

AS Series Torque Table

unit : Nm

Model	Spring type	Angle	Supply Air							Spring
			3Bar	4Bar	4.5Bar	5Bar	6Bar	7Bar	8Bar	
AS50	Weak	0°	14.3	21.9	25.7	29.0	36.1	43.7	50.4	10.5
		45°	6.7	11.9	14.3	17.1	21.9	27.1	32.0	8.2
		90°	7.6	17.1	21.9	27.6	39.9	50.4	59.9	16.2
	Middle	0°	11.4	19.0	22.8	26.6	33.3	40.9	47.5	16.2
		45°	2.9	8.2	10.8	13.6	19.0	23.8	29.5	12.0
		90°	-	6.2	11.4	16.2	27.6	39.0	47.5	24.2
	Strong	0°	5.0	13.3	17.1	20.9	28.3	35.2	42.8	23.0
		45°	-	2.9	6.7	9.5	14.3	20.0	24.7	16.5
		90°	-	-	1.0	4.8	14.0	23.8	33.3	33.3
AS65	Weak	0°	35.2	53.2	61.8	68.4	81.7	100.7	118.8	29.5
		45°	17.1	28.5	34.2	40.9	52.3	62.7	72.2	15.6
		90°	28.5	47.0	58.0	68.4	91.2	96.9	136.8	29.2
	Middle	0°	24.2	41.3	49.4	58.0	73.2	87.4	101.7	43.7
		45°	6.8	17.6	23.3	28.5	40.4	51.3	62.7	24.9
		90°	3.2	20.0	30.6	41.2	64.6	87.4	110.2	47.2
	Strong	0°	13.0	33.1	42.8	51.3	64.9	83.6	95.0	56.6
		45°	-	9.5	14.7	20.0	32.3	44.7	56.1	34.4
		90°	-	-	8.6	19.0	39.9	60.8	84.6	65.2
AS80	Weak	0°	71.3	104.5	123.5	142.5	175.8	209.0	242.3	47.5
		45°	28.5	52.3	61.8	71.3	95.0	114.0	137.8	33.3
		90°	47.5	95.0	128.3	152.0	213.8	256.5	285.0	61.8
	Middle	0°	42.8	76.0	95.0	114.0	147.3	180.5	209.0	76.0
		45°	9.5	33.3	42.8	57.0	76.0	99.8	118.8	42.8
		90°	4.8	42.8	61.8	85.5	128.3	171.0	218.5	85.5
	Strong	0°	14.3	52.3	71.3	90.3	123.5	156.8	190.0	114.0
		45°	-	14.3	28.5	38.0	61.8	80.8	99.8	61.8
		90°	-	-	19.0	38.0	85.5	128.3	171.0	118.8
AS100	Weak	0°	109.3	161.5	190.0	223.3	289.8	351.5	413.3	95.0
		45°	47.5	90.3	104.5	128.3	166.3	209.0	247.0	61.8
		90°	61.8	133.0	180.5	204.3	285.0	361.0	437.0	109.3
	Middle	0°	71.3	133.0	166.3	199.5	266.0	323.0	389.5	114.0
		45°	14.3	57.0	76.0	95.0	137.8	175.8	213.8	76.0
		90°	-	61.8	99.8	133.0	209.0	285.0	361.0	152.0
	Strong	0°	42.8	104.5	137.8	171.0	237.5	299.3	356.3	152.0
		45°	-	33.3	57.0	76.0	118.8	161.5	204.3	99.8
		90°	-	9.5	42.8	80.8	152.0	228.0	304.0	209.0
AS125	W	0°	332.5	465.5	527.3	584.3	703.0	807.5	931.0	109.3
		45°	180.5	261.3	299.3	342.0	418.0	498.8	589.0	57.0
		90°	313.5	489.3	584.3	679.3	769.5	964.3	1,149.5	118.8
	WM	0°	256.5	384.8	441.8	503.5	631.8	750.5	869.3	190.0
		45°	128.3	213.8	251.8	294.5	375.3	456.0	541.5	109.3
		90°	190.0	361.0	451.3	536.8	722.0	893.0	1,064.0	213.8
	WS	0°	190.0	323.0	384.8	446.5	574.8	693.5	807.5	261.3
		45°	66.5	152.0	190.0	232.8	313.5	394.3	475.0	152.0
		90°	76.0	218.5	289.8	361.0	494.0	641.3	826.5	256.5
	M	0°	185.3	318.3	384.8	451.3	574.8	693.5	812.3	285.0
		45°	80.8	161.5	204.3	247.0	327.8	408.5	489.0	166.3
		90°	76.0	237.5	318.3	408.5	584.3	722.0	893.0	318.3
	MS	0°	133.0	266.0	327.8	389.5	522.5	641.3	760.0	332.5
		45°	38.0	118.8	161.5	204.3	285.0	361.0	441.8	199.5
		90°	-	142.5	228.0	313.5	484.5	665.0	836.0	380.0
	S	0°	80.8	213.8	280.3	346.8	470.3	589.0	712.5	408.5
		45°	-	85.5	128.3	166.3	247.0	327.8	408.5	237.5
		90°	-	61.8	133.0	213.8	384.8	560.5	712.5	446.5

AS Series Torque Table

unit : Nm

Model	Spring type	Angle	Supply Air							Spring
			3Bar	4Bar	4.5Bar	5Bar	6Bar	7Bar	8Bar	
AS140	W	0°	475.0	674.5	764.8	864.5	1,045.0	1,235.0	1,396.5	133.0
		45°	228.0	342.0	399.0	451.3	560.5	669.8	779.0	85.5
		90°	251.8	532.0	617.5	707.8	883.5	1,064.0	1,273.0	152.0
	WM	0°	365.8	570.0	674.5	774.3	959.5	1,159.0	1,320.5	256.5
		45°	161.5	275.5	323.0	380.0	489.3	598.5	707.8	156.8
		90°	223.3	418.0	532.0	636.5	855.0	1,078.3	1,339.5	294.5
	WS	0°	289.8	479.8	584.3	674.5	869.3	1,054.5	1,225.5	375.3
		45°	104.5	223.3	275.5	327.8	432.3	541.5	650.8	199.5
		90°	99.8	313.5	418.0	517.8	741.0	969.0	1,206.5	380.0
	M	0°	256.5	460.8	555.8	655.5	855.0	1,035.5	1,206.5	384.8
		45°	104.5	199.5	247.0	313.5	418.0	532.0	636.5	228.0
		90°	80.8	275.5	375.3	475.0	688.8	912.0	1,149.5	446.5
	MS	0°	190.0	380.0	475.0	570.0	769.5	959.5	1,140.0	479.8
		45°	38.0	152.0	209.0	266.0	361.0	465.5	579.5	275.5
		90°	-	161.5	266.0	380.0	570.0	788.5	1,026.0	522.5
	S	0°	109.3	304.0	399.0	503.5	693.5	883.5	1,073.5	574.8
		45°	-	109.3	166.3	213.8	318.3	427.5	532.0	332.5
		90°	-	61.8	156.8	251.8	465.5	674.5	883.5	617.5
AS160	W	0°	627.0	921.5	1,064.0	1,206.5	1,491.5	1,757.5	2,042.5	313.5
		45°	299.3	475.0	560.5	646.0	817.0	997.5	1,178.0	194.8
		90°	460.8	826.5	1,016.5	1,178.0	1,596.0	2,071.0	2,242.0	384.8
	WM	0°	541.5	855.0	997.5	1,130.5	1,425.0	1,700.5	1,966.5	394.3
		45°	256.5	422.8	513.0	598.5	769.5	950.0	1,121.0	232.8
		90°	361.0	703.0	893.0	1,083.0	1,501.0	1,928.5	2,289.5	446.5
	WS	0°	389.5	684.0	826.5	983.3	1,263.5	1,548.5	1,833.5	612.8
		45°	137.8	304.0	389.5	479.8	650.8	821.8	964.3	356.3
		90°	42.8	365.8	513.0	674.5	1,002.3	1,353.8	1,767.0	636.5
	M	0°	446.5	750.5	902.5	1,045.0	1,330.0	1,615.0	1,900.0	503.5
		45°	204.3	380.0	465.5	551.0	731.5	902.5	1,068.8	289.8
		90°	247.0	608.0	769.5	950.0	1,349.0	1,795.5	2,090.0	536.8
	MS	0°	308.8	612.8	745.8	893.0	1,173.3	1,453.5	1,738.5	665.0
		45°	902.5	266.0	356.3	441.8	617.5	788.5	954.8	389.5
		90°	-	304.0	484.5	674.5	1,045.0	1,444.0	1,862.0	731.5
	S	0°	156.8	470.3	622.3	769.5	1,059.3	1,339.5	1,615.0	888.3
		45°	-	166.3	247.0	332.5	508.3	679.3	850.3	498.8
		90°	-	66.5	218.5	380.0	731.5	1,121.0	1,520.0	940.5
AS185	W	0°	912.0	1,282.5	1,463.0	1,643.5	1,995.0	2,327.5	2,650.5	456.0
		45°	513.0	779.0	912.0	1,045.0	1,311.0	1,586.5	1,852.5	266.0
		90°	798.0	1,301.5	1,548.5	1,824.0	2,365.5	2,926.0	3,477.0	541.5
	WM	0°	745.8	1,140.0	1,311.0	1,491.5	1,824.0	2,142.3	2,484.6	726.8
		45°	356.3	603.3	741.0	869.3	1,140.0	1,406.0	1,705.1	441.8
		90°	441.8	912.0	1,144.8	1,396.5	1,900.0	2,441.5	2,747.7	864.5
	WS	0°	532.0	940.5	1,121.0	1,301.5	1,653.0	1,976.0	2,308.5	950.0
		45°	213.8	494.0	617.5	760.0	1,026.0	1,282.5	1,548.5	551.0
		90°	95.0	636.5	888.3	1,121.0	1,634.0	2,147.0	2,698.0	1,078.3
	M	0°	532.0	921.5	1,111.5	1,292.0	1,653.0	2,004.5	2,337.0	1,035.5
		45°	199.5	465.5	598.5	741.0	1,007.0	1,273.0	1,539.0	579.5
		90°	133.0	608.0	855.0	1,092.5	1,586.5	2,090.0	2,631.5	1,140.0
	MS	0°	332.5	731.5	931.0	1,111.5	1,501.0	1,843.0	2,185.0	1,273.0
		45°	57.0	332.5	465.5	598.5	874.0	1,121.0	1,396.5	712.5
		90°	-	304.0	522.5	769.5	1,254.0	1,767.0	2,299.0	1,387.0
	S	0°	142.5	532.0	741.0	931.0	1,292.0	1,634.0	1,976.0	1,548.5
		45°	-	180.5	304.0	437.0	703.0	969.0	1,235.0	874.0
		90°	-	-	218.5	456.0	931.0	1,415.5	1,928.5	1,681.5

AS Series Torque Table

unit : Nm

Model	Spring type	Angle	Supply Air							Spring
			3Bar	4Bar	4.5Bar	5Bar	6Bar	7Bar	8Bar	
AS210	W	0°	1,577.0	2,156.5	2,460.5	2,736.0	3,287.0	3,857.0	4,389.0	418.0
		45°	779.0	1,149.5	1,330.0	1,510.5	1,881.0	2,242.0	2,603.0	247.0
		90°	1,197.0	1,824.0	2,156.5	2,470.0	3,078.0	3,705.0	4,332.0	475.0
	WM	0°	1,140.0	1,795.5	2,090.0	2,384.5	3,002.0	3,543.5	4,085.0	807.5
		45°	513.0	883.5	1,054.5	1,254.0	1,615.0	1,976.0	2,337.0	484.5
		90°	693.5	1,311.0	1,624.5	1,919.0	2,546.0	3,154.0	3,800.0	940.5
	WS	0°	969.0	1,643.5	1,928.5	2,251.5	2,850.0	3,458.0	3,990.0	1,054.5
		45°	380.0	760.0	950.0	1,140.0	1,510.5	1,881.0	2,242.0	627.0
		90°	380.0	1,054.5	1,330.0	1,672.0	2,280.0	2,907.0	3,515.0	1,206.5
	M	0°	926.3	1,491.5	1,833.5	2,109.0	2,641.0	3,163.5	3,648.0	1,206.5
		45°	351.5	717.3	921.5	1,097.3	1,444.0	1,805.0	2,147.0	674.5
		90°	313.5	978.5	1,349.0	1,719.5	2,261.0	2,973.5	3,163.5	1,239.8
	MS	0°	598.5	1,235.0	1,586.5	1,928.5	2,536.5	3,135.0	3,705.0	1,472.5
		45°	114.0	484.5	674.5	864.5	1,225.5	1,586.5	1,957.0	874.0
		90°	-	503.5	798.0	1,121.0	1,748.0	2,356.0	2,983.0	1,719.5
	S	0°	389.5	1,092.5	1,415.5	1,738.5	2,375.0	2,945.0	3,515.0	1,681.5
		45°	-	351.5	541.5	722.0	1,092.5	1,463.0	1,833.5	1,035.5
		90°	-	228.0	522.5	855.0	1,472.5	2,099.5	2,707.5	1,947.5
AS250	W	0°	2,631.5	3,686.0	4,180.0	4,655.0	5,624.0	6,555.0	7,457.5	731.5
		45°	1,425.0	2,090.0	2,413.0	2,726.5	3,420.0	4,047.0	4,721.5	418.0
		90°	2,299.0	3,515.0	4,056.5	4,655.0	5,814.0	6,982.5	8,217.5	874.0
	WM	0°	2,118.5	3,249.0	3,781.0	4,303.5	5,320.0	6,270.0	7,172.5	1,434.5
		45°	1,064.0	1,729.0	2,052.0	2,375.0	3,011.5	3,667.0	4,313.0	826.5
		90°	1,453.5	2,641.0	3,211.0	3,800.0	4,987.5	6,222.5	7,429.0	1,596.0
	WS	0°	1,757.5	2,812.0	3,306.0	3,800.0	4,816.5	5,738.0	6,621.5	1,862.0
		45°	855.0	1,491.5	1,805.0	2,109.0	2,783.5	3,420.0	4,094.5	1,054.5
		90°	921.5	2,033.0	2,707.5	3,220.5	4,275.0	5,586.0	6,593.0	2,080.5
	M	0°	1,453.5	2,555.5	3,097.0	3,610.0	4,655.0	5,633.5	6,536.0	2,213.5
		45°	636.5	1,282.5	1,605.5	1,947.5	2,593.5	3,230.0	3,876.0	1,254.0
		90°	608.0	1,767.0	2,318.0	2,945.0	4,085.0	5,253.5	6,422.0	2,432.0
	MS	0°	1,092.5	2,156.5	2,669.5	3,163.5	4,227.5	5,187.0	6,061.0	2,660.0
		45°	399.0	1,045.0	1,358.5	1,691.0	2,327.5	2,992.5	3,638.5	1,482.0
		90°	19.0	1,235.0	1,757.5	2,346.5	3,467.5	4,607.5	5,795.0	2,878.5
	S	0°	731.5	1,900.0	2,441.5	2,945.0	3,942.5	4,864.0	5,776.0	3,277.5
		45°	123.5	779.0	1,092.5	1,415.5	2,071.0	2,726.5	3,363.0	1,738.5
		90°	-	665.0	1,197.0	1,748.0	2,888.0	4,028.0	5,168.0	3,315.5
AS300	W	0°	4,626.5	6,460.0	7,267.5	7,923.0	9,120.0	10,697.0	12,245.5	1,425.0
		45°	2,460.5	3,505.5	4,218.0	4,569.5	5,624.0	6,792.5	7,951.5	817.0
		90°	4,322.5	6,507.5	7,619.0	8,692.5	10,963.0	13,471.0	14,373.5	1,472.5
	WM	0°	3,515.0	5,510.0	6,460.0	7,362.5	9,072.5	10,564.0	11,713.5	2,726.5
		45°	1,520.0	2,717.0	3,344.0	3,942.5	5,130.0	6,336.5	7,552.5	1,900.0
		90°	2,147.0	4,284.5	5,301.0	6,431.5	8,645.0	10,849.0	13,271.5	3,211.0
	WS	0°	2,888.0	4,854.5	5,633.5	6,488.5	8,122.5	9,956.0	11,381.0	3,439.0
		45°	1,130.5	2,242.0	2,821.5	3,429.5	4,427.0	5,823.5	6,640.5	2,052.0
		90°	1,206.5	3,448.5	4,465.0	5,880.5	7,856.5	9,946.5	12,226.5	3,971.0
	M	0°	2,147.0	4,075.5	4,987.5	5,890.0	7,524.0	8,930.0	10,184.0	4,408.0
		45°	617.5	1,776.5	2,346.5	2,916.5	3,961.5	4,997.0	6,061.0	2,546.0
		90°	190.0	2,147.0	3,268.0	4,332.0	6,270.0	8,578.5	10,640.0	4,949.5
	MS	0°	1,482.0	3,458.0	4,484.0	5,462.5	7,134.5	8,578.5	9,718.5	5,130.0
		45°	161.5	1,282.5	1,881.0	2,422.5	3,467.5	4,550.5	5,605.0	3,002.0
		90°	-	1,187.5	2,242.0	3,230.0	5,329.5	7,334.0	9,690.0	5,709.5
	S	0°	807.5	2,650.5	3,638.5	4,588.5	6,403.0	7,942.0	9,139.0	6,099.0
		45°	-	826.5	1,425.0	1,966.5	3,021.0	4,085.0	5,111.0	3,505.5
		90°	-	190.0	1,187.5	2,204.0	4,199.0	6,365.0	8,331.5	6,564.5

▷ You may select spring types from strong/middle/weak; if unspecified in P/O, the standard type (as shown in the green box) is provided. 2017.12.08 Norah