - 80X6	M80	139	68	/	145	10	78	2530
FNM - 90X6	M90	156	76	/	160	10	86	3380
FNM - 100X6	M100	173	85	/	180	10	95	3380
FNM - 110X6	M110	191	94	/	202	10	104	4200
FNM - 120X6	M120	208	102	/	215	12	114	5600
FNM - 125X6	M125	218	108	/	227	12	120	5600
FNM - 130X6	M130	226	111	/	234	12	123	6300
FNM - 140X6	M140	243	119	/	253	12	131	7000
FNM - 150X6	M150	260	127	/	271	12	139	7000

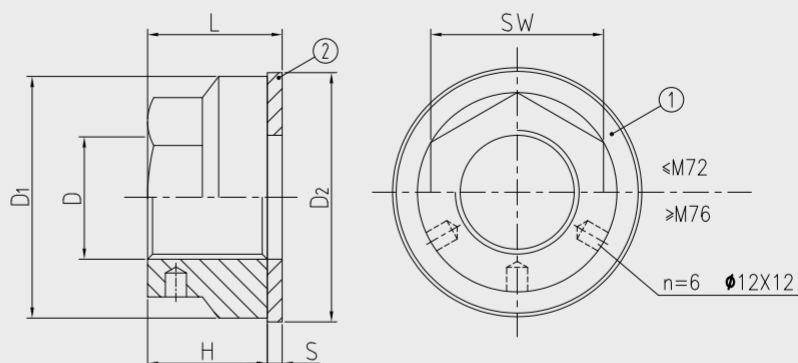
The maximum tensile force, F_{max} , exerts a long-term effective action on the bolted joint, including the operating load. Based on our design and manufacturing capabilities, we are also able to meet other application requirements, such as those for special materials, special surface treatments, or special thread clearance.

1

Nut body

2

Hardened washer



Part No.	Nut body				Hardened washer		Total Height	Maximum preload
FNH - DXP	D	D1 mm	H mm	SW mm	D2 mm	S mm	L mm	Fmax kN
FNH - 30X3.5	M30	52	30	39	56	5	35	427
FNH - 33X3.5	M33	57	33	42	63	6	39	610
FNH - 36X4	M36	62	36	48	69	6	42	675
FNH - 39X4	M39	66	39	51	72	6	45	760
FNH - 42X4.5	M42	73	42	56	76	6	48	915
FNH - 45X4.5	M45	77	45	57	81	6	51	1170
FNH - 48X5	M48	83	48	64	86	6	54	1170
FNH - 52X5	M52	88	52	67	94	6	58	1400
FNH - 56X5.5	M56	97	56	72	100	6	62	1400
FNH - 60X5.5	M60	105	60	76	106	8	68	2100
FNH - 64X6	M64	111	64	80	120	8	72	2100
FNH - 72X6	M72	125	72	90	130	8	80	2530
FNH - 76X6	M76	132	76	/	138	10	86	3370
FNH - 80X6	M80	139	80	/	145	10	90	3370
FNH - 90X6	M90	156	90	/	160	10	100	4200
FNH - 100X6	M100	173	100	/	180	10	110	4900
FNH - 110X6	M110	191	110	/	202	10	120	5600
FNH - 120X6	M120	208	120	/	215	12	132	6300
FNH - 125X6	M125	218	125	/	227	12	137	6300
FNH - 130X6	M130	226	111	/	234	12	123	7000
FNH - 140X6	M140	243	119	/	253	12	131	7700
FNH - 150X6	M150	260	127	/	271	12	139	7700

The maximum tensile force, F_{max} , exerts a long-term effective action on the bolted joint, including the operating load. Based on our design and manufacturing capabilities, we are also able to meet other application requirements, such as those for special materials, special surface treatments, or special thread clearance.

KPMBOLT™ ENGINEERING

Application Fields:
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