

KTM VIRGO SERIES S FLOATING BALL VALVES TORQUE - MAST

CAST DESIGN BALL VALVES FROM NPS ½ TO 10 (2004 DESIGN)

Legends

SS	Soft Seated Standard Floater
SA	Soft Seated Standard With Gland Packing Floater
ST	Soft Seated Threaded / Socket Weld Floater



Pressure class	Stem material	Maximum allowable stem torque (MAST): Nm (lb·in)						
		NPS ½	NPS ¾	NPS 1	NPS 1½	NPS 2	NPS 2	NPS 2½
150	Series	SS	SS	SS	SS	SA	SS	SS
	ASTM A479 Type 316 / ASTM A182 Gr. F316	23 [205]	30 [268]	35 [307]	89 [786]	133 [1177]	85 [748]	85 [748]
	ASTM A182 Gr. F51	51 [450]	67 [589]	76 [675]	195 [1726]	292 [2584]	186 [1642]	186 [1642]
	ASTM A564 Type 630 UNS NO.: S17400	82 [725]	107 [949]	123 [1087]	314 [2781]	470 [4163]	299 [2646]	299 [2646]
	API 6A718 UNS NO.: N07718	94 [828]	122 [1082]	140 [1240]	358 [3172]	537 [4749]	341 [3018]	341 [3018]
300	Series	SS	SS	SS	SS	SA	SS	SS
	ASTM A479 Type 316 / ASTM A182 Gr. F316	23 [205]	30 [268]	40 [350]	89 [786]	133 [1177]	85 [748]	85 [748]
	ASTM A182 Gr. F51	51 [450]	67 [589]	87 [769]	195 [1726]	292 [2584]	186 [1642]	186 [1642]
	ASTM A564 Type 630 UNS NO.: S17400	82 [725]	107 [949]	140 [1239]	314 [2781]	470 [4163]	299 [2646]	299 [2646]
	API 6A718 UNS NO.: N07718	94 [828]	122 [1082]	160 [1414]	358 [3172]	537 [4749]	341 [3018]	341 [3018]
400	Series	ST	ST	ST	ST	ST	-	-
	ASTM A479 Type 316 / ASTM A182 Gr. F316	11 [98]	11 [98]	14 [124]	28 [247]	48 [429]	-	-
	ASTM A182 Gr. F51	24 [215]	24 [215]	31 [271]	61 [543]	106 [942]	-	-
	ASTM A564 Type 630 UNS NO.: S17400	39 [346]	39 [346]	49 [437]	99 [875]	172 [1518]	-	-
	API 6A718 UNS NO.: N07718	45 [395]	45 [395]	56 [499]	113 [998]	196 [1732]	-	-
600	Series	SS	SS	-	-	SA	-	-
	ASTM A479 Type 316 / ASTM A182 Gr. F316	37 [325]	37 [325]	-	-	133 [1177]	-	-
	ASTM A182 Gr. F51	81 [713]	81 [713]	-	-	292 [2584]	-	-
	ASTM A564 Type 630 UNS NO.: S17400	130 [1148]	130 [1148]	-	-	470 [4163]	-	-
	API 6A718 UNS NO.: N07718	148 [1310]	148 [1310]	-	-	537 [4749]	-	-
900/1500	Series	SS	SS	SS	SS	SS	-	-
	ASTM A479 Type 316 / ASTM A182 Gr. F316	48 [426]	48 [426]	104 [924]	284 [2514]	327 [2896]	-	-
	ASTM A182 Gr. F51	106 [934]	106 [934]	229 [2027]	624 [5519]	718 [6358]	-	-
	ASTM A564 Type 630 UNS NO.: S17400	170 [1505]	170 [1505]	369 [3266]	1005 [8892]	1157 [10243]	-	-
	API 6A718 UNS NO.: N07718	194 [1717]	194 [1717]	421 [3726]	1146 [10144]	1320 [11684]	-	-

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SS	Soft Seated Standard Floater
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ST	Soft Seated Threaded / Socket Weld Floater

Pressure class	Stem material	Maximum allowable stem torque (MAST): Nm (lb·in)						
		NPS 3	NPS 3	NPS 4	NPS 4	NPS 6	NPS 8	NPS 10
150	Series	SA	SS	SA	SS	SA	SA	SA
	ASTM A479 Type 316 / ASTM A182 Gr. F316	252 [2231]	172 [1521]	393 [3475]	172 [1521]	736 [6513]	886 [7844]	4727 [41839]
	ASTM A182 Gr. F51	553 [4898]	377 [3340]	862 [7629]	377 [3340]	1615 [14297]	1946 [17219]	10377 [91841]
	ASTM A564 Type 630 UNS NO.: S17400	892 [7891]	608 [5380]	1389 [12291]	608 [5380]	2602 [23034]	3134 [27742]	16718 [147966]
	API 6A718 UNS NO.: N07718	1017 [9002]	693 [6137]	1584 [14020]	693 [6137]	2969 [26274]	3575 [31645]	19070 [168784]
300	Series	SA	SS	SA	-	SA	SA	-
	ASTM A479 Type 316 / ASTM A182 Gr. F316	252 [2231]	172 [1521]	393 [3475]	-	1279 [11321]	886 [7844]	-
	ASTM A182 Gr. F51	553 [4898]	377 [3340]	862 [7629]	-	2808 [24851]	1946 [17219]	-
	ASTM A564 Type 630 UNS NO.: S17400	892 [7891]	608 [5380]	1389 [12291]	-	4524 [40037]	3134 [27742]	-
	API 6A718 UNS NO.: N07718	1017 [9002]	693 [6137]	1584 [14020]	-	5160 [45670]	3575 [31645]	-
600	Series	SA	-	SA	-	-	-	-
	ASTM A479 Type 316 / ASTM A182 Gr. F316	393 [3475]	-	736 [6513]	-	-	-	-
	ASTM A182 Gr. F51	862 [7629]	-	1615 [14297]	-	-	-	-
	ASTM A564 Type 630 UNS NO.: S17400	1389 [12291]	-	2602 [23034]	-	-	-	-
	API 6A718 UNS NO.: N07718	1584 [14020]	-	2969 [26274]	-	-	-	-

Pressure class	Stem material	Maximum allowable stem torque (MAST): Nm (lb·in)				
		NPS ¾ x ½	NPS 1 x ¾	NPS 1½ x 1	NPS 2 x 1½	NPS 3 x 2
150	Series	SS	SS	SS	SS	SS
	ASTM A479 Type 316 / ASTM A182 Gr. F316	23 [205]	30 [268]	35 [307]	48 [426]	85 [748]
	ASTM A182 Gr. F51	51 [450]	67 [589]	76 [675]	106 [934]	186 [1642]
	ASTM A564 Type 630 UNS NO.: S17400	82 [725]	107 [949]	123 [1087]	170 [1505]	299 [2646]
	API 6A718 UNS NO.: N07718	94 [828]	122 [1082]	140 [1240]	194 [1717]	341 [3018]
300	Series	SS	SS	SS	SS	-
	ASTM A479 Type 316 / ASTM A182 Gr. F316	23 [205]	30 [268]	40 [350]	48 [426]	-
	ASTM A182 Gr. F51	51 [450]	67 [589]	87 [769]	106 [934]	-
	ASTM A564 Type 630 UNS NO.: S17400	82 [725]	107 [949]	140 [1239]	170 [1505]	-
	API 6A718 UNS NO.: N07718	94 [828]	122 [1082]	160 [1414]	194 [1717]	-
600	Series	SS	SS	-	-	-
	ASTM A479 Type 316 / ASTM A182 Gr. F316	37 [325]	37 [325]	-	-	-
	ASTM A182 Gr. F51	81 [713]	81 [713]	-	-	-
	ASTM A564 Type 630 UNS NO.: S17400	130 [1148]	130 [1148]	-	-	-
	API 6A718 UNS NO.: N07718	148 [1310]	148 [1310]	-	-	-

Pressure class	Stem material	Maximum allowable stem torque (MAST): Nm (lb·in)				
		NPS 3 x 2½	NPS 4 x 3	NPS 6 x 4	NPS 8 x 6	NPS 10 x 8
150	Series	-	SS	SS	SS	SA
	ASTM A479 Type 316 / ASTM A182 Gr. F316	-	172 [1521]	172 [1521]	612 [5421]	886 [7844]
	ASTM A182 Gr. F51	-	377 [3340]	377 [3340]	1345 [11900]	1946 [17219]
	ASTM A564 Type 630 UNS NO.: S17400	-	608 [5380]	608 [5380]	2166 [19172]	3134 [27742]
	API 6A718 UNS NO.: N07718	-	693 [6137]	693 [6137]	2471 [21869]	3575 [31645]
300	Series	SS	SS	SS	SS	SA
	ASTM A479 Type 316 / ASTM A182 Gr. F316	85 [748]	172 [1521]	172 [1521]	886 [7844]	886 [7844]
	ASTM A182 Gr. F51	186 [1642]	377 [3340]	377 [3340]	1946 [17219]	1946 [17219]
	ASTM A564 Type 630 UNS NO.: S17400	299 [2646]	608 [5380]	608 [5380]	3134 [27742]	3134 [27742]
	API 6A718 UNS NO.: N07718	341 [3018]	693 [6137]	693 [6137]	3575 [31645]	3575 [31645]
600	Series	-	-	-	-	-
	ASTM A479 Type 316 / ASTM A182 Gr. F316	-	-	-	-	-
	ASTM A182 Gr. F51	-	-	-	-	-
	ASTM A564 Type 630 UNS NO.: S17400	-	-	-	-	-
	API 6A718 UNS NO.: N07718	-	-	-	-	-

Emerson Automation Solutions

10707 Clay Road
Houston, TX 77041, USA
Phone: +1 713-986-4665

Emerson Automation Solutions

277, Hinjewadi Phase II, Maan (Mulshi)
Pune - 411 057, India
Phone: +91 20 6674 4000
Fax: +91 20 6674 4021

Emerson Automation Solutions

Via Castellanza, 47, 20027 Rescaldina Milan, Italy
Phone: +39 331 575200

Emerson Automation Solutions

PO Box 18748
Bldg B Jebel Ali Free Zone,
South Zone 2, Dubai, UAE
Phone: +971 4 8118100
Fax: +971 4 8865465

Emerson Automation Solutions

1 Pandan Crescent
Singapore 128461
Phone: +65 6777 8211

Emerson Automation Solutions

1803, YongSeong Biztel, 314-1
Hangganro 2ga, Yongsan-gu
Seoul, South Korea, 140-750
Phone: +82 70 8884 0630

Emerson Automation Solutions

Room No. C 38, 11th Floor,
Shanghai Mart, 2299 Yan An Rd (W),
Shanghai, China
Phone: +86 21 6207 6626

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