

The Torque Values shown are for guidance only and are based on normal industrial applications. The Torque Values shown are for plated carbon steel fittings.

**NM** = Newton Metres  
**KG.M** = Kilogram Metres  
**FT.LB** = Foot Pound

TO CONVERT ➡	INTO ➡	MULTIPLY BY
NM	FT. LB	0.737
NM	KG. M	0.102
FT. LB	NM	1.357
FT. LB	KG. M	0.138
KG. M	NM	9.804
KG. M	FT. LB	7.231

## BSPP NUTS

BSPP SIZE	DASH SIZE	SWIVEL NUT TORQUE RANGE	
		NM	FT. LB
1/8	-02	11-12	8-9
1/4	-04	25-28	18-20
3/8	-06	41-48	30-35
1/2	-08	72-82	55-60
5/8	-10	96-110	70-80
3/4	-12	124-137	90-100
1	-16	151-165	110-120
1.1/4	-20	192-206	140-150
1.1/2	-24	261-275	190-200
2	-32	343-357	250-260

## JIC 37° & SAE 45° (MACHINED OR FLARED)

JIC/SAE THREAD SIZE	DASH SIZE	SAE RECOMMENDED SWIVEL NUT TORQUE RANGE	
		NM	FT. LB
5/16-24	-05	8-9	6-7
3/8-24	-06	11-12	8-9
7/16-20	-07	15-16	11-12
1/2-20	-08	19-21	14-15
9/16-18	-09	24-28	18-20
3/4-16	-12	49-53	36-39
7/8-14	-14	77-85	57-63
1.1/16-12	-17	107-119	79-88
1.3/16-12	-19	127-140	94-103
1.5/16-12	-21	147-154	108-113
1.5/8-12	-26	172-181	127-133
1.7/8-12	-30	215-226	158-167
2.1/2-12	-40	332-350	245-258

## METRIC 24°, 60° & UNIVERSAL INVERTED CONE

THREAD SIZE	TUBE DIA. MM S-HEAVY	TUBE DIA. MM L-LIGHT	SWIVEL NUT TORQUE RANGE	
			NM	FT. LB
M12 x 1,5		6	10-20	7-15
M14 x 1,5	6	8	20-35	15-26
M16 x 1,5	8	10	25-40	18-30
M18 x 1,5	10	12	30-45	22-33
M20 x 1,5	12		35-50	26-37
M22 x 1,5	14	15	40-70	30-52
M24 x 1,5	16		40-70	30-52
M26 x 1,5		18	60-100	44-74
M30 x 2,0	20	22	80-120	59-89
M36 x 2,0	25	28	100-150	74-111
M42 x 2,0	30		150-220	74-163
M45 x 2,0		35	180-250	133-184
M52 x 2,0	38	42	200-300	148-221

## ORFS

ORFS THREAD SIZE	DASH SIZE	SAE RECOMMENDED SWIVEL NUT TORQUE RANGE	
		NM	FT. LB
9/16-18	-09	14-16	10-12
11/16-16	-11	24-27	18-20
13/16-16	-13	43-47	32-35
1-14	-16	60-68	46-50
1.3/16-12	-19	90-95	65-70
1.7/16-12	-23	125-135	92-100
1.11/16-12	-27	170-190	125-140
2-12	-32	200-225	150-165

## UN O RING

UNO THREAD SIZE	DASH SIZE	SAE RECOMMENDED STRAIGHT FITTING OR LOCK NUT TORQUE RANGE	
		NM	FT. LB
3/8-24	-06	11-13	8-10
7/16-20	-07	20-22	14-16
1/2-20	-08	24-27	18-20
9/16-18	-09	33-35	24-26
3/4-16	-12	68-78	50-60
7/8-14	-14	98-110	72-80
1.1/16-12	-17	170-183	125-135
1.3/16-12	-19	230-260	170-190
1.5/16-12	-21	270-300	200-220
1.5/8-12	-26	285-380	210-280
1.7/8-12	-30	370-490	270-360

## SAE FLANGE CLAMP BOLTS CODE 61

BOLT DATA UN CLASS 2A	FLANGE DASH SIZE	SAE RECOMMENDED BOLT TORQUE RANGE	
		NM	FT. LB
5/16 x 18 x 1.1/4	-08	20-25	15-18
3/8 x 16 x 1.1/4	-12	28-40	21-29
3/8 x 16 x 1.1/4	-16	37-48	27-35
7/16 x 14 x 1.1/2	-20	48-62	35-46
1/2 x 13 x 1.1/2	-24	62-79	46-58
1/2 x 13 x 1.1/2	-32	73-90	54-66
1/2 x 13 x 1.3/4	-40	107-124	79-91

## SAE FLANGE CLAMP BOLTS CODE 62

BOLT DATA UN CLASS 2A	FLANGE DASH SIZE	SAE RECOMMENDED BOLT TORQUE RANGE	
		NM	FT. LB
5/16 x 18 x 1.1/4	-08	20-25	15-18
3/8 x 16 x 1.1/2	-12	34-45	25-33
7/16 x 14 x 1.3/4	-16	56-68	41-50
1/2 x 13 x 1.3/4	-20	85-102	63-75
5/8 x 11 x 2.1/4	-24	158-181	116-133
3/4 x 10 x 2.3/4	-32	271-294	200-217

## SAE FLANGE BLOCK BOLTS CODE 61

BOLT DATA UN CLASS 2B	FLANGE DASH SIZE	RECOMMENDED BOLT TORQUE RANGE	
		NM	FT. LB
5/16 x 18 x 1.1/4	-08	20-25	15-18
3/8 x 16 x 1.1/2	-12	28-40	21-29
3/8 x 16 x 1.1/2	-16	37-48	27-35
7/16 x 14 x 1.3/4	-20	48-62	35-46
1/2 x 13 x 1.3/4	-24	62-79	46-58
1/2 x 13 x 1.3/4	-32	73-90	54-66

## SAE FLANGE BLOCK BOLTS CODE 62

BOLT DATA UN CLASS 2B	FLANGE DASH SIZE	RECOMMENDED BOLT TORQUE RANGE	
		NM	FT. LB
3/8 x 16 x 1.1/2	-12	34-45	25-33
7/16 x 14 x 1.3/4	-16	56-68	41-50
1/2 x 13 x 1.3/4	-20	85-102	63-75
5/8 x 11 x 2	-24	158-187	116-138
3/4 x 10 x 2.1/2	-32	271-294	200-217