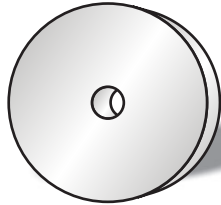


PRECISION ORIFICES



FEATURES AND BENEFITS



*Worlds smallest standard orifice
0.0002" (0.0050mm) inside diameter*

- * HOLE SIZES from 0.0002" (0.0050mm)
- * ZERO POROSITY
- * MELTING POINT EXCEEDS 2000°C
- * CHEMICALLY INERT
- * HIGH ABRASION RESISTANCE - WEAR FREE
- * PRESSURES FROM VACUUM TO 40,000PSI (275 BAR)
- * COMPATIBLE FILTERS 5 TO 150 MICRON
- * LASER DRILLED AND WIRE LAPPED
- * ECONOMICALLY PRICED
- * STANDARD RANGE PLUS CUSTOM DESIGNS

APPLICATIONS

- * ANALYTICAL INSTRUMENTS
- * INK JET PRINTING
- * CHEMICAL METERING
- * PNEUMATICS AND HYDRAULICS
- * CHROMATOGRAPHY
- * SAND BLASTING AND WATER JETS
- * ANAESTHESIA ORIFICES
- * GAS METERING
- * PACE MAKERS
- * OPTICAL INDUSTRY



Fittings with integral orifice.

PRICES START FROM £5.50 - (10EURO)



Standard Sapphire and Ruby Orifices

WEST GROUP precision orifices are available in standard hole sizes, ranging from 0.00029" (0.0050mm) to 0.081" (2.0574mm), with or without stainless steel micro screen filtration.

Please contact The West Group technical Department 023 9226 6031 with any questions you may have or to enquire about having a design or custom fitting to your specifications.

Precision Ruby Orifice Part Numbers and Dimensions

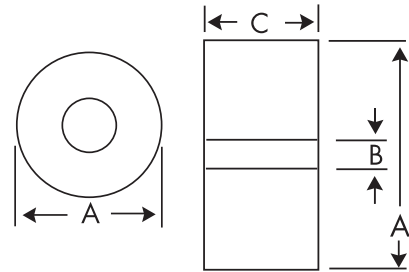
All dimensions stated are inch decimal. Multiply by 25.40 for metric conversion.

Precision Ruby Orifice Part Numbers and Dimensions

Outside Diameter .0600"

Thickness .0100"

Part#	I.D.	Part#	I.D.	Part#	I.D.
22138	0.00029	22049	0.0095	22103	0.0215
22329	0.0004	22081	0.0100	22107	0.0220
22104	0.0008	22050	0.0105	22123	0.0225
22143	0.0010	22051	0.0110	22108	0.0230
22111	0.0012	22053	0.0115	22151	0.0240
22231	0.0014	22010	0.0120	22127	0.0250
22114	0.0016	22054	0.0125	22128	0.0260
22276	0.0018	22055	0.0130	22129	0.0270
22021	0.0020	22056	0.0135	22147	0.0280
22029	0.0025	22057	0.0140	22172	0.0290
22033	0.0030	22058	0.0145	22184	0.0300
22034	0.0035	22059	0.0150	22285	0.0310
22037	0.0040	22060	0.0155	22286	0.0320
22038	0.0045	22061	0.0160	22287	0.0330
22039	0.0050	22062	0.0165	22288	0.0340
22042	0.0055	22063	0.0170	22289	0.0350
22012	0.0060	22067	0.0175		
22043	0.0065	22068	0.0180		
22844	0.0070	22069	0.0185		
22044	0.0075	22071	0.0190		
22045	0.0080	22074	0.0195		
22046	0.0085	22075	0.0200		
22016	0.0090	22085	0.0210		



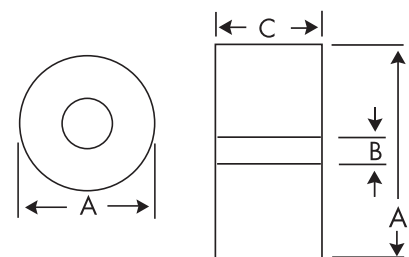
- A - Outside Diameter .060" ± 0.0005
- B - Inside Diameter - see chart
Tolerance $+0.0002/-0.0000$ "
- C - Thickness .010" ± 0.001

Precision Ruby Orifice Part Numbers and Dimensions

Outside Diameter .1180"

Thickness .0260"

Part#	I.D.	Part#	I.D.	Part#	I.D.
22027	0.0100	22295	0.0400	22066	0.0560
22022	0.0118	22109	0.0420	22206	0.0580
22098	0.0150	22117	0.0440	22299	0.0600
22326	0.0200	22296	0.0450	22312	0.0610
22313	0.0250	22139	0.0460	22080	0.0620
22342	0.0280	22113	0.0470	22294	0.0625
22345	0.0290	22293	0.0480	22086	0.0630
22317	0.0300	22297	0.0500	22302	0.0650
22304	0.0320	22031	0.0510	22310	0.0730
22014	0.0350	22052	0.0520	22303	0.0750
22306	0.0360	22065	0.0530	22311	0.0810
22341	0.0380	22298	0.0550		



- A - Outside Diameter .118" ± 0.0005
- B - Inside Diameter - see chart
Tolerance $+0.0002/-0.0000$ "
- C - Thickness .026" ± 0.001



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Email: sales@westgroup.co.uk www.westgroup.co.uk



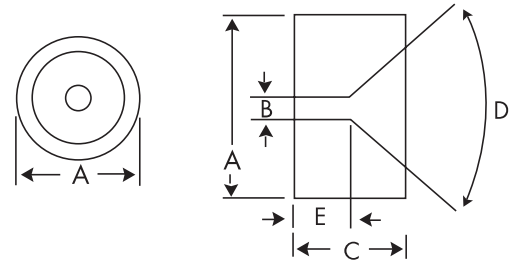


Standard Sapphire Orifices Part Numbers and Dimensions

Vee Hole Precision Sapphire Orifice Part Numbers and Dimensions, Multiply by 25.40 for Metric Conversion.

Outside Diameter .0870" Thickness .0470"

Part#	I.D.	Part#	I.D.	Part#	I.D.
24015	0.0020	24031	0.0090	24114	0.0160
24059	0.0025	24032	0.0095	24115	0.0165
24016	0.0030	24033	0.0100	24046	0.0170
24017	0.0035	24034	0.0105	24050	0.0180
24018	0.0040	24035	0.0110	24005	0.0185
24019	0.0045	24111	0.0115	24051	0.0190
24022	0.0050	24036	0.0120	24029	0.0200
24024	0.0055	24112	0.0125	24060	0.0210
24025	0.0060	24037	0.0130	24014	0.0230
24026	0.0065	24038	0.0135	24009	0.0240
24028	0.0070	24039	0.0140	24054	0.0290
24030	0.0075	24040	0.0145	24027	0.0330
24010	0.0080	24041	0.0150		
24110	0.0085	24113	0.0155		



A - Outside Diameter .087" ± 0.0005

B - Inside Diameter - see chart
Tolerance $+0.0002"/-0.0000"$

C - Thickness .047" ± 0.001

D - Angle (\angle) $85 \pm 5^\circ$

E - Length of Hole .010" Nominal

Threaded Orifice Inserts

Threaded orifice inserts are available in a variety of precision threads and can be manufactured to your requirements. Threads are available in brass and stainless steel. Excellent for hydraulics, high-pressure, and high-wear applications. Brass threaded orifices are finding use in many deep bore applications and cylinder mount orifice designs. Sizes are available from .00029" through .081" ID.



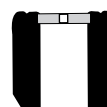
Part #	Description	Material
84032	6 - 32 x .190"	BRASS
83240	10 - 32 x .195"	BRASS
82513	10 - 32 x .195"	STAINLESS STEEL
82513	SP10 - 32 x .195"	TITANIUM
82431	M3 x .120"	BRASS
82373	12 - 24 x .250"	BRASS
82043	5/16 - 24 x .250"	BRASS
82649	1/16 - 27 x .260"	NPT 303
82754	1/8 - 27 x .290"	NPT 303
82608	1/8 - 27 x .290"	NPT BRASS
82129	1/4 - 18 x .450"	NPT BRASS

West Group press-in and seal barb orifice inserts are perfect for both internal and external mounting into plastic molded components. They can be directly mounted into valves or manifolds. Sizes are available from .00029" through .081" ID.



Part #	(diameter) (length)
82062	.084 x .120"
82802	.100 x .145"
82563	.095 x .125"
31117	.118 x .125"
31145	.158 x .100"
31779	.192 x .190"
31649	.219 x .225"
31801	.223 x .192"

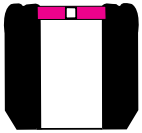
Tapered plug brass orifice inserts are ideal for internal mounting directly into brass, stainless and alloy components for valves, manifolds and system apparatus. Slightly tapered leads ease insertion and ensure insertion alignment. Sizes are available from .00029" through .081" ID.



Part #	(diameter) (length)
82520	.078 x .083"
82776	.094 x .120"
82284	.112 x .129"
83711	.125 x .109"
83842	.156 x .190"
82742	.204 x .150"

Consult West Group For Housing Dimensions

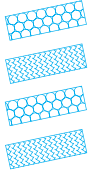
Ruby Orifice and Filtered Inserts



Stainless steel tapered plug orifice inserts are ideally suited for corrosive high-wear applications, currently finding use in the analytical, chemical and control industries. Sizes are available from .00029" through .081" ID.

Part #	(diameter)(length)
82571	.094 x .120"
31384	.112 x .120"
82015	.125 x .120"
82742	.204 x .150"
82073	.250 x .125"
82408	.393 x .125"

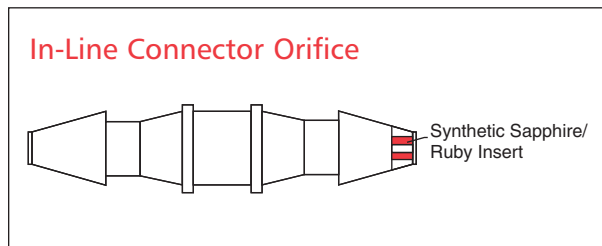
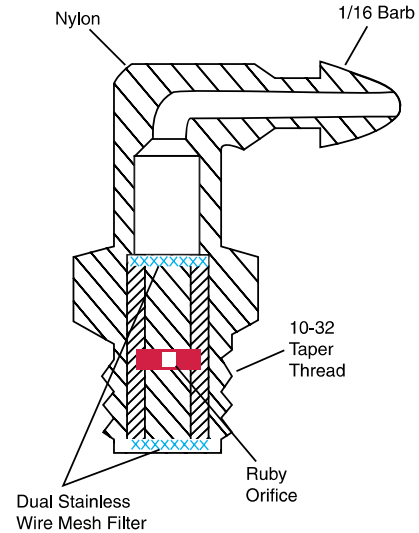
Filtered Orifice Inserts and Fittings



Because many of The West Group's orifice products are in micron sizes, our customers have asked for filtration to protect against clogging and contamination. We have introduced a number of cartridges, which include both the orifice and the filter. These cartridges are easily retrofitted into most of the standard fittings and inserts currently offered in our wide range of products. Typically, the orifice is mounted on one end of the cartridge with the filter on the opposite end. The orifice assembly shown features a dual filter on either side of the orifice for maximum protection in an oxygen regulating situation.

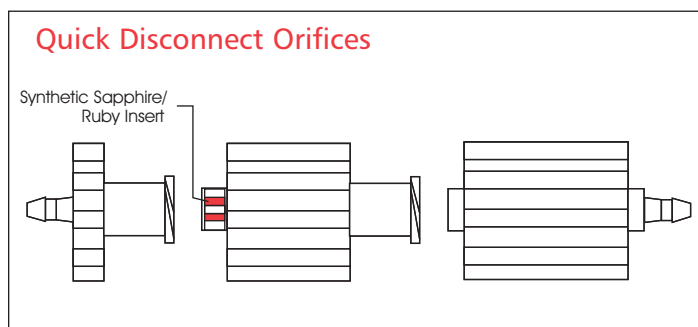
Wire mesh filters are available in 5 micron, 10 micron, 25 micron, 43 micron, 73 micron, and 100 micron average sizes.

Other filter medias available are porous plastic, PVDF, sintered bronze, plated sintered bronze, and plastic mesh.



In-Line Connectors

Our one-piece-in-line connectors are quickly and easily inserted in flow lines for repeatable and accurate flows. In-line connectors are available in seven different orifice sizes (included in our test kit) and are colour coded for your convenience. Other sizes are available. If you need a size other than 1/8" barb, please call our sales department at +44 (0)23 9226 6031 for pricing.



Quick Disconnect Orifices

Quick disconnect orifice components allow for easy interchange of orifice sizes. Quick disconnect components utilise male luer to female luer connectors. The female luer has a heavy duty thread at the luer connection to reduce wear. The male luer includes an integral locking system. Seven different orifice sizes are available (included in our test kit) and are colour coded for your convenience. Other sizes are available.

- Both the In-Line and Quick Disconnect Orifices can be made available with most standard barb sizes.

Special Applications

Special applications such as threaded 10-32, M5, 1/8", "T", "Ys", elbows and other types of connectors can be made available. Call our sales office for technical assistance and pricing.

Filtration

Micro screen filtration can be easily included using stainless steel wire mesh which allows for maximum open area with negligible pressure drops for various micron ratings.

Kindly contact us for further information upon these and other unique products and services.



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