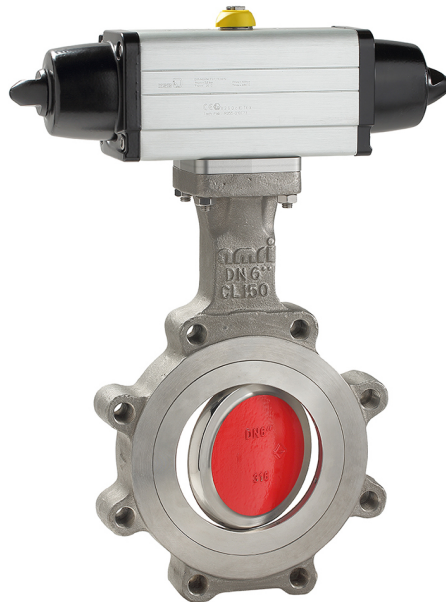


Butterfly Valve

DANAÏS MT II

Actuator Selection



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Actuator Selection DANAÏS MT II

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Information

Related documents

Table 1: Information/documents

Document	Reference number
Operating manual	8450.810
DANAIS MT II type series booklet	8460.154

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 DANAIS MT II

DN	Fluids handled		Gases
	Lubricating fluids	Non-lubricating fluids	
	[m/s]	[m/s]	[m/s]
50-600	4	4	50

Actuators

Levers

S/SR/SP (metal seat)

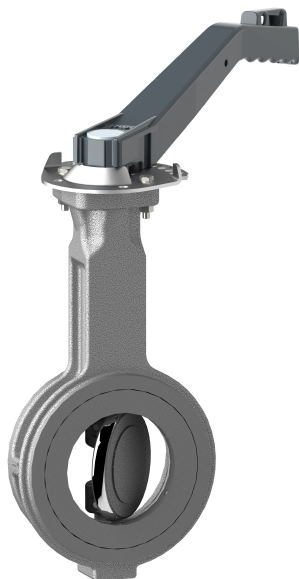


Fig. 1: Unit comprising DANAIS MT II + S/SR lever

Table 3: Metal seat for lubricating and non-lubricating fluids (Class 150)

DN	Shaft end		Maximum pressure	Lubricating fluids		Non-lubricating fluids	
	s	h3	[bar]	S/SR	SP	S/SR	SP
50	M14	30	2	330	330	330	330
			4				
			6				
			8				
			10				
			12				
			14				
			16				
			18				
			20				
65	M14	30	2	330	330	330	330
			4				
			6				
			8				
			10				
			12				
			14				
			16				
			18				
			20				
80	M14	30	2	330	330	330	330
			4				
			6				
			8				
			10				
			12				
			14				
			16				
			18				
			20				

DN	Shaft end		Maximum pressure	Lubricating fluids		Non-lubricating fluids	
	s	h3	[bar]	S/SR	SP	S/SR	SP
100	M14	30	2	330	330	330	330
			4				
			6				
			8				
			10				
			12				
			14			-	-
			16			-	-
			18			-	-
			20			-	-
125	M14	30	2	330	330	-	-
			4			-	-
			6			-	-
			8			-	-
			10			-	-
			12			-	-
			14	-	-	-	-
			16	-	-	-	-
			18	-	-	-	-
			20	-	-	-	-

Table 4: Metal seat for lubricating and non-lubricating fluids (Class 300)

DN	Shaft end		Maximum pressure	Lubricating fluids		Non-lubricating fluids	
	s	h3	[bar]	S/SR	SP	S/SR	SP
50	M14	30	2	330	330	330	330
			4				
			6				
			8				
			10				
			12				
			14				
			16				
			18				
			20				
			25				
			30				
			35				
			40				
			45				
			50				
65	M14	30	2	330	330	330	330
			4				
			6				
			8				
			10				
			12				
			14				
			16				
			18				
			20				
			25				
			30				
			35				
			40				
			45				
			50				
80	M14	30	2	330	330	330	330
			4				

DN	Shaft end		Maximum pressure	Lubricating fluids		Non-lubricating fluids	
	s	h3	[bar]	S/SR	SP	S/SR	SP
80	M14	30	6	330	330	330	330
			8				
			10				
			12				
			14				
			16				
			18				
			20				
			25				
			30				
			35				
			40				
			45				
			50				
100	M14	30	2	330	330	330	330
			4				
			6				
			8				
			10				
			12				
			14			-	-
			16			-	-
			18			-	-
			20			-	-
			25			-	-
			30			-	-
			35			-	-
			40	-	-	-	-
			45	-	-	-	-
			50	-	-	-	-
125	M19	30	2	-	-	-	-
			4	-	-	-	-
			6	-	-	-	-
			8	-	-	-	-
			10	-	-	-	-
			12	-	-	-	-
			14	-	-	-	-
			16	-	-	-	-
			18	-	-	-	-
			20	-	-	-	-
			25	-	-	-	-
			30	-	-	-	-
			35	-	-	-	-
			40	-	-	-	-
			45	-	-	-	-
			50	-	-	-	-

S/SR/SP (plastomer seat)

Table 5: Plastomer seat for all fluids (Class 150)

DN	Shaft end		Maximum pressure [bar]	All fluids	
	s	h3		S/SR	SP
50	M14	30	2	330	330
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
65	M14	30	2	330	330
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
80	M14	30	2	330	330
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
100	M14	30	2	330	330
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	330	330
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		

Table 6: Plastomer seat for all fluids (Class 300)

DN	Shaft end		Maximum pressure	All fluids	
	s	h3	[bar]	S/SR	SP
50	M14	30	2	330	330
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
			30		
			35		
			40		
			45		
			50		
65	M14	30	2	330	330
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
			30		
			35		
			40		
			45		
			50		
80	M14	30	2	330	330
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
			30		
			35		
			40		
			45		
			50		
100	M14	30	2	330	330
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		

DN	Shaft end		Maximum pressure	All fluids	
	s	h3	[bar]	S/SR	SP
100	M14	30	20	330	330
			25		
			30		
			35		
			40		
			45		
			50		
125	M19	35	2	-	-
			4	-	-
			6	-	-
			8	-	-
			10	-	-
			12	-	-
			14	-	-
			16	-	-
			18	-	-
			20	-	-
			25	-	-
			30	-	-
			35	-	-
			40	-	-
			45	-	-
			50	-	-

CR/CM (metal seat)

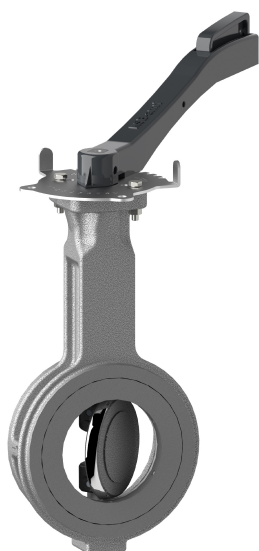


Fig. 2: Unit comprising DANAIS MT II + CR/CM lever

Table 7: Metal seat for lubricating and non-lubricating fluids (Class 150)

DN	Shaft end		Maximum pressure	Lubricating fluids	Non-lubricating fluids
	s	h3	[bar]	CR/CM	CR/CM
50	M14	30	2	300 510	300 510
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
65	M14	30	2	300 510	300 510
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
80	M14	30	2	300 510	300 510
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
100	M14	30	2	300 510	300 510
			4		
			6		
			8		

DN	Shaft end		Maximum pressure	Lubricating fluids	Non-lubricating fluids		
	s	h3	[bar]	CR/CM	CR/CM		
100	M14	30	10	300 510	300 510		
			12				
			14				
			16				
			18				
			20				
125	M14	30	2		510	510	
			4				
			6				
			8				
			10				
			12				
			14				
			16				
			18				
			20				
150	M19	35	2			510	
			4				
			6				
			8				
			10				
			12				
			14				
			16				
			18				
			20				
200	M22	40	2		-		
			4		-		
			6		-		
			8		-		
			10		-		
			12		-		
			14		-		
			16		-		
			18		-		
			20		-		
						-	-

Table 8: Metal seat for lubricating and non-lubricating fluids (Class 300)

DN	Shaft end		Maximum pressure	Lubricating fluids	Non-lubricating fluids
	s	h3	[bar]	CR/CM	CR/CM
50	M14	30	2	300 510	300 510
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
			30		
			35		
			40		
			45		
65	M14	30	2	510	510
			4		

DN	Shaft end		Maximum pressure	Lubricating fluids	Non-lubricating fluids
	s	h3	[bar]	CR/CM	CR/CM
65	M14	30	6	300 510	300 510
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
			30		
			35		
			40		
			45		
			50		
80	M14	30	2		
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
			30		
			35		
			40		
			45		
			50		
100	M14	30	2	300 510	300 510
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
			30		
			35		
			40		
			45		
			50		
125	M19	30	2	510	510
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
			30		

DN	Shaft end		Maximum pressure	Lubricating fluids	Non-lubricating fluids
	s	h3	[bar]	CR/CM	CR/CM
125	M19	30	35	510	510
			40		
			45		
			50		
150	M22	40	2	510	510
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
			30		
			35		
			40		
			45		
			50		
200	M22	40	2	510	-
			4		-
			6		-
			8		-
			10		-
			12		-
			14		-
			16		-
			18		-
			20		-
			25		-
			30		-
			35		-
			40		-
			45		-
			50		-

CR/CM (plastomer seat)

Table 9: Plastomer seat for all fluids (Class 150)

DN	Shaft end		Maximum pressure	All fluids
	s	h3	[bar]	CR/CM
50	M14	30	2	300 510
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
65	M14	30	2	
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
80	M14	30	2	
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
100	M14	30	2	
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
125	M14	30	2	300 510
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	

DN	Shaft end		Maximum pressure	All fluids
	s	h3	[bar]	CR/CM
150	M19	35	2	510
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
200	M22	40	2	
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	

Table 10: Plastomer seat for all fluids (Class 300)

DN	Shaft end		Maximum pressure	All fluids
	s	h3	[bar]	CR/CM
50	M14	30	2	300 510
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
			30	
			35	
			40	
			45	
			50	
65	M14	30	2	
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
			30	
			35	
			40	
			45	
			50	

DN	Shaft end		Maximum pressure	All fluids
	s	h3	[bar]	CR/CM
80	M14	30	2	300 510
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
			30	
			35	
			40	
			45	
			50	
100	M14	30	2	510
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
			30	
			35	
			40	
			45	
			50	
125	M19	35	2	510
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
			30	
			35	
			40	
			45	
			50	
150	M22	40	2	510
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	

DN	Shaft end		Maximum pressure	All fluids
	s	h3	[bar]	CR/CM
150	M22	40	25	510
			30	
			35	
			40	
			45	
			50	
200	M22	40	2	
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
			30	
			35	-
			40	-
			45	-
			50	-

Manual Gearboxes

MR/AB (metal seat)

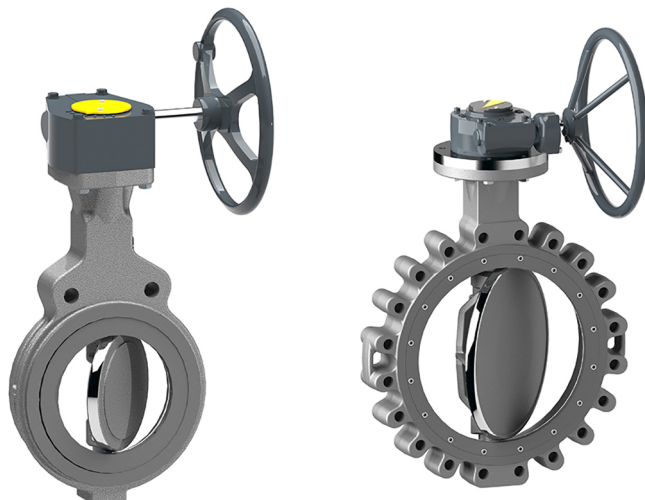


Fig. 3: Unit comprising DANAIS MT II + MR/AB manual gearbox

Table 11: Metal seat for lubricating and non-lubricating fluids (Class 150)

DN	Shaft end		Maximum pressure [bar]	Lubricating fluids		Non-lubricating fluids	
	s	h3		KSB Type MR	ROTORK Type AB	KSB Type MR	ROTORK Type AB
50	M14	30	2	MR25	-	MR25	-
			4		-		-
			6		-		-
			8		-		-
			10		-		-
			12		-		-
			14		-		-
			16		-		-
			18		-		-
			20		-		-
65	M14	30	2	MR25	-	MR25	-
			4		-		-
			6		-		-
			8		-		-
			10		-		-
			12		-		-
			14		-		-
			16		-		-
			18		-		-
			20		-		-
80	M14	30	2	MR25	-	MR25	-
			4		-		-
			6		-		-
			8		-		-
			10		-		-
			12		-		-
			14		-		-
			16		-		-
			18		-		-
			20		-		-
100	M14	30	2	MR25	-	MR25	-
			4		-		-
			6		-		-

DN	Shaft end		Maximum pressure [bar]	Lubricating fluids		Non-lubricating fluids	
	s	h3		KSB Type MR	ROTORK Type AB	KSB Type MR	ROTORK Type AB
100	M14	30	8	MR25	-	MR25	-
			10		-		-
			12		-		-
			14		-		-
			16		-		-
			18		-		-
			20		-		-
125	M14	30	2	MR25	-	MR25	-
			4		-		-
			6		-		-
			8		-		-
			10		-		-
			12		-		-
			14		-		-
			16		-		-
			18		-		-
			20		-		-
150	M19	35	2	MR25	-	MR50	-
			4		-		-
			6		-		-
			8		-		-
			10		-		-
			12		-		-
			14		-		-
			16		-		-
			18		-		-
			20		-		-
200	M22	40	2	MR50	-	MR50	-
			4		-		-
			6		-		-
			8		-		-
			10		-		-
			12		-	MR100	-
			14		-		-
			16		-		-
			18		-		-
			20		-		-
250	C25	40	2	MR50	-	MR100	-
			4		-		-
			6		-		-
			8		-		-
			10		-		-
			12	MR100	-	MR200	-
			14		-		-
			16		-		-
			18		-		-
			20		-		-
300	C30	55	2	MR100	-	MR200	-
			4		-		-
			6		-		-
			8		-		-
			10		-		-
			12	MR200	-		-
			14		-		-
			16		-		-
			18		-		-
			20		-		-

DN	Shaft end		Maximum pressure	Lubricating fluids		Non-lubricating fluids						
				KSB	ROTORK	KSB	ROTORK					
	s	h3	[bar]	Type MR	Type AB	Type MR	Type AB					
350	C36	60	2	MR200	-	MR200	-					
			4		-		-					
			6		-		-					
			8		-		-					
			10		-		-					
			12		-		MR400	AB2000				
			14		-							
			16		-							
			18		-							
			20		-							
			400	C40	75	2	MR200	-	MR400	AB2000		
						4		-				
6	-											
8	-											
10	-											
12	-											
14	MR400	AB2000										
16												
18												
20												
450						C40	75	2	MR400	AB2000	MR400	AB2000
								4				
	6											
	8											
	10											
	12	MR600	AB195N/PR4									
	14											
	16											
	18											
	20											
	500	C50	85	2	MR400			AB2000	MR400	AB2000		
				4								
6												
8												
10				MR600		AB1950/PR4						
12												
14												
16					MR600		AB3000/PR6					
18												
20												
600				C50	85	2	MR400	AB2000	MR600	AB1950/PR4		
						4						
	6											
	8	MR600	AB1950/PR4			MR800	AB3000/PR6					
	10											
	12											
	14		MR800			AB3000/PR6						
	16											
	18											
	20											

Table 12: Metal seat for lubricating and non-lubricating fluids (Class 300)

DN	Shaft end		Maximum pressure	Lubricating fluids		Non-lubricating fluids	
				KSB	ROTORK	KSB	ROTORK
	s	h3	[bar]	Type MR	Type AB	Type MR	Type AB
50	M14	30	2	MR25	-	MR25	-
			4		-		-
			6		-		-
			8		-		-
			10		-		-
			12		-		-
			14		-		-
			16		-		-
			18		-		-
			20		-		-
			25		-		-
			30		-		-
			35		-		-
			40		-		-
			45		-		-
			50		-		-
65	M14	30	2	MR25	-	MR25	-
			4		-		-
			6		-		-
			8		-		-
			10		-		-
			12		-		-
			14		-		-
			16		-		-
			18		-		-
			20		-		-
			25		-		-
			30		-		-
			35		-		-
			40		-		-
			45		-		-
			50		-		-
80	M14	30	2	MR25	-	MR25	-
			4		-		-
			6		-		-
			8		-		-
			10		-		-
			12		-		-
			14		-		-
			16		-		-
			18		-		-
			20		-		-
			25		-		-
			30		-		-
			35		-		-
			40		-		-
			45		-		-
			50		-		-
100	M14	30	2	MR25	-	MR25	-
			4		-		-
			6		-		-
			8		-		-
			10		-		-
			12		-		-
			14		-		-
			16		-		-

DN	Shaft end		Maximum pressure [bar]	Lubricating fluids		Non-lubricating fluids	
	s	h3		KSB Type MR	ROTORK Type AB	KSB Type MR	ROTORK Type AB
100	M14	30	18	MR25	-	MR25	-
			20		-		-
			25		-		-
			30		-		-
			35		-		-
			40		-		-
			45		-		-
			50		-		-
125	M19	35	2	MR25	-	MR25	-
			4		-		-
			6		-		-
			8		-		-
			10		-		-
			12		-		-
			14		-		-
			16		-		-
			18		-		-
			20		-		-
			25		-	MR50	-
			30		-		-
			35		-		-
			40		-		-
			45		-		-
			50	MR50	-		-
150	M22	40	2	MR25	-	MR50	-
			4		-		-
			6		-		-
			8		-		-
			10		-		-
			12		-		-
			14		-		-
			16		-		-
			18		-		-
			20		-		-
			25	MR50	-	MR100	-
			30		-		-
			35		-		-
			40		-		-
			45		-		-
			50		-		-
200	M22	40	2	MR50	-	MR50	-
			4		-		-
			6		-		-
			8		-		-
			10		-		-
			12		-	MR100	-
			14		-		-
			16		-		-
			18		-		-
			20		-		-
			25		-		-
			30	MR100	-	MR200	-
			35		-		-
			40		-		-
			45		-		-
			50		-		-
250	C30	55	2	MR50	-	MR100	-

DN	Shaft end		Maximum pressure	Lubricating fluids		Non-lubricating fluids		
				KSB	ROTORK	KSB	ROTORK	
	s	h3	[bar]	Type MR	Type AB	Type MR	Type AB	
250	C30	55	4	MR50	-	MR100	-	
			6		-		-	
			8		-		-	
			10		-		-	
			12	MR100	-	MR200	-	
			14		-		-	
			16		-		-	
			18		-		-	
			20	MR200	-	MR400	AB2000	
			25		-			
			30		-			
			35		-			
			40	MR200	-	MR400	AB2000	
			45		-			
			50		-			
			50		-			
300	C40	75	2	MR100	-	MR200	-	
			4		-		-	
			6		-		-	
			8		-		-	
			10	MR200	-	MR400	AB2000	
			12		-			
			14		-			
			16		-			
			18	MR200	-	MR400	AB2000	
			20		-			
			25		-			
			30		-			
			35	MR400	AB2000	MR400	AB2000	
			40					
			45					
			50					
350	C40	75	2	MR200	-	MR200	-	
			4		-		-	
			6		-		-	
			8		-		-	
			10	MR200	-	MR400	AB2000	
			12		-			
			14		-			
			16		-			
			18	MR400	AB2000	MR400	AB2000	
			20					-
			25					-
			30					-
			35	MR400	AB2000	MR600	AB1950/PR4	
			40					
			45					
			50					
400	C50	85	2	MR200	-	MR400	AB2000	
			4		-			
			6		-			
			8		-			
			10	MR400	-			
			12		-			
			14		AB2000			
			16					
			18					
			20					

DN	Shaft end		Maximum pressure	Lubricating fluids		Non-lubricating fluids		
				KSB	ROTORK	KSB	ROTORK	
	s	h3	[bar]	Type MR	Type AB	Type MR	Type AB	
400	C50	85	25	MR400	AB2000	MR600	AB2000	
			30				AB1950/PR4	MR800
			35	MR600	AB3000/PR6			
			40					
			45					
			50					
450	C60	80	2	MR400	AB1950/PR4	MR400	AB1950/PR4	
			4					
			6					
			8					
			10					
			12					
			14					
			16					
			18					
			20					
			25	MR600	MR1200	AB3000/PR6		
			30					
			35	MR800			AB3000/PR6	AB3000/PR6
			40					
			45					
			50	MR1200		A200/PR10		
500	C60	80	2	MR400	AB3000/PR6	MR400	AB3000/PR6	
			4					
			6					
			8					
			10					
			12					
			14					
			16	MR600		MR1200	A200/PR10	
			18					
			20					
			25	MR800				MR1600
			30					
			35		MR1200			
			40					
			45					
			50		A200/PR10			
600	C70	105	2	MR400	AB3000/PR6	MR600	AB3000/PR6	
			4					
			6					
			8	MR600		MR800		
			10					
			12					
			14					
			16	MR800		MR1200		
			18					
			20					
			25	MR1200	MR1600	A200/PR10		
			30					
			35	MR1600	A200/PR10		-	
			40					
			45					
			50	-		-		

MR/AB (plastomer seat)

Table 13: Plastomer seat for all fluids (Class 150)

DN	Shaft end		Maximum pressure	All fluids	
				KSB	ROTORK
	s	h3	[bar]	Type MR	Type AB
50	M14	30	2	MR25	-
			4		-
			6		-
			8		-
			10		-
			12		-
			14		-
			16		-
			18		-
			20		-
			25		-
65	M14	30	2	MR25	-
			4		-
			6		-
			8		-
			10		-
			12		-
			14		-
			16		-
			18		-
			20		-
			25		-
80	M14	30	2	MR25	-
			4		-
			6		-
			8		-
			10		-
			12		-
			14		-
			16		-
			18		-
			20		-
			25		-
100	M14	30	2	MR25	-
			4		-
			6		-
			8		-
			10		-
			12		-
			14		-
			16		-
			18		-
			20		-
			25		-
125	M14	30	2	MR25	-
			4		-
			6		-
			8		-
			10		-
			12		-
			14		-
			16		-
			18		-
			20		-

DN	Shaft end		Maximum pressure	All fluids	
				KSB	ROTORK
	s	h3		Type MR	Type AB
125	M14	30	25	MR25	-
150	M19	35	2	MR25	-
			4		-
			6		-
			8		-
			10		-
			12		-
			14		-
			16		-
			18		-
			20		-
			25		-
200	M22	40	2	MR25	-
			4		-
			6		-
			8		-
			10		-
			12		-
			14		-
			16	MR50	-
			18		-
			20		-
			25		-
250	C25	40	2	MR25	-
			4	MR50	-
			6		-
			8		-
			10		-
			12		-
			14		-
			16	MR100	-
			18		-
			20		-
			25		-
300	C30	55	2	MR50	-
			4		-
			6		-
			8		-
			10	MR100	-
			12		-
			14		-
			16		-
			18		-
			20		-
			25	MR200	-
350	C36	60	2	MR50	-
			4	MR100	-
			6		-
			8		-
			10	MR200	-
			12		-
			14		-
			16		-
			18		-
			20		-
			25		-
400	C40	75	2	MR100	-

DN	Shaft end		Maximum pressure	All fluids	
				KSB	ROTORK
	s	h3	[bar]	Type MR	Type AB
400	C40	75	4	MR100	-
			6		-
			8		MR200
			10	-	
			12	-	
			14	-	
			16	-	
			18	-	
			20	MR400	AB2000
			25		
450	C40	75	2	MR200	-
			4		-
			6		-
			8		-
			10		-
			12	MR400	AB2000
			14		
			16		
			18		
			20		
			25		
			500	C50	85
4	-				
6	-				
8	MR400	AB2000			
10					
12					
14					
16					
18					
20					
25					
600	C50	85	2	MR200	-
			4		-
			6	MR400	AB2000
			8		
			10		
			12	MR600	AB1950/PR4
			14		
			16		
			18	MR800	
			20		
			25	MR1200	AB3000/PR6

Table 14: Plastomer seat for all fluids (Class 300)

DN	Shaft end		Maximum pressure	All fluids	
				KSB	ROTORK
	s	h3		Type MR	Type AB
50	M14	30	2	MR25	-
			4		-
			6		-
			8		-
			10		-
			12		-
			14		-
			16		-
			18		-
					-

DN	Shaft end		Maximum pressure	All fluids	
				KSB	ROTORK
	s	h3		Type MR	Type AB
50	M14	30	20	MR25	-
			25		-
			30		-
			35		-
			40		-
			45		-
			50		-
65	M14	30	2	MR25	-
			4		-
			6		-
			8		-
			10		-
			12		-
			14		-
			16		-
			18		-
			20		-
			25		-
			30		-
			35		-
			40		-
			45		-
			50		-
80	M14	30	2	MR25	-
			4		-
			6		-
			8		-
			10		-
			12		-
			14		-
			16		-
			18		-
			20		-
			25		-
			30		-
			35		-
			40		-
			45		-
			50		-
100	M14	30	2	MR25	-
			4		-
			6		-
			8		-
			10		-
			12		-
			14		-
			16		-
			18		-
			20		-
			25		-
			30		-
			35		-
			40		-
			45		-
			50		-
125	M19	35	2	MR25	-
			4		-

DN	Shaft end		Maximum pressure	All fluids	
				KSB	ROTORK
	s	h3		Type MR	Type AB
125	M19	35	6	MR25	-
			8		-
			10		-
			12		-
			14		-
			16		-
			18		-
			20		-
			25		-
			30		-
			35		-
			40		-
			45		-
			50		-
150	M22	40	2	MR25	-
			4		-
			6		-
			8		-
			10		-
			12		-
			14		-
			16		-
			18		-
			20		-
			25		-
			30		-
			35		-
			40	MR50	-
			45		-
			50		-
200	M22	40	2	MR25	-
			4		-
			6		-
			8		-
			10		-
			12		-
			14		-
			16	MR50	-
			18		-
			20		-
			25		-
			30		-
			35		-
			40	MR100	-
			45		-
			50		-
250	C30	55	2	MR25	-
			4	MR50	-
			6		-
			8		-
			10		-
			12		-
			14		-
			16	MR100	-
			18		-
			20		-
			25		-

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DN	Shaft end		Maximum pressure	All fluids				
				KSB	ROTORK			
	s	h3	[bar]	Type MR	Type AB			
450	C60	80	10	MR200	-			
			12	MR400	AB1950/PR4			
			14					
			16					
			18					
			20					
			25	MR600				
			30					
			35					
			40	MR800	AB3000/PR6			
			45					
			50					
500	C60	80	2	MR200	-			
			4		-			
			6		-			
			8	MR400	AB3000/PR6			
			10					
			12					
			14					
			16					
			18	MR600				
			20					
			25					
			30	MR800				
			35					
			40	MR1200				
			45					
			50					
			600	C70	105	2	MR200	-
						4		-
6	MR400	AB3000/PR6						
8								
10								
12	MR600							
14								
16								
18	MR800							
20								
25	MR1200							
30								
35								
40	MR1600	A200/PR10						
45								
50								

Double-acting Pneumatic Actuator

ACTAIR NG (metal seat)

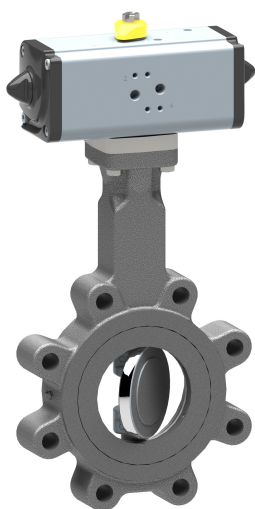


Fig. 4: Unit comprising DANAIS MT II + ACTAIR NG actuator

Table 15: Shut-off function: metal seat for lubricating and non-lubricating fluids (Class 150)

DN	Shaft end		Maximum pressure	Lubricating fluids				Non-lubricating fluids			
				Control pressure							
	3	4	5	6	3	4	5	6			
	s	h3	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]
50	M14	30	2	NG10	NG5	NG5	NG5	NG15	NG15	NG10	NG10
			4								
			6								
			8								
			10								
			12								
			14		NG10			NG20	NG15		
			16								
			18								
			20								
65	M14	30	2	NG10	NG5	NG5	NG5	NG15	NG15	NG10	NG10
			4								
			6								
			8								
			10								
			12								
			14		NG10			NG20	NG15		
			16								
			18								
			20								
80	M14	30	2	NG10	NG5	NG5	NG5	NG20	NG15	NG15	NG10
			4								
			6								
			8								
			10								
			12								
			14		NG10						
			16								
			18								
			20								

DN	Shaft end		Maximum pressure	Lubricating fluids				Non-lubricating fluids			
				Control pressure							
				3	4	5	6	3	4	5	6
	s	h3	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]
100	M14	30	2	NG15	NG10	NG10	NG10	NG20	NG15	NG15	NG15
			4								
			6								
			8								
			10								
			12								
			14								
			16								
			18								
			20		NG15						
125	M14	30	2	NG20	NG15	NG15	NG10	NG40	NG30	NG20	NG15
			4								
			6								
			8								
			10								
			12								
			14								
			16								
			18								
			20				NG15			NG30	
150	M19	35	2	NG30	NG20	NG15	NG15	NG60	NG40	NG30	NG30
			4								
			6								
			8								
			10								
			12								
			14								
			16								
			18								
			20		NG80		NG60				
200	M22	40	2	NG60	NG40	NG30	NG30	NG80	NG60	NG60	NG40
			4								
			6								
			8								
			10								
			12								
			14								
			16								
			18								
			20				NG80			NG40	
250	C25	40	2	NG80	NG60	NG60	NG40	NG160	NG120	NG80	NG80
			4								
			6								
			8								
			10								
			12								
			14								
			16								
			18								
			20				NG160			NG80	
300	C30	55	2	NG120	NG120	NG80	NG80	NG240	NG160	NG120	NG120
			4								
			6								
			8								
			10								
			12							NG160	

DN	Shaft end		Maximum pressure	Lubricating fluids				Non-lubricating fluids			
				Control pressure							
	3	4	5	6	3	4	5	6			
	s	h3	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]
300	C30	55	14	NG160	NG120	NG120	NG80	NG240	NG240	NG160	NG120
			16	NG240	NG160		NG120	NG340			NG160
			18								
			20						NG240		
350	C36	60	2	NG240	NG160	NG120	NG120	NG340	NG240	NG240	NG160
			4								
			6								
			8								
			10								
			12		NG160						
			14	NG240			NG500	NG340		NG240	
			16		NG340		NG160				NG240
			18	NG240							
			20						NG340		
400	C40	75	2	NG340	NG240	NG160	NG160	NG500	NG340	NG340	NG240
			4								
			6								
			8								
			10								
			12		NG240		NG500				
			14			NG700			NG340		
			16	NG500	NG340	NG240					
			18						NG500		
			20		NG340						
450	C40	75	2	NG500	NG340	NG240	NG240	NG700	NG500	NG500	NG340
			4								
			6								
			8								
			10								
			12		NG500	NG340		NG700		NG500	
			14								
			16	NG700		NG340					
			18		NG500				NG700		
			20								
500	C50	85	2	NG500	NG340	NG340	NG340	NG700	NG500	NG500	NG340
			4								
			6								
			8								
			10	NG700	NG500		-	NG700		NG500	
			12				-				
			14		NG500		-	-			
			16		NG700	NG500		-	-		NG700
			18	-			-	-	-		
			20	-	NG700		-	-	-		
600	C50	85	2	NG500	NG500	NG340	NG240	-	NG700	NG700	NG500
			4					-			
			6	NG700		NG500	NG340	-	-		NG700
			8					-	-		
			10		NG700	NG500	-	-	-		
			12				-	-	-		
			14	-	-		NG700	-	-	-	-
			16	-	-		NG700	-	-	-	-
			18	-	-	-		-	-	-	-
			20	-	-	-		-	-	-	-

Table 16: Throttling function: metal seat for lubricating and non-lubricating fluids (Class 150)

DN	Shaft end		Maximum pressure	Lubricating fluids			Non-lubricating fluids		
				Control pressure					
	s	h3		[bar]	4 [bar]	5 [bar]	6 [bar]	4 [bar]	5 [bar]
50	M14	30	2	NG10	NG5	NG5	NG15	NG15	NG10
			4						
			6						
			8						
			10						
			12		NG10	NG20			
			14						
			16						
			18						
			20						
65	M14	30	2	NG10	NG5	NG5	NG15	NG15	NG10
			4						
			6						
			8						
			10						
			12		NG10	NG20			
			14						
			16						
			18						
			20						
80	M14	30	2	NG10	NG5	NG5	NG20	NG15	NG15
			4						
			6						
			8						
			10						
			12		NG10				
			14						
			16						
			18						
			20						
100	M14	30	2	NG15	NG10	NG10	NG20	NG15	NG15
			4						
			6						
			8						
			10						
			12		NG15				
			14						
			16						
			18						
			20						
125	M14	30	2	NG20	NG15	NG15	NG40	NG30	NG20
			4						
			6						
			8						
			10						
			12		NG30	NG20			
			14						
			16						
			18						
			20						
150	M19	35	2	NG30	NG20	NG15	NG60	NG40	NG30
			4						
			6						
			8						
			10						

DN	Shaft end		Maximum pressure	Lubricating fluids			Non-lubricating fluids		
				Control pressure					
				4	5	6	4	5	6
	s	h3		[bar]	[bar]	[bar]	[bar]	[bar]	[bar]
150	M19	35	12	NG30	NG30	NG20	NG60	NG40	NG30
			14						
			16	NG30		NG80			
			18						
			20						
200	M22	40	2	NG60	NG40	NG30	NG80	NG60	NG60
			4						
			6						
			8						
			10						
			12		NG40	NG120	NG80		
			14					NG60	
			16						
			18	NG80	NG120	NG80			
			20						
250	C25	40	2	NG80	NG60	NG60	NG160	NG120	NG80
			4						
			6						
			8						
			10						
			12	NG120	NG80	NG80	NG240	NG160	
			14						
			16						
			18						
			20	NG160	NG120				
300	C30	55	2	NG120	NG120	NG80	NG240	NG160	NG120
			4						
			6						
			8						
			10						
			12	NG160	NG120	NG340	NG240		
			14						
			16						
			18						
			20	NG240	NG160				
350	C36	60	2	NG240	NG160	NG120	NG340	NG240	NG240
			4						
			6						
			8						
			10						
			12		NG340	NG240	NG500	NG340	
			14						
			16						
			18	NG340		NG240			
			20						
400	C40	75	2	NG340	NG240	NG160	NG500	NG340	NG340
			4						
			6						
			8						
			10						
			12	NG500	NG340	NG700	NG500		
			14						
			16						
			18						
			20	NG340					
450	C40	75	2	NG500	NG340	NG240	NG700	NG500	NG500

DN	Shaft end		Maximum pressure	Lubricating fluids			Non-lubricating fluids		
				Control pressure					
	s	h3		[bar]	4 [bar]	5 [bar]	6 [bar]	4 [bar]	5 [bar]
450	C40	75	4	NG500	NG340	NG240	NG700	NG500	NG500
			6						
			8						
			10						
			12						
			14	NG700	NG500	NG340	NG700		
			16						
			18						
			20						
-									
500	C50	85	2	NG500	NG340	NG340	NG700	NG500	NG500
			4						
			6						
			8						
			10						
			12	NG700	NG500	NG340	NG700		
			14						
			16						
			18						
20									
600	C50	85	2	NG500	NG500	NG340	NG700	NG700	
			4						
			6						
			8						
			10						
			12	NG700	NG500	NG340	NG700		
			14						
			16						
			18						
20									

Table 17: Shut-off function: metal seat for lubricating and non-lubricating fluids (Class 300)

DN	Shaft end		Maximum pressure	Lubricating fluids				Non-lubricating fluids			
				Control pressure							
	3	4		5	6	3	4	5	6		
	s	h3	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	
50	M14	30	2	NG10	NG5	NG5	NG5	NG15	NG15	NG10	NG10
			4								
			6								
			8								
			10								
			12								
			14		NG10			NG20		NG15	
			16								
			18								
			20								
			25								
			30	NG15	NG10	NG30				NG20	NG15
			35								
			40				NG10				
			45								
			50		NG15						
65	M14	30	2	NG10	NG5	NG5	NG5	NG15	NG15	NG10	NG10
			4								
			6								
			8								
			10								

DN	Shaft end		Maximum pressure	Lubricating fluids				Non-lubricating fluids							
				Control pressure											
	3	4		5	6	3	4	5	6						
	s	h3	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]				
65	M14	30	12	NG10	NG5	NG5	NG5	NG15	NG15	NG10	NG10				
			14		NG10			NG20		NG15					
			16												
			18	NG15	NG10	NG10	NG30	NG20	NG15						
			20												
			25							NG15	NG10	NG10	NG30	NG20	NG15
			30												
			35												
			40												
			45												
			50												
80	M14	30	2	NG10	NG5	NG5	NG5	NG20	NG15	NG15	NG10				
			4												
			6												
			8												
			10												
			12												
			14		NG10										
			16												
			18												
			20												
			25	NG15	NG10	NG10	NG30	NG20	NG15						
			30												
			35												
			40												
			45												
			50												
100	M14	30	2	NG15	NG10	NG10	NG10	NG20	NG15	NG15	NG10				
			4		NG15										
			6												
			8												
			10												
			12												
			14												
			16								NG15				
			18												
			20												
			25	NG20		NG15									
			30												
			35		NG30		NG20	NG20							
			40												
			45												
			50												
125	M19	35	2	NG20	NG15	NG15	NG15	NG30	NG30	NG20	NG15				
			4												
			6												
			8												
			10												
			10												
			12		NG40							NG30	NG30		
			14												
			16											NG30	NG20
			18												
			20												
			25												
			30	NG30	NG20	NG15	NG40	NG40	NG30	NG30					

DN	Shaft end		Maximum pressure	Lubricating fluids				Non-lubricating fluids									
				Control pressure													
	3	4	5	6	3	4	5	6									
	s	h3	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]						
125	M19	35	35	NG40	NG30	NG20	NG20	NG60	NG40	NG40	NG30						
			40			NG30		NG80	NG60		NG40						
			45						NG30			NG80	NG40				
			50		NG40	NG30											
150	M22	40	2	NG30	NG30	NG30	NG30	NG60	NG40	NG30	NG30						
			4														
			6														
			8														
			10														
			12														
			14														
			16	NG40				NG60		NG40	NG30						
			18														
			20														
			25	NG60								NG40	NG80	NG60	NG40		
			30														
			35													NG80	NG60
			40														
			45	NG60				NG40		NG120	NG80	NG60					
			50														
200	M22	40	2	NG60	NG40	NG30	NG30	NG80	NG60	NG60	NG40						
			4														
			6														
			8														
			10														
			12														
			14														
			16	NG60				NG120		NG80	NG60	NG40					
			18														
			20														
			25	NG80									NG60	NG40	NG160	NG120	NG80
			30														
			35														
			40	NG120									NG80	NG60	NG240	NG160	NG120
			45														
			50					NG160		NG80							
250	C30	55	2	NG80	NG60	NG60	NG40	NG160	NG120	NG80	NG80						
			4														
			6														
			8														
			10														
			12	NG120			NG80			NG60	NG240	NG160	NG120				
			14														
			16														
			18	NG120										NG80	NG160	NG240	NG160
			20														
			25				NG160			NG120	NG80	NG340	NG240				
			30														
			35	NG240										NG160	NG160	NG500	NG340
			40														
			45														
			50	NG340			NG160										
300	C40	75	2	NG160	NG160	NG160	NG160	NG240	NG160	NG160	NG160						
			4														
			6														
			8														

DN	Shaft end		Maximum pressure	Lubricating fluids				Non-lubricating fluids			
				Control pressure							
	3	4		5	6	3	4	5	6		
	s	h3	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]
300	C40	75	10	NG160	NG160	NG160	NG160	NG240	NG160	NG160	NG160
			12								
			14								
			16	NG240				NG340			
			18								
			20							NG240	
			25		NG240			NG500	NG340		NG240
			30	NG340							
			35			NG240				NG340	
			40	NG500	NG340		NG240		NG500		
			45					NG700			NG340
			50				NG340				NG500
350	C40	75	2	NG240	NG160	NG160	NG160	NG340	NG240	NG240	NG160
			4								
			6								
			8								
			10								
			12								
			14		NG240			NG500	NG340		
			16	NG340							
			18			NG240					
			20							NG340	
			25	NG500	NG340		NG240	NG700	NG500		NG340
			30			NG340				NG500	
			35		NG500						
			40	NG700			NG340	-	NG700		NG500
			45			NG500		-			
			50					-		NG700	
400	C50	85	2	NG340	NG240	NG160	NG160	NG500	NG340	NG340	NG240
			4								
			6								
			8								
			10								
			12			NG240			NG500		
			14					NG700			NG340
			16	NG500	NG340		NG240				
			18							NG500	
			20			NG340					
			25	NG700	NG500		NG340	-	NG700		NG500
			30			NG500		-			
			35		NG700		NG500	-		NG700	
			40	-				-	-		NG700
			45	-				-	-		
			50	-		NG700		-	-	-	
450	C60	80	2	NG500	NG500	NG500	NG500	NG700	NG500	NG500	NG500
			4								
			6								
			8								
			10								
			12						NG700		
			14					-			
			16	NG700				-			
			18					-		NG700	
			20					-			
			25	-	NG700			-	-		NG700
			30	-		NG700		-	-	-	

DN	Shaft end		Maximum pressure	Lubricating fluids				Non-lubricating fluids						
				Control pressure										
	3	4		5	6	3	4	5	6					
	s	h3	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]				
450	C60	80	35	-	-	NG700	NG700	-	-	-	NG700			
			40	-	-	-		-	-	-	-			
			45	-	-	-		-	-	-	-			
			50	-	-	-	-	-	-	-	-			
500	C60	80	2	NG500	NG500	NG500	NG500	NG700	NG500	NG500	NG500			
			4											
			6											
			8					-	NG700					
			10	NG700				-						
			12					-		NG700				
			14					-	-					
			16	-	NG700			-	-		NG700			
			18	-				-	-					
			20	-		NG700		-	-	-				
			25	-	-		NG700	-	-	-				
			30	-	-	-		-	-	-	-			
			35	-	-	-		-	-	-	-			
			40	-	-	-	-	-	-	-	-			
			45	-	-	-	-	-	-	-	-			
			50	-	-	-	-	-	-	-	-			
			600	C70	105	2	-	-	-	-	-	-	-	-
						4	-	-	-	-	-	-	-	-
						6	-	-	-	-	-	-	-	-
8	-	-				-	-	-	-	-	-			
10	-	-				-	-	-	-	-	-			
12	-	-				-	-	-	-	-	-			
14	-	-				-	-	-	-	-	-			
16	-	-				-	-	-	-	-	-			
18	-	-				-	-	-	-	-	-			
20	-	-				-	-	-	-	-	-			
25	-	-				-	-	-	-	-	-			
30	-	-				-	-	-	-	-	-			
35	-	-				-	-	-	-	-	-			
40	-	-				-	-	-	-	-	-			
45	-	-				-	-	-	-	-	-			
50	-	-				-	-	-	-	-	-			

Table 18: Throttling function: metal seat for lubricating and non-lubricating fluids (Class 300)

DN	Shaft end		Maximum pressure	Lubricating fluids			Non-lubricating fluids			
				Control pressure						
	s	h3	[bar]	4	5	6	4	5	6	
50	M14	30	2	NG10	NG5	NG5	NG15	NG15	NG10	
			4							
			6							
			8							
			10							
			12							
			14							
			16	NG10	NG20	NG15				
			18							
			20							
			25							
			30				NG15	NG10	NG30	NG20
			35							
			40							

DN	Shaft end		Maximum pressure	Lubricating fluids			Non-lubricating fluids				
				Control pressure							
				4	5	6	4	5	6		
	s	h3	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]			
50	M14	30	45	NG15	NG10	NG10	NG30	NG20	NG15		
			50		NG15						
65	M14	30	2	NG10	NG5	NG5	NG15	NG15	NG10		
			4								
			6								
			8								
			10								
			12								
			14		NG10						
			16				NG20				
			18								
			20								
			25	NG10							
			30								
			35								
			40		NG30						
			45			NG20					
			50								
80	M14	30	2	NG10			NG5	NG5	NG20	NG15	NG15
			4								
			6								
			8								
			10								
			12								
			14		NG10						
			16								
			18								
			20								
			25	NG10							
			30								
			35								
			40		NG30						
			45			NG20					
			50								
100	M14	30	2	NG15			NG10	NG10	NG20	NG15	NG15
			4								
			6								
			8								
			10								
			12								
			14		NG15						
			16								
			18								
			20								
			25	NG20							
			30								
			35		NG30						
			40			NG20					
			45								
			50								
125	M19	35	2	NG20			NG15	NG15	NG30	NG30	NG20
			4								
			6								
			8								
			10								
			10								

DN	Shaft end		Maximum pressure	Lubricating fluids			Non-lubricating fluids							
				Control pressure										
				4	5	6	4	5	6					
	s	h3		[bar]	[bar]	[bar]	[bar]	[bar]	[bar]					
125	M19	35	12	NG20	NG15	NG15	NG40	NG30	NG20					
			14											
			16							NG30	NG20			
			18											
			20											
			25											
			30	NG40	NG30	NG20	NG60	NG40						
			35						NG30	NG80	NG60			
			40											
			45											
			50		NG40									
150	M22	40	2	NG30	NG30	NG30	NG60	NG40	NG30					
			4											
			6											
			8											
			10											
			12											
			14											
			16							NG40				
			18											
			20											
			25								NG60	NG40		
			30	NG60			NG40	NG120	NG80					
			35											
			40							NG80				
			45											
			50											
			200	M22			40	2	NG60	NG40	NG30	NG80	NG60	NG60
								4						
								6						
8														
10														
12														
14														
16	NG60													
18		NG80												
20														
25														
30	NG120				NG80									
35														
40		NG120				NG160								
45														
50	NG160													
250	C30	55			2	NG80		NG60	NG60		NG160	NG120	NG80	
					4									
					6									
			8											
			10											
			12	NG120	NG80									
			14											
			16				NG120			NG240				NG160
			18											
			20	NG160										
			25											
			30		NG240	NG160								
			35											

DN	Shaft end		Maximum pressure	Lubricating fluids			Non-lubricating fluids					
				Control pressure								
				4	5	6	4	5	6			
	s	h3	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]				
250	C30	55	40	NG240	NG160	NG160	NG340	NG240	NG240			
			45		NG240		NG500	NG340				
			50	NG340								
300	C40	75	2	NG160	NG160	NG160	NG240	NG160	NG160			
			4									
			6									
			8									
			10									
			12									
			14									
			16							NG240	NG340	NG240
			18									
			20	NG240			NG500	NG340	NG340			
			25		NG340						NG500	NG340
			30				NG340	NG500	NG340			
			35		NG500	NG340				NG340		
			40	NG500			NG340	NG340				
			45		NG500	NG340			NG340			
			50	NG500			NG340	NG340				
2	NG240	NG160	NG160		NG340	NG240			NG240			
4												
6												
8												
10												
12												
14		NG240		NG500	NG340	NG340						
16							NG340	NG500		NG340		
18	NG240		NG700						NG500			
20							NG500	NG340		NG500		
25	NG340	NG500	NG500									
30				NG500	NG500	NG500						
35	NG700	NG500	NG700									
40				NG700	NG500	NG700						
45	NG700	NG500	NG700									
50				NG700	NG500	NG700						
2	NG340	NG240	NG160				NG500	NG340	NG340			
4												
6												
8												
10												
12				NG240	NG700	NG500				NG500		
14			NG500								NG340	NG500
16												
18	NG500	NG700	NG700									
20				NG700	NG500	NG700						
25	NG700	NG500	NG700									
30				NG700	NG500	NG700						
35	NG700	NG500	NG700									
40				NG700	NG500	NG700						
45	NG700	NG500	NG700									
50				NG700	NG500	NG700						
2	NG500	NG500	NG500				NG700	NG500	NG500			
4												
6												
8												
10												
2				NG500	NG500	NG500				NG700	NG500	NG500
4												
6												
8												
10												

DN	Shaft end		Maximum pressure	Lubricating fluids			Non-lubricating fluids				
				Control pressure							
	s	h3		[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	
450	C60	80	12	NG500	NG500	NG500	NG700	NG700	NG500		
			14				-				
			16	NG700			-			NG700	
			18				-				
			20				-				
			25	-	NG700	-	-				
			30	-		NG700	-	-	-		
			35	-	-	-	-	-			
			40	-	-	-	-	-	-		
			45	-	-	-	-	-	-		
			50	-	-	-	-	-	-		
500	C60	80	2	NG500	NG500	NG500	NG700	NG500	NG500		
			4				NG700			NG700	NG700
			6	NG700				-	NG700		
			8					-		NG700	
			10					-			
			12	-	NG700						
			14	-		-	NG700				
			16	-		NG700		-	-		
			18	-	-			-			
			20	-	NG700	-	-	-			
			25	-	-	-	-	-			
			30	-	-	-	-	-			
			35	-	-	-	-	-			
			40	-	-	-	-	-			
			45	-	-	-	-	-			
			50	-	-	-	-	-	-		
600	C70	105	2	-	-	-	-	-	-		
			4	-	-	-	-	-	-		
			6	-	-	-	-	-	-		
			8	-	-	-	-	-	-		
			10	-	-	-	-	-	-		
			12	-	-	-	-	-	-		
			14	-	-	-	-	-	-		
			16	-	-	-	-	-	-		
			18	-	-	-	-	-	-		
			20	-	-	-	-	-	-		
			25	-	-	-	-	-	-		
			30	-	-	-	-	-	-		
			35	-	-	-	-	-	-		
			40	-	-	-	-	-	-		
			45	-	-	-	-	-	-		
			50	-	-	-	-	-	-		

ACTAIR NG (plastomer seat)

Table 19: Shut-off function: plastomer seat for all fluids (Class 150)

DN	Shaft end		Maximum pressure	All fluids			
				Control pressure			
				3	4	5	6
	s	h3	[bar]	[bar]	[bar]	[bar]	[bar]
50	M14	30	2	NG5	NG5	NG5	NG5
			4				
			6				
			8				
			10				
			12				
			14				
			16				
			18				
			20				
			25				
65	M14	30	2	NG5	NG5	NG5	NG5
			4				
			6				
			8				
			10				
			12				
			14				
			16				
			18				
			20				
			25				
80	M14	30	2	NG5	NG5	NG5	NG5
			4				
			6				
			8				
			10				
			12				
			14				
			16				
			18				
			20				
			25				
100	M14	30	2	NG10	NG5	NG5	NG5
			4				
			6				
			8				
			10				
			12				
			14				
			16				
			18				
			20				
			25				
125	M14	30	2	NG15	NG10	NG10	NG5
			4				
			6				
			8				
			10				
			12				
			14				
			16				
			18				

DN	Shaft end		Maximum pressure	All fluids			
				Control pressure			
	s	h3		3	4	5	6
			[bar]	[bar]	[bar]	[bar]	[bar]
125	M14	30	20	NG20	NG15	NG15	NG10
			25				NG15
150	M19	35	2	NG15	NG15	NG15	NG15
			4				
			6				
			8				
			10	NG20	NG20	NG20	NG20
			12				
			14				
			16				
			18	NG30	NG30	NG20	NG20
			20				
			25				
			25				
200	M22	40	2	NG30	NG30	NG30	NG30
			4				
			6				
			8				
			10	NG40	-	-	-
			12				
			14				
			16				
			18	NG60	NG40	NG40	NG40
			20				
			25				
			25				
250	C25	40	2	NG40	NG40	NG40	NG40
			4				
			6				
			8	NG60	NG60	NG60	NG60
			10				
			12				
			14				
			16	NG120	NG80	NG80	NG80
			18				
			20				
			25				
			25				
300	C30	55	2	NG80	NG60	NG40	NG40
			4				
			6				
			8				
			10	NG120	NG80	NG80	NG80
			12				
			14				
			16				
			18	NG160	NG120	NG120	NG120
			20				
			25				
			25				
350	C36	60	2	NG80	NG80	NG80	NG80
			4				
			6				
			8	NG120	NG120	NG120	NG120
			10				
			12				
			14				
			16	NG240	NG160	NG160	NG160
			18				
			20				
			20				
			20	NG340	NG240	NG240	NG240
			20				
			20				
			20				

DN	Shaft end		Maximum pressure	All fluids					
				Control pressure					
				3	4	5	6		
	s	h3	[bar]	[bar]	[bar]	[bar]	[bar]		
350	C36	60	25	NG340	NG240	NG240	NG160		
400	C40	75	2	NG160	NG160	NG160	NG160		
			4						
			6						
			8	NG240	NG240	NG240	NG240		
			10						
			12						
			14	NG340	NG240	NG240	NG240		
			16						
			18						
			20	NG500	NG340	NG240	NG240		
			25						
450	C40	75	2	NG160	NG160	NG160	NG160		
			4						
			6					NG240	
			8	NG340	NG240	NG240	NG240		
			10						
			12					NG500	NG340
			14						
			16	NG500	NG340	NG340			
			18						
			20				NG700	NG700	NG500
			25						
500	C50	85	2	NG240	NG160	NG160	NG160		
			4						
			6					NG340	NG240
			8	NG500	NG340	NG240	NG240		
			10						
			12					NG500	NG340
			14	NG700	NG500	NG500			
			16						
			18						
			20	-	NG700	NG500	NG500		
			25	-					
600	C50	85	2	NG340	NG240	NG240	NG160		
			4						
			6					NG500	NG340
			8	NG700	NG500	NG340	NG340		
			10						
			12					NG700	NG700
			14						
			16						
			18	-	-	NG700	NG700		
			20	-	-				
			25	-	-				

DN	Shaft end		Maximum pressure	All fluids			
				Control pressure			
				4	5	6	
	s	h3	[bar]	[bar]	[bar]	[bar]	
50	M14	30	12	NG5	NG5	NG5	
			14				
			16				
			18				
			20				
			25				
65	M14	30	2	NG5	NG5	NG5	
			4				
			6				
			8				
			10				
			12				
			14				
			16				
			18				
			20				
			25	NG10			
80	M14	30	2	NG5	NG5	NG5	
			4				
			6				
			8				
			10				
			12				
			14				
			16				
			18				NG10
			20				
			25				
100	M14	30	2	NG10	NG5	NG5	
			4				
			6				
			8				
			10				
			12				
			14		NG15		NG10
			16				
			18				
			20				
			25	NG15			
125	M14	30	2	NG15	NG10	NG10	
			4				
			6				
			8				
			10				
			12				
			14				NG15
			16				
			18				
			20				
			25		NG15		
150	M19	35	2	NG15	NG15	NG15	
			4				
			6				
			8	NG20			
			10				
			12				

DN	Shaft end		Maximum pressure	All fluids			
				Control pressure			
				4	5	6	
	s	h3	[bar]	[bar]	[bar]	[bar]	
150	M19	35	14	NG30	NG20	NG15	
			16				
			18				
			20				
			25	NG40	NG30	NG20	
200	M22	40	2	NG30	NG30	NG30	
			4				
			6				
			8				
			10	NG40			
			12				
			14				
			16	NG60	NG40		
			18				
			20				
			25		NG60		NG40
			250	C25	40		2
4							
6							
8	NG60						
10		NG60					
12	NG80						
14							
16		NG120				NG80	
18							
20							
25	NG120						NG80
300	C30	55				2	NG80
			4				
			6				
			8	NG60			
			10		NG120	NG80	
			12	NG160			NG120
			14				
			16				
			18				
			20	NG240	NG160		
			25				
			350	C36	60	2	NG80
4							
6	NG120	NG120					
8						NG160	NG120
10	NG240	NG160					
12							
14						NG340	NG240
16							
18							
20							
25	NG340	NG240					
400	C40	75	2	NG160	NG160	NG160	
			4				
			6				
			8				NG240
			10				
			12	NG240			
			14		NG340		

DN	Shaft end		Maximum pressure	All fluids		
				Control pressure		
	s	h3		4	5	6
			[bar]	[bar]	[bar]	[bar]
400	C40	75	16	NG340	NG240	NG240
			18			
			20	NG500	NG340	NG340
			25			
450	C40	75	2	NG160	NG160	NG160
			4			
			6	NG240	NG240	NG240
			8			
			10	NG340	NG340	NG240
			12			
			14	NG500	NG500	NG340
			16			
			18	NG700	NG700	NG500
			20			
			25			
500	C50	85	2	NG240	NG160	NG160
			4			
			6	NG340	NG240	NG240
			8			
			10	NG500	NG340	NG340
			12			
			14	NG700	NG700	NG500
			16			
			18	-	NG700	NG700
			20			
			25	-		
600	C50	85	2	NG340	NG240	NG240
			4			
			6	NG500	NG340	NG340
			8			
			10	NG700	NG500	NG500
			12			
			14	-	NG700	NG700
			16			
			18	-	-	
			20	-	-	
			25	-	-	-

Table 21: Shut-off function: plastomer seat for all fluids (Class 300)

DN	Shaft end		Maximum pressure	All fluids			
				Control pressure			
	s	h3		3	4	5	6
			[bar]	[bar]	[bar]	[bar]	[bar]
50	M14	30	2	NG5	NG5	NG5	NG5
			4				
			6				
			8				
			10				
			12				
			14				
			16				
			18				
			20				
			25				
			30	NG10			
			35				

DN	Shaft end		Maximum pressure	All fluids					
				Control pressure					
				3	4	5	6		
	s	h3	[bar]	[bar]	[bar]	[bar]	[bar]		
50	M14	30	40	NG10	NG5	NG5	NG5		
			45		NG10				
			50						
65	M14	30	2	NG5	NG5	NG5	NG5		
			4						
			6						
			8						
			10						
			12						
			14						
			16						
			18						
			20						
			25	NG10	NG10	NG5			
			30						
			35						
			40						
			45						
			50	NG15	NG10	NG10			
80	M14	30	2	NG5	NG5	NG5	NG5		
			4						
			6						
			8						
			10						
			12						
			14						
			16						
			18		NG10			NG10	NG5
			20						
			25						
			30						
			35						
			40	NG15	NG10	NG10			
			45						
			50						
						NG10			
100	M14	30	2	NG10	NG5	NG5	NG5		
			4						
			6						
			8						
			10						
			12		NG10			NG10	NG5
			14						
			16	NG15	NG15	NG10			
			18						
			20						
			25						
			30						
			35	NG20	NG15	NG15			
			40						
			45						
			50						
						NG15			
125	M19	35	2	NG15	NG15	NG15	NG15		
			4						
			6						
			8						
			10						

DN	Shaft end		Maximum pressure	All fluids			
				Control pressure			
				3	4	5	6
	s	h3	[bar]	[bar]	[bar]	[bar]	[bar]
125	M19	35	12	NG15	NG15	NG15	NG15
			14				
			16				
			18				
			20	NG20	NG20	NG20	NG20
			25				
			30				
			35				
			40	NG30	NG30	NG30	NG30
			45				
			50	NG40			NG20
150	M22	40	2	NG30	NG30	NG30	NG30
			4				
			6				
			8				
			10				
			12				
			14				
			16				
			18				
			20				
			25	NG40	NG40	NG40	NG40
			30				
			35				
			40				
			45				
			50				
200	M22	40	2	NG30	NG30	NG30	NG30
			4				
			6				
			8				
			10	NG40	NG40	NG40	NG40
			12				
			14				
			16				
			18	NG60	NG60	NG60	NG60
			20				
			25				
			30				
			35	NG80	NG80	NG80	NG80
			40				
			45				
			50				
250	C30	55	2	NG40	NG40	NG40	NG40
			4				
			6				
			8	NG60	NG60	NG60	NG60
			10				
			12				
			14				
			16	NG120	NG120	NG120	NG120
			18				
			20				
			25				
			30	NG160	NG160	NG160	NG160
			35				

DN	Shaft end		Maximum pressure	All fluids					
				Control pressure					
	s	h3		[bar]	[bar]	[bar]	[bar]		
250	C30	55	40	NG240	NG160	NG120	NG120		
			45						
			50		NG240	NG160			
300	C40	75	2	NG160	NG160	NG160	NG160		
			4						
			6						
			8						
			10						
			12						
			14						
			16						
			18						
			20						
			25	NG240	NG240	NG240			
			30						
			35	NG340				NG240	
			40						
			45	NG500				NG340	NG240
			50						
			350	C40	75	2	NG160	NG160	NG160
4									
6									
8									
10									
12									
14	NG240	NG240				NG240			
16									
18	NG340						NG340	NG240	
20									
25	NG500	NG340				NG340	NG240		
30									
35		NG700				NG500	NG500		
40									
45	NG500					NG500	NG340		
50									
400	C50	85	2	NG160	NG160	NG160	NG160		
			4						
			6						
			8	NG240	NG240	NG240			
			10						
			12						
			14	NG340				NG240	
			16						
			18						
			20	NG500	NG340	NG340		NG240	
			25						
			30	NG700	NG500	NG500	NG340		
			35						
			40						
			45						
			50	-	NG700	NG700	NG500		
			-						
450	C60	80	2	NG500	NG500	NG500	NG500		
			4						
			6						
			8						
			10						

DN	Shaft end		Maximum pressure	All fluids			
				Control pressure			
	s	h3		3	4	5	6
			[bar]	[bar]	[bar]	[bar]	[bar]
450	C60	80	12	NG500	NG500	NG500	NG500
			14				
			16				
			18				
			20	NG700	NG700	NG700	NG700
			25				
			30				
			35	-	NG700	NG700	NG700
			40	-			
			45	-			
			50	-	-	-	-
500	C60	80	2	NG500	NG500	NG500	NG500
			4				
			6				
			8				
			10				
			12				
			14	NG700	NG700	NG700	NG700
			16				
			18				
			20				
			25	-	NG700	NG700	NG700
			30	-			
			35	-			
			40	-	-	-	-
			45	-	-	-	-
			50	-	-	-	-
600	C70	105	2	-	-	-	-
			4	-	-	-	-
			6	-	-	-	-
			8	-	-	-	-
			10	-	-	-	-
			12	-	-	-	-
			14	-	-	-	-
			16	-	-	-	-
			18	-	-	-	-
			20	-	-	-	-
			25	-	-	-	-
			30	-	-	-	-
			35	-	-	-	-
			40	-	-	-	-
			45	-	-	-	-
			50	-	-	-	-

Table 22: Throttling function: plastomer seat for all fluids (Class 300)

DN	Shaft end		Maximum pressure	All fluids		
				Control pressure		
	s	h3		4	5	6
			[bar]	[bar]	[bar]	[bar]
50	M14	30	2	NG5	NG5	NG5
			4			
			6			
			8			
			10			
			12			
			14			

DN	Shaft end		Maximum pressure	All fluids		
				Control pressure		
	s	h3		4	5	6
			[bar]	[bar]	[bar]	[bar]
50	M14	30	16	NG5	NG5	NG5
			18			
			20			
			25			
			30	NG10	NG10	NG10
			35			
			40			
			45			
			50			
65	M14	30	2	NG5	NG5	NG5
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			
			25	NG10	NG10	NG10
			30			
			35			
			40			
			45			
			50	NG15	NG15	NG15
80	M14	30	2	NG5	NG5	NG5
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18	NG10	NG10	NG10
			20			
			25			
			30			
			35			
			40	NG15	NG15	NG15
			45			
			50			
100	M14	30	2	NG10	NG5	NG5
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18	NG15	NG15	NG15
			20			
			25			
			30			
			35			
			40	NG20	NG20	NG20
			45			

DN	Shaft end		Maximum pressure	All fluids					
				Control pressure					
				4	5	6			
	s	h3	[bar]	[bar]	[bar]	[bar]			
100	M14	30	50	NG20	NG15	NG15			
125	M19	35	2	NG15	NG15	NG15			
			4						
			6						
			8						
			10						
			12						
			14						
			16						
			18						
			20	NG20					
			25						
			30						
			35	NG30	NG20	NG20			
			40		NG30				
			45						
50	NG40								
150	M22	40	2	NG30	NG30	NG30			
			4						
			6						
			8						
			10						
			12						
			14						
			16						
			18						
			20						
			25	NG40					
			30						
			35		NG60	NG40			
			40						
			45	NG60		NG40			
50									
200	M22	40	2	NG30	NG30	NG30			
			4						
			6						
			8						
			10	NG40					
			12						
			14						
			16				NG60	NG40	
			18						
			20						
			25	NG60				NG60	NG40
			30						
			35		NG80				
			40			NG80			
			45						
50	NG120	NG80	NG80						
250				C30	55	2	NG40	NG40	NG40
4									
6									
8	NG60								
10		NG60							
12	NG80								
14									

DN	Shaft end		Maximum pressure	All fluids		
				Control pressure		
				4	5	6
	s	h3	[bar]	[bar]	[bar]	[bar]
250	C30	55	16	NG120	NG80	NG60
			18			
			20			
			25	NG160	NG120	NG80
			30			
			35			
			40	NG240	NG160	NG120
			45			
			50			
300	C40	75	2	NG160	NG160	NG160
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
20						
25	NG240	NG240	NG240			
30						
35	NG340					
40						
45	NG500					
50						
350	C40	75	2	NG160	NG160	NG160
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20	NG340		
			25			
			30	NG500		
			35			
			40			
			45	NG700		
			50			
400	C50	85	2	NG160	NG160	NG160
			4			
			6			
			8	NG240		
			10			
			12			
			14	NG340		
			16			
			18			
			20	NG500		
			25			
			30	NG700		
			35			
			40			
			45			
			50			
400	C50	85	2	NG160	NG160	NG160
			4			
			6			
			8	NG240		
			10			
			12			
			14	NG340		
			16			
			18			
			20	NG500		
			25			
			30	NG700		
			35			
			40			
			45			
			-	NG700		

DN	Shaft end		Maximum pressure	All fluids		
				Control pressure		
				4	5	6
	s	h3	[bar]	[bar]	[bar]	[bar]
400	C50	85	50	-	NG700	NG500
450	C60	80	2	NG500	NG500	NG500
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18	NG700	NG700	NG700
			20			
			25			
			30			
			35	-	-	-
			40	-		
			45	-		
			50	-		
500	C60	80	2	NG500	NG500	NG500
			4			
			6			
			8			
			10			
			12			
			14	NG700	NG700	NG700
			16			
			18			
			20	-	NG700	NG700
			25	-		
			30	-		
			35	-		-
			40	-	-	-
			45	-	-	-
			50	-	-	-
600	C70	105	2	-	-	-
			4	-	-	-
			6	-	-	-
			8	-	-	-
			10	-	-	-
			12	-	-	-
			14	-	-	-
			16	-	-	-
			18	-	-	-
			20	-	-	-
			25	-	-	-
			30	-	-	-
			35	-	-	-
			40	-	-	-
			45	-	-	-
			50	-	-	-

Single-acting Pneumatic Actuator

DYNACTAIR NG (metal seat)



Fig. 5: Unit comprising DANAIS MT II + DYNACTAIR NG actuator

Table 23: Shut-off function: metal seat for lubricating and non-lubricating fluids (Class 150)

DN	Shaft end		Maximum pressure	Lubricating fluids			Non-lubricating fluids		
				Control pressure					
	s	h3	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]
50	M14	30	2	NG6/4	NG6	NG6	NG12/4	NG8	NG8
			4						
			6						
			8						
			10						
			12						
			14	NG8/4			NG16/4	NG12	NG12
			16						
			18						
			20						
65	M14	30	2	NG6/4	NG6	NG6	NG12/4	NG12	NG12
			4						
			6						
			8						
			10						
			12						
			14	NG8/4			NG16/4		
			16						
			18						
			20						
80	M14	30	2	NG6/4	NG6	NG6	NG16/4	NG12	NG12
			4						
			6						
			8						
			10						
			12						
			14	NG8/4					
			16						
			18						
			20						

DN	Shaft end		Maximum pressure	Lubricating fluids			Non-lubricating fluids		
				Control pressure					
	s	h3		[bar]	4	5	6	4	5
100	M14	30	2	NG12/4	NG8	NG8	NG16/4	NG12	NG12
			4						
			6						
			8						
			10						
			12						
			14						
			16						
			18						
			20		NG12	NG12	NG25/4	NG16	NG16
125	M14	30	2	NG16/4	NG12	NG12	NG35/4	NG25	NG25
			4						
			6						
			8						
			10						
			12						
			14						
			16						
			18						
			20	NG25/4	NG16	NG16	NG50/4	NG35	NG35
150	M19	35	2	NG25/4	NG16	NG16	NG50/4	NG35	NG35
			4						
			6						
			8						
			10						
			12						
			14						
			16						
			18						
			20	NG35/4	NG25	NG25	NG80/4	NG50	NG50
200	M22	40	2	NG50/4	NG35	NG35	NG120/4	NG80	NG80
			4						
			6						
			8						
			10						
			12						
			14						
			16						
			18						
			20	NG80/4	NG50	NG50	NG160/4	NG120	NG120
250	C25	40	2	NG120/4	NG80	NG80	NG160/4	NG120	NG120
			4						
			6						
			8						
			10						
			12						
			14						
			16						
			18						
			20	NG160/4	NG120	NG120	NG240/4	NG160	NG160
300	C30	55	2	NG160/4	NG120	NG120	NG240/4	NG160	NG160
			4						
			6						
			8						
			10						
			12						

DN	Shaft end		Maximum pressure	Lubricating fluids			Non-lubricating fluids					
				Control pressure								
				4	5	6	4	5	6			
	s	h3	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]				
300	C30	55	14	NG160/4	NG120	NG120	NG350/4	NG240	NG240			
			16	NG240/4								
			18		NG160	NG160						
			20									
350	C36	60	2	NG240/4	NG160	NG160	NG350/4	NG240	NG240			
			4									
			6									
			8									
			10									
			12									
			14	NG350/4	NG240	NG240	-	NG350	NG350			
			16				-					
			18				-					
			20				-					
			2				-			-	-	
			4				-			-	-	
400	C40	75	2	NG350/4	NG240	NG240	-	-	-			
			4				-	-	-			
			6				-	-	-			
			8				-	-	-			
			10				-	-	-			
			12				-	-	-			
			14	-	NG350	NG350	-	-	-			
			16	-			-	-				
			18	-			-	-				
			20	-			-	-				
			2	-			NG350	NG350	-	-	-	
			4	-					-	-	-	
6	-	-	-	-								
8	-	-	-	-								
10	-	-	-	-								
12	-	-	-	-								
450	C40	75	14	-	-	-	-	-	-			
			16	-	-	-	-	-	-			
			18	-	-	-	-	-	-			
			20	-	-	-	-	-	-			
			2	-	NG350	NG350	-	-	-			
			4	-			-	-	-	-		
			6	-			-	-	-	-		
			8	-			-	-	-	-		
			10	-			-	-	-	-		
			12	-			-	-	-	-		
			500	C50	85	14	-	-	-	-	-	-
						16	-	-	-	-	-	-
18	-	-				-	-	-	-			
20	-	-				-	-	-	-			
2	-	-				-	-	-	-			
4	-	-				-	-	-	-			
6	-	-				-	-	-	-			
8	-	-				-	-	-	-			
10	-	-				-	-	-	-			
12	-	-				-	-	-	-			
14	-	-				-	-	-	-			
16	-	-				-	-	-	-			
600	C50	85	18	-	-	-	-	-	-			
			20	-	-	-	-	-	-			
			2	-	-	-	-	-	-			
			4	-	-	-	-	-	-			
			6	-	-	-	-	-	-			
			8	-	-	-	-	-	-			
			10	-	-	-	-	-	-			
			12	-	-	-	-	-	-			
			14	-	-	-	-	-	-			
			16	-	-	-	-	-	-			
			18	-	-	-	-	-	-			
			20	-	-	-	-	-	-			

Table 24: Throttling function: metal seat for lubricating and non-lubricating fluids (Class 150)

DN	Shaft end		Maximum pressure	Lubricating fluids			Non-lubricating fluids		
				Control pressure					
				4	5	6	4	5	6
	s	h3	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	
50	M14	30	2	NG6/4	NG6/4	NG6	NG12/4	NG12/4	NG8
			4						
			6						
			8						
			10						
			12						
			14	NG8/4	NG8/4		NG16/4	NG16/4	NG12
			16						
			18						
			20						
65	M14	30	2	NG6/4	NG6/4	NG6	NG12/4	NG12/4	NG12
			4						
			6						
			8						
			10						
			12						
			14	NG8/4	NG8/4		NG16/4	NG16/4	
			16						
			18						
			20						
80	M14	30	2	NG6/4	NG6/4	NG6	NG16/4	NG16/4	NG12
			4						
			6						
			8						
			10						
			12						
			14	NG8/4	NG8/4				
			16						
			18						
			20						
100	M14	30	2	NG12/4	NG12/4	NG8	NG16/4	NG16/4	NG12
			4						
			6						
			8						
			10						
			12						
			14				NG12	NG25/4	NG25/4
			16						
			18						
			20						
125	M14	30	2	NG16/4	NG16/4	NG12	NG35/4	NG35/4	NG25
			4						
			6						
			8						
			10						
			12						
			14						
			16	NG25/4	NG25/4	NG16			
			18						
			20						
150	M19	35	2	NG25/4	NG25/4	NG16	NG50/4	NG50/4	NG35
			4						
			6						
			8						
			10						

DN	Shaft end		Maximum pressure	Lubricating fluids			Non-lubricating fluids			
				Control pressure						
				4	5	6	4	5	6	
	s	h3	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]		
150	M19	35	12	NG25/4	NG25/4	NG25	NG50/4	NG50/4	NG35	
			14	NG35/4	NG35/4				NG50	
			16							
			18							
			20				NG80/4	NG80/4		
200	M22	40	2	NG50/4	NG50/4	NG35	NG120/4	NG120/4	NG80	
			4							
			6							
			8							
			10							
			12							
			14							NG50
			16	NG80/4	NG80/4					
			18							
			20			NG160/4	NG160/4	NG120		
250	C25	40	2	NG120/4	NG120/4	NG80	NG160/4	NG160/4	NG120	
			4							
			6							
			8							
			10							
			12							
			14							NG120
			16	NG160/4	NG160/4					
			18							
			20							
300	C30	55	2	NG160/4	NG160/4	NG120	NG240/4	NG240/4	NG160	
			4							
			6							
			8							
			10							
			12							
			14							NG240/4
			16	NG240/4	NG240/4					
			18							
			20							
350	C36	60	2	NG240/4	NG240/4	NG160	NG350/4	NG350/4	NG240	
			4							
			6							
			8							
			10							
			12							NG240
			14							
			16	-	-					
			18	-	-					
			20	-	-					
400	C40	75	2	NG350/4	NG350/4	NG240	-	-	-	
			4				-	-	-	
			6				-	-	-	
			8				-	-	-	
			10				-	-	-	
			12				-	-	-	
			14				NG350	-	-	-
			16	-	-	-				
			18	-	-	-				
			20	-	-	-				
450	C40	75	2	-	-	NG350	-	-	-	

DN	Shaft end		Maximum pressure	Lubricating fluids			Non-lubricating fluids		
				Control pressure					
	4	5		6	4	5	6		
	s	h3	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]
450	C40	75	4	-	-	NG350	-	-	-
			6	-	-		-	-	-
			8	-	-		-	-	-
			10	-	-		-	-	-
			12	-	-	-	-	-	-
			14	-	-	-	-	-	-
			16	-	-	-	-	-	-
			18	-	-	-	-	-	-
			20	-	-	-	-	-	-
500	C50	85	2	-	-	-	-	-	-
			4	-	-	-	-	-	-
			6	-	-	-	-	-	-
			8	-	-	-	-	-	-
			10	-	-	-	-	-	-
			12	-	-	-	-	-	-
			14	-	-	-	-	-	-
			16	-	-	-	-	-	-
			18	-	-	-	-	-	-
20	-	-	-	-	-	-			
600	C50	85	2	-	-	-	-	-	-
			4	-	-	-	-	-	-
			6	-	-	-	-	-	-
			8	-	-	-	-	-	-
			10	-	-	-	-	-	-
			12	-	-	-	-	-	-
			14	-	-	-	-	-	-
			16	-	-	-	-	-	-
			18	-	-	-	-	-	-
20	-	-	-	-	-	-			

Table 25: Shut-off function: metal seat for lubricating and non-lubricating fluids (Class 300)

DN	Shaft end		Maximum pressure	Lubricating fluids			Non-lubricating fluids		
				Control pressure					
	4	5	6	4	5	6			
	s	h3	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]
50	M14	30	2	NG6/4	NG6	NG6	NG12/4	NG8	NG8
			4						
			6						
			8						
			10						
			12						
			14	NG8/4		NG16/4	NG12	NG12	
			16						
			18						
			20						
			25						
			30						
			35	NG12/4	NG8	NG8	NG25/4	NG16	NG16
			40						
			45						
			50						
65	M14	30	2	NG6/4	NG6	NG6	NG12/4	NG12	NG12
			4						
			6						
			8						
			10						

DN	Shaft end		Maximum pressure	Lubricating fluids			Non-lubricating fluids		
				Control pressure					
				4	5	6	4	5	6
	s	h3	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	
65	M14	30	12	NG6/4	NG6	NG6	NG12/4	NG12	NG12
			14	NG8/4					
			16						
			18						
			20						
			25						
			30	NG12/4	NG8	NG8	NG25/4	NG16	NG16
			35						
			40						
			45						
			50						
80	M14	30	2	NG6/4	NG6	NG6	NG16/4	NG12	NG12
			4						
			6						
			8						
			10						
			12						
			14	NG8/4					
			16						
			18						
			20						
			25						
			30		NG12/4	NG8	NG8	NG25/4	NG16
			35						
			40						
			45						
			50						
			100	M14	30	2	NG12/4	NG8	NG8
4									
6									
8									
10									
12									
14	NG25/4	NG16				NG16			
16									
18									
20									
25							NG16/4	NG12	NG12
30									
35	NG25/4	NG16				NG16	NG50/4	NG35	NG35
40									
45									
50									
125	M19	35				2	NG16/4	NG12	NG12
			4						
			6						
			8						
			10						
			12						
			14						
			16	NG25/4	NG16	NG16	NG50/4	NG35	NG35
			18						
			20						
			25						
			30						
			35	NG35/4	NG50	NG50			

DN	Shaft end		Maximum pressure	Lubricating fluids			Non-lubricating fluids							
				Control pressure										
				4	5	6	4	5	6					
	s	h3	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]						
125	M19	35	40	NG35/4	NG25	NG25	NG80/4	NG50	NG50					
			45											
			50							NG50/4	NG35	NG35		
150	M22	40	2	NG25/4	NG16	NG16	NG50/4	NG35	NG35					
			4											
			6											
			8											
			10											
			12											
			14							NG35/4	NG25	NG25	NG50	NG50
			16											
			18											
			20											
			25	NG50/4	NG35	NG35	NG120/4	NG80	NG80					
			30											
			35	NG80/4	NG50	NG50				NG160/4	NG120	NG120		
			40											
			45											
			50											
200	M22	40	2	NG50/4	NG35	NG35	NG120/4	NG80	NG80					
			4											
			6											
			8											
			10											
			12											
			14											
			16							NG80/4	NG50	NG50	NG160/4	NG120
			18											
			20											
			25	NG120/4	NG80	NG80								
			30											
			35											
			40				NG160/4	NG120	NG120					
			45											
			50											
250	C30	55	2	NG120/4	NG80	NG80				NG160/4	NG120	NG120		
			4											
			6											
			8											
			10											
			12											
			14											
			16				NG160/4	NG120	NG120				NG240/4	NG160
			18											
			20											
			25	NG240/4	NG160	NG160								
			30											
			35											
			40				NG350/4	-	NG350	NG350				
			45											
			50											
300	C40	75	2	NG160/4	NG120	NG120					NG240/4	NG160	NG160	
			4											
			6											
			8											
			10											

DN	Shaft end		Maximum pressure	Lubricating fluids			Non-lubricating fluids		
				Control pressure					
	s	h3		[bar]	4 [bar]	5 [bar]	6 [bar]	4 [bar]	5 [bar]
300	C40	75	12	NG160/4	NG120	NG120	NG240/4	NG240	NG240
			14	NG240/4	NG160	NG160	NG240/4 NG350/4	NG240	NG240
			16						
			18						
			20	NG350/4	NG240	NG240	-	NG350	NG350
			25						
			30						
			35						
			40						
			45	-	NG350	NG350	-	-	-
			50	-	-	-	-	-	-
350	C40	75	2	NG240/4	NG160	NG160	NG350/4	NG240	NG240
			4	NG240/4	NG160	NG160	NG350/4	NG240	NG240
			6						
			8						
			10						
			12						
			14	NG350/4	NG240	NG240	-	NG350	NG350
			16						
			18						
			20						
			25						
			30	-	NG350	NG350	-	-	-
			35	-	-	-	-	-	-
			40	-	-	-	-	-	-
			45	-	-	-	-	-	-
			50	-	-	-	-	-	-
400	C50	85	2	NG350/4	NG240	NG240	-	-	-
			4	NG350/4	NG240	NG240	-	-	-
			6						
			8						
			10						
			12						
			14	-	NG350	NG350	-	-	-
			16						
			18						
			20						
			25						
			30	-	-	-	-	-	-
			35	-	-	-	-	-	-
			40	-	-	-	-	-	-
			45	-	-	-	-	-	-
			50	-	-	-	-	-	-
450	C60	80	2	-	NG350	NG350	-	-	-
			4	NG350	NG350	-	-	-	
			6						
			8						
			10						
			12						
			14	-	-	-	-	-	-
			16	-	-	-	-	-	-
			18	-	-	-	-	-	-
			20	-	-	-	-	-	-
			25	-	-	-	-	-	-
			30	-	-	-	-	-	-
			35	-	-	-	-	-	-

DN	Shaft end		Maximum pressure	Lubricating fluids			Non-lubricating fluids		
				Control pressure					
				4	5	6	4	5	6
	s	h3	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	
450	C60	80	40	-	-	-	-	-	-
			45	-	-	-	-	-	-
			50	-	-	-	-	-	-
500	C60	80	2	-	NG350	NG350	-	-	-
			4	-			-	-	-
			6	-			-	-	-
			8	-	-	-	-	-	-
			10	-	-	-	-	-	-
			12	-	-	-	-	-	-
			14	-	-	-	-	-	-
			16	-	-	-	-	-	-
			18	-	-	-	-	-	-
			20	-	-	-	-	-	-
			25	-	-	-	-	-	-
			30	-	-	-	-	-	-
			35	-	-	-	-	-	-
			40	-	-	-	-	-	-
			45	-	-	-	-	-	-
			50	-	-	-	-	-	-
			600	C70	105	2	-	-	-
4	-	-				-	-	-	-
6	-	-				-	-	-	-
8	-	-				-	-	-	-
10	-	-				-	-	-	-
12	-	-				-	-	-	-
14	-	-				-	-	-	-
16	-	-				-	-	-	-
18	-	-				-	-	-	-
20	-	-				-	-	-	-
25	-	-				-	-	-	-
30	-	-				-	-	-	-
35	-	-				-	-	-	-
40	-	-				-	-	-	-
45	-	-				-	-	-	-
50	-	-				-	-	-	-

Table 26: Throttling function: metal seat for lubricating and non-lubricating fluids (Class 300)

DN	Shaft end		Maximum pressure	Lubricating fluids			Non-lubricating fluids		
				Control pressure					
	4	5		6	4	5	6		
	s	h3	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]
50	M14	30	2	NG6/4	NG6/4	NG6	NG12/4	NG12/4	NG8
			4						
			6						
			8						
			10						
			12						
			14	NG8/4	NG8/4	NG6	NG12/4	NG12/4	NG12
			16						
			18						
			20						
			25						
			30						
			35						
			40						
			45						

DN	Shaft end		Maximum pressure	Lubricating fluids			Non-lubricating fluids					
				Control pressure								
				4	5	6	4	5	6			
	s	h3	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]				
50	M14	30	50	NG12/4	NG12/4	NG8	NG25/4	NG25/4	NG16			
65	M14	30	2	NG6/4	NG6/4	NG6	NG12/4	NG12/4	NG12			
			4									
			6									
			8									
			10									
			12									
			14	NG8/4	NG8/4		NG16/4	NG16/4				
			16									
			18									
			20									
			25									
			30									
			35	NG12/4	NG12/4	NG8	NG25/4	NG25/4	NG16			
			40									
			45			NG12						
			50									
			80	M14	30	2	NG6/4	NG6/4	NG6	NG16/4	NG16/4	NG12
4												
6												
8												
10												
12												
14	NG8/4	NG8/4				NG25/4	NG25/4	NG16				
16												
18												
20												
25												
30	NG12/4	NG12/4							NG8	NG12		
35												
40									NG12			
45												
50												
100	M14	30							2	NG12/4	NG12/4	NG8
			4									
			6									
			8									
			10									
			12									
			14	NG12	NG25/4	NG25/4	NG16					
			16									
			18									
			20									
			25		NG16/4	NG16/4		NG35/4	NG35/4	NG25		
			30									
			35	NG16								
			40									
			45									
			50	NG50/4	NG50/4	NG35						
125	M19	35	2	NG16/4	NG16/4	NG12	NG35/4	NG35/4	NG25			
			4									
			6									
			8									
			10									
			12									
			14									

DN	Shaft end		Maximum pressure	Lubricating fluids			Non-lubricating fluids						
				Control pressure									
	s	h3		[bar]	[bar]	[bar]	[bar]	[bar]	[bar]				
125	M19	35	16	NG25/4	NG25/4	NG16	NG35/4	NG35/4	NG25				
			18										
			20										
			25										
			30	NG35/4	NG35/4	NG25	NG50/4	NG50/4	NG35				
			35										
			40										
			45										
			50	NG50/4	NG50/4	NG35	NG80/4	NG80/4	NG50				
150	M22	40	2	NG25/4	NG25/4	NG16				NG50/4	NG50/4	NG35	
4													
6													
8													
10													
12													
14			NG35/4	NG35/4	NG25	NG80/4	NG80/4	NG50					
16													
18													
20													
25			NG50/4	NG50/4	NG35	NG120/4	NG120/4	NG80					
30													
35					NG80/4				NG80/4	NG50	NG160/4	NG160/4	NG120
40													
45													
50													
200			M22	40	2	NG50/4	NG50/4	NG35	NG120/4	NG120/4	NG80		
	4												
	6												
	8												
	10												
	12												
	14	NG80/4			NG80/4	NG50	NG160/4	NG160/4			NG120		
	16												
	18												
	20												
	25	NG120/4			NG120/4	NG80	NG240/4	NG240/4	NG160				
	30												
	35					NG160/4				NG160/4	NG120		
	40												
	45												
	50												
	250	C30			55	2	NG120/4	NG120/4	NG80	NG160/4	NG160/4	NG120	
4													
6													
8													
10													
12													
14			NG160/4	NG160/4		NG120	NG240/4	NG240/4	NG160				
16													
18													
20													
25			NG240/4	NG240/4		NG160	NG350/4	NG350/4	NG240				
30													
35										NG160			
40													
45			NG350/4	NG350/4		-	-	NG350					

DN	Shaft end		Maximum pressure	Lubricating fluids			Non-lubricating fluids		
				Control pressure					
				4	5	6	4	5	6
	s	h3	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]
250	C30	55	50	NG350/4	NG350/4	NG240	-	-	NG350
300	C40	75	2	NG160/4	NG160/4	NG120	NG240/4	NG240/4	NG160
			4						
			6						
			8						
			10						
			12						
			14						
			16	NG240/4	NG240/4	NG160	NG350/4	NG350/4	NG240
			18						
			20						
			25						
			30	NG350/4	NG350/4	NG240	-	-	NG350
			35				-	-	
			40				-	-	
			45	-	-	-	-	-	-
			50	-	-		-	-	-
350	C40	75	2	NG240/4	NG240/4	NG160	NG350/4	NG350/4	NG240
			4						
			6						
			8						
			10						
			12						
			14	NG350/4	NG350/4	-	-		
			16			-	-		
			18			-	-		
			20			-	-	-	
			25	-	-	-	-	-	-
			30	-	-		-	-	-
			35	-	-		-	-	-
			40	-	-		-	-	-
			45	-	-	-	-	-	-
			50	-	-	-	-	-	-
400	C50	85	2	NG350/4	NG350/4	NG240	-	-	-
			4				-	-	-
			6				-	-	-
			8				-	-	-
			10				-	-	-
			12				-	-	-
			14	-	-	NG350	-	-	-
			16	-	-		-	-	-
			18	-	-		-	-	-
			20	-	-		-	-	-
			25	-	-	-	-	-	-
			30	-	-	-	-	-	-
			35	-	-	-	-	-	-
			40	-	-	-	-	-	-
			45	-	-	-	-	-	-
			50	-	-	-	-	-	-
450	C60	80	2	-	-	NG350	-	-	-
			4	-	-		-	-	-
			6	-	-		-	-	-
			8	-	-		-	-	-
			10	-	-		-	-	-
			12	-	-	-	-	-	
			14	-	-	-	-	-	

DN	Shaft end		Maximum pressure	Lubricating fluids			Non-lubricating fluids		
				Control pressure					
	s	h3		[bar]	[bar]	[bar]	[bar]	[bar]	[bar]
450	C60	80	16	-	-	-	-	-	-
			18	-	-	-	-	-	-
			20	-	-	-	-	-	-
			25	-	-	-	-	-	-
			30	-	-	-	-	-	-
			35	-	-	-	-	-	-
			40	-	-	-	-	-	-
			45	-	-	-	-	-	-
			50	-	-	-	-	-	-
500	C60	80	2	-	-	NG350	-	-	-
			4	-	-		-	-	-
			6	-	-		-	-	-
			8	-	-	-	-	-	-
			10	-	-	-	-	-	-
			12	-	-	-	-	-	-
			14	-	-	-	-	-	-
			16	-	-	-	-	-	-
			18	-	-	-	-	-	-
			20	-	-	-	-	-	-
			25	-	-	-	-	-	-
			30	-	-	-	-	-	-
			35	-	-	-	-	-	-
			40	-	-	-	-	-	-
			45	-	-	-	-	-	-
			50	-	-	-	-	-	-
600	C70	105	2	-	-	-	-	-	-
			4	-	-	-	-	-	-
			6	-	-	-	-	-	-
			8	-	-	-	-	-	-
			10	-	-	-	-	-	-
			12	-	-	-	-	-	-
			14	-	-	-	-	-	-
			16	-	-	-	-	-	-
			18	-	-	-	-	-	-
			20	-	-	-	-	-	-
			25	-	-	-	-	-	-
			30	-	-	-	-	-	-
			35	-	-	-	-	-	-
			40	-	-	-	-	-	-
			45	-	-	-	-	-	-
			50	-	-	-	-	-	-

Table 27: Shut-off function: elastomer seat for all fluids (Class 150)

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DN	Shaft end		Maximum pressure	All fluids		
				Control pressure		
	s	h3		4	5	6
			[bar]	[bar]	[bar]	[bar]
125	M14	30	20	NG16/4	NG12	NG12
			25			
150	M19	35	2	NG12/4	NG8	NG8
			4			
			6			
			8	NG16/4	NG12	NG12
			10			
			12			
			14	NG25/4	NG16	NG16
			16			
			18			
			20	NG35/4	NG25	NG25
			25			
200	M22	40	2	NG25/4	NG16	NG16
			4			
			6			
			8			
			10	NG35/4	NG25	NG25
			12			
			14			
			16	NG50/4	NG35	NG35
			18			
			20			
			25			
			2	NG80/4	NG50	NG50
			4			
250	C25	40	6	NG50/4	NG35	NG35
			8			
			10			
			12	NG80/4	NG50	NG50
			14			
			16			
			18	NG120/4	NG80	NG80
			20			
			25			
			2	NG160/4	NG120	NG120
			4			
300	C30	55	6	NG80/4	NG50	NG50
			8			
			10			
			12	NG120/4	NG80	NG80
			14			
			16			
			18	NG160/4	NG120	NG120
			20			
			25			
			2	NG240/4	NG160	NG160
			4			
			6			
350	C36	60	8	NG80/4	NG50	NG50
			10			
			12			
			14	NG120/4	NG80	NG80
			16			
			18			
			20	NG160/4	NG120	NG120
			2			
			4			
			6			
			8	NG240/4	NG160	NG160
			10			
			12			
			14	NG350/4	NG240	NG240
			16			
			18			
			20			
			2	NG350/4	NG240	NG240
			4			
			6			
			8	NG350/4	NG240	NG240
			10			
			12			
			14	NG350/4	NG240	NG240
			16			
			18			
			20			

DN	Shaft end		Maximum pressure	All fluids		
				Control pressure		
	s	h3		4	5	6
			[bar]	[bar]	[bar]	[bar]
350	C36	60	25	NG350/4	NG240	NG240
400	C40	75	2	NG160/4	NG120	NG120
			4			
			6			
			8	NG240/4		
			10		NG160	NG160
			12		NG240	NG240
			14	NG350/4		
			16			
			18		NG350	NG350
			20	-		
			25	-		
450	C40	75	2	NG240/4	NG120	NG120
			4			
			6		NG240	NG240
			8	NG350/4		
			10			
			12	-	NG350	NG350
			14	-		
			16	-	-	-
			18	-	-	-
			20	-	-	-
			25	-	-	-
500	C50	85	2	NG240/4	NG240	NG240
			4			
			6	NG350/4		
			8	-	NG350	NG350
			10	-		
			12	-	-	-
			14	-	-	-
			16	-	-	-
			18	-	-	-
			20	-	-	-
			25	-	-	-
600	C50	85	2	NG350/4	NG350	NG350
			4			
			6			
			8	-	-	-
			10	-	-	-
			12	-	-	-
			14	-	-	-
			16	-	-	-
			18	-	-	-
			20	-	-	-
			25	-	-	-

Table 28: Throttling function: plastomer seat for all fluids (Class 150)

DN	Shaft end		Maximum pressure	All fluids		
				Control pressure		
	s	h3		4	5	6
			[bar]	[bar]	[bar]	[bar]
50	M14	30	2	NG4/4	NG4/4	NG2
			4			
			6			
			8			
			10			

DN	Shaft end		Maximum pressure	All fluids			
				Control pressure			
				4	5	6	
	s	h3	[bar]	[bar]	[bar]	[bar]	
50	M14	30	12	NG6/4	NG6/4	NG4	
			14				
			16				
			18				
			20				
			25				
65	M14	30	2	NG6/4	NG6/4	NG4	
			4				
			6				
			8				
			10				
			12				
			14				
			16				
			18				
			20				
			25				
						NG6	
80	M14	30	2	NG6/4	NG6/4	NG4	
			4				
			6				
			8				
			10				
			12				
			14				
			16				
			18				
			20				
			25				
						NG6	
100	M14	30	2	NG6/4	NG6/4	NG6	
			4				
			6				
			8				
			10				
			12				
			14	NG8/4	NG8/4		
			16				
			18				
			20				
			25	NG12/4	NG12/4		NG8
			125	M14	30		2
4							
6							
8							
10							
12							
14	NG12/4	NG12/4				NG8	
16							
18							
20							
25	NG16/4	NG16/4				NG12	
150	M19	35				2	NG12/4
			4				
			6				
			8	NG16/4	NG16/4	NG12	
			10				
			12				

DN	Shaft end		Maximum pressure	All fluids		
				Control pressure		
	s	h3		4	5	6
			[bar]	[bar]	[bar]	[bar]
150	M19	35	14	NG25/4	NG25/4	NG16
			16			
			18			
			20			
			25	NG35/4	NG35/4	NG25
200	M22	40	2	NG25/4	NG25/4	NG16
			4			
			6			
			8			
			10	NG35/4	NG35/4	NG25
			12			
			14			
			16			
			18	NG50/4	NG50/4	NG35
			20			
250	C25	40	25	NG80/4	NG80/4	NG50
			2	NG35/4	NG35/4	NG25
			4			
			6			
			8	NG50/4	NG50/4	NG35
			10			
			12			
			14			
			16	NG80/4	NG80/4	NG50
			18			
300	C30	55	20			
			25	NG160/4	NG160/4	NG120
			2	NG80/4	NG80/4	NG50
			4			
			6			
			8	NG120/4	NG120/4	NG80
			10			
			12			
			14			
			16	NG160/4	NG160/4	NG120
			18			
350	C36	60	20			
			25	NG240/4	NG240/4	NG160
			2	NG120/4	NG120/4	NG80
			4			
			6			
			8	NG160/4	NG160/4	NG120
			10			
			12			
			14			
			16	NG240/4	NG240/4	NG160
			18			
400	C40	75	20			
			25	NG350/4	NG350/4	NG240
			2	NG160/4	NG160/4	NG120
			4			
			6			
			8	NG240/4	NG240/4	NG160
			10			
			12			
			14			
			14	NG350/4	NG350/4	NG240

DN	Shaft end		Maximum pressure	All fluids		
				Control pressure		
	s	h3		4	5	6
			[bar]	[bar]	[bar]	[bar]
400	C40	75	16	NG350/4	NG350/4	NG240
			18			NG350
			20	-	-	
			25	-	-	
450	C40	75	2	NG240/4	NG240/4	NG120
			4			
			6			NG240
			8	NG350/4	NG350/4	
			10			
			12			NG350
			14	-	-	
			16	-	-	-
			18	-	-	-
			20	-	-	-
			25	-	-	-
500	C50	85	2	NG240/4	NG240/4	NG240
			4			
			6	NG350/4	NG350/4	
			8			NG350
			10			
			12	-	-	-
			14	-	-	-
			16	-	-	-
			18	-	-	-
			20	-	-	-
			25	-	-	-
600	C50	85	2	NG350/4	NG350/4	NG350
			4			
			6			
			8	-	-	-
			10	-	-	-
			12	-	-	-
			14	-	-	-
			16	-	-	-
			18	-	-	-
			20	-	-	-
			25	-	-	-

Table 29: Shut-off function: plastomer seat for all fluids (Class 300)

DN	Shaft end		Maximum pressure	All fluids		
				Control pressure		
	s	h3		4	5	6
			[bar]	[bar]	[bar]	[bar]
50	M14	30	2	NG4/4	NG2	NG2
			4			
			6			
			8			
			10			
			12	NG6/4	NG4	NG4
			14			
			16			
			18			
			20			
			25			
			30			
			35			
					NG6	NG6

DN	Shaft end		Maximum pressure	All fluids				
				Control pressure				
				4	5	6		
	s	h3	[bar]	[bar]	[bar]	[bar]		
50	M14	30	40	NG6/4	NG6	NG6		
			45					
			50	NG8/4				
65	M14	30	2	NG6/4	NG4	NG4		
			4					
			6					
			8					
			10					
			12					
			14					
			16					
			18					
			20					
			25					
			30					
			35	NG8/4	NG6	NG6		
			40					
			45					
			50					
80	M14	30	2	NG6/4	NG4	NG4		
			4					
			6					
			8					
			10					
			12					
			14					
			16					
			18					
			20					
			25					
			30					
			35	NG8/4	NG6	NG6		
			40					
			45					
			50					
100	M14	30	2	NG6/4	NG6	NG6		
			4					
			6					
			8					
			10					
			12	NG8/4				
			14					
			16					
			18					
			20					
			25	NG12/4	NG8	NG8		
			30					
			35					
			40					
			45					
			125	M19	35	2	NG8/4	NG6
4								
6								
8								
10								
20	NG12/4	NG8				NG8		
25								
30								
35								
40								
45	NG16/4	NG12				NG12		
50								
NG25/4							NG16	NG16

DN	Shaft end		Maximum pressure	All fluids		
				Control pressure		
	s	h3		4	5	6
			[bar]	[bar]	[bar]	[bar]
125	M19	35	12	NG12/4	NG8	NG8
			14			
			16			
			18			
			20	NG16/4	NG12	NG12
			25			
			30	NG25/4	NG16	NG16
			35			
			40		NG25	NG25
			45			
			50	NG35/4		
150	M22	40	2	NG12/4	NG8	NG8
			4			
			6			
			8	NG16/4	NG12	NG12
			10			
			12			
			14	NG25/4	NG16	NG16
			16			
			18			
			20			
			25	NG35/4	NG25	NG25
			30			
			35			
			40	NG50/4	NG35	NG35
			45			
			50			
			50	NG80/4		
200	M22	40	2	NG25/4	NG16	NG16
			4			
			6			
			8	NG35/4	NG25	NG25
			10			
			12			
			14			
			16	NG50/4	NG35	NG35
			18			
			20			
			25	NG80/4	NG50	NG50
			30			
			35	NG120/4	NG80	NG80
			40			
			45			
			50			
250	C30	55	2	NG160/4	NG120	NG120
			4	NG35/4	NG25	NG25
			6	NG50/4	NG35	NG35
			8			
			10			
			12	NG80/4	NG50	NG50
			14			
			16			
			18	NG120/4	NG80	NG80
			20			
			25			
			30	NG160/4	NG120	NG120
			35			
			35	NG240/4		

DN	Shaft end		Maximum pressure	All fluids					
				Control pressure					
				4	5	6			
	s	h3	[bar]	[bar]	[bar]	[bar]			
250	C30	55	40	NG240/4	NG160	NG160			
			45						
			50		NG240	NG240			
300	C40	75	2	NG80/4	NG50	NG50			
			4						
			6						
			8	NG120/4	NG80	NG80			
			10						
			12						
			14	NG160/4	NG120	NG120			
			16						
			18						
			20	NG240/4	NG160	NG160			
			25						
			30		NG240	NG240			
			35	NG350/4					
			40	NG350	NG350				
			45						
			50			-			
			350	C40	75	2	NG120/4	NG80	NG80
						4			
6									
8	NG160/4	NG120				NG120			
10									
12									
14	NG240/4	NG160				NG160			
16									
18		NG240				NG240			
20	NG350/4								
25	NG350	NG350							
30									
35									
40	-	-				-			
45	-	-				-			
50	-	-				-			
400	C50	85				2	NG160/4	NG120	NG120
						4			
			6						
			8	NG240/4	NG160	NG160			
			10						
			12		NG240	NG240			
			14	NG350/4					
			16	NG350	NG350				
			18						
			20	-	NG350	NG350			
			25	-					
			30	-	-	-			
			35	-	-	-			
			40	-	-	-			
			45	-	-	-			
			50	-	-	-			
			450	C60	80	2	NG240/4	NG120	NG120
						4			
6	NG240	NG240							
8						NG350/4			
10									

DN	Shaft end		Maximum pressure	All fluids		
				Control pressure		
	s	h3		4	5	6
			[bar]	[bar]	[bar]	[bar]
450	C60	80	12	-	NG350	NG350
			14	-		
			16	-	-	-
			18	-	-	-
			20	-	-	-
			25	-	-	-
			30	-	-	-
			35	-	-	-
			40	-	-	-
			45	-	-	-
			50	-	-	-
500	C60	80	2	NG240/4	NG240	NG240
			4			
			6	NG350/4	NG350	NG350
			8			
			10	-	-	-
			12	-	-	-
			14	-	-	-
			16	-	-	-
			18	-	-	-
			20	-	-	-
			25	-	-	-
			30	-	-	-
			35	-	-	-
			40	-	-	-
			45	-	-	-
			50	-	-	-
600	C70	105	2	-	-	-
			4	-	-	-
			6	-	-	-
			8	-	-	-
			10	-	-	-
			12	-	-	-
			14	-	-	-
			16	-	-	-
			18	-	-	-
			20	-	-	-
			25	-	-	-
			30	-	-	-
			35	-	-	-
			40	-	-	-
			45	-	-	-
			50	-	-	-

Table 30: Throttling function: plastomer seat for all fluids (Class 300)

DN	Shaft end		Maximum pressure	All fluids		
				Control pressure		
	s	h3		4	5	6
			[bar]	[bar]	[bar]	[bar]
50	M14	30	2	NG4/4	NG4/4	NG2
			4			
			6			
			8			
			10			
			12	NG6/4	NG6/4	NG4
			14			

DN	Shaft end		Maximum pressure	All fluids		
				Control pressure		
				4	5	6
	s	h3	[bar]	[bar]	[bar]	[bar]
50	M14	30	16	NG6/4	NG6/4	NG4
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50	NG8/4	NG8/4	NG6
65	M14	30	2	NG6/4	NG6/4	
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			
			25			
			30			
			35	NG8/4	NG8/4	NG6
			40			
			45			
			50			
80	M14	30	2	NG6/4	NG6/4	NG4
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			
			25			
			30	NG8/4	NG8/4	NG6
			35			
			40			
			45			
			50	NG12/4	NG12/4	NG8
100	M14	30	2	NG6/4	NG6/4	NG6
			4			
			6			
			8			
			10			
			12	NG8/4	NG8/4	
			14			
			16			
			18			
			20	NG12/4	NG12/4	NG8
			25			
			30			
			35	NG16/4	NG16/4	NG12
			40			
			45			
			45			

DN	Shaft end		Maximum pressure	All fluids					
				Control pressure					
				4	5	6			
	s	h3	[bar]	[bar]	[bar]	[bar]			
100	M14	30	50	NG25/4	NG25/4	NG16			
125	M19	35	2	NG8/4	NG8/4	NG6			
			4						
			6						
			8						
			10						
			12	NG12/4	NG12/4	NG8			
			14						
			16						
			18						
			20	NG16/4	NG16/4	NG12			
			25						
			30	NG25/4	NG25/4	NG16			
			35						
			40						
			45						
50	NG35/4	NG35/4	NG25						
150	M22	40		2	NG12/4	NG12/4	NG8		
				4					
				6					
			8						
			10						
			12	NG16/4	NG16/4	NG12			
			14						
			16						
			18						
			20	NG25/4	NG25/4	NG16			
			25						
			30						
			35	NG35/4	NG35/4	NG25			
			40						
			45						
50	NG50/4	NG50/4	NG35						
40									
45									
50	NG80/4	NG80/4	NG50						
200				M22	40	2	NG25/4	NG25/4	NG16
						4			
	6								
	8								
	10								
	12	NG35/4	NG35/4			NG25			
	14								
	16								
	18								
	20	NG50/4	NG50/4			NG35			
	25								
	30								
	35	NG80/4	NG80/4			NG50			
	40								
	45								
50	NG120/4	NG120/4	NG80						
40									
45									
50	NG160/4	NG160/4	NG120						
250	C30	55	2	NG35/4	NG35/4	NG25			
			4						
			6						
			8	NG50/4	NG50/4	NG35			
			10						
			12						
			14	NG80/4	NG80/4	NG50			

DN	Shaft end		Maximum pressure	All fluids					
				Control pressure					
				4	5	6			
	s	h3	[bar]	[bar]	[bar]	[bar]			
250	C30	55	16	NG120/4	NG120/4	NG80			
			18						
			20						
			25	NG160/4	NG160/4	NG120			
			30						
			35	NG240/4	NG240/4	NG160			
			40						
			45			NG240			
			50						
300	C40	75	2	NG80/4	NG80/4	NG50			
			4						
			6						
			8	NG120/4	NG120/4	NG80			
			10						
			12			NG120			
			14	NG160/4	NG160/4				
			16						
			18						
			20	NG240/4	NG240/4				
			25				NG160		
			30						
			35	NG350/4	NG350/4	NG240			
			40						
			45			-	-	NG350	
			50	-	-				
			350	C40	75	2	NG120/4	NG120/4	NG80
						4			
6									
8	NG160/4	NG160/4				NG120			
10									
12	NG240/4	NG240/4				NG160			
14									
16									
18						NG240			
20	NG350/4	NG350/4							
25									
30									
35	-	-				NG350			
40	-	-							
45	-	-				-			
50	-	-				-			
400	C50	85				2	NG160/4	NG160/4	NG120
						4			
			6						
			8	NG240/4	NG240/4	NG160			
			10						
			12			NG350/4	NG350/4	NG240	
			14						
			16						
			18	NG350					
			20		-	-			
			25						
			30						
			35						
			40	-	-	-			
			45	-	-	-			
			50	-	-	-			

DN	Shaft end		Maximum pressure	All fluids		
				Control pressure		
	s	h3		[bar]	4	5
			[bar]		[bar]	[bar]
400	C50	85	50	-	-	-
450	C60	80	2	NG240/4	-	NG120
			4			
			6			
			8	NG350/4	NG350/4	NG240
			10			
			12			
			14	-	-	NG350
			16	-	-	
			18	-	-	
			20	-	-	-
			25	-	-	-
			30	-	-	-
			35	-	-	-
			40	-	-	-
			45	-	-	-
			50	-	-	-
500	C60	80	2	NG240/4	NG240/4	NG240
			4			
			6	NG350/4	NG350/4	
			8			NG350
			10			
			12	-	-	
			14	-	-	-
			16	-	-	-
			18	-	-	-
			20	-	-	-
			25	-	-	-
			30	-	-	-
			35	-	-	-
			40	-	-	-
			45	-	-	-
			50	-	-	-
600	C70	105	2	-	-	-
			4	-	-	-
			6	-	-	-
			8	-	-	-
			10	-	-	-
			12	-	-	-
			14	-	-	-
			16	-	-	-
			18	-	-	-
			20	-	-	-
			25	-	-	-
			30	-	-	-
			35	-	-	-
			40	-	-	-
			45	-	-	-
			50	-	-	-

Electric Actuators

AQ/AQL - BERNARD CONTROLS (metal seat)

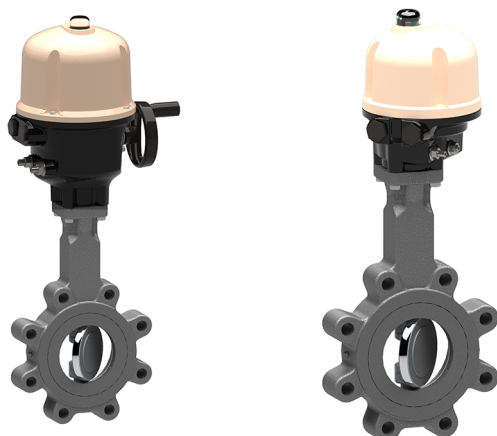


Fig. 6: Unit comprising DANAIS MT II + AQ/AQL actuator

Table 31: Shut-off function: metal seat for lubricating and non-lubricating fluids (Class 150)

DN	Shaft end		Maximum pressure [bar]	Lubricating fluids		Non-lubricating fluids
	s	h3		AQL	AQ	AQ
50	M14	30	2	AQ7L	AQ5	AQ10
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			
65	M14	30	2	AQ7L	AQ5	AQ10
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			
80	M14	30	2	AQ7L	AQ5	AQ10
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			
100	M14	30	2	AQ7L	AQ10	AQ15
			4			
			6			
			8			
			10			
			12			

DN	Shaft end		Maximum pressure	Lubricating fluids		Non-lubricating fluids					
	s	h3	[bar]	AQL	AQ	AQ					
100	M14	30	14	AQ7L	AQ10	AQ15					
			16	-							
			18	-							
			20	-		AQ25					
125	M14	30	2	-	AQ10	AQ25					
			4	-							
			6	-							
			8	-							
			10	-							
			12	-							
			14	-	AQ15						
			16	-							
			18	-							
			20	-							
			150	M19			35	2	-	AQ25	AQ30
								4	-		
6	-										
8	-										
150	M19	35	10	-	AQ25	AQ50					
			12	-							
			14	-							
			16	-							
			18	-							
			20	-							
			200	M22			40	2	-	AQ30	AQ50
								4	-		
								6	-		
								8	-		
								10	-		
								12	-	AQ50	
14	-	-									
16	-	-									
18	-	-									
20	-	-									
250	C25	40			2	-		AQ50	-		
					4	-			-		
			6	-	-						
			8	-	-						
			10	-	-						
			12	-	-	-					
			14	-	-	-					
			16	-	-	-					
			18	-	-	-					
			20	-	-	-					
			300	C30	55	2	-	-	-		
						4	-	-	-		
6	-	-				-					
8	-	-				-					
10	-	-				-					
12	-	-				-					
14	-	-				-					
16	-	-				-					
18	-	-				-					
20	-	-				-					

Table 32: Throttling function: metal seat for lubricating and non-lubricating fluids (Class 150)

DN	Shaft end		Maximum pressure	Lubricating fluids		Non-lubricating fluids
	s	h3	[bar]	AQL	AQ	AQ
50	M14	30	2	AQ7L	AQ5	AQ10
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			
65	M14	30	2	AQ7L	AQ5	AQ10
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			
80	M14	30	2	AQ7L	AQ5	AQ10
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			
100	M14	30	2	AQ7L	AQ10	AQ15
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			
125	M14	30	2	-	AQ10	AQ25
			4	-		
			6	-		
			8	-		
			10	-		
			12	-		
			14	-		
			16	-		
			18	-		
			20	-		
150	M19	35	2	-	AQ25	AQ30
			4	-		
			6	-		
			8	-		
			10	-		
			12	-		
			14	-		
			2	-	AQ15	AQ25
			4	-		
			6	-		
			8	-		
			10	-		
			12	-		
			14	-		
			16	-		
			18	-		
			20	-		
			2	-	AQ25	AQ50
			4	-		
			6	-		
			8	-		
			10	-		
			12	-		
			14	-		

DN	Shaft end		Maximum pressure	Lubricating fluids		Non-lubricating fluids
	s	h3	[bar]	AQL	AQ	AQ
150	M19	35	16	-	AQ25	AQ50
			18	-		
			20	-		
200	M22	40	2	-	AQ30	AQ50
			4	-		
			6	-		
			8	-		
			10	-		
			12	-	AQ50	-
			14	-		-
			16	-		-
			18	-		-
			20	-		-
250	C25	40	2	-	AQ50	-
			4	-		-
			6	-		-
			8	-		-
			10	-		-
			12	-	-	-
			14	-	-	-
			16	-	-	-
			18	-	-	-
			20	-	-	-
300	C30	55	2	-	-	-
			4	-	-	-
			6	-	-	-
			8	-	-	-
			10	-	-	-
			12	-	-	-
			14	-	-	-
			16	-	-	-
			18	-	-	-
			20	-	-	-

Table 33: Shut-off function: metal seat for lubricating and non-lubricating fluids (Class 300)

DN	Shaft end		Maximum pressure	Lubricating fluids		Non-lubricating fluids
	s	h3	[bar]	AQL	AQ	AQ
50	M14	30	2	AQ7L	AQ5	AQ10
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			
			25			
			30		AQ10	AQ15
			35			
			40			
			45			
			50	-		
65	M14	30	2	AQ7L	AQ5	AQ10
			4			
			6			
			8			
			10			

DN	Shaft end		Maximum pressure	Lubricating fluids		Non-lubricating fluids			
	s	h3	[bar]	AQL	AQ	AQ			
65	M14	30	12	AQ7L	AQ5	AQ10			
			14						
			16						
			18						
			20						
			25						
			30						
			35		AQ10	AQ15			
			40	-					
			45	-					
			50	-					
80	M14	30	2	AQ7L	AQ5	AQ10			
			4						
			6						
			8						
			10						
			12						
			14						
			16						
			18						
			20						
			25						
			30						
			35						
			40		-				
			45		-				
			50		-				
			100	M14	30	2	AQ7L	AQ10	AQ10
						4			AQ15
6									
8									
10									
12									
14									
16	-								
18	-								
20	-								
25	-								
30	-								
35	-								
40	-								
45	-								
50	-								
125	M19	35				2	-	AQ10	AQ25
						4	-		
			6	-					
			8	-					
			10	-					
			10	-					
			12	-					
			14	-					
			16	-					
			18	-					
			20	-					
			25	-					
			30	-					
			35	-					
			40	-					
			45	-					
			50	-					
			125	M19	35	2	-	AQ10	AQ25
4	-								
6	-								
8	-								
10	-								
10	-								
12	-								
14	-								
16	-								
18	-								
20	-								
25	-								
30	-								
35	-								
40	-								
45	-								
50	-								

DN	Shaft end		Maximum pressure	Lubricating fluids		Non-lubricating fluids
	s	h3	[bar]	AQL	AQ	AQ
125	M19	35	45	-	AQ25	AQ50
			50	-	AQ30	
150	M22	40	2	-	AQ25	AQ30
			4	-		
			6	-		
			8	-		
			10	-		
			12	-		
			14	-		
			16	-		
			18	-		
			20	-		
			25	-		
			30	-		
			35	-	AQ30 AQ50	AQ50
			40	-		
			45	-		
			50	-		
200	M22	40	2	-	AQ30	AQ50
			4	-		
			6	-		
			8	-		
			10	-		
			12	-		
			14	-		
			16	-		
			18	-		
			20	-		
			25	-		
			30	-	AQ50	-
			35	-		-
			40	-		-
			45	-		-
			50	-		-
			2	-		-
			4	-		-
			6	-		-
			8	-		-
			10	-		-
			12	-		-
			14	-		-
			16	-		-
			18	-		-
			20	-		-
			25	-		-
			30	-	-	-
			35	-	-	-
			40	-	-	-
			45	-	-	-
			50	-	-	-
250	C30	55	2	-	-	-
			4	-	-	-
			6	-	-	-
			8	-	-	-
			10	-	-	-
			12	-	-	-
			14	-	-	-
			16	-	-	-
			18	-	-	-
			20	-	-	-
			25	-	-	-
			30	-	-	-
			35	-	-	-
			40	-	-	-
			45	-	-	-
			50	-	-	-
			2	-	-	-
			4	-	-	-
			6	-	-	-
			8	-	-	-
			10	-	-	-
			12	-	-	-
			14	-	-	-
			16	-	-	-
300	C40	75	2	-	-	-
			4	-	-	-
			6	-	-	-
			8	-	-	-
			10	-	-	-
			12	-	-	-
			14	-	-	-
			16	-	-	-

DN	Shaft end		Maximum pressure	Lubricating fluids		Non-lubricating fluids
	s	h3	[bar]	AQL	AQ	AQ
300	C40	75	18	-	-	-
			20	-	-	-
			25	-	-	-
			30	-	-	-
			35	-	-	-
			40	-	-	-
			45	-	-	-
			50	-	-	-

Table 34: Throttling function: metal seat for lubricating and non-lubricating fluids (Class 300)

DN	Shaft end		Maximum pressure	Lubricating fluids		Non-lubricating fluids
	s	h3	[bar]	AQL	AQ	AQ
50	M14	30	2	AQ7L	AQ5	AQ10
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50	-	AQ10	AQ15
2	AQ7L	AQ5	AQ10			
4						
6						
8						
10						
12						
14						
16						
18						
20						
25						
30						
35						
40				-	AQ10	AQ15
45				-		
50	-					
2	AQ7L	AQ5	AQ10			
4						
6						
8						
10						
12						
14						
16						
18						
20						
25						
30						
35						
40				-	AQ10	AQ15
2				AQ7L		
4						
6						
8						
10						
12						
14						
16						
18						
20						
25						
30						
35						
40	-					

DN	Shaft end		Maximum pressure	Lubricating fluids		Non-lubricating fluids
	s	h3	[bar]	AQL	AQ	AQ
80	M14	30	45	-	AQ10	AQ15
			50	-		
100	M14	30	2	AQ7L	AQ10	AQ10
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
					AQ15	AQ25
					AQ25	
125	M19	35	2	-	AQ10	AQ25
			4			
			6			
			8			
			10			
			10			
			12			
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
					AQ15	AQ30
					AQ25	
150	M22	40	2	AQ25	-	AQ30
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
					AQ30	AQ50
					AQ25	
200	M22	40	2	-	AQ30	AQ50
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
					AQ30	-
					AQ50	

DN	Shaft end		Maximum pressure	Lubricating fluids		Non-lubricating fluids
	s	h3	[bar]	AQL	AQ	AQ
200	M22	40	16	-	AQ50	-
			18	-		-
			20	-		-
			25	-		-
			30	-	-	-
			35	-	-	-
			40	-	-	-
			45	-	-	-
			50	-	-	-
250	C30	55	2	-	-	-
			4	-	-	-
			6	-	-	-
			8	-	-	-
			10	-	-	-
			12	-	-	-
			14	-	-	-
			16	-	-	-
			18	-	-	-
			20	-	-	-
			25	-	-	-
			30	-	-	-
			35	-	-	-
			40	-	-	-
			45	-	-	-
			50	-	-	-
300	C40	75	2	-	-	-
			4	-	-	-
			6	-	-	-
			8	-	-	-
			10	-	-	-
			12	-	-	-
			14	-	-	-
			16	-	-	-
			18	-	-	-
			20	-	-	-
			25	-	-	-
			30	-	-	-
			35	-	-	-
			40	-	-	-
			45	-	-	-
			50	-	-	-

AQ/AQL - BERNARD CONTROLS (plastomer seat)

Table 35: Shut-off function: plastomer seat for all fluids (Class 150)

DN	Shaft end		Maximum pressure [bar]	All fluids	
	s	h3		AQL	AQ
50	M14	30	2	AQ7L	AQ5
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
65	M14	30	2	AQ7L	AQ5
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
80	M14	30	2	AQ7L	AQ5
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
100	M14	30	2	AQ7L	AQ5
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		

DN	Shaft end		Maximum pressure	All fluids	
	s	h3	[bar]	AQL	AQ
150	M19	35	2	-	AQ10
			4	-	
			6	-	
			8	-	
			10	-	AQ15
			12	-	
			14	-	
			16	-	
			18	-	AQ25
			20	-	
			25	-	
200	M22	40	2	-	AQ25
			4	-	
			6	-	
			8	-	
			10	-	
			12	-	
			14	-	
			16	-	
			18	-	AQ30
			20	-	
			25	-	AQ50
250	C25	40	2	-	AQ25
			4	-	
			6	-	AQ30
			8	-	
			10	-	AQ50
			12	-	
			14	-	
			16	-	
			18	-	-
			20	-	-
			25	-	-
					-
300	C30	55	2	-	-
			4	-	-
			6	-	-
			8	-	-
			10	-	-
			12	-	-
			14	-	-
			16	-	-
			18	-	-
			20	-	-
			25	-	-
					-

Table 36: Throttling function: plastomer seat for all fluids (Class 150)

DN	Shaft end		Maximum pressure	All fluids	
	s	h3	[bar]	AQL	AQ
50	M14	30	2	AQ7L	AQ5
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		

DN	Shaft end		Maximum pressure	All fluids	
	s	h3	[bar]	AQL	AQ
50	M14	30	25	AQ7L	AQ5
65	M14	30	2	AQ7L	AQ5
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
80	M14	30	2	AQ7L	AQ5
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
100	M14	30	2	AQ7L	AQ5
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
					AQ10
125	M14	30	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
				-	AQ15
				-	
				-	
				-	
150	M19	35	2	-	AQ10
			4	-	
			6	-	
			8	-	
			10	-	AQ15
			12	-	
			14	-	
			16	-	
			18	-	AQ25
			20	-	
			25	-	
				-	
200	M22	40	2	-	AQ25
			4	-	

DN	Shaft end		Maximum pressure	All fluids	
	s	h3	[bar]	AQL	AQ
200	M22	40	6	-	AQ25
			8	-	
			10	-	
			12	-	
			14	-	
			16	-	AQ30
			18	-	
			20	-	AQ50
			25	-	
250	C25	40	2	-	AQ25
			4	-	
			6	-	AQ30
			8	-	
			10	-	AQ50
			12	-	
			14	-	
			16	-	
			18	-	-
			20	-	-
			25	-	-
300	C30	55	2	-	-
			4	-	-
			6	-	-
			8	-	-
			10	-	-
			12	-	-
			14	-	-
			16	-	-
			18	-	-
			20	-	-
			25	-	-

Table 37: Shut-off function: plastomer seat for all fluids (Class 300)

DN	Shaft end		Maximum pressure	All fluids	
	s	h3	[bar]	AQL	AQ
50	M14	30	2	AQ7L	AQ5
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
			30		
			35		
			40		
			45		
			50		
65	M14	30	2	AQ7L	AQ5
			4		
			6		
			8		
			10		
			12		
			14		

DN	Shaft end		Maximum pressure	All fluids	
	s	h3	[bar]	AQL	AQ
65	M14	30	16	AQ7L	AQ5
			18		
			20		
			25		
			30		
			35		
			40		
			45		
			50		
					AQ10
80	M14	30	2	AQ7L	AQ5
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
			30		
			35		
			40		
			45		
			50		
					AQ10
100	M14	30	2	AQ7L	AQ5
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
			30		
			35		
			40		
			45		
			50		
					AQ10
					AQ15
					AQ15
					AQ15
125	M19	35	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
			30		
			35		
			40		
			45		
			50		
					AQ15
					AQ25
150	M22	40	2	-	AQ25

DN	Shaft end		Maximum pressure	All fluids	
	s	h3	[bar]	AQL	AQ
150	M22	40	4	-	AQ25
			6	-	
			8	-	
			10	-	
			12	-	
			14	-	
			16	-	
			18	-	
			20	-	
			25	-	
			30	-	
			35	-	
			40	-	
			45	-	
			50	-	
					AQ30
200	M22	40	2	-	AQ25
			4	-	
			6	-	
			8	-	
			10	-	
			12	-	
			14	-	
			16	-	
			18	-	
			20	-	
			25	-	
			30	-	
			35	-	
			40	-	
			45	-	
			50	-	
					AQ30
					AQ50
250	C30	55	2	-	-
			4	-	
			6	-	
			8	-	
			10	-	
			12	-	
			14	-	
			16	-	
			18	-	
			20	-	
			25	-	
			30	-	
			35	-	
			40	-	
			45	-	
			50	-	
					-

Table 38: Throttling function: plastomer seat for all fluids (Class 300)

DN	Shaft end		Maximum pressure	All fluids	
	s	h3	[bar]	AQL	AQ
50	M14	30	2	AQ7L	AQ5
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
			30		
			35		
			40		
			45		
			50		
65	M14	30	2	AQ7L	AQ5
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
			30		
			35		
			40		
			45		
			50		AQ10
80	M14	30	2	AQ7L	AQ5
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
			30		
			35		
			40		
			45		
			50		AQ10
100	M14	30	2	AQ7L	AQ5
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
					AQ10

DN	Shaft end		Maximum pressure	All fluids	
	s	h3	[bar]	AQL	AQ
100	M14	30	20	AQ7L	AQ10
			25	-	
			30	-	
			35	-	
			40	-	AQ15
			45	-	
			50	-	
125	M19	35	2	AQ7L	AQ10
			4		
			6		
			8		
			10		
			12		
			14	-	
			16	-	
			18	-	
			20	-	
			25	-	AQ15
			30	-	
			35	-	
			40	-	AQ25
			45	-	
			50	-	
150	M22	40	2	-	AQ25
			4	-	
			6	-	
			8	-	
			10	-	
			12	-	
			14	-	
			16	-	
			18	-	
			20	-	
			25	-	
			30	-	
			35	-	
			40	-	AQ30
			45	-	
			50	-	AQ50
200	M22	40	2	-	AQ25
			4	-	
			6	-	
			8	-	
			10	-	
			12	-	
			14	-	
			16	-	
			18	-	
			20	-	
			25	-	
			30	-	
			35	-	
			40	-	AQ30
			45	-	
			50	-	AQ50
250	C30	55	2	-	-
			4	-	-
			6	-	-

DN	Shaft end		Maximum pressure	All fluids	
	s	h3	[bar]	AQL	AQ
250	C30	55	8	-	-
			10	-	-
			12	-	-
			14	-	-
			16	-	-
			18	-	-
			20	-	-
			25	-	-
			30	-	-
			35	-	-
			40	-	-
			45	-	-
			50	-	-

SQ - BERNARD CONTROLS (metal seat)

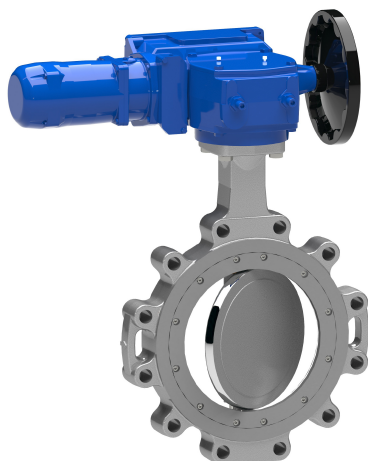


Fig. 7: Unit comprising DANAIS MT II + SQ - BERNARD CONTROLS actuator

Table 39: Shut-off function: metal seat for lubricating and non-lubricating fluids (Class 150)

DN	Shaft end		Maximum pressure	Lubricating fluids	Non-lubricating fluids
	s	h3	[bar]	SQ	SQ
50	M14	30	2	SQ6	SQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
65	M14	30	2	SQ6	SQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
80	M14	30	2	SQ6	SQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
100	M14	30	2	SQ10	SQ15
			4		
			6		
			8		

DN	Shaft end		Maximum pressure	Lubricating fluids	Non-lubricating fluids	
	s	h3	[bar]	SQ	SQ	
100	M14	30	10	SQ10	SQ15	
			12			
			14			
			16			
			18			
			20	SQ25		
125	M14	30	2	SQ10	SQ25	
			4			
			6			
			8			
			10			
			12	SQ15		
			14			
			16			
			18			
			20			
150	M19	35	2	SQ25	SQ60	
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			
200	M22	40	2	SQ60	SQ60	
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20		SQ80	
250	C25	40	2	SQ60	SQ120	
			4			
			6			
			8			
			10			
			12			
			14	SQ80		-
			16			-
			18			-
			20			-
300	C30	55	2	SQ80	-	
			4		-	
			6		-	
			8		-	
			10		-	
			12	SQ120	-	
			14		-	
			16	-		
			18	-		
			20	-		

Table 40: Throttling function: metal seat for lubricating and non-lubricating fluids (Class 150)

DN	Shaft end		Maximum pressure	Lubricating fluids	Non-lubricating fluids
	s	h3	[bar]	SQ - Intel+	SQ - Intel+
50	M14	30	2	SQ10	SQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
65	M14	30	2	SQ10	SQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
80	M14	30	2	SQ10	SQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
100	M14	30	2	SQ10	SQ15
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
125	M14	30	2	SQ15	SQ25
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
150	M19	35	2	SQ25	SQ60
			4		
			6		
			8		
			10		
			12		
			14		

DN	Shaft end		Maximum pressure	Lubricating fluids	Non-lubricating fluids
	s	h3	[bar]	SQ - Intel+	SQ - Intel+
150	M19	35	16	SQ25	SQ60
			18		
			20		
200	M22	40	2	SQ60	SQ60
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		SQ80
250	C25	40	2	SQ60	
4					
6					
8					
10					
12					
14			SQ80		
16					
18					
20					
300	C30	55	2	SQ80	-
			4		-
			6		-
			8		-
			10		-
			12		SQ120
			14	-	
			16	-	
			18	-	
			20	-	

Table 41: Shut-off function: metal seat for lubricating and non-lubricating fluids (Class 300)

DN	Shaft end		Maximum pressure	Lubricating fluids	Non-lubricating fluids
	s	h3	[bar]	SQ	SQ
50	M14	30	2	SQ6	SQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
			30		
			35		
			40	SQ10	SQ15
			45		
			50		
65	M14	30	2	SQ6	SQ10
			4		
			6		
			8		
			10		

DN	Shaft end		Maximum pressure	Lubricating fluids	Non-lubricating fluids
	s	h3	[bar]	SQ	SQ
65	M14	30	12	SQ6	SQ10
			14		
			16		
			18		
			20		
			25		
			30	SQ10	SQ15
			35		
			40		
			45		
			50		
80	M14	30	2	SQ6	SQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
			30	SQ10	SQ15
			35		
			40		
			45		
			50		
100	M14	30	2	SQ10	SQ10
			4		SQ15
			6		SQ25
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
			30	SQ15	
			35		
			40		
			45		
			50		
				SQ25	
			125	M19	35
4					
6					
8					
10					
12					
14					
16					
18					
20					
25	SQ25	SQ60			
30					
35					
40					
45					

DN	Shaft end		Maximum pressure	Lubricating fluids	Non-lubricating fluids	
	s	h3	[bar]	SQ	SQ	
125	M19	35	50	SQ60	SQ60	
150	M22	40	2	SQ25	SQ60	
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			
			25	SQ60		
			30			
			35			
			40		SQ80	
			45			
			50			
200	M22	40	2	SQ60	SQ60	
			4			
			6			
			8			
			10			
			12			
			14			
			16		SQ80	
			18			
			20			
			25		SQ80	
			30			
			35			
			40			
			45			
			50	SQ120	SQ120	
250	C30	55	2	SQ80		SQ120
			4			
			6			
			8			
			10			
			12			
			14			
			16		-	
			18		-	
			20		-	
			25	SQ120	-	
			30	-	-	
			35	-	-	
			40	-	-	
			45	-	-	
			50	-	-	
300	C40	75	2	-	-	
			4	-	-	
			6	-	-	
			8	-	-	
			10	-	-	
			12	-	-	
			14	-	-	
			16	-	-	
			18	-	-	

DN	Shaft end		Maximum pressure	Lubricating fluids	Non-lubricating fluids
	s	h3	[bar]	SQ	SQ
300	C40	75	20	-	-
			25	-	-
			30	-	-
			35	-	-
			40	-	-
			45	-	-
			50	-	-

Table 42: Throttling function: metal seat for lubricating and non-lubricating fluids (Class 300)

DN	Shaft end		Maximum pressure	Lubricating fluids	Non-lubricating fluids
	s	h3	[bar]	SQ - Intel+	SQ - Intel+
50	M14	30	2	SQ10	SQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
			30		SQ15
			35		
			40		
			45		
			50		
65	M14	30	2	SQ10	SQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
			30		SQ15
			35		
			40		
			45		
			50		
80	M14	30	2	SQ6	SQ10
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
			30	SQ10	SQ15
			35		
			40		
			45		
			45		

DN	Shaft end		Maximum pressure	Lubricating fluids	Non-lubricating fluids
	s	h3	[bar]	SQ - Intel+	SQ - Intel+
80	M14	30	50	SQ10	SQ15
100	M14	30	2	SQ10	SQ10
			4		SQ15
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
			30	SQ15	SQ25
			35		
			40		
			45		
			50		
			SQ25		
125	M19	35	2	SQ15	SQ25
4					
6					
8					
10					
12					
14					
16					
18					
20					
25			SQ25		
30					
35					
40					
45					
50			SQ60		
150			M22	40	2
	4				
	6				
	8				
	10				
	12				
	14				
	16				
	18				
	20				
	25	SQ60			SQ80
	30				
	35				
	40				
	45				
	50				
	200	M22			40
4					
6					
8					
10					
12					
14					
16			SQ80		
18					

DN	Shaft end		Maximum pressure	Lubricating fluids	Non-lubricating fluids
	s	h3	[bar]	SQ - Intel+	SQ - Intel+
200	M22	40	20	SQ60	SQ80
			25		
			30		
			35	SQ80	SQ120
			40		
			45		
			50	SQ120	
250	C30	55	2	SQ80	SQ120
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		-
			20		-
			25	SQ120	-
			30		-
			35		-
			40		-
			45	-	-
			50	-	-
300	C40	75	2	-	-
			4	-	-
			6	-	-
			8	-	-
			10	-	-
			12	-	-
			14	-	-
			16	-	-
			18	-	-
			20	-	-
			25	-	-
			30	-	-
			35	-	-
			40	-	-
			45	-	-
			50	-	-

SQ - BERNARD CONTROLS (plastomer seat)

Table 43: Shut-off function: plastomer seat for all fluids (Class 150)

DN	Shaft end		Maximum pressure	All fluids
	s	h3	[bar]	SQ
50	M14	30	2	SQ6
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
65	M14	30	2	SQ6

DN	Shaft end		Maximum pressure	All fluids
	s	h3	[bar]	SQ
65	M14	30	4	SQ6
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
80	M14	30	2	SQ6
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
100	M14	30	25	SQ6
			2	
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
125	M14	30	20	SQ6
			25	
			2	
			4	
			6	
			8	
			10	
			12	
			14	
			16	
150	M19	35	18	SQ6
			20	
			25	
			2	
			4	
			6	
			8	
			10	
			12	
			14	
200	M22	40	16	SQ6
			18	
			20	
			25	
			2	
			4	
			6	
			8	
			2	
			4	

DN	Shaft end		Maximum pressure	All fluids
	s	h3	[bar]	SQ
200	M22	40	10	SQ25
			12	
			14	
			16	SQ60
			18	
			20	
			25	
250	C25	40	2	SQ25
			4	SQ60
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	SQ80
			25	
300	C30	55	2	SQ80
			4	
			6	
			8	
			10	
			12	
			14	
			16	SQ120
			18	
			20	
			25	-
350	C36	60	2	SQ120
			4	
			6	
			8	
			10	
			12	-
			14	-
			16	-
			18	-
			20	-
			25	-
400	C40	75	2	-
			4	-
			6	-
			8	-
			10	-
			12	-
			14	-
			16	-
			18	-
			20	-
			25	-
450	C40	75	2	-
			4	-
			6	-
			8	-
			10	-
			12	-
			14	-

DN	Shaft end		Maximum pressure	All fluids
	s	h3	[bar]	SQ
450	C40	75	16	-
			18	-
			20	-
			25	-

Table 44: Throttling function: plastomer seat for all fluids (Class 150)

DN	Shaft end		Maximum pressure	All fluids
	s	h3	[bar]	SQ - Intel+
50	M14	30	2	SQ10
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
65	M14	30	2	SQ10
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
80	M14	30	2	SQ10
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
100	M14	30	2	SQ10
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
125	M14	30	2	SQ10
			4	
			6	
			8	
			10	
			12	

DN	Shaft end		Maximum pressure	All fluids
	s	h3	[bar]	SQ - Intel+
125	M14	30	14	SQ10
			16	
			18	
			20	
			25	
150	M19	35	2	SQ15
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	SQ25
			20	
			25	
			25	
200	M22	40	2	SQ25
			4	
			6	
			8	
			10	
			12	
			14	
			16	SQ60
			18	
			20	
			25	
			25	
			25	
			25	
250	C25	40	2	SQ25
			4	
			6	SQ60
			8	
			10	
			12	
			14	
			16	
			18	
			20	SQ80
			25	
300	C30	55	2	SQ80
			4	
			6	
			8	
			10	
			12	
			14	
			16	SQ120
			18	
			20	
			25	
350	C36	60	2	SQ120
			4	
			6	
			8	
			10	
			12	-
			14	-
			16	-
			18	-

DN	Shaft end		Maximum pressure	All fluids
	s	h3	[bar]	SQ - Intel+
350	C36	60	20	-
			25	-
400	C40	75	2	-
			4	-
			6	-
			8	-
			10	-
			12	-
			14	-
			16	-
			18	-
			20	-
450	C40	75	25	-
			2	-
			4	-
			6	-
			8	-
			10	-
			12	-
			14	-
			16	-
			18	-
			20	-
			25	-

Table 45: Shut-off function: plastomer seat for all fluids (Class 300)

DN	Shaft end		Maximum pressure	All fluids
	s	h3	[bar]	SQ
50	M14	30	2	SQ6
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
			30	
			35	
			40	
			45	
			50	
65	M14	30	2	SQ6
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
			30	
			35	
			40	

DN	Shaft end		Maximum pressure	All fluids
	s	h3	[bar]	SQ
65	M14	30	45	SQ6
			50	
80	M14	30	2	SQ6
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
			30	
			35	
			40	
			45	
100	M14	30	50	SQ10
			2	SQ6
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	SQ10
			25	
			30	
			35	
			40	
			45	SQ15
			50	
125	M19	35	2	SQ15
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
			30	
			35	
			40	SQ25
			45	
			50	
150	M22	40	2	SQ25
			4	
			6	
			8	
			10	
			12	
			14	
			16	

DN	Shaft end		Maximum pressure	All fluids
	s	h3	[bar]	SQ
150	M22	40	18	SQ25
			20	
			25	
			30	
			35	SQ60
			40	
			45	
			50	
200	M22	40	2	SQ25
			4	
			6	
			8	
			10	
			12	
			14	
			16	SQ60
			18	
			20	
			25	
			30	
			35	
			40	
			45	SQ80
			50	
250	C30	55	2	SQ80
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
			30	SQ120
			35	
			40	-
			45	-
			50	-

Table 46: Throttling function: plastomer seat for all fluids (Class 300)

DN	Shaft end		Maximum pressure	All fluids
	s	h3	[bar]	SQ - Intel+
50	M14	30	2	SQ10
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
			30	
			35	
			40	

DN	Shaft end		Maximum pressure	All fluids
	s	h3	[bar]	SQ - Intel+
50	M14	30	45	SQ10
			50	
65	M14	30	2	SQ10
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
			30	
			35	
			40	
			45	
			50	
80	M14	30	2	SQ10
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
			30	
			35	
			40	
			45	
			50	
100	M14	30	2	SQ10
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
			30	
			35	
			40	
			45	
			50	
			2	SQ15
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
125	M19	35	2	SQ15
			4	
			6	
			8	
			10	
			12	
			14	
			16	

DN	Shaft end		Maximum pressure	All fluids
	s	h3	[bar]	SQ - Intel+
125	M19	35	18	SQ15
			20	
			25	
			30	
			35	
			40	SQ25
			45	
			50	
150	M22	40	2	SQ25
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
			30	
			35	SQ60
			40	
			45	
			50	
200	M22	40	2	SQ25
			4	
			6	
			8	
			10	
			12	
			14	
			16	SQ60
			18	
			20	
			25	
			30	
			35	
			40	SQ80
			45	
			50	
250	C30	55	2	SQ80
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
			30	SQ120
			35	
			40	
			45	-
			50	-

SQ - AUMA (metal seat)



Fig. 8: Unit comprising DANAIS MT II + SQ - AUMA actuator

Table 47: Shut-off function: metal seat for lubricating and non-lubricating fluids (Class 150)

DN	Shaft end		Maximum pressure	Lubricating fluids	Non-lubricating fluids
	s	h3	[bar]	SQ - AUMA	
50	M14	30	2	SQ05.2	SQ05.2
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
65	M14	30	2	SQ05.2	SQ05.2
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
80	M14	30	2	SQ05.2	SQ05.2
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
100	M14	30	2	SQ05.2	SQ05.2
			4		
			6		
			8		

DN	Shaft end		Maximum pressure	Lubricating fluids	Non-lubricating fluids
	s	h3	[bar]	SQ - AUMA	
100	M14	30	10	SQ05.2	SQ05.2
			12		
			14		
			16		
			18		
			20	SQ07.2	
125	M14	30	2	SQ05.2	SQ07.2
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
150	M19	35	2	SQ07.2	SQ07.2
			4		
			6		
			8		
			10		
			12		SQ10.2
			14		
			16		
			18		
			20		
200	M22	40	2	SQ07.2	SQ10.2
			4		
			6		
			8		
			10		
			12	SQ10.2	
			14		
			16		
			18		
			20		
250	C25	40	2	SQ10.2	SQ12.2
			4		
			6		
			8		
			10		
			12	SQ12.2	
			14		
			16		
			18		
			20		
300	C30	55	2	SQ12.2	-
			4		-
			6		-
			8		-
			10		-
			12		-
			14		-
			16		-
			18		-
			20		-
			-		-
			-		-

Table 48: Throttling function: metal seat for lubricating and non-lubricating fluids (Class 150)

DN	Shaft end		Maximum pressure	Lubricating fluids	Non-lubricating fluids
	s	h3	[bar]	SQ - AUMA	
50	M14	30	2	SQ05.2	SQ05.2
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
65	M14	30	2	SQ05.2	SQ05.2
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
80	M14	30	2	SQ05.2	SQ05.2
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
100	M14	30	2	SQ05.2	SQ05.2
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
125	M14	30	2	SQ05.2	SQ07.2
			4		SQ07.2
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
150	M19	35	2	SQ07.2	SQ07.2
			4		
			6		
			8		
			10		
			12		
			14		
					SQ10.2

DN	Shaft end		Maximum pressure	Lubricating fluids	Non-lubricating fluids
	s	h3	[bar]	SQ - AUMA	
150	M19	35	16	SQ07.2	SQ10.2
			18		
			20		
200	M22	40	2	SQ07.2	SQ10.2
			4		
			6		
			8		
			10		
			12	SQ10.2	SQ12.2
			14		
			16		
			18		
			20		
250	C25	40	2	SQ10.2	SQ12.2
			4		
			6		
			8		
			10		
			12	SQ12.2	
			14		
			16		
			18		
			20		
300	C30	55	2	SQ12.2	-
			4		-
			6		-
			8		-
			10		-
			12		-
			14		-
			16		-
			18		-
			20		-
			-		-

Table 49: Shut-off function: metal seat for lubricating and non-lubricating fluids (Class 300)

DN	Shaft end		Maximum pressure	Lubricating fluids	Non-lubricating fluids
	s	h3	[bar]	SQ - AUMA	
50	M14	30	2	SQ05.2	SQ05.2
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
			30		
			35		
			40		
			45		
65	M14	30	2	SQ05.2	SQ05.2
			4		
			6		
			8		
			10		

DN	Shaft end		Maximum pressure	Lubricating fluids	Non-lubricating fluids
	s	h3	[bar]	SQ - AUMA	
65	M14	30	12	SQ05.2	SQ05.2
			14		
			16		
			18		
			20		
			25		
			30		
			35		
			40		
			45		
			50		
80	M14	30	2	SQ05.2	SQ05.2
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
			30		
			35		
			40		
			45		
			50		
100	M14	30	2	SQ05.2	SQ05.2
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
			30		
			35		
			40		
			45		
			50		
				SQ07.2	SQ07.2
125	M19	35	2	SQ05.2	SQ07.2
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
			30		
			35		
			40		
			45		
				SQ07.2	SQ10.2

DN	Shaft end		Maximum pressure	Lubricating fluids	Non-lubricating fluids		
	s	h3	[bar]	SQ - AUMA			
125	M19	35	50	SQ07.2	SQ10.2		
150	M22	40	2	SQ07.2	SQ07.2		
			4				
			6				
			8				
			10				
			12				
			14				
			16				
			18				
			20				
			25				
			30	SQ10.2	SQ10.2		
			35				
			40				
			45				
			50				
200	M22	40	2	SQ07.2		SQ10.2	
			4				
			6				
			8				
			10				
			12				SQ10.2
			14				
			16	SQ12.2			
			18				
			20				
			25				
			30				
			35		SQ12.2		
			40				
			45				
			50	-			
250	C30	55	2	SQ10.2	SQ12.2		
			4				
			6				
			8				
			10				
			12				
			14			SQ12.2	
			16				
			18				
			20				
			25				
			30				
			35				
			40	-			-
			45	-		-	
			50	-		-	
300	C40	75	2	-	-		
			4	-	-		
			6	-	-		
			8	-	-		
			10	-	-		
			12	-	-		
			14	-	-		
			16	-	-		
			18	-	-		

DN	Shaft end		Maximum pressure	Lubricating fluids	Non-lubricating fluids
	s	h3	[bar]	SQ - AUMA	
300	C40	75	20	-	-
			25	-	-
			30	-	-
			35	-	-
			40	-	-
			45	-	-
			50	-	-

Table 50: Throttling function: metal seat for lubricating and non-lubricating fluids (Class 300)

DN	Shaft end		Maximum pressure	Lubricating fluids	Non-lubricating fluids
	s	h3	[bar]	SQ - AUMA	
50	M14	30	2	SQ05.2	SQ05.2
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
			30		
			35		
			40		
			45		
65	M14	30	50		
			2	SQ05.2	SQ05.2
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
			30		
			35		
			40		
			45		
80	M14	30	50		
			2	SQ05.2	SQ05.2
			4		
			6		
			8		
			10		
			12		
			14		
			16		
			18		
			20		
			25		
			30		
			35		
			40		
			45		

DN	Shaft end		Maximum pressure	Lubricating fluids	Non-lubricating fluids	
	s	h3	[bar]	SQ - AUMA		
80	M14	30	50	SQ05.2	SQ05.2	
100	M14	30	2	SQ05.2	SQ05.2	
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50	SQ07.2	SQ07.2	
125	M19	35	2	SQ05.2		
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			
			25			SQ07.2
			30			
			35			
			40			
			45			
			50	SQ10.2		
150	M22	40	2		SQ07.2	
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			
			25			
			30			SQ10.2
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40	2	SQ07.2		
			4			
			6			
			8			
			10			
			12		SQ10.2	
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
200	M22	40				

DN	Shaft end		Maximum pressure	Lubricating fluids	Non-lubricating fluids
	s	h3	[bar]	SQ - AUMA	
200	M22	40	20	SQ10.2	SQ12.2
			25		
			30		
			35	SQ12.2	-
			40		
			45		
			50		
250	C30	55	2	SQ10.2	SQ12.2
			4		
			6		
			8		
			10		
			12		
			14	SQ12.2	-
			16		
			18		
			20		
			25		
			30		
			35		
			40	-	-
			45	-	-
			50	-	-
300	C40	75	2	-	-
			4	-	-
			6	-	-
			8	-	-
			10	-	-
			12	-	-
			14	-	-
			16	-	-
			18	-	-
			20	-	-
			25	-	-
			30	-	-
			35	-	-
			40	-	-
			45	-	-
			50	-	-

SQ - AUMA (plastomer seat)

Table 51: Shut-off function: plastomer seat for all fluids (Class 150)

DN	Shaft end		Maximum pressure	All fluids
	s	h3	[bar]	SQ - AUMA
50	M14	30	2	SQ05.2
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
65	M14	30	2	SQ05.2

DN	Shaft end		Maximum pressure	All fluids
	s	h3	[bar]	SQ - AUMA
65	M14	30	4	SQ05.2
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
80	M14	30	2	SQ05.2
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
100	M14	30	2	SQ05.2
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
125	M14	30	2	SQ05.2
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
150	M19	35	2	SQ05.2
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
200	M22	40	2	SQ05.2
			4	
			6	
			8	

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DN	Shaft end		Maximum pressure	All fluids
	s	h3	[bar]	SQ - AUMA
200	M22	40	10	SQ07.2
			12	
			14	
			16	
			18	
			20	
			25	SQ10.2
250	C25	40	2	SQ10.2
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	SQ12.2
300	C30	55	2	SQ10.2
			4	
			6	
			8	
			10	
			12	
			14	SQ12.2
			16	
			18	
			20	
			25	
				-
350	C36	60	2	SQ12.2
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	-
			20	-
			25	-
				-

Table 52: Throttling function: plastomer seat for all fluids (Class 150)

DN	Shaft end		Maximum pressure	All fluids
	s	h3	[bar]	SQ - AUMA
50	M14	30	2	SQ05.2
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
65	M14	30	2	SQ05.2
			4	
			6	

DN	Shaft end		Maximum pressure	All fluids
	s	h3	[bar]	SQ - AUMA
65	M14	30	8	SQ05.2
			10	
			12	
			14	
			16	
			18	
			20	
			25	
80	M14	30	2	SQ05.2
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
100	M14	30	2	SQ05.2
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
125	M14	30	2	SQ05.2
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
150	M19	35	2	SQ05.2
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
200	M22	40	2	SQ05.2
			4	
			6	
			8	
			10	SQ07.2
			12	

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DN	Shaft end		Maximum pressure	All fluids
	s	h3	[bar]	SQ - AUMA
200	M22	40	14	SQ07.2
			16	
			18	
			20	
			25	SQ10.2
250	C25	40	2	SQ10.2
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	SQ12.2
			25	
300	C30	55	2	SQ10.2
			4	
			6	
			8	
			10	
			12	SQ12.2
			14	
			16	
			18	
			20	
350	C36	60	25	-
			2	SQ12.2
			4	
			6	
			8	
			10	
			12	
			14	
			16	-
			18	-
			20	-
			25	-

Table 53: Shut-off function: plastomer seat for all fluids (Class 300)

DN	Shaft end		Maximum pressure	All fluids
	s	h3	[bar]	SQ - AUMA
50	M14	30	2	SQ05.2
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
			30	
			35	
			40	
			45	
			50	

DN	Shaft end		Maximum pressure	All fluids
	s	h3	[bar]	SQ - AUMA
65	M14	30	2	SQ05.2
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
			30	
			35	
			40	
			45	
			50	
80	M14	30	2	SQ05.2
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
			30	
			35	
			40	
			45	
			50	
100	M14	30	2	SQ05.2
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
			30	
			35	
			40	
			45	
			50	
125	M19	35	2	SQ05.2
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	

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DN	Shaft end		Maximum pressure	All fluids
	s	h3	[bar]	SQ - AUMA
125	M19	35	25	SQ05.2
			30	
			35	
			40	SQ07.2
			45	
			50	
150	M22	40	2	SQ05.2
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	SQ07.2
			20	
			25	
			30	
			35	
			40	
			45	SQ10.2
			50	
200	M22	40	2	SQ07.2
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	SQ10.2
			20	
			25	
			30	
			35	
			40	
			45	SQ12.2
			50	
250	C30	55	2	SQ10.2
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	SQ12.2
			20	
			25	
			30	
			35	
			40	
			45	-
			50	

Table 54: Throttling function: plastomer seat for all fluids (Class 300)

DN	Shaft end		Maximum pressure	All fluids
	s	h3	[bar]	SQ - AUMA
50	M14	30	2	SQ05.2
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
			30	
			35	
			40	
			45	
			50	
65	M14	30	2	SQ05.2
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
			30	
			35	
			40	
			45	
			50	
80	M14	30	2	SQ05.2
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
			30	
			35	
			40	
			45	
			50	
100	M14	30	2	SQ05.2
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			18	

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DN	Shaft end		Maximum pressure	All fluids
	s	h3	[bar]	SQ - AUMA
100	M14	30	20	SQ05.2
			25	
			30	
			35	
			40	
			45	
			50	
125	M19	35	2	SQ05.2
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	
			25	
			30	
			35	
			40	SQ07.2
			45	
			50	
150	M22	40	2	SQ05.2
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	SQ07.2
			20	
			25	
			30	
			35	
			40	SQ10.2
			45	
			50	
200	M22	40	2	SQ07.2
			4	
			6	
			8	
			10	
			12	
			14	
			16	
			18	
			20	SQ10.2
			25	
			30	
			35	
			40	
			45	SQ12.2
			50	
250	C30	55	2	SQ10.2
			4	
			6	

DN	Shaft end		Maximum pressure	All fluids
	s	h3	[bar]	SQ - AUMA
250	C30	55	8	SQ10.2
			10	
			12	
			14	
			16	
			18	
			20	SQ12.2
			25	
			30	
			35	
			40	
			45	-
			50	-

Single-acting or double-acting hydraulic actuator

HQ (metal seat)



Fig. 9: Unit comprising DANAIS MT II + HQ actuator

Table 55: Metal seat for lubricating and non-lubricating fluids (Class 150)

DN	Shaft end		Maximum pressure	Lubricating fluids			Non-lubricating fluids		
				Hydraulic pressure			Hydraulic pressure		
	s	h3	[bar]	80	90	120/135	80	90	120/135
50	M14	30	2	10	10	10	10	10	10
			4						
			6						
			8						
			10						
			12						
			14						
			16						
			18						
			20						
65	M14	30	2	10	10	10	10	10	10
			4						
			6						

DN	Shaft end		Maximum pressure	Lubricating fluids			Non-lubricating fluids		
				Hydraulic pressure			Hydraulic pressure		
	s	h3		80	90	120/135	80	90	120/135
			[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]
65	M14	30	8	10	10	10	10	10	10
			10						
			12						
			14						
			16						
			18						
			20						
80	M14	30	2	10	10	10	10	10	10
			4						
			6						
			8						
			10						
			12						
			14						
			16						
			18						
			20						
100	M14	30	2	10	10	10	25	10	10
			4						
			6						
			8						
			10						
			12						
			14						
			16						
			18						
			20						
125	M14	30	2	25	10	10	25	25	25
			4						
			6						
			8						
			10						
			12						
			14						
			16						
			18						
			20						
150	M19	35	2	25	25	25	25	25	25
			4						
			6						
			8						
			10						
			12						
			14						
			16						
			18						
			20						
200	M22	40	2	25	25	25	50	50	50
			4						
			6						
			8						
			10						
			12						
			14						
			16						
			18						

DN	Shaft end		Maximum pressure	Lubricating fluids			Non-lubricating fluids				
				Hydraulic pressure			Hydraulic pressure				
				80	90	120/135	80	90	120/135		
	s	h3	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]			
200	M22	40	20	50	50	25	100	100	50		
250	C25	40	2	50	50	50	100	100	100		
			4								
			6								
			8								
			10								
			12	100							
			14								
			16		100						
			18								
			20								
300	C30	55	2	100	100	100	200	200	100		
			4								
			6								
			8								
			10								
			12								
			14								
			16								
			18	200							
			20		200						
350	C36	60	2	200	200	200	200	200	200		
			4								
			6								
			8								
			10								
			12								
			14								
			16								
			18								
			20								
400	C40	75	2	200	200	200	400	400	400		
			4								
			6								
			8								
			10								
			12								
			14								
			16								
			18	400							
			20								
450	C40	75	2	200	200	200	400	400	200		
			4								
			6								
			8								
			10	400	400	400					
			12								
			14								
			16								
			18			400					
			20								
500	C50	85	2	200	200	200	400	400	400		
			4								
			6								
			8	400	400						
			10								

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DN	Shaft end		Maximum pressure	Lubricating fluids			Non-lubricating fluids		
				Hydraulic pressure			Hydraulic pressure		
	s	h3		80	90	120/135	80	90	120/135
			[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]
500	C50	85	12	400	400	200	400	400	400
			14			400			
			16						
			18						
			20						
600	C50	85	2	400	400	200	400	400	400
			4						
			6						
			8			400			
			10						
			12						
			14						
			16						
			18						
			20						
							800	800	

Table 56: Metal seat for lubricating and non-lubricating fluids (Class 300)

DN	Shaft end		Maximum pressure	Lubricating fluids			Non-lubricating fluids		
				Hydraulic pressure			Hydraulic pressure		
	s	h3		80	90	120/135	80	90	120/135
			[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]
50	M14	30	2	10	10	10	10	10	10
			4						
			6						
			8						
			10						
			12						
			14						
			16						
			18						
			20						
			25						
			30						
			35						
			40						
			45						
			50						
65	M14	30	2	10	10	10	10	10	10
			4						
			6						
			8						
			10						
			12						
			14						
			16						
			18						
			20						
			25						
			30						
			35						
			40						
			45						
			50						
80	M14	30	2	10	10	10	10	10	10
			4						
			6						

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DN	Shaft end		Maximum pressure	Lubricating fluids			Non-lubricating fluids		
				Hydraulic pressure			Hydraulic pressure		
	s	h3		[bar]	[bar]	[bar]	[bar]	[bar]	[bar]
150	M22	40	30	50	25	25	50	50	50
			35		50		100	100	
			40						
			45			50			
			50						
200	M22	40	2	25	25	25	50	50	50
			4						
			6						
			8						
			10						
			12	50	50	100	100		
			14						
			16						
			18						
			20						
			25	100	50	200	200		
			30						
			35						
			40						
			45						
			50						
250	C30	55	2	100	100	100	100	100	100
			4						
			6						
			8						
			10						
			12				200	200	200
			14						
			16						
			18						
			20						
			25						
			30	200	200				
			35						
			40						
			45						
			50						
300	C40	75	2	200	200	200	200	200	200
			4						
			6						
			8						
			10						
			12				400	400	400
			14						
			16						
			18						
			20						
			25						
			30	400	400				
			35						
			40						
			45						
			50						
350	C40	75	2	200	200	200	200	200	200
			4						
			6						

DN	Shaft end		Maximum pressure	Lubricating fluids			Non-lubricating fluids					
				Hydraulic pressure			Hydraulic pressure					
				80	90	120/135	80	90	120/135			
	s	h3	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]				
350	C40	75	8	200	200	200	200	200	200			
			10									
			12									
			14									
			16									
			18				400					
			20									
			25				400					
			30	400								
			35	400				400				
			40									
			45	400								
			50									
400	C50	85	2	200	200	200	400	200	200			
			4									
			6									
			8									
			10					400				
			12									
			14									
			16									
			18	400								
			20	400								
			25		400							
			30		400							
			35									
			40									
			45									
			50									
450	C60	80	2	400	400	400	400	400	400			
			4									
			6									
			8									
			10									
			12									
			14									
			16									
			18									
			20									
			25									
			30									
			35				800					
			40				800					
			45									
			50	800								
500	C60	80	2	400	400	400	400	400	400			
			4									
			6									
			8									
			10									
			12									
			14									
			16									
			18									
			20									
			25				800					

DN	Shaft end		Maximum pressure	Lubricating fluids			Non-lubricating fluids				
				Hydraulic pressure			Hydraulic pressure				
	80	90		120/135	80	90	120/135				
	s	h3	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]		
500	C60	80	30	400	400	400	800	800	400		
			35	800	400	800	800	400			
			40								
			45								
			50								
600	C70	105	2	800	800	800	800	800	800		
			4								
			6								
			8								
			10								
			12								
			14								
			16								
			18								
			20								
			25								
			30								
			35								
			40								
			45				1600				
			50					1600			
											1600

HQ (plastomer seat)

Table 57: Plastomer seat for all fluids (Class 150)

DN	Shaft end		Maximum pressure	All fluids		
				Hydraulic pressure		
	s	h3		80	90	120/135
			[bar]	[bar]	[bar]	[bar]
50	M14	30	2	10	10	10
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			
			25			
65	M14	30	2	10	10	10
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			
			25			
80	M14	30	2	10	10	10
			4			
			6			
			8			

DN	Shaft end		Maximum pressure	All fluids		
				Hydraulic pressure		
				80	90	120/135
	s	h3	[bar]	[bar]	[bar]	[bar]
80	M14	30	10	10	10	10
			12			
			14			
			16			
			18			
			20			
			25			
100	M14	30	2	10	10	10
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			
			25			
125	M14	30	2	10	10	10
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			
			25	25		
150	M19	35	2	25	25	25
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			
			25			
200	M22	40	2	25	25	25
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			
			25	50		
250	C25	40	2	50	50	50
			4			
			6			
			8			
			10			

DN	Shaft end		Maximum pressure	All fluids		
				Hydraulic pressure		
	s	h3		80	90	120/135
			[bar]	[bar]	[bar]	[bar]
250	C25	40	12	50	50	50
			14			
			16			
			18	100	100	100
			20			
			25			
300	C30	55	2	100	100	100
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			
			25			
				200		
350	C36	60	2	100	100	100
			4			
			6			
			8			
			10			
			12			
			14	200	200	200
			16			
			18			
			20			
			25			
400	C40	75	2	200	200	200
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			
			25			
				400		
450	C40	75	2	200	200	200
			4			
			6			
			8			
			10			
			12			
			14	400	400	400
			16			
			18			
			20			
			25			
500	C50	85	2	200	200	200
			4			
			6			
			8			
			10	400	400	400
			12			

DN	Shaft end		Maximum pressure	All fluids		
				Hydraulic pressure		
	s	h3		80	90	120/135
			[bar]	[bar]	[bar]	[bar]
500	C50	85	14	400	400	200
			16			400
			18			
			20			
			25			
600	C50	85	2	200	200	200
			4	400	400	400
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			
			25	800		

Table 58: Plastomer seat for all fluids (Class 300)

DN	Shaft end		Maximum pressure	All fluids		
				Hydraulic pressure		
	s	h3		80	90	120/135
			[bar]	[bar]	[bar]	[bar]
50	M14	30	2	10	10	10
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
65	M14	30	2	10	10	10
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
80	M14	30	2	10	10	10
			4			

DN	Shaft end		Maximum pressure	All fluids		
				Hydraulic pressure		
				80	90	120/135
	s	h3	[bar]	[bar]	[bar]	[bar]
80	M14	30	6	10	10	10
			8			
			10			
			12			
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
100	M14	30	2	10	10	10
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40	25		
			45			
			50			
125	M19	35	2	25	25	25
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
45						
50						
150	M22	40	2	25	25	25
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			

DN	Shaft end		Maximum pressure	All fluids								
				Hydraulic pressure								
				80	90	120/135						
	s	h3	[bar]	[bar]	[bar]	[bar]						
150	M22	40	25	25	25	25						
			30									
			35									
			40	50	50							
			45									
			50									
200	M22	40	2	25	25	25						
			4									
			6									
			8									
			10									
			12									
			14									
			16									
			18									
			20				50	50				
			25									
			30									
			35									
			40	100	100	50						
			45									
			50									
			50									
			250	C30	55	2	100	100	100			
						4						
						6						
						8						
						10						
12												
14												
16												
18												
20												
25												
30												
35												
40	200	200										
45												
50												
50												
300	C40	75				2	200	200	200			
						4						
						6						
						8						
						10						
			12									
			14									
			16									
			18									
			20									
			25									
			30									
			35									
			40									
			45									
			50									
			350	C40	75	2				200	200	200
						4						

DN	Shaft end		Maximum pressure	All fluids		
				Hydraulic pressure		
	s	h3		80	90	120/135
			[bar]	[bar]	[bar]	[bar]
350	C40	75	6	200	200	200
			8			
			10			
			12			
			14			
			16			
			18			
			20			
			25			
			30			
			35	400	400	200
			40			
			45			
			50			
400	C50	85	2	200	200	200
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			
			25	400	400	200
			30			
			35			
			40			
			45			
			50			
450	C60	80	2	400	400	400
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			
			25			
			30			
			35			
			40			
			45			
			50			
500	C60	80	2	400	400	400
			4			
			6			
			8			
			10			
			12			
			14			
			16			
			18			
			20			

DN	Shaft end		Maximum pressure	All fluids			
				Hydraulic pressure			
				80	90	120/135	
	s	h3	[bar]	[bar]	[bar]	[bar]	
500	C60	80	25	400	400	400	
			30				
			35				
			40	800	800		
			45				
			50				
600	C70	105	2	800	800	800	
			4				
			6				
			8				
			10				
			12				
			14				
			16				
			18				
			20				
			25				
			30				
			35				
			40				
			45				
			50				1600



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