

Butterfly Valve

BOAX-S/SF

Actuator Selection



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Actuator Selection BOAX-S/SF

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Information

Related documents

For more information refer to the documents listed below and to the KSB web site.

Table 1: Information/documents

Document	Reference number
Operating manual	8417.8
BOAX-S/SF type series booklet	8408.12

Flow velocities

The following is a typical selection of actuators for butterfly valves handling fluids at the maximum flow velocities shown. Higher flow velocities and further actuator/valve combinations are possible, depending on the operating conditions and hydraulic characteristics. Contact KSB.

Table 2: Overview table of maximum flow velocities for BOAX-S/SF

DN	Fluids handled		Gases
	Lubricating fluids	Non-lubricating fluids	
	[m/s]	[m/s]	[m/s]
20	3	3	50
25	3	3	50
32	3	3	50
40	3	3	50
50	3	3	50
65	3	3	50
80	3	3	50
100	3	3	50
125	3	3	50
150	3	3	50
200	3	3	50
250	3	3	50
300	3	3	50
350	3	3	50
400	3	3	50
450	2,5	2,5	50
500	2,5	2,5	50
550	2,5	2,5	50
600	2,5	2,5	50

Actuators

Manual Gearboxes

MR



Fig. 1: Unit comprising BOAX-S/SF + MR manual gearbox

Table 3: Liners for lubricating fluids and non-lubricating fluids

DN	Shaft end		Maximum pressure	Lubricating fluids: XU/K liners	Non-lubricating fluids: XU/K liners
	s	h3			All fluids: all other liners
			[mm]	[bar]	Type MR
20	M9	14	16	MR25	MR25
25					
32					
40					
50					
65					
80					
100	M11	24			
125	M17	25			
150					
200					
250	C19	25	10	MR50	MR50
300	C22	29			MR100
350	C25	40			
400	C36	50		MR200	
450		55			
500		55			
600	50	65			MR200

MN



Fig. 2: Unit comprising BOAX-S/SF + MN manual gearbox

Table 4: Liners for lubricating fluids and non-lubricating fluids

DN	Shaft end		Maximum pressure	Lubricating fluids: XU/K liners	Non-lubricating fluids: XU/K liners All fluids: all other liners
	s	h3			
			[mm]	[bar]	Type MN
20	M9	14	16	MN12	MN12
25					
32					
40					
50					
65					
80					
100	M11	24	10	MN25	MN25
125					
150	M17	25			
200					
250	C19	25		-	
300	C22	29	-		

MA



Fig. 3: Unit comprising BOAX-S/SF + MA manual gearbox

Table 5: Liners for lubricating fluids and non-lubricating fluids

DN	Shaft end		Maximum pressure	Lubricating fluids: XU/K liners
	s	h3		
			[mm]	[bar]
20	M9	14	16	MA12
25				
32				
40				
50				
65				
80				
100	M11	24		
125				
150	M17	25		
200				
250	C19	25	10	

Electric Actuators

AQ/AQL - BERNARD CONTROLS



Fig. 4: Unit comprising BOAX-S/SF + AQ/AQL actuator

Table 6: Shut-off function: liners for lubricating fluids and non-lubricating fluids (10 bar)

DN	Shaft end		Maximum pressure	Lubricating fluids: XU/K liners		Non-lubricating fluids: XU/K liners All fluids: all other liners		
	s	h3						
			[mm]	[bar]	AQL	AQ	AQL	AQ
20	M9	14	10	AQ1L	AQ5	AQ1L	AQ5	
25								
32								
40								
50								
65								
80				AQ3L		AQ3L		
100	M11	24				AQ7L	AQ10	
125		AQ7L		AQ10	-			
150	M17	25			-	-	AQ15	
200				-	AQ15	-	AQ25	
250	C19	25		-	AQ25	-	AQ50	
300				-	AQ50	-	-	
350	C25	40		-		-		
400	C36	50		-	-	-	-	

Table 7: Throttling function: liners for all fluids (10 bar)

DN	Shaft end		Maximum pressure	All fluids: all liners	
	s	h3		AQL	AQ
		[mm]	[bar]		
20	M9	14	10	AQ1L	AQ5
25					
32					
40					
50					
65					
80				AQ3L	
100	AQ7L				
125		-		AQ10	
150	-				AQ15
200	-	AQ25			
250	-	AQ50			
300	-				
	C22	29			

DN	Shaft end		Maximum pressure [bar]	All fluids: all liners	
	s	h3		AQL	AQ
		[mm]			
350	C25	40	10	-	-
400	C36	50		-	-

Table 8: Shut-off function: liners for lubricating fluids and non-lubricating fluids (16 bar)

DN	Shaft end		Maximum pressure	Lubricating fluids: XU/K liners		Non-lubricating fluids: XU/K liners All fluids: all other liners	
	s	h3		AQL	AQ	AQL	AQ
		[mm]					
20	M9	14	16	AQ1L	AQ5	AQ1L	AQ5
25						AQ3L	
32						AQ7L	
40							
50				AQ3L		AQ7L	
65							AQ10
80				AQ7L			
100	M11	24		-	-	-	
125				-	-	AQ15	
150	M17	25		-	AQ15	-	AQ25
200				-	AQ25	-	

Table 9: Throttling function: liners for all fluids (16 bar)

DN	Shaft end		Maximum pressure	All fluids: XU/K liners	
	s	h3		AQL	AQ
		[mm]			
20	M9	14	16	AQ1L	AQ5
25				AQ3L	
32				AQ7L	
40					
50					
65				AQ10	
80					
100	M11	24		-	AQ15
125				-	
150	M17	25		-	AQ25
200				-	

SQ - BERNARD CONTROLS



Fig. 5: Unit comprising BOAX-S/SF + SQ - BERNARD CONTROLS actuator

Table 10: Shut-off function: liners for lubricating fluids and non-lubricating fluids (10 bar)

DN	Shaft end		Maximum pressure	Lubricating fluids: XU/K liners	Non-lubricating fluids: XU/K liners All fluids: all other liners	
	s	h3				
		[mm]				
20	M9	14	10	SQ6	SQ6	
25						
32						
40						
50						
65						
80						
100	M11	24		10	SQ10	SQ10
125						
150	M17	25			SQ15	SQ15
200						
250	C19	25			SQ25	SQ60
300						
350	C22	29			SQ60	SQ80
400						
450	C36	50			SQ120	SQ120
500						

Table 11: Throttling function: liners for all fluids (10 bar)

DN	Shaft end		Maximum pressure	All fluids: all liners
	s	h3		
		[mm]	[bar]	SQ - Intel+
20	M9	14	10	SQ10
25				
32				
40				
50				
65				
80				
100	M11	24		SQ15
125				
150	M17	25		

DN	Shaft end		Maximum pressure	All fluids: all liners
	s	h3		
		[mm]	[bar]	SQ - Intel+
200	M17	25	10	SQ25
250	C19	25		SQ60
300	C22	29		
350	C25	40		SQ80
400	C36	50		SQ120
450				-
500				-

Table 12: Shut-off function: liners for lubricating fluids and non-lubricating fluids (16 bar)

DN	Shaft end		Maximum pressure	Lubricating fluids: XU/K liners	Non-lubricating fluids: XU/K liners All fluids: all other liners
	s	h3			
		[mm]	[bar]	SQ	SQ
20	M9	14	16	SQ6	SQ6
25					
32					
40					
50					
65					
80					
100	M11	24	16		SQ10
125				SQ10	SQ15
150	M17	25		SQ15	SQ25
200				SQ25	

Table 13: Throttling function: liners for all fluids (16 bar)

DN	Shaft end		Maximum pressure	All fluids: all liners
	s	h3		
			[mm]	[bar]
20	M9	14	16	SQ10
25				
32				
40				
50				
65				
80				
100	M11	24		SQ15
125				
150	M17	25		
200				

SQ - AUMA



Fig. 6: Unit comprising BOAX-S/SF + SQ - AUMA actuator

Table 14: Shut-off function: liners for lubricating fluids and non-lubricating fluids (10 bar)

DN	Shaft end		Maximum pressure	Lubricating fluids: XU/K liners	Non-lubricating fluids: XU/K liners All fluids: all other liners			
	s	h3						
			[mm]	[bar]	SQ - AUMA	SQ - AUMA		
20	M9	14	10	SQ05.2	SQ05.2			
25								
32								
40								
50								
65								
80								
100	M11	24		SQ07.2	SQ07.2			
125	M17	25						
150								
200								
250	C19	25						
300	C22	29						
350	C25	40						
400	C36	50						
450		55						
500		55						
600	50	65		-	-			

Table 15: Throttling function: all liners for all fluids (10 bar)

DN	Shaft end		Maximum pressure	All fluids: all liners
	s	h3		
		[mm]	[bar]	SQ - AUMA
20	M9	14	10	SQ05.2
25				
32				
40				
50				
65				
80				
100	M11	24		
125				

DN	Shaft end		Maximum pressure	All fluids: all liners
	s	h3		
		[mm]	[bar]	SQ - AUMA
150	M17	25	10	SQ05.2
200				SQ07.2
250	C19	25		SQ10.2
300	C22	29		
350	C25	40		SQ12.2
400	C36	50		
450		55		-
500		55		
600	C50	65		-

Table 16: Shut-off function: liners for lubricating fluids and non-lubricating fluids (16 bar)

DN	Shaft end		Maximum pressure	Lubricating fluids: XU/K liners	Non-lubricating fluids: XU/K liners All fluids: all other liners	
	s	h3				
		[mm]	[bar]	SQ - AUMA	SQ - AUMA	
20	M9	14	16	SQ05.2	SQ05.2	
25						
32						
40						
50						
65						
80						
100	M11	24				SQ07.2
125						
150	M17	25				
200						

Table 17: Throttling function: liners for all fluids

DN	Shaft end		Maximum pressure	All fluids: XU/K liners
	s	h3		
		[mm]	[bar]	SQ - AUMA
20	M9	14	16	SQ05.2
25				
32				
40				
50				
65				
80				
100	M11	24		
125				
150	M17	25		SQ07.2
200				



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