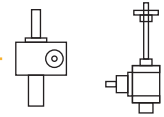


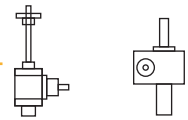
Cubical Worm Gear Screw Jack CWJ



DIMENSION SHEET

CWJ 0.5 to CWJ 25 Type 1 & Type 2

Nominal Size CWJ 0.5 to CWJ 25, Type 1 & Type 2							
Nominal Size	0.5	1	2.5	5	10	20	25
Lifting Screw Tr	18X3	25x6	30x6	40x7	55X9	70x10	80x10
A	118	150	206	270	270	350	350
A1	70	100	126	160	170	230	230
A2	56	80	102	130	134	180	180
A3	7	10	12	15	18	25	25
A4	7	7.5	12	15	18	25	25
A5	80	85	131	165	175	230	230
A6	4	1	2	5	5	2	2
B	39	56	68	90	115	125	125
B1	20	30	35	45	50	50	50
C1	15	15	20	25	25	25	25
D1	30	44	60	69	90	120	120
D11		60	68	86	86	94	94
D12	25	32	51	64	80	102	102
E	94	100	155	195	211	280	280
E1	29	32.5	45	50	63	75	75
F thro'	9	9	11	13			
F1					M20	M30	M30
F2					30	45	45
F4xl		M5x10	M6x12	M8x15	M8x15	M10x18	M10x18
H	30	30	50	70	70	90	90
K	3x3x15	4x4x20	6x6x30	8x7x40	8x7x40	8x7x50	8x7x50
L	24	25	40	55	50	60	60
M		30	45	30	30	30	30
nxF6		4xM5x12	4xM6x12	4xM8x16	4xM8x16	6xM8x15	6xM8x15
S	50	70	90	120	150	176	176
S1	25	35	45	60	75	88	88
S2	10	20	25	35	40	40	40
dj6	9	12	20	25	25	30	30
Head Type II							
D2	54	79	89	109	149	198	218
D3	40	60	67	85	117	155	170
D4	26	39	46	60	85	105	120
L1	14	21	23	30	50	60	60
L2	8	8	10	15	20	30	30
nxF5	4x7	4x11	4x11	4x13	4x17	4x25	4x25
Head Type I							
D5	12	15	20	30	40	55	65
L3	20	25	30	45	60	80	85
Head Type III							
D6	M12x1	M14x2	M20x2.5	M30x3.5	M36x4	M56x5.5	M64x4
L4	20	20	30	30	48	58	58
Head Type IV							
D7		38	48	68	88	108	118
D8		20	25	35	50	60	65
L5		75	95	125	180	210	225
L6		55	70	90	130	150	160
L7		25	30	40	60	75	80
L8		40	50	70	100	120	130
Travelling Nut Type 2							
NL	72+Lift	90+Lift	110+Lift	145+Lift	165+Lift	190+Lift	190+Lift
D13	50	55	80	87	110	125	140
D14	40	40	50	70	85	105	120
L16	32	40	45	60	75	100	100
L17		12	15	18	25	30	30

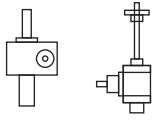


DIMENSION SHEET

CWJ 35 to CWJ 100 Type 1 Type 2

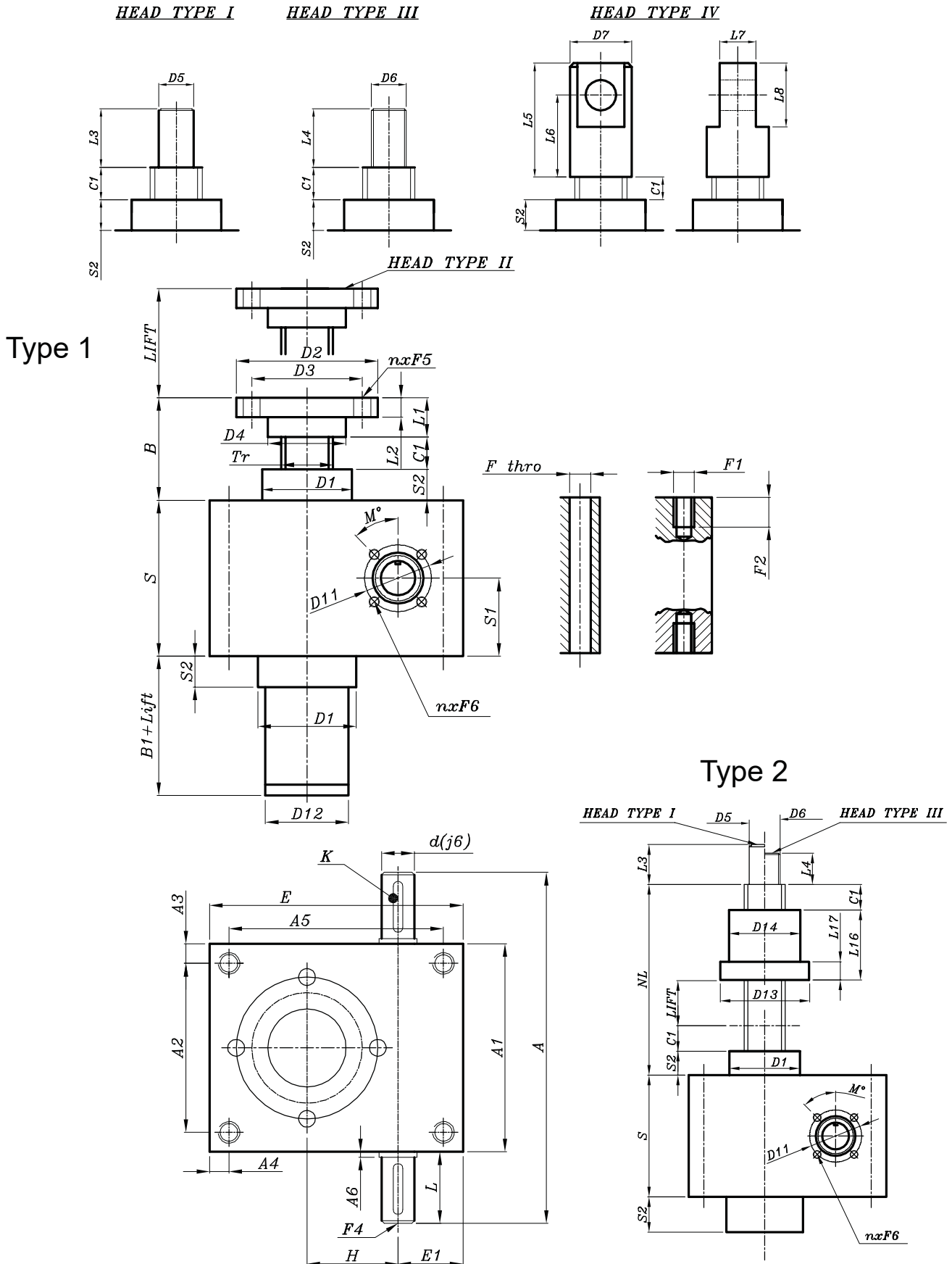
Nominal Size CWJ 35 to CWJ 100, Type 1 & Type 2

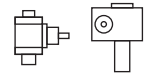
Nominal Size	35	40	50	60	80	100
Lifting Screw Tr	90X10	100x12	120x16	120x16	140X14	160x16
A	390	490	490	490	780	780
A1	250	320	320	320	500	500
A2	200	230	230	230	360	360
A3	25	45	45	45	70	70
A4	25	25	25	25	40	40
A5	270	355	355	355	510	510
A6	2	5	5	5	10	10
B	160	160	170	170	210	210
B1	60	60	60	60	70	70
C1	40	40	40	40	50	50
D1	150	210	210	210	300	300
D11	100					
D12	127	153	153	153	180	203
E	320	405	405	405	590	590
E1	85	105	105	105	160	160
F thro'						
F1	M30	M30	M30	M30	M56	M56
F2	45	45	45	45	110	110
F4xl	M10x18	M12x15	M12x15	M12x15	M14x30	M14x30
H	110	140	140	140	200	200
K	12x8x60	16x10x70	16x10x70	16x10x70	20x12x110	20x12x110
L	70	85	85	85	140	140
M	45					
nxF6	4xM10x18					
S	230	270	270	270	370	370
S1	115	135	135	135	185	185
S2	50	50	50	50	60	60
dj6	40	55	55	55	70	70
Head Type II						
D2	278	278	298	298	378	378
D3	220	220	240	240	300	300
D4	150	150	170	170	210	210
L1	70	70	80	80	100	100
L2	40	40	50	50	60	60
nxF5	6x29	6x29	6x32	6x32	6x52	6x52
Head Type I						
D5	75	85	100	100	120	140
L3	110	120	120	150	150	150
Head Type III						
D6	M70x6	M70x6	M90x6	M90x6	M110x6	M125x6
L4	70	70	90	90	110	125
Head Type IV						
D7	138	138	168	168	216	216
D8	80	80	100	100	140	140
L5	280	280	350	350	440	460
L6	200	200	250	250	300	320
L7	100	100	120	120	155	155
L8	160	200	160	200	280	280
Travelling Nut Type 2						
NL	230+lift	285+lift	285+lift	285+lift	300+lift	360+lift
D13	155	225	225	225	250	260
D14	130	160	160	160	180	200
L16	100	155	155	155	140	200
L17	35	50	50	50	50	80



DIMENSION SHEET

CWJ 0.5 to CWJ 25 Type 1 & Type 2



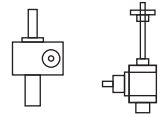


PRELIMINARY SELECTION TABLE

Cubical Worm Gear Screw Jack CWJ 0.5 to CWJ 100

Cubical Worm Gearbox Type	Standard Cubical Worm Gearbox CWJ													
Nominal size, CWJ	0.5		1		2.5		5		10		20		25	
Max lifting capacity, kN	5		15		25		50		100		200		250	
Lifting screw Tr	18x3		25x6		30x6		40x7		55x9		70x10		80x10	
Normal N, Slow L	N	L	N	L	N	L	N	L	N	L	N	L	N	L
Ratio	5:1	20:1	10:1	30:1	10:1	30:1	10:1	30:1	10:1	30:1	10:1	30:1	10:1	30:1
Lift per turn of worm, at ratio, mm	0.6	0.15	0.4	0.13	0.6	0.20	0.7	0.23	0.9	0.3	1	0.33	1	0.33
Total efficiency, at ratio	0.243	0.15	0.3	0.17	0.26	0.17	0.234	0.16	0.225	0.153	0.21	0.14	0.19	0.126
Screw efficiency	0.353		0.40		0.40		0.365		0.35		0.32		0.29	
Screw torque at max lifting capacity, Nm	6.76		15.9		59.8		152.6		411		1007		1390	
Worm torque at max lifting capacity, at ratio Nm	1.98	0.78	2.47	1.22	9.26	4.59	23.6	11.71	63.7	31.60	156	77.3	215.3	106.7
Max permissible torque at worm shaft, Nm	8.5		20.5		92		195		195		318		318	
Weight without lifting screw, push rod and protection tube, kg	1.8		6		6.5		18		35		56		63	
Weight per 100 mm of screw, push rod and protection tube, kg	0.16		0.22		0.5		0.9		1.8		2.8		3.7	

Cubical worm Gearbox Type	Standard Cubical Worm Gearbox CWJ											
Nominal size, CWJ	35		40		50		60		80		100	
Max lifting capacity, kN	350		400		500		600		800		1000	
Lifting screw Tr	90x10		100x12		120x16		120x16		140x14		160x16	
Normal N, Slow L	N	L	N	L	N	L	N	L	N	L	N	L
Ratio	10:1	30:1	10.67:1	32:1	10.67:1	32:1	10.67:1	32:1	12:1	36:1	12:1	36:1
Lift per turn of worm, at ratio, mm	1	0.33	1.12	0.38	1.5	0.5	1.5	0.5	1.17	0.39	1.33	0.44
Total efficiency, at ratio	0.17	0.12	0.18	0.12	0.19	0.13	0.19	0.13	0.14	0.09	0.14	0.09
Screw efficiency	0.262		0.278		0.30		0.30		0.24		0.24	
Screw torque at max lifting capacity, Nm	2129		2752		4236		5084		7400		10572	
Worm torque at max lifting capacity, at ratio Nm	330	164	401	200	618	307	741	369	1045	569	1493	813
Max permissible torque at worm shaft, Nm	840		1960		1960		1960		4220		4220	
Weight without lifting screw, push rod and protection tube, kg	110		180		180		180		380		380	
Weight per 100 mm of screw, push rod and protection tube, kg	4.6		5.6		8		8		11		14	



Selection of screw jacks

Examples

In designing screw jack lifting systems it is necessary to establish the operating conditions. The load to be lifted and the stroke length must be determined.

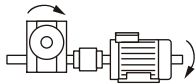
Additional loads, acting non-axially must be taken into account. Following the determination of the number and attitude of the jacks, the load on each individual jack must be calculated. Next determine the drive train for the screw jacks.

The following rules apply for the illustrations below:

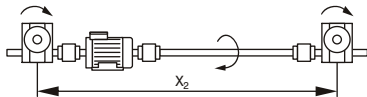
- all jacks in these examples have a common direction of rotation
- the number of transmission elements is as small as possible
- the motor position is closest to the most heavily loaded screw jack CWJ

Arrangement examples

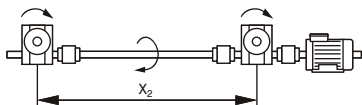
Example 1



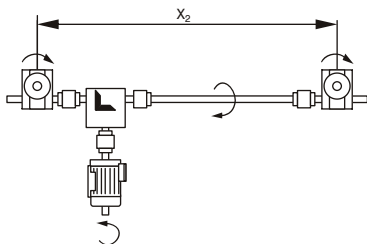
Example 2



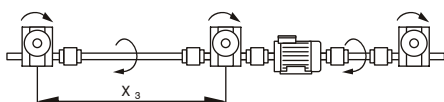
Example 3



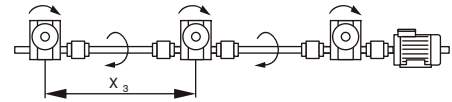
Example 4



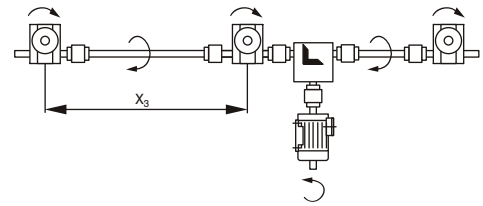
Example 5



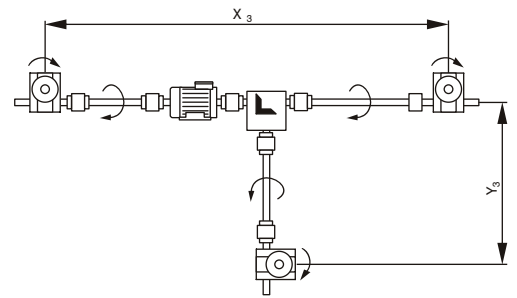
Example 6



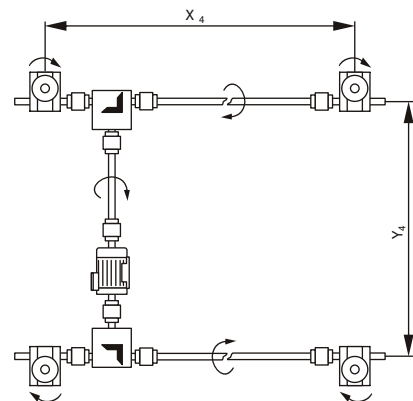
Example 7



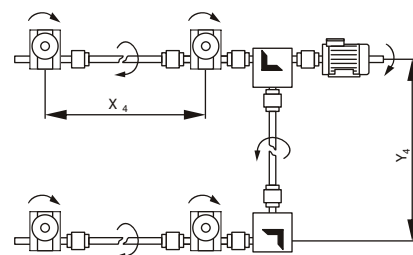
Example 8

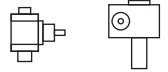


Example 9



Example 10

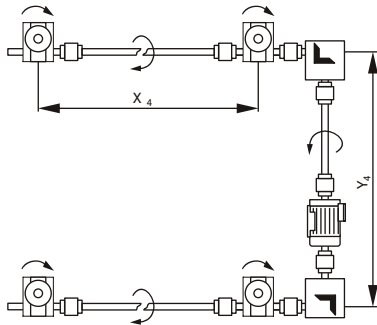




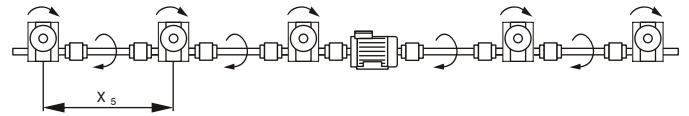
Selection of screw jacks

Arrangement examples

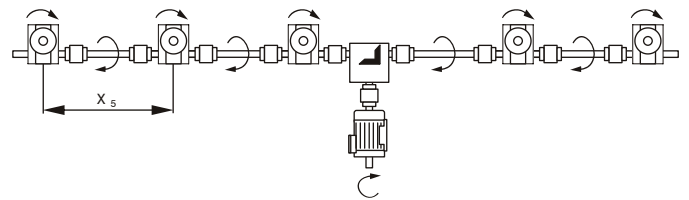
Example 11



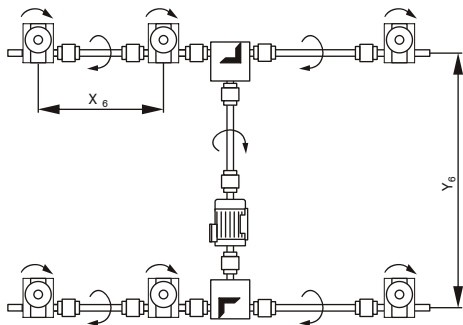
Example 12



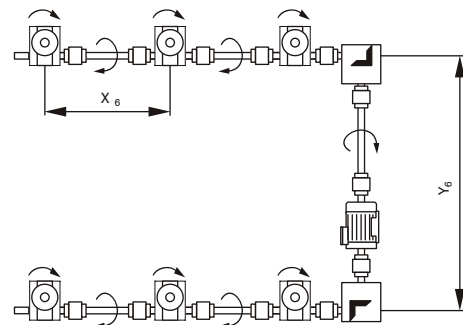
Example 13



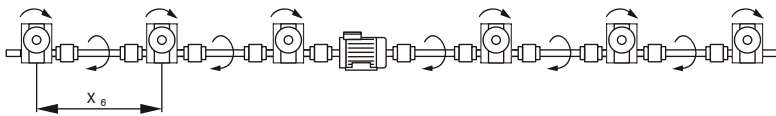
Example 14



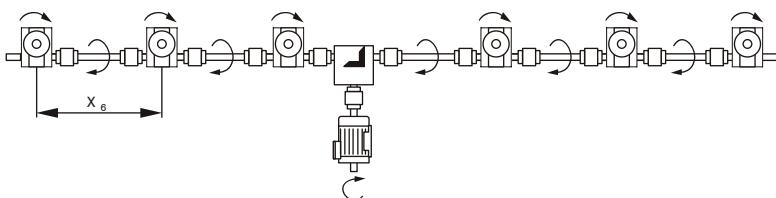
Example 15



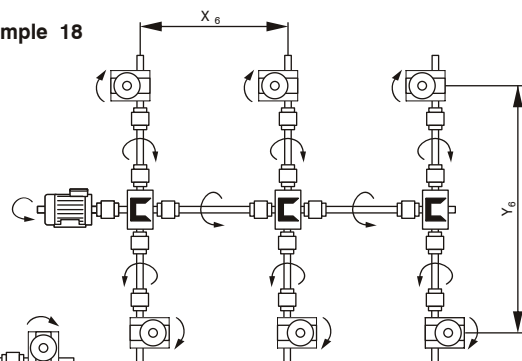
Example 16

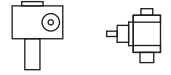


Example 17



Example 18





Worm Gear Screw Jacks CLASSIC



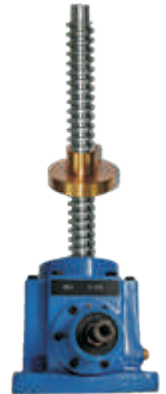
Worm Gear Screw Jacks CUBICAL



Ball Screw Jack



Electric Cylinder



Bevel Gear Screw Jacks



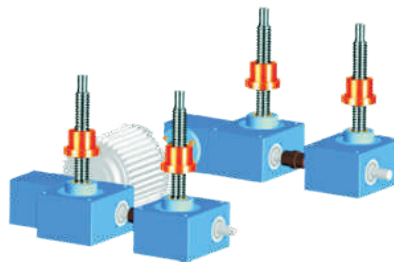
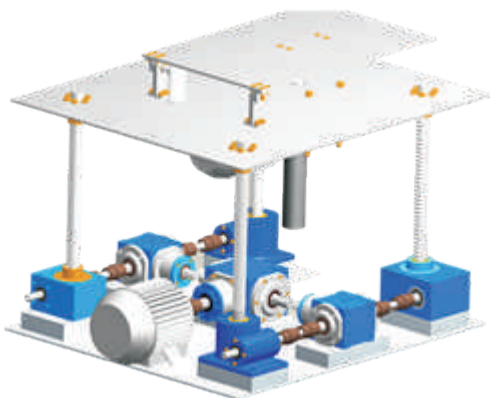
Bevel Gear Box, FG



Bevel Gear Box, L Drive



UV Joints



Worm Reducer