

One-time-use screwed and bonded plug (O4A)

Technical Information

Including specifications, performance data and schematic

General specifications

Standard disc sizes*	15mm, 19mm, 25mm, 40mm
Standard thread sizes*	1/8", 1/4", 3/8", 1/2", 3/4", 1"
Standard thread types*	NPT, BSPT or BSPP (male or female) – Left- or right-handed
Standard burst pressure range	1 barg – 70 barg (14.5 psig – 1015 psig)
Standard Temperature Range	-20°C to 150°C (-4°F to 302°F)
Maximum Operating Ratio	Reverse-acting disc: 90% of minimum burst pressure (1 barg – 200 barg) Forward-acting disc: 85% of minimum burst pressure (55 barg – 200 barg)
Performance tolerance	+/- 5%
Leak Rate	Helium leak tested: tight to 1x10 ⁻⁵ mbar.l/sec
Vacuum Service	Yes
Fluid Compatibility	Reverse-acting: Gas, vapour Forward-acting: Gas, vapour, liquid
Disc Type	Forward- or reverse-acting
Fragmentation	May fragment, depending on design
Disc material*	Nickel or stainless steel
Body material	Brass
Disc Connection to Body	Bonded between inlet & outlet (Screwed and bonded with 'Loctite' 290 threadlocker)
Maximum torque	Size-dependent
Tamperproof	Yes

*Others available on request

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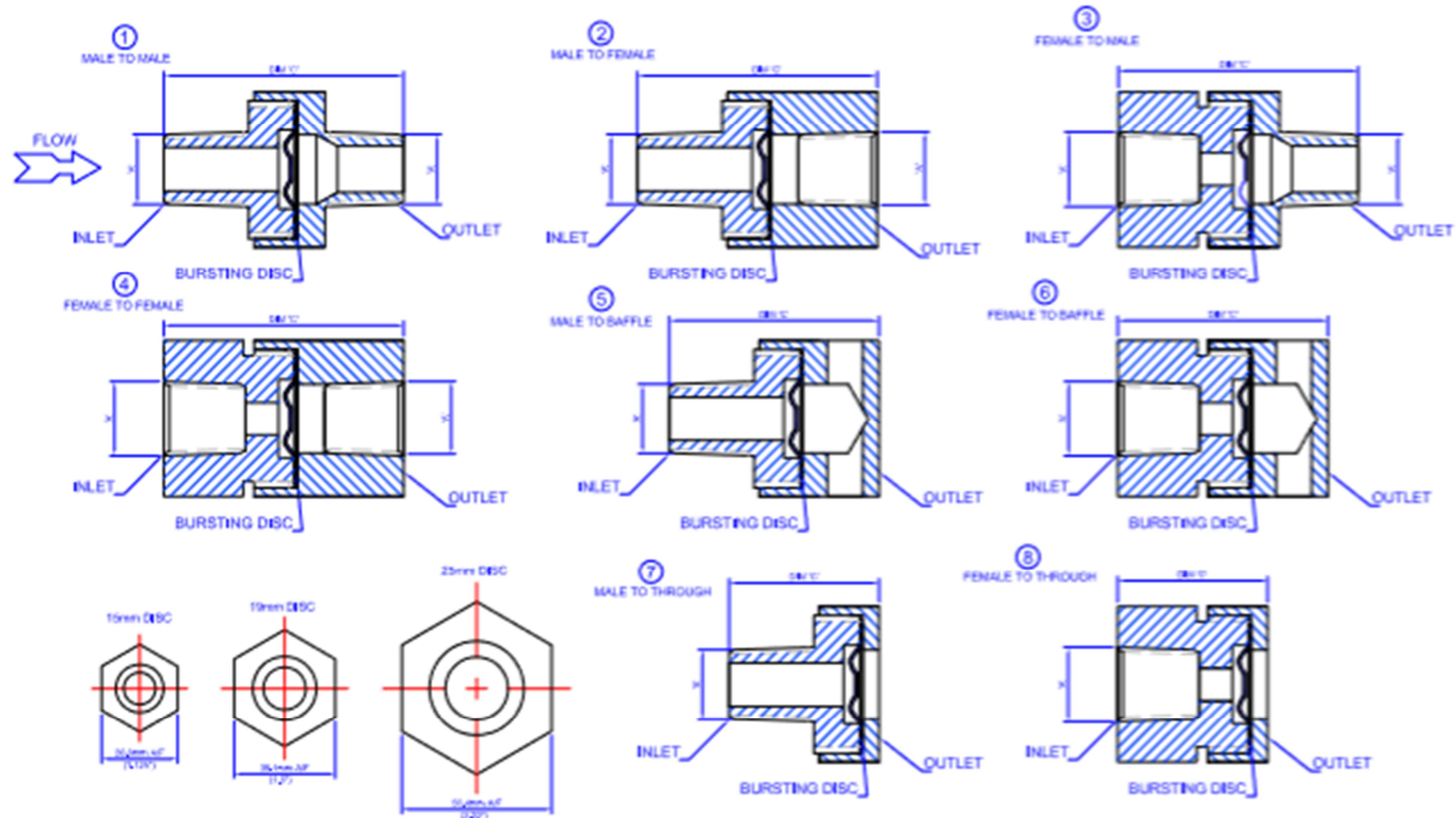
Burst pressure ranges in barg (psig) at 15-30°C (59-86°F)

All with brass plug									
Nominal bore of disc		Reverse-acting disc (compression loaded)				Forward-acting disc (tension loaded)			
		Stainless steel		Nickel		Stainless steel		Nickel	
mm	inch	min	max	min	max	min	max	min	max
15	0.5	4 (58)	55 (800)	3.3 (44)	55 (800)	55 (800)	70 (1015)	35 (508)	70 (1015)
19	0.75	4 (58)	40 (580)	2.5 (37)	40 (580)	45 (653)	70 (1015)	27 (392)	70 (1015)
25	1	2 (28)	55 (800)	1 (14.5)	40 (580)	34 (493)	70 (1015)	21 (305)	70 (1015)
40	1.5	2 (28)	55 (800)	1 (14.5)	40 (580)	20 (290)	70 (1015)	13 (190)	70 (1015)

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Product Schematic

STANDARD O4A ASSEMBLIES



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Product Schematic data

Face to face (Dim 'C' mm)												
Plug configuration			15mm				19mm			25mm		
Item	Inlet	Outlet	¼" NPT/BSPT Dimension 'A'	¼" BSPP Dimension 'A'	¾" NPT/BSPT Dimension 'A'	¾" BSPP Dimension 'A'	½" NPT/BSPT Dimension 'A'	½" BSPP Dimension 'A'	¾" NPT/BSPT Dimension 'A'	¾" BSPP Dimension 'A'	1" NPT/BSPT Dimensions 'A'	1" BSPP Dimensions 'A'
1	Male	Male	51.5	47.5	51.5	47.5	61.5	47	59	52	73	63.5
2	Male	Female	48.5	47	48.5	47	53.5	46.5	54	52	65.5	60.35
3	Female	Male	50	47.5	50	47.5	61	53.5	54	49	65.5	61
4	Female	Female	47	47	47	47	53	53	49	49	58	58
5	Male	Baffle	39.5	38	39.5	38	44.5	37.5	49	47	61.5	56.5
6	Female	Baffle	38	38	38	38	44	44	44	44	54	54
7	Male	Through	30.5	29	30.5	29	28.5	28.5	37	35	45	40
8	Female	Through	29	29	29	29	35	35	32	32	37.5	37.5

Free flow area (mm ²)												
Plug configuration			15mm				19mm			25mm		
Item	Inlet	Outlet	¼" NPT/BSPT Dimension 'A'	¼" BSPP Dimension 'A'	¾" NPT/BSPT Dimension 'A'	¾" BSPP Dimension 'A'	½" NPT/BSPT Dimension 'A'	½" BSPP Dimension 'A'	¾" NPT/BSPT Dimension 'A'	¾" BSPP Dimension 'A'	1" NPT/BSPT Dimensions 'A'	1" BSPP Dimensions 'A'
1	Male	Male	28.26	28.26	70.8	70.8	126.6	126.6	486.3	486.3	506.4	506.4
2	Male	Female	28.26	28.26	70.8	70.8	126.6	126.6	286.3	286.3	506.4	506.4
3	Female	Male	28.26	28.26	70.8	70.8	126.6	126.6	314	314	518.4	518.4
4	Female	Female	70.8	70.8	70.8	70.8	126.6	126.6	314	314	518.4	518.4
5	Male	Baffle	28.26	28.26	70.8	70.8	126.6	126.6	301.4	301.4	471	471
6	Female	Baffle	70.8	70.8	70.8	70.8	126.6	126.6	301.4	301.4	471	471
7	Male	Through	28.26	28.26	70.8	70.8	126.6	126.6	286.3	286.3	506.4	506.4
8	Female	Through	70.8	70.8	70.8	70.8	126.6	126.6	314	314	518.4	518.4

Maximum installation torque (Nm)												
Plug configuration			15mm				19mm			25mm		
Item	Inlet	Outlet	¼" NPT/BSPT Dimension 'A'	¼" BSPP Dimension 'A'	¾" NPT/BSPT Dimension 'A'	¾" BSPP Dimension 'A'	½" NPT/BSPT Dimension 'A'	½" BSPP Dimension 'A'	¾" NPT/BSPT Dimension 'A'	¾" BSPP Dimension 'A'	1" NPT/BSPT Dimensions 'A'	1" BSPP Dimensions 'A'
1-8	All	All	30	30	40	40	50	50	60	60	70	70