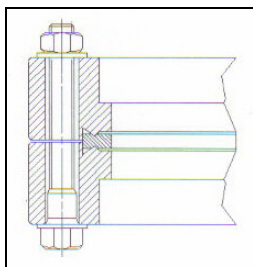


CF Components



CF INTRODUCTION

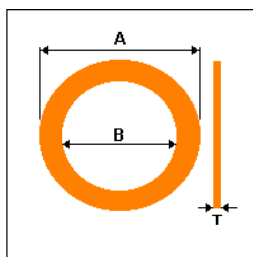


X-TRONIX Quality CF flanges are manufactured from specially selected, high quality stainless steel – 304L (1.4306) or the higher specification 316LN (1.4429). These materials being the accepted standards throughout the UHV industry. Both stainless steel are low carbon varieties designed to avoid inter-granular corrosion after welding. 316LN has the added advantages of a lower magnetic permeability, harder knifedge and high temperature H₂ degassing at up to 950°C.

Full traceability is available on all materials used. Protective mouldings and vacuum skin packing ensures that the flanges reach our customers in perfect condition for use on UHV equipment.

The X-TRONIX Quality CF range includes blank, bored and rotatable flanges in all of the internationally approved sizes. Other sizes and special flanges are available to order. The CF series flange utilise the well proven captured copper gasket sealing principle which is now almost universally used in the UHV industry. The seal – an oxygen-free high conductivity copper gasket – is held between the knife edges of a pair of CF flanges. On tightening the retaining bolts, the knife edges cut into the gasket and force the copper, axially as well as radially, outwards to the flange. The material is thus enclosed and cannot flow, even at high bakeout temperatures. This sealing method has a maximum bakeout temperature of 450°C and is suitable for vacuum applications of 10⁻¹² mbar.

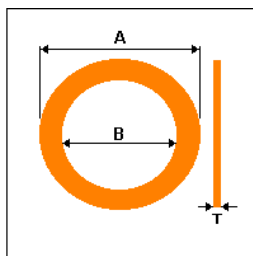
CF COPPER GASKETS



Oxygen free high conductivity (OFHC) copper is a suitable sealing material for bakeable UHV systems because of its good conformity with the thermal expansion coefficient of stainless steel as well as its essentially lower hardness (approx. 85 Brinell).

Part Number	Pneurop	A	B	T	For Flange OD (mm)	Pack Qty.
XTR16-48-0824	NW16	21	16	2	34	10
XTR35-48-0825	NW35	48	37	2	70	10
XTR63-48-0826	NW63	82	63	2	114	10
XTR100-48-0827	NW100	120	101	2	152	10
XTR150-48-0828	NW150	171	152	2	203	5
XTR200-48-0829	NW200	222	203	2	254	5
XTR250-48-0830	NW250	270	254	2	304	5

CF ANNEALED COPPER GASKETS



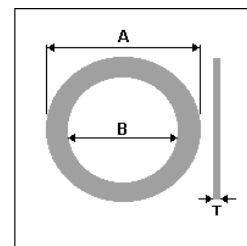
The annealed gaskets are recommended for use on viewports, feedthroughs and ionization gauge heads with glass-to-metal seals. (Hardness approx. 45 Brinell).

Part Number	Pneurop	A	B	T	For Flange OD (mm)	Pack Qty.
XTR16-48-0831	NW16	21	16	2	34	5
XTR35-48-0832	NW35	48	37	2	70	5
XTR63-48-0833	NW63	82	63	2	114	5
XTR100-48-0834	NW100	120	101	2	152	5
XTR150-48-0835	NW150	171	152	2	203	5
XTR200-48-0836	NW200	222	203	2	254	5
XTR250-48-0837	NW250	270	254	2	304	5

CF SILVER PLATED COPPER GASKETS

5-7 micron Silver plated prevents oxidation of the parts exposed to atmosphere during baking.

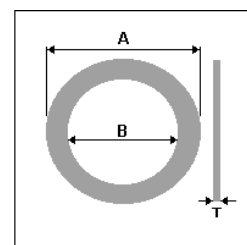
Part Number	Pneurop	A	B	T	For Flange OD (mm)	Pack Qty.
XTR16-49-0838	NW16	21	16	2	34	5
XTR35-49-0839	NW35	48	37	2	70	5
XTR63-49-0840	NW63	82	63	2	114	5
XTR100-49-0841	NW100	120	101	2	152	5
XTR150-49-0842	NW150	171	152	2	203	5
XTR200-49-0843	NW200	222	203	2	254	5
XTR250-49-0844	NW250	270	254	2	304	5



CF SILVER PLATED ANNEALED COPPER GASKETS

The annealed gaskets are recommended for use on viewports, feedthroughs and ionization gauge heads with glass-to-metal seals. (Hardness approx. 45 Brinell). 5-7 micron Silver plated prevents oxidation of the parts exposed to atmosphere during baking.

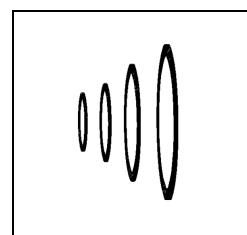
Part Number	Pneurop	A	B	T	For Flange OD (mm)	Pack Qty.
XTR16-49-0845	NW16	21	16	2	34	5
XTR35-49-0846	NW35	48	37	2	70	5
XTR63-49-0847	NW63	82	63	2	114	5
XTR100-49-0848	NW100	120	101	2	152	5
XTR150-49-0849	NW150	171	152	2	203	5
XTR200-49-0850	NW200	222	203	2	254	5
XTR250-49-0851	NW250	270	254	2	304	5



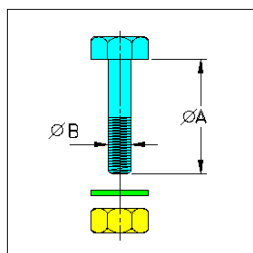
CF VITON® GASKETS

CF Viton® gaskets are bakeable to 150°C and can be re-used many times to make a leak tight seal.

Part Number	Pneurop	A	B	C	For Flange OD (mm)	Pack Qty.
XTR16-49-0852	NW16	-	-	-	34	2
XTR35-49-0853	NW35	-	-	-	70	2
XTR60-49-0854	NW63	-	-	-	114	2
XTR100-49-0855	NW100	-	-	-	152	2
XTR150-49-0856	NW150	-	-	-	203	2

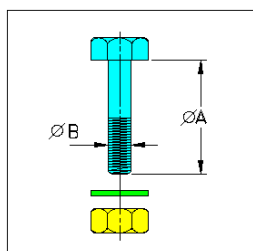


NUT BOLT & WASHER FOR CF FLANGES



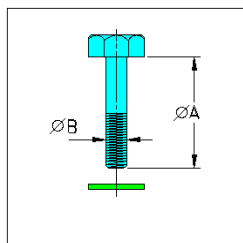
Part Number	Pneurop	A	B	C	For Flange OD (mm)	Pack Qty.
XTR420-50-0857	NW16	20	M4	-	34	25
XTR635-50-0858	NW35	35	M6	-	70	25
XTR845-50-0859	NW63	45	M8	-	114	25
XTR850-50-0860	NW100	50	M8	-	152	25
XTR860-50-0861	NW150	60	M8	-	203	25
XTR860-50-0861X	NW200	60	M8	-	254	25
XTR1065-50-0862	NW250	65	M10	-	304	35
XTR1075-50-0863	NW300	75	M10	-	362	40

NUT BOLT & WASHER SETS FOR DOUBLE SIDED CF FLANGES



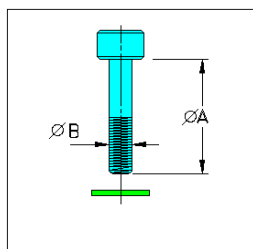
Part Number	Pneurop	A	B	C	For Flange OD (mm)	Pack Qty.
XTR435-50-0864	NW16	35	M4	-	34	25
XTR650-50-0865	NW35	50	M6	-	70	25
XTR860-50-0866	NW63	60	M8	-	114	25
XTR870-50-0867	NW100	70	M8	-	152	25
XTR880-50-0868	NW150	80	M8	-	203	25
XTR890-50-0869	NW200	90	M8	-	254	25
XTR1090-50-0870	NW250	90	M10	-	304	35

BOLT & WASHER SETS FOR TAPPED CF FLANGES



Part Number	Pneurop	A	B	C	For Flange OD (mm)	Pack Qty.
XTR416-50-0871	NW16	16	M4	-	34	25
XTR625-50-0872	NW35	25	M6	-	70	25
XTR830-50-0873	NW63	30	M8	-	114	25
XTR835-50-0874	NW100	35	M8	-	152	25
XTR835-50-0874X	NW150	35	M8	-	203	25
XTR845-50-0875	NW200	45	M8	-	254	25
XTR1050-50-0876	NW250	50	M10	-	304	35

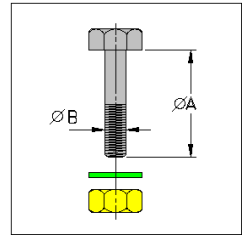
ALLEN HEAD BOLT & WASHER SETS FOR TAPPED CF FLANGES



Part Number	Pneurop	A	B	C	For Flange OD (mm)	Pack Qty.
XTR416-50-0877	NW16	16	M4	-	34	25
XTR625-50-0878	NW35	25	M6	-	70	25
XTR830-50-0879	NW63	30	M8	-	114	25
XTR835-50-0880	NW100	35	M8	-	152	25
XTR835-50-0880X	NW150	35	M8	-	203	25

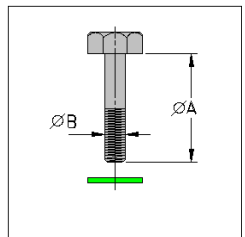
NUT, SILVER PLATED BOLT & WASHER SETS FOR CF FLANGES

Part Number	Pneurop	A	B	C	For Flange OD (mm)	Pack Qty.
XTR416-51-0881	NW16	20	M4	-	34	25
XTR625-51-0882	NW35	35	M6	-	70	25
XTR830-51-0883	NW63	45	M8	-	114	25
XTR835-51-0884	NW100	50	M8	-	152	25
XTR835-51-0885	NW150	60	M8	-	203	25
XTR416-51-0885X	NW200	60	M8	-	254	25



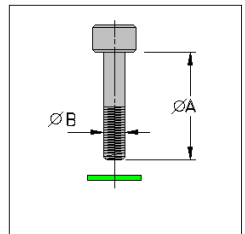
SILVER PLATED B&W SETS FOR TAPPED CF FLANGES

Part Number	Pneurop	A	B	C	For Flange OD (mm)	Pack Qty.
XTR416-51-0886	NW16	16	M4	-	34	25
XTR625-51-0887	NW35	25	M6	-	70	25
XTR830-51-0888	NW63	30	M8	-	114	25
XTR835-51-0889	NW100	35	M8	-	152	25
XTR835-51-0889x	NW150	35	M8	-	203	25
XTR416-51-0890	NW200	45	M8	-	254	25

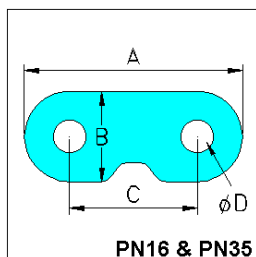


SILVER PLATED ALLEN HEAD B&W FOR TAPPED CF FLANGES

Part Number	Pneurop	A	B	C	For Flange OD (mm)	Pack Qty.
XTR416-51-0891	NW16	16	M4	-	34	25
XTR625-51-0892	NW35	25	M6	-	70	25
XTR830-51-0893	NW63	30	M8	-	114	25
XTR835-51-0894	NW100	35	M8	-	152	25
XTR835-51-0894X	NW150	35	M8	-	203	25

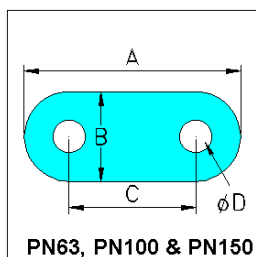


CF PLATE NUTS

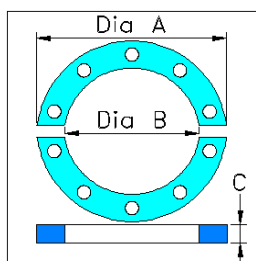


Used where spanner access to back of flange may be impaired.

Part Number	Pneurop	A	B	C	D	Quantity
XTR16-52-0895	NW16	20	7	13	M4	25
XTR35-52-0896	NW35	41	11	29	M6	25
XTR63-52-0897	NW63	51	12	35	M8	25
XTR100-52-0898	NW100	44	12	25	M8	25
XTR150-52-0899	NW150	44	12	28	M8	25



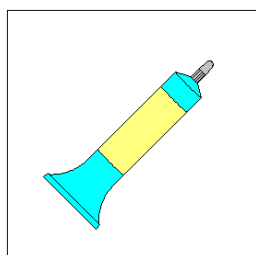
CF HORSE SHOE PLATE NUTS



Stainless steel horse shoe plate nuts are supplied in pairs complete with bolts and washers, and are used to convert a plain flange into a tapped equivalent.

Part Number	Pneurop	A	B	C	HOLES / PAIR	TAP
XTR16-52-0900	NW16	34	20	6	6	M4
XTR35-52-0901	NW35	70	43	9	6	M6
XTR63-52-0902	NW63	114	65	12	8	M8
XTR100-52-0903	NW100	151	103	12	16	M8
XTR150-52-0904	NW150	202	154	12	20	M8

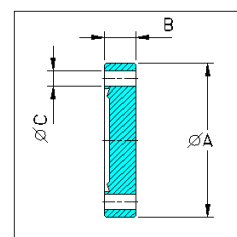
THREAD LUBRICANT



Part Number	Type
XTR100-52-0905	MoS ₂ lubricant for easy dismantling of flanges after bakeout

CF BLANK FLANGES - FIXED

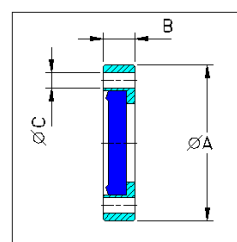
Part Number	Pneurop	Material	A	B	C x No	D	E
XTR16-53-0906	NW16	304L	34	7.6	4.3 x 6	-	-
XTR35-53-0907	NW35	304L	70	12.7	6.7 x 6	-	-
XTR63-53-0908	NW63	304L	114	17.4	8.3 x 8	-	-
XTR100-53-0909	NW100	304L	152	19.9	8.3 x 16	-	-
XTR150-53-0910	NW150	304L	203	22.3	8.3 x 20	-	-
XTR200-53-0911	NW200	304L	254	24.6	8.3 x 24	-	-
XTR250-53-0912	NW250	304L	304	27.3	10.3 x 32	-	-



XTR16-53-0913	NW16	316LN	34	7.6	4.3 x 6	-	-
XTR35-53-0914	NW35	316LN	70	12.7	6.7 x 6	-	-
XTR63-53-0915	NW63	316LN	114	17.4	8.3 x 8	-	-
XTR100-53-0916	NW100	316LN	152	19.9	8.3 x 16	-	-
XTR150-53-0917	NW150	316LN	203	22.3	8.3 x 20	-	-
XTR200-53-0918	NW200	316LN	254	24.6	8.3 x 24	-	-
XTR250-53-0919	NW250	316LN	304	27.3	10.3 x 32	-	-

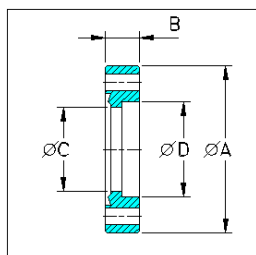
CF BLANK FLANGES - ROTATABLE

Part Number	Pneurop	Material	A	B	C x No	D	E
XTR16-53-0920	NW16	304L	34	7.6	4.3 x 6	-	-
XTR35-53-0921	NW35	304L	70	12.7	6.7 x 6	-	-
XTR63-53-0922	NW63	304L	114	17.4	8.3 x 8	-	-
XTR100-53-0923	NW100	304L	152	19.9	8.3 x 16	-	-
XTR150-53-0924	NW150	304L	203	22.3	8.3 x 20	-	-
XTR200-53-0925	NW200	304L	254	24.6	8.3 x 24	-	-
XTR250-53-0926	NW250	304L	304	27.3	10.3 x 32	-	-



XTR16-53-0927	NW16	316LN	34	7.6	4.3 x 6	-	-
XTR35-53-0928	NW35	316LN	70	12.7	6.7 x 6	-	-
XTR63-53-0929	NW63	316LN	114	17.4	8.3 x 8	-	-
XTR100-53-0930	NW100	316LN	152	19.9	8.3 x 16	-	-
XTR150-53-0931	NW150	316LN	203	22.3	8.3 x 20	-	-
XTR200-53-0932	NW200	316LN	254	24.6	8.3 x 24	-	-

CF BORED FLANGES - FIXED

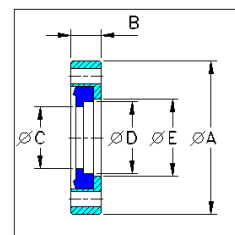


Part Number	Pneurop	Material	A	B	C	D	E
XTR16-54-0933	NW16	304L	34	7.6	6.4	6.4	-
XTR16-54-0934	NW16	304L	34	7.6	12.7	12.7	-
XTR16-54-0935	NW16	304L	34	7.6	13.2	14.3	-
XTR16-54-0936	NW16	304L	34	7.6	16.6	19.1	-
XTR35-54-0937	NW35	304L	70	12.7	13.2	14.4	-
XTR35-54-0938	NW35	304L	70	12.7	24.2	25.5	-
XTR35-54-0939	NW35	304L	70	12.7	36.9	38.2	-
XTR35-54-0940	NW35	304L	70	12.7	38.0	41.3	-
XTR63-54-0941	NW63	304L	114	17.4	49.6	51.1	-
XTR63-54-0942	NW63	304L	114	17.4	61.2	63.6	-
XTR100-54-0943	NW100	304L	152	19.9	99.4	101.9	-
XTR150-54-0944	NW150	304L	203	22.3	149.7	152.6	-
XTR200-54-0945	NM200	304L	254	24.6	200.4	203.5	-
XTR250-54-0946	NW250	304L	304	27.3	250.7	254.4	-
XTR16-54-0947	NW16	316LN	34	7.6	6.4	6.4	-
XTR16-54-0948	NW16	316LN	34	7.6	12.7	12.7	-
XTR16-54-0949	NW16	316LN	34	7.6	13.2	14.3	-
XTR16-54-0950	NW16	316LN	34	7.6	16.6	19.1	-
XTR35-54-0951	NW35	316LN	70	12.7	13.2	14.4	-
XTR35-54-0952	NW35	316LN	70	12.7	24.2	25.5	-
XTR35-54-0953	NW35	316LN	70	12.7	36.9	38.2	-
XTR35-54-0954	NW35	316LN	70	12.7	38.0	41.3	-
XTR63-54-0955	NW63	316LN	114	17.4	49.6	51.1	-
XTR63-54-0956	NW63	316LN	114	17.4	61.2	63.6	-
XTR100-54-0957	NW100	316LN	152	19.9	99.4	101.9	-
XTR150-54-0958	NW150	316LN	203	22.3	149.7	152.6	-
XTR200-54-0959	NM200	316LN	254	24.6	200.4	203.5	-
XTR250-54-0960	NW250	316LN	304	27.3	250.7	254.4	-

Other bore sizes available on request.

CF BORED FLANGES - ROTATABLE

Part Number	Pneurop	Material	A	B	C	D	E
XTR16-55-0961	NW16	304L	34	7.6	6.4	6.4	19.3
XTR16-55-0962	NW16	304L	34	7.6	12.7	12.7	19.3
XTR16-55-0963	NW16	304L	34	7.6	13.2	14.3	19.3
XTR16-55-0964	NW16	304L	34	7.6	16.6	19.1	19.3
XTR35-55-0965	NW35	304L	70	12.7	13.2	14.4	41.4
XTR35-55-0966	NW35	304L	70	12.7	24.2	25.5	41.4
XTR35-55-0967	NW35	304L	70	12.7	36.9	38.2	41.4
XTR35-55-0968	NW35	304L	70	12.7	38.0	41.3	45.0
XTR63-55-0969	NW63	304L	114	17.4	49.6	51.1	68.0
XTR63-55-0970	NW63	304L	114	17.4	61.2	63.6	68.0
XTR100-55-0971	NW100	304L	152	19.9	99.4	101.9	104.9
XTR150-55-0972	NW150	304L	203	22.3	149.7	152.6	155.7
XTR200-55-0973	NM200	304L	254	24.6	200.4	203.5	206.4
XTR250-55-0974	NW250	304L	304	27.3	250.7	254.4	259.5



XTR16-55-0975	NW16	316LN	34	7.6	6.4	6.4	19.3
XTR16-55-0976	NW16	316LN	34	7.6	12.7	12.7	19.3
XTR16-55-0977	NW16	316LN	34	7.6	13.2	14.3	19.3
XTR16-55-0978	NW16	316LN	34	7.6	16.6	19.1	19.3
XTR35-55-0979	NW35	316LN	70	12.7	13.2	14.4	41.4
XTR35-55-0980	NW35	316LN	70	12.7	24.2	25.5	41.4
XTR35-55-0981	NW35	316LN	70	12.7	36.9	38.2	41.4
XTR35-55-0982	NW35	316LN	70	12.7	38.0	41.3	45.0
XTR63-55-0983	NW63	316LN	114	17.4	49.6	51.1	68.0
XTR63-55-0984	NW63	316LN	114	17.4	61.2	63.6	68.0
XTR100-55-0985	NW100	316LN	152	19.9	99.4	101.9	104.9
XTR150-55-0986	NW150	316LN	203	22.3	149.7	152.6	155.7
XTR200-55-0987	NM200	316LN	254	24.6	200.4	203.5	206.4

Other bore sizes available on request.



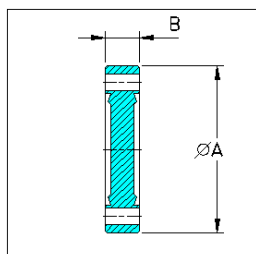
UHV Sputter Magnetrons

CF FLANGES WITH TAPPED BOLTS HOLES

Every flange within the X-TRONIX Quality CF series can be supplied with tapped bolt holes. A limited selection is listed here and corresponds to the equivalent blank flanges on pages 53-55. Please contact us if you need any other models with tapped bolt holes.

Part Number	Equivalent to:	Page	Pneurop	TAP	Material
XTR16-56-0988	XTR16-55-0961	55	NW16	M4	304L
XTR35-56-0989	XTR35-55-0965	55	NW35	M6	304L
XTR63-56-0990	XTR63-55-0969	55	NW63	M8	304L
XTR100-56-0991	XTR100-55-0971	55	NW100	M8	304L
XTR150-56-0992	XTR150-55-0972	55	NW150	M8	304L
XTR200-56-0993	XTR200-55-0973	55	NW200	M8	304L
XTR250-56-0994	XTR250-55-0974	55	NW250	M10	304L
XTR16-56-0995	XTR16-54-0947	54	NW16	M4	316LN
XTR35-56-0996	XTR35-54-0951	54	NW35	M6	316LN
XTR63-56-0997	XTR63-54-0955	54	NW63	M8	316LN
XTR100-56-0998	XTR100-54-0957	54	NW100	M8	316LN
XTR150-56-0999	XTR150-54-0958	54	NW150	M8	316LN
XTR200-56-1000	XTR200-54-0959	54	NW200	M8	316LN
XTR16-56-1001	XTR16-53-0920	53	NW16	M4	304L
XTR35-56-1002	XTR35-53-0921	53	NW35	M6	304L
XTR63-56-1003	XTR63-53-0922	53	NW63	M8	304L
XTR100-56-1004	XTR100-53-0923	53	NW100	M8	304L
XTR150-56-1005	XTR150-53-0924	53	NW150	M8	304L
XTR200-56-1006	XTR200-53-0925	53	NW200	M8	304L
XTR250-56-1007	XTR250-53-0926	53	NW250	M10	304L

CF DOUBLE SIDED BLANK FLANGES

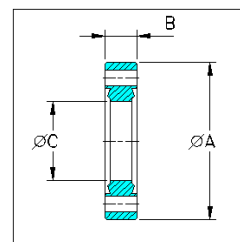


Part Number	Pneurop	Material	A	B	C	D	E
XTR16-56-1008	NW16	304L	34	7.6	-	-	-
XTR35-56-1009	NW35	304L	70	12.7	-	-	-
XTR63-56-1010	NW63	304L	114	17.4	-	-	-
XTR100-56-1011	NW100	304L	152	19.8	-	-	-
XTR150-56-1012	NW150	304L	203	22.2	-	-	-
XTR200-56-1013	NM200	304L	254	24.6	-	-	-
XTR16-56-1014	NW16	316LN	34	7.6	-	-	-
XTR35-56-1015	NW35	316LN	70	19.0	-	-	-
XTR63-56-1016	NW63	316LN	114	17.4	-	-	-
XTR100-56-1017	NW100	316LN	152	19.8	-	-	-
XTR150-56-1018	NW150	316LN	203	22.2	-	-	-
XTR200-56-1019	NM200	316LN	254	24.6	-	-	-

CF DOUBLE SIDED BORED FLANGES

Part Number	Pneurop	Material	A	B	C	D	E
XTR16-57-1020	NW16	304L	34	7.6	14	-	-
XTR35-57-1021	NW35	304L	70	12.7	38	-	-
XTR63-57-1022	NW63	304L	114	17.4	63	-	-
XTR100-57-1023	NW100	304L	152	19.8	100	-	-
XTR150-57-1024	NW150	304L	203	22.2	150	-	-

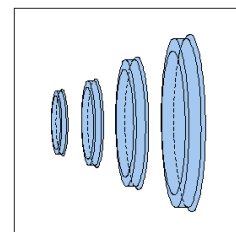
XTR16-57-1025	NW16	316LN	34	7.6	14	-	-
XTR35-57-1026	NW35	316LN	70	12.7	38	-	-
XTR63-57-1027	NW63	316LN	114	17.4	63	-	-
XTR100-57-1028	NW100	316LN	152	19.8	100	-	-
XTR150-57-1029	NW150	316LN	203	22.2	150	-	-



CF FLANGE CAPS

Part Number	To Fit	O.D. (mm)	Pack Qty.
XTR16-57-1030	NW16CF	34	10
XTR35-57-1031	NW35CF	70	10
XTR63-57-1032	NW63CF	114	10
XTR100-57-1033	NW100CF	152	10
XTR150-57-1034	NW150CF	203	10

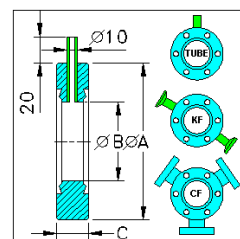
Plastic protection caps for CF flanges (non-bakeable).



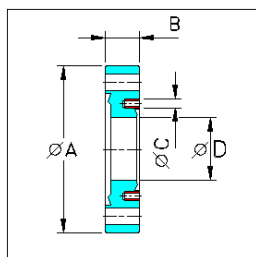
CF DOUBLE SIDED FLANGES WITH RADIAL PORTS

Part Number	Pneurop	Material	A	B	C	# of Ports	Port Termination
XTR35-57-1035	NW35	304L	70	37	19	1	Plain tube
XTR35-57-1036	NW35	304L	70	37	19	2@180°	Plain tube
XTR35-57-1037	NW35	304L	70	37	19	1	KF10
XTR35-57-1038	NW35	304L	70	37	19	2@180°	KF10
XTR35-57-1039	NW35	304L	70	37	19	1	NW16/8mm
XTR35-57-1040	NW35	304L	70	37	19	2@180°	NW16/8mm

Baffle plates, accessories and other sizes available on request



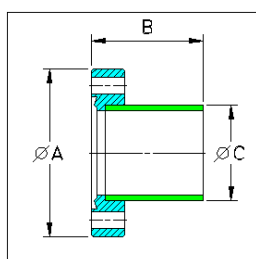
CF ZERO LENGTH FLANGE ADAPTORS



Part Number	Pneurop	Material	A	B	C	D	E
XTR3516-58-1041	NW35/16	304L	70	12.7	M4	13.2	-
XTR6316-58-1042	NW63/16	304L	114	17.5	M4	13.2	-
XTR6335-58-1043	NW63/35	304L	114	17.5	M6	36.9	-
XTR1035-58-1044	NW100/35	304L	152	19.9	M6	36.9	-
XTR1063-58-1045	NW100/63	304L	152	19.9	M8	61.2	-
XTR15356-58-1046	NM150/35	304L	203	22.3	M6	36.9	-
XTR1563-58-1047	NW150/63	304L	203	22.3	M8	61.2	-
XTR1510-58-1048	NW150/100	304L	203	22.3	M8	99.4	-
XTR2035-58-1049	NW200/35	304L	254	24.6	M6	36.9	-
XTR2063-58-1050	NW200/63	304L	254	24.6	M8	61.2	-
XTR2010-58-1051	NW200/100	304L	254	24.6	M8	99.4	-
XTR2015-58-1052	NW200/150	304L	254	24.6	M8	149.7	-
XTR2535-58-1053	NM250/35	304L	304	25.4	M6	36.9	-
XTR2563-58-1054	NM250/63	304L	304	25.4	M8	61.2	-
XTR2510-58-1055	NM250/100	304L	304	25.4	M8	99.4	-
XTR2515-58-1056	NM250/150	304L	304	25.4	M8	149.7	-
XTR2520-58-1057	NM250/200	304L	304	25.4	M8	200.4	-

Available in 316LN on request

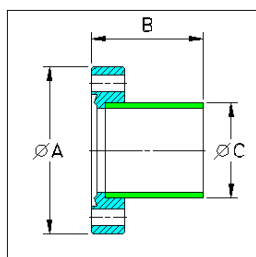
CF TUBULATIONS (HALF NIPPLES) - FIXED



Part Number	Pneurop	Material	A	B	C*	D	E
XTR16-58-1058	NW16	304L	34	38	19	-	-
XTR35-58-1059	NW35	304L	70	63	38	-	-
XTR60-58-1060	NW63	304L	114	105	64	-	-
XTR100-58-1061	NW100	304L	152	135	102	-	-
XTR150-58-1062	NW150	304L	203	167	152	-	-
XTR200-58-1063	NW200	304L	254	167	203	-	-

Special lengths and diameters available on request.

CF TUBULATIONS WITH TAPPED FLANGES - FIXED



Part Number	Pneurop	Material	A	B	C*	TAP	E
XTR16-58-1064	NW16	304L	34	38	19	M4	-
XTR35-58-1065	NW35	304L	70	63	38	M6	-
XTR63-58-1066	NW63	304L	114	105	64	M8	-
XTR100-58-1067	NW100	304L	152	135	102	M8	-
XTR150-58-1068	NW150	304L	203	167	152	M8	-
XTR200-58-1069	NW200	304L	254	167	203	M8	-

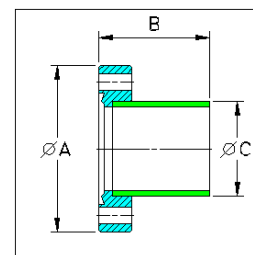
Special lengths and diameters available on request.

*Typical, varies with tube available

CF TUBULATIONS (HALF NIPPLES) - ROTATABLE

Part Number	Pneurop	Material	A	B	C*	D	E
XTR16-59-1070	NW16	304L	34	38	19	-	-
XTR35-59-1071	NW35	304L	70	63	38	-	-
XTR63-59-1072	NW63	304L	114	105	64	-	-
XTR100-59-1073	NW100	304L	152	135	102	-	-
XTR150-59-1074	NW150	304L	203	167	152	-	-
XTR200-59-1075	NW200	304L	254	167	203	-	-

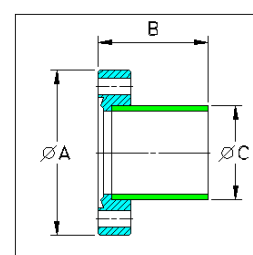
Special lengths and diameters available on request.



CF TUBULATIONS WITH TAPPED FLANGES - ROTATABLE

Part Number	Pneurop	Material	A	B	C*	TAP	E
XTR16-59-1076	NW16	304L	34	38	19	M4	-
XTR35-59-1077	NW35	304L	70	63	38	M6	-
XTR63-59-1078	NW63	304L	114	105	64	M8	-
XTR100-59-1079	NW100	304L	152	135	102	M8	-
XTR150-59-1080	NW150	304L	203	167	152	M8	-
XTR200-59-1081	NW200	304L	254	167	203	M8	-

Special lengths and diameters available on request.

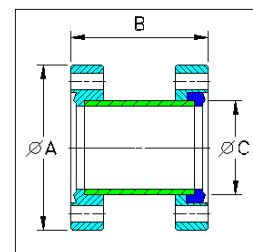


CF STRAIGHT CONNECTORS (FULL NIPPLES) - FIXED

Part Number	Pneurop	Material	A	B	C*	D	Bolt Holes
XTR16-59-1082	NW16	304L	34	76	19	-	In-line
XTR35-59-1083	NW35	304L	70	126	38	-	In-line
XTR60-59-1084	NW63	304L	114	210	64	-	In-line
XTR100-59-1085	NW100	304L	152	270	102	-	In-line
XTR150-59-1086	NW150	304L	203	334	152	-	In-line
XTR200-59-1087	NW200	304L	254	334	203	-	In-line

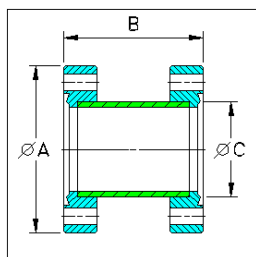
XTR16-59-1088	NW16	304L	34	76	19	-	Straddled
XTR35-59-1089	NW35	304L	70	126	38	-	Straddled
XTR63-59-1090	NW63	304L	114	210	64	-	Straddled
XTR100-59-1091	NW100	304L	152	270	102	-	Straddled
XTR150-59-1092	NW150	304L	203	334	152	-	Straddled
XTR200-59-1093	NW200	304L	254	334	203	-	Straddled

Special lengths and diameters available on request.



*Typical, varies with tube available

CF STRAIGHT CONNECTORS (FULL NIPPLES) - ROTATABLE

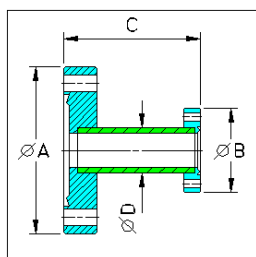


► 1 Flange Rotatable

Part Number	Pneurop	Material	A	B	C*	D	E
XTR16-60-1094	NW16	304L	34	76	19	-	-
XTR35-60-1095	NW35	304L	70	126	38	-	-
XTR63-60-1096	NW63	304L	114	210	64	-	-
XTR100-60-1097	NW100	304L	152	270	102	-	-
XTR150-60-1098	NW150	304L	203	334	152	-	-
XTR200-60-1099	NM200	304L	254	334	203	-	-

Special lengths and diameters available on request.

CF TUBULATED REDUCING ADAPTORS - FIXED

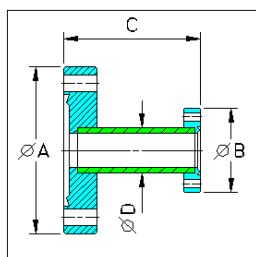


Part Number	Pneurop	Material	A	B	C	D*	Bolt Holes
XTR3516-60-1100	NW35/16	304L	70	34	70	19	Both
XTR3516-60-1101	NW35/16	304L	70	34	70	19	Straddled
XTR3516-60-1102	NW63/16	304L	114	34	70	19	Both
XTR6335-60-1103	NW63/35	304L	114	70	70	38	Both
XTR1035-60-1104	NW100/35	304L	152	70	70	38	Both
XTR1063-60-1105	NW100/63	304L	152	114	70	64	Both
XTR1535-60-1106	NW150/35	304L	203	70	70	38	Both
XTR1560-60-1107	NW150/63	304L	203	114	127	64	Both
XTR1510-60-1108	NW150/100	304L	203	152	127	102	Both
XTR2063-60-1109	NW200/63	304L	254	114	127	64	In-line
XTR2063-60-1110	NW200/63	304L	254	114	127	64	Straddled
XTR2010-60-1111	NW200/100	304L	254	152	127	102	Both
XTR2015-60-1112	NW200/150	304L	254	203	127	152	Both

Special lengths and diameters available on request.

► Certain flange combinations give both in-line and straddled bolt holes on a single adaptor!

CF TUBULATED REDUCING ADAPTORS - ROTATABLE



► Large flange fixed, small flange rotatable.

Part Number	Pneurop	Material	A	B	C	D*	E
XTR3516-60-1113	NW35/16	304L	70	34	70	19	-
XTR6316-60-1114	NW63/16	304L	114	34	70	19	-
XTR6335-60-1115	NW63/35	304L	114	70	70	38	-
XTR1035-60-1116	NW100/35	304L	152	70	70	38	-
XTR1063-60-1117	NW100/63	304L	152	114	70	64	-
XTR15356-60-1118	NW150/35	304L	203	70	70	38	-
XTR1563-60-1119	NW150/63	304L	203	114	127	64	-
XTR1510-60-1120	NW150/100	304L	203	152	127	102	-
XTR2063-60-1121	NW200/63	304L	254	114	127	64	-
XTR2010-60-1122	NW200/100	304L	254	152	127	102	-
XTR2015-60-1123	NW200/150	304L	254	203	127	152	-

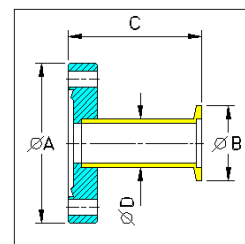
Special lengths and diameters available on request.

*Typical, varies with tube available

CF TO KF TUBULATED ADAPTORS

Part Number	Pneurop	Material	A	B	C	D*	E
XTR1610-61-1124	NW16CF/KF10	304L	34	30	36	14	-
XTR1616-61-1125	NW16CF/KF16	304L	34	30	36	20	-
XTR3510-61-1126	NW35CF/KF10	304L	70	30	36	14	-
XTR3516-61-1127	NW35CF/KF16	304L	70	30	36	20	-
XTR3525-61-1128	NW35CF/KF25	304L	70	40	36	28	-
XTR3540-61-1129	NW35CF/KF40	304L	70	55	50	45	-
XTR6325-61-1130	NW63CF/KF25	304L	114	40	50	28	-
XTR6340-61-1131	NW63CF/KF40	304L	114	55	50	45	-
XTR6350-61-1132	NW63CF/KF50	304L	114	75	50	57	-
XTR1025-61-1133	NW100CF/KF25	304L	152	40	50	28	-
XTR1040-61-1134	NW100CF/KF40	304L	152	55	50	45	-
XTR1050-61-1135	NW100CF/KF50	304L	152	75	50	57	-
XTR1525-61-1136	NW150CF/KF25	304L	203	40	70	28	-
XTR1540-61-1137	NW150CF/KF40	304L	203	55	70	45	-
XTR1550-61-1138	NW150CF/KF50	304L	203	75	70	57	-

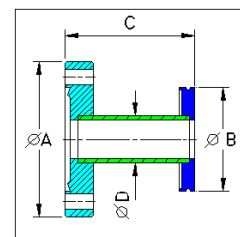
Special lengths and diameters available on request.



CF TO ISO TUBULATED ADAPTORS

Part Number	Pneurop	Material	A	B	C	D*	E
XTR6363-61-1139	NW63CF/ISO63	304L	114	95	90	70	-
XTR1063-61-1140	NW100CF/ISO63	304L	152	95	90	76	-
XTR1010-61-1141	NW100CF/ISO100	304L	152	130	90	102	-
XTR1016-61-1142	NW100CF/ISO160	304L	152	180	90	102	-
XTR1563-61-1143	NW150CF/ISO63	304L	203	95	90	76	-
XTR1510-61-1144	NW150CF/ISO100	304L	203	130	90	108	-
XTR1516-61-1145	NW150CF/ISO160	304L	203	180	90	152	-

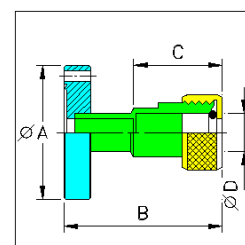
Special lengths and diameters available on request.



CF COMPRESSION FIT TUBING ADAPTORS – STAINLESS STEEL

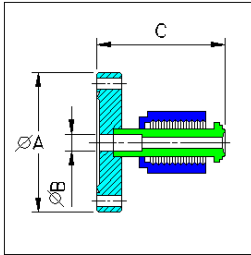
Part Number	Pneurop	A	B	C	D	Tube Size
XTR16-61-1146	NW16	34	50	33.0	13.1	12.7
XTR35-61-1147	NW35	70	62	46.0	25.8	25.4
XTR35-61-1148	NW35	70	84	63.5	38.4	38.1
XTR63-61-1149	NW63	114	87	66.0	51.5	50.8

Other sizes on request.



*Typical, varies with tube available

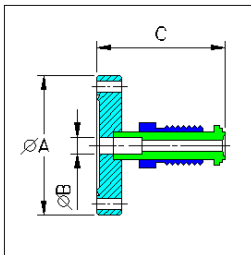
CF TO VCR® FEMALE ADAPTORS – STAINLESS STEEL



Part Number	Pneurop	A	B	C	D	VCR
XTR16-62-1150	NW16	34	4.6	36	-	1/4"
XTR16-62-1151	NW16	34	10.1	41	-	1/2"
XTR35-62-1152	NW35	70	4.6	41	-	1/4"
XTR35-62-1153	NW35	70	10.1	46	-	1/2"
XTR35-62-1154	NM35	70	15.7	53	-	3/4"

Other VCR sizes and flanges mounting options available on request.

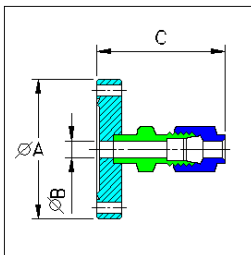
CF TO VCR® MALE ADAPTORS – STAINLESS STEEL



Part Number	Pneurop	A	B	C	D	VCR
XTR16-62-1155	NW16	34	4.6	36	-	1/4"
XTR16-62-1156	NW16	34	10.1	41	-	1/2"
XTR35-62-1157	NW35	70	4.6	41	-	1/4"
XTR35-62-1158	NW35	70	10.1	46	-	1/2"
XTR35-62-1159	NW35	70	15.7	53	-	3/4"

Other VCR sizes and flanges mounting options available on request.

CF TO IMPERIAL PIPE ADAPTORS – STAINLESS STEEL



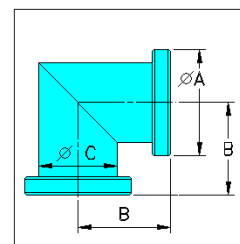
Part Number	Pneurop	A	B	C	D	To fit tube
XTR16-62-1160	NW16	34	4.8	36	-	1/4"
XTR16-62-1161	NW16	34	10.4	41	-	1/2"
XTR35-62-1162	NW35	70	4.8	41	-	1/4"
XTR35-62-1163	NW35	70	10.4	48	-	1/2"

Other pipe sizes (metric & Imperial) and flange mounting options available on request.

CF ELBOWS - FIXED

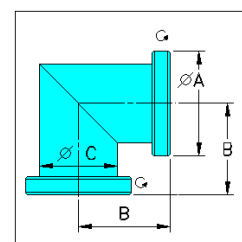
Part Number	Pneuop	Material	A	B	C*	D	Bolt Holes
XTR16-63-1164	NW16	304L	34	38	19	-	In-line
XTR35-63-1165	NW35	304L	70	63	38	-	In-line
XTR63-63-1166	NW63	304L	114	105	64	-	In-line
XTR100-63-1167	NW100	304L	152	135	102	-	In-line
XTR150-63-1168	NW150	304L	203	167	152	-	In-line
XTR200-63-1169	NW200	304L	254	203	203	-	In-line

XTR16-63-1170	NW16	304L	34	38	19	-	Straddled
XTR35-63-1171	NW35	304L	70	63	38	-	Straddled
XTR63-63-1172	NW63	304L	114	105	64	-	Straddled
XTR100-63-1173	NW100	304L	152	135	102	-	Straddled
XTR150-63-1174	NW150	304L	203	167	152	-	Straddled
XTR200-63-1175	NW200	304L	254	203	203	-	Straddled



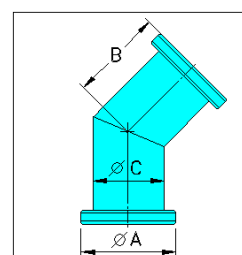
CF ELBOWS – BOTH FLANGES ROTATABLE

Part Number	Pneuop	Material	A	B	C*	D	E
XTR16-63-1176	NW16	304L	34	38	19	-	-
XTR35-63-1177	NW35	304L	70	63	38	-	-
XTR63-63-1178	NW63	304L	114	105	64	-	-
XTR100-63-1179	NW100	304L	152	135	102	-	-
XTR150-63-1180	NW150	304L	203	167	152	-	-
XTR200-63-1181	NW200	304L	254	203	203	-	-



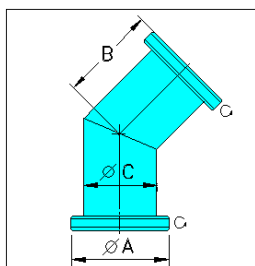
CF 45° BENDS - FIXED

Part Number	Pneuop	Material	A	B	C	D	Bolt Holes
XTR416-63-1182	NW16	304L	34	38	19	-	In-line
XTR435-63-1183	NW35	304L	70	63	38	-	In-line
XTR416-63-1184	NW16	304L	34	38	19	-	Straddled
XTR435-63-1185	NW63	304L	70	63	38	-	Straddled



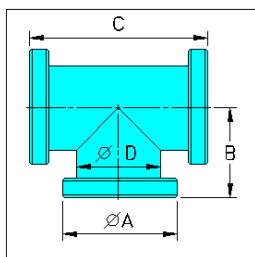
*Typical, varies with tube available

CF 45° BENDS – BOTH FLANGES ROTATABLE



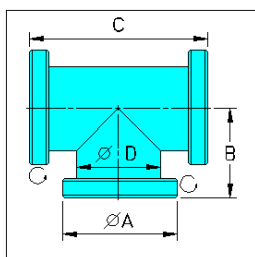
Part Number	Pneuop	Material	A	B	C*	D	E
XTR416-64-1186	NW16	304L	34	38	19	-	-
XTR435-64-1187	NW35	304L	70	63	38	-	-

CF TEES - FIXED



Part Number	Pneuop	Material	A	B	C	D*	Bolt Holes
XTR16-64-1188	NW16	304L	34	38	76	19	In-line
XTR35-64-1189	NW35	304L	70	63	126	38	In-line
XTR60-64-1190	NW63	304L	114	105	210	64	In-line
XTR100-64-1191	NW100	304L	152	135	270	102	In-line
XTR150-64-1192	NW150	304L	203	167	334	152	In-line
XTR200-64-1193	NW200	304L	254	203	406	203	In-line
XTR16-64-1194	NW16	304L	34	38	76	19	Straddled
XTR35-64-1195	NW35	304L	70	63	126	38	Straddled
XTR63-64-1196	NW63	304L	114	105	210	64	Straddled
XTR100-64-1197	NW100	304L	152	135	270	102	Straddled
XTR150-64-1198	NW150	304L	203	167	334	152	Straddled
XTR200-64-1199	NW200	304L	254	203	406	203	Straddled

CF TEES – 2 FLANGES ROTATABLE

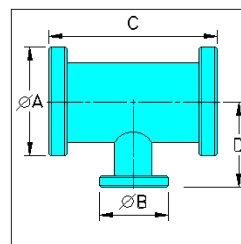


Part Number	Pneuop	Material	A	B	C	D*	E
XTR16-64-1200	NW16	304L	34	38	76	19	-
XTR35-64-1201	NW35	304L	70	63	126	38	-
XTR63-64-1202	NW63	304L	114	105	210	64	-
XTR100-64-1203	NW100	304L	152	135	270	102	-
XTR150-64-1204	NW150	304L	203	167	334	152	-
XTR200-64-1205	NW200	304L	254	203	406	203	-

*Typical, varies with tube available

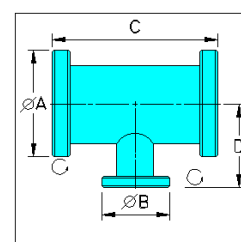
CF UNEQUAL TEES - FIXED

Part Number	Pneurop	Material	A	B	C	D	Bolt Holes
XTR3516-65-1206	NW35/16	304L	70	34	126	60	In-line
XTR6316-65-1207	NW63/16	304L	114	34	210	77	In-line
XTR6335-65-1208	NW63/35	304L	114	70	210	77	In-line
XTR1016-65-1209	NW100/16	304L	152	34	270	95	In-line
XTR1035-65-1210	NW100/35	304L	152	70	270	95	In-line
XTR1063-65-1211	NW100/63	304L	152	114	270	95	In-line
XTR1516-65-1212	NW150/16	304L	203	34	334	120	In-line
XTR1563-65-1213	NW150/63	304L	203	114	334	120	In-line
XTR1510-65-1214	NW150/100	304L	203	152	334	120	In-line
XTR2035-65-1215	NW200/35	304L	254	70	406	145	In-line
XTR2010-65-1216	NW200/100	304L	254	152	406	145	In-line
XTR2015-65-1217	NW200/150	304L	254	203	406	145	In-line
XTR3516-65-1218	NW35/16	304L	70	34	126	60	Straddled
XTR6316-65-1219	NW63/16	304L	114	34	210	77	Straddled
XTR6335-65-1220	NW63/35	304L	114	70	210	77	Straddled
XTR1016-65-1221	NW100/16	304L	152	34	270	95	Straddled
XTR1035-65-1222	NW100/35	304L	152	70	270	95	Straddled
XTR1063-65-1223	NW100/63	304L	152	114	270	95	Straddled
XTR1516-65-1224	NW150/16	304L	203	34	334	120	Straddled
XTR1563-65-1225	NW150/63	304L	203	114	334	120	Straddled
XTR1510-65-1226	NW150/100	304L	203	152	334	120	Straddled
XTR2035-65-1227	NW200/35	304L	254	70	406	145	Straddled
XTR2010-65-1228	NW200/100	304L	254	152	406	145	Straddled
XTR2015-65-1229	NW200/150	304L	254	203	406	145	Straddled

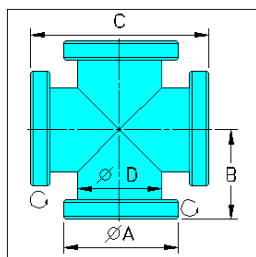


CF UNEQUAL TEES – 2 FLANGES ROTATABLE

Part Number	Pneurop	Material	A	B	C	D	E
XTR3516-65-1230	NW35/16	304L	70	34	126	60	-
XTR6316-65-1231	NW63/16	304L	114	34	210	77	-
XTR6335-65-1232	NW63/35	304L	114	70	210	77	-
XTR1016-65-1233	NW100/16	304L	152	34	270	95	-
XTR1035-65-1234	NW100/35	304L	152	70	270	95	-
XTR1063-65-1235	NW100/63	304L	152	114	270	95	-
XTR1516-65-1236	NW150/16	304L	203	34	334	120	-
XTR1563-65-1237	NW150/63	304L	203	114	334	120	-
XTR1510-65-1238	NW150/100	304L	203	152	334	120	-
XTR2035-65-1239	NW200/35	304L	254	70	406	145	-
XTR2010-65-1240	NW200/100	304L	254	152	406	145	-
XTR2015-65-1241	NW200/150	304L	254	203	406	145	-

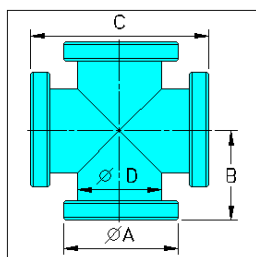


CF 4 WAY CROSSES – 2 FLANGES ROTATABLE



Part Number	Pneurop	Material	A	B	C	D*	E
XTR16-66-1242	NW16	304L	34	38	76	19	-
XTR35-66-1243	NW35	304L	70	63	126	38	-
XTR63-66-1244	NW63	304L	114	105	210	64	-
XTR100-66-1245	NW100	304L	152	135	270	102	-
XTR150-66-1246	NW150	304L	203	167	334	152	-
XTR200-66-1247	NW200	304L	254	203	406	203	-

CF 4 WAY CROSSES - FIXED

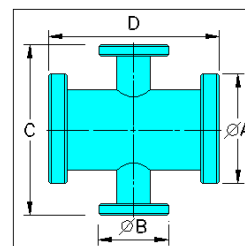


Part Number	Pneurop	Material	A	B	C	D*	Bolt Holes
XTR16-66-1248	NW16	304L	34	38	76	19	In-line
XTR35-66-1249	NW35	304L	70	63	126	38	In-line
XTR60-66-1250	NW63	304L	114	105	210	64	In-line
XTR100-66-1251	NW100	304L	152	135	270	102	In-line
XTR150-66-1252	NW150	304L	203	167	334	152	In-line
XTR200-66-1253	NW200	304L	254	203	406	203	In-line
XTR16-66-1254	NW16	304L	34	38	76	19	Straddled
XTR35-66-1255	NW35	304L	70	63	126	38	Straddled
XTR63-66-1256	NW63	304L	114	105	210	64	Straddled
XTR100-66-1257	NW100	304L	152	135	270	102	Straddled
XTR150-66-1258	NW150	304L	203	167	334	152	Straddled
XTR200-66-1259	NW200	304L	254	203	406	203	Straddled

*Typical, varies with tube available

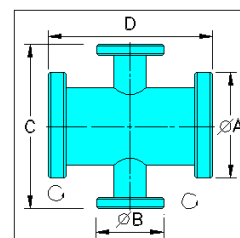
CF 4 WAY REDUCER CROSSES - FIXED

Part Number	Pneurop	Material	A	B	C	D	Bolt Holes
XTR3516-67-1260	NW35/16	304L	70	34	120	126	In-line
XTR6316-67-1261	NW63/16	304L	114	34	154	210	In-line
XTR6335-67-1262	NW63/35	304L	114	70	154	210	In-line
XTR1016-67-1263	NW100/16	304L	152	34	190	270	In-line
XTR1035-67-1264	NW100/35	304L	152	70	190	270	In-line
XTR1063-67-1265	NW100/63	304L	152	114	190	270	In-line
XTR15356-67-1266	NW150/35	304L	203	70	240	334	In-line
XTR1563-67-1267	NW150/63	304L	203	114	240	334	In-line
XTR1510-67-1268	NW150/100	304L	203	152	240	334	In-line
XTR2010-67-1269	NW200/100	304L	254	153	290	406	In-line
XTR2015-67-1270	NW200/150	304L	254	163	290	406	In-line
XTR3516-67-1271	NW35/16	304L	70	34	120	126	Straddled
XTR6316-67-1272	NW63/16	304L	114	34	154	210	Straddled
XTR6335-67-1273	NW63/35	304L	114	70	154	210	Straddled
XTR1016-67-1274	NW100/16	304L	152	34	190	270	Straddled
XTR1035-67-1275	NW100/35	304L	152	70	190	270	Straddled
XTR1063-67-1276	NW100/63	304L	152	114	190	270	Straddled
XTR15356-67-1277	NW150/35	304L	203	70	240	334	Straddled
XTR1563-67-1278	NW150/63	304L	203	114	240	334	Straddled
XTR1510-67-1279	NW150/100	304L	203	152	240	334	Straddled
XTR2010-67-1280	NW200/100	304L	254	152	290	406	Straddled
XTR2015-67-1281	NW200/150	304L	254	163	290	406	Straddled

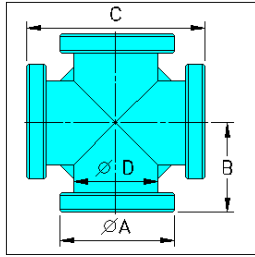


CF 4 WAY REDUCER CROSSES – 2 FLANGES ROTATABLE

Part Number	Pneurop	Material	A	B	C	D	E
XTR3516-67-1282	NW35/16	304L	70	34	120	126	-
XTR6316-67-1283	NW63/16	304L	114	34	154	210	-
XTR6335-67-1284	NW63/35	304L	114	70	154	210	-
XTR1016-67-1285	NW100/16	304L	152	34	190	270	-
XTR1035-67-1286	NW100/35	304L	152	70	190	270	-
XTR1063-67-1287	NW100/63	304L	152	114	190	270	-
XTR15356-67-1288	NW150/35	304L	203	70	240	334	-
XTR1563-67-1289	NW150/63	304L	203	114	240	334	-
XTR1510-67-1290	NW150/100	304L	203	152	240	334	-
XTR2010-67-1291	NW200/100	304L	254	152	290	406	-
XTR2015-67-1292	NW200/150	304L	254	163	290	406	-

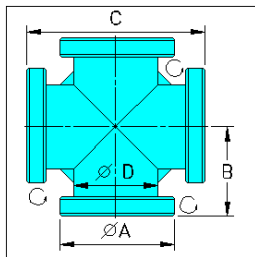


CF 5 WAY CROSSES - FIXED



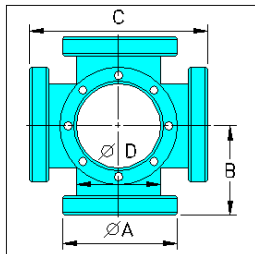
Part Number	Pneurop	Material	A	B	C	D*	Bolt Holes
XTR35-68-1293	NW35	304L	70	63	126	38	In-line
XTR63-68-1294	NW63	304L	114	105	210	64	In-line
XTR100-68-1295	NW100	304L	152	135	270	102	In-line
XTR150-68-1296	NW150	304L	203	167	334	152	In-line
XTR35-68-1297	NW35	304L	70	63	126	38	Straddled
XTR63-68-1298	NW63	304L	114	105	210	64	Straddled
XTR100-68-1299	NW100	304L	152	135	270	102	Straddled
XTR150-68-1300	NW150	304L	203	167	334	152	Straddled

CF 5 WAY CROSSES – 3 FLANGES ROTATABLE



Part Number	Pneurop	Material	A	B	C	D*	E
XTR35-68-1301	NW35	304L	70	63	126	38	-
XTR63-68-1302	NW63	304L	114	105	210	64	-
XTR100-68-1303	NW100	304L	152	135	270	102	-
XTR150-68-1304	NW150	304L	203	167	334	152	-

CF 6 WAY CROSSES – FIXED

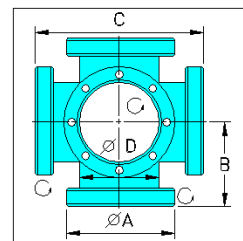


Part Number	Pneurop	Material	A	B	C	D*	E
XTR16-68-1305	NW16	304L	34	38	76	19	In-line
XTR35-68-1306	NW35	304L	70	63	126	38	In-line
XTR60-68-1307	NW63	304L	114	105	210	64	In-line
XTR100-68-1308	NW100	304L	152	135	270	102	In-line
XTR150-68-1309	NW150	304L	203	167	334	152	In-line
XTR200-68-1310	NW200	304L	254	203	406	203	In-line
XTR16-68-1311	NW16	304L	34	38	76	19	Straddled
XTR35-68-1312	NW35	304L	70	63	126	38	Straddled
XTR63-68-1313	NW63	304L	114	105	210	64	Straddled
XTR100-68-1314	NW100	304L	152	135	270	102	Straddled
XTR150-68-1315	NW150	304L	203	167	334	152	Straddled
XTR200-68-1316	NW200	304L	254	203	406	203	Straddled

*Typical, varies with tube available

CF 6 WAY CROSSES – 3 FLANGES ROTATABLE

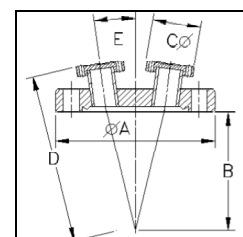
Part Number	Pneurop	Material	A	B	C	D*	E
XTR16-69-1317	NW16	304L	34	38	76	19	-
XTR35-69-1318	NW35	304L	70	63	126	38	-
XTR63-69-1319	NW63	304L	114	105	210	64	-
XTR100-69-1320	NW100	304L	152	135	270	102	-
XTR150-69-1321	NW150	304L	203	167	334	152	-
XTR200-69-1322	NW200	304L	254	203	406	203	-



CF CLUSTER FLANGES

Standard cluster flanges are available for focusing 2 or 4 evaporation sources at a specified flange to sample distance. The ports are directed to the centre of a 4 or 6 way cross. Material 304L. Specials are also available.

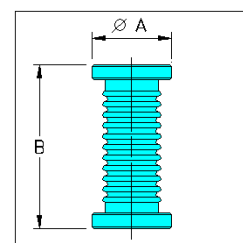
Part Number	Pneurop	No. of Ports	A	B	C	D	E
XTR3-69-1323	NW100/35	3	152	135	70	208	11.9°
XTR4-69-1324	NW150/35	4	203	167	70	250	13°



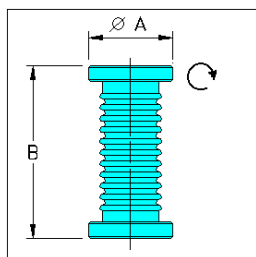
CF FLEXIBLE HOSES - FIXED

Flexible hoses are used to overcome misalignment. Bolt holes in line as standard.

Part Number	Pneurop	A	B	C	D	E
XTR16-69-1325	NW16	34	250	-	-	-
XTR16-69-1326	NW16	34	500	-	-	-
XTR16-69-1327	NW16	34	750	-	-	-
XTR16-69-1328	NW16	34	1000	-	-	-
XTR35-69-1329	NW35	70	250	-	-	-
XTR35-69-1330	NW35	70	500	-	-	-
XTR35-69-1331	NW35	70	750	-	-	-
XTR35-69-1332	NW35	70	1000	-	-	-
XTR63-69-1333	NW63	114	250	-	-	-
XTR63-69-1334	NW63	114	500	-	-	-
XTR63-69-1335	NW63	114	750	-	-	-
XTR63-69-1336	NW63	114	1000	-	-	-
XTR100-69-1337	NW100	152	250	-	-	-
XTR100-69-1338	NW100	152	500	-	-	-
XTR100-69-1339	NW100	152	750	-	-	-
XTR100-69-1340	NW100	152	1000	-	-	-



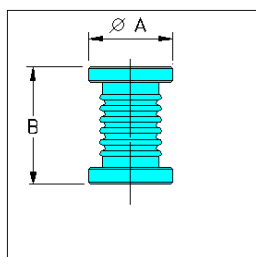
CF FLEXIBLE HOSES – 1 FLANGE ROTATABLE



Flexible hoses are used to overcome misalignment.

Part Number	Pneuop	A	B	C	D	E
XTR16-70-1341	NW16	34	250			
XTR16-70-1342	NW16	34	500	-	-	-
XTR16-70-1343	NW16	34	750	-	-	-
XTR16-70-1344	NW16	34	1000	-	-	-
XTR35-70-1345	NW35	70	250	-	-	-
XTR35-70-1346	NW35	70	500	-	-	-
XTR35-70-1347	NW35	70	750	-	-	-
XTR35-70-1348	NW35	70	1000	-	-	-
XTR63-70-1349	NW63	114	250	-	-	-
XTR63-70-1350	NW63	114	500	-	-	-
XTR63-70-1351	NW63	114	750	-	-	-
XTR63-70-1352	NW63	114	1000	-	-	-
XTR100-70-1353	NW100	152	250	-	-	-
XTR100-70-1354	NW100	152	500	-	-	-
XTR100-70-1355	NW100	152	750	-	-	-
XTR100-70-1356	NW100	152	1000	-	-	-

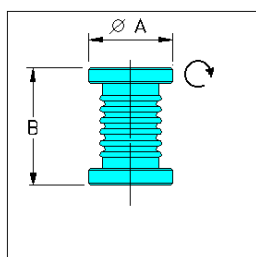
CF HYDROFORMED BELLOWS - FIXED



Bellows connectors are used for straight connection between components to minimize the transfer of vibration. Bolt holes in line as standard.

Part Number	Pneuop	A	B Free	C	D	E
XTR16-70-1357	NW16	34	110	-	-	-
XTR35-70-1358	NW35	70	160	-	-	-
XTR63-70-1359	NW63	114	250	-	-	-
XTR100-70-1360	NW100	152	250	-	-	-
XTR150-70-1361	NW150	203	270	-	-	-

CF HYDROFORMED BELLOWS – 1 FLANGE ROTATABLE



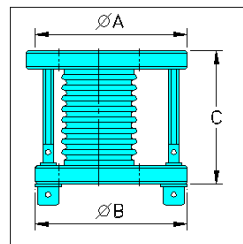
Bellows connectors are used for straight connection between components to minimize the transfer of vibration.

Part Number	Pneuop	A	B Free	C	D*	E
XTR16-70-1362	NW16	34	110	-	-	-
XTR35-70-1363	NW35	70	160	-	-	-
XTR63-70-1364	NW63	114	250	-	-	-
XTR100-70-1365	NW100	152	250	-	-	-
XTR150-70-1366	NW150	203	270	-	-	-

CF PORT ALIGNERS

Used as alignment of long stroke linear manipulators into vacuum systems. Using adjustable hydroformed bellows the aligner is available with other flange and bellows combinations.

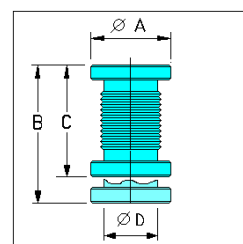
Part Number	Pneuop	A	B	C	D	E
XTR3535-71-1367	NW35	70	70	80	-	-
XTR6363-71-1368	NW63	114	114	80	-	-
XTR1010-71-1369	NW100	152	152	80	-	-



CF EDGE WELDED BELLOWS - FIXED

UHV Compatible and bakeable to 450°C edge welded bellows are more suitable for large movements. Bolt holes in line as standard.

Part Number	Pneuop	A	B	C	D	E
XTR35-71-1370	NW35	70	155	130	35	-
XTR63-71-1371	NW63	114	200	170	64	-
XTR100-71-1372	NW100	152	219	189	100	-
XTR150-71-1373	NW150	203	244	204	150	-

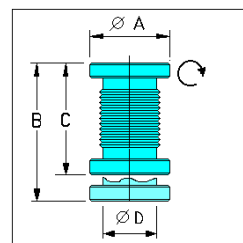


For special quotations, please state I.D., maximum O.D., minimum stroke, maximum compressed length, minimum extended length and flanges required.

CF EDGE WELDED BELLOWS – 1 FLANGE ROTATABLE

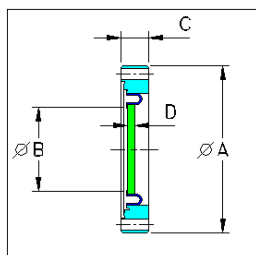
UHV Compatible and bakeable to 450°C edge welded bellows are more suitable for large movements. Bolt holes in line as standard.

Part Number	Pneuop	A	B	C	D	E
XTR35-71-1374	NW35	70	155	130	35	-
XTR63-71-1375	NW63	114	200	170	64	-
XTR100-71-1376	NW100	152	219	189	100	-
XTR150-71-1377	NW150	203	244	204	150	-



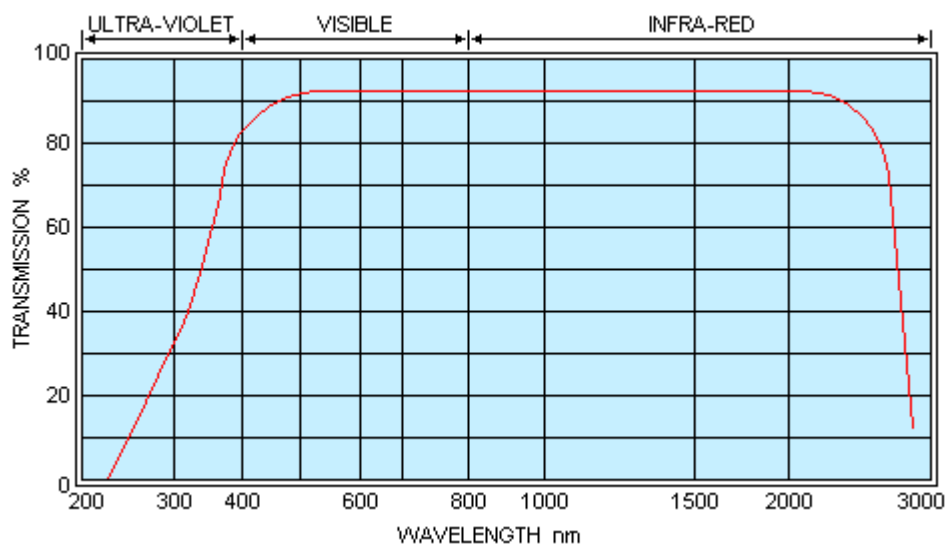
For special quotations, please state I.D., maximum O.D., minimum stroke, maximum compressed length, minimum extended length and flanges required.

CF ZERO LENGTH KODIAL VIEWPORTS



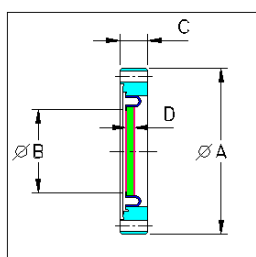
Bakeable to 350°C at not greater than 2-3°C per minute. To be used with annealed copper gaskets (page 48).

Part Number	Pneurop	A	B	C	D	E
XTR16-72-1378	NW16	34	16	12.7	1	-
XTR38-72-1379	NW35	70	38	12.7	2.5	-
XTR38-72-1380	NW35	70	40	12.7	3	-
XTR64-72-1381	NW63	114	63	17.4	3	-
XTR100-72-1382	NW100	152	89	19.9	4	-
XTR150-72-1383	NW150	203	136	22.3	6.5	-



Kodial transmission curve

CF ANTI-REFLECTIVE COATED KODIAL VIEWPORTS



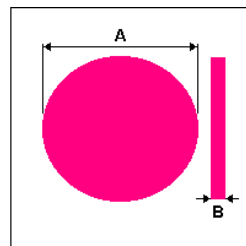
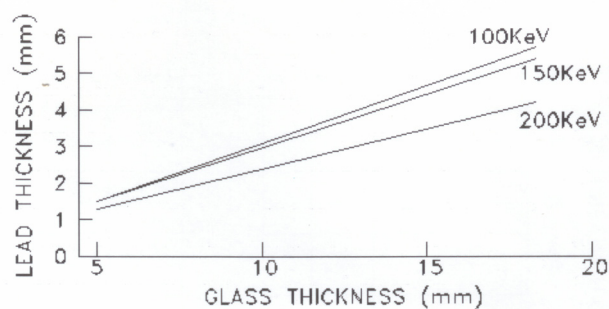
Standard zero length viewports with a MgF₂ anti-reflective coating on both sides. To be used with annealed copper gaskets (page 48).

Part Number	Pneurop	A	B	C	D	E
XTR16-72-1384	NW16	34	16	12.7	1	-
XTR38-72-1385	NW35	70	38	12.7	2.5	-
XTR38-72-1386	NW35	70	40	12.7	3	-
XTR64-72-1387	NW63	114	63	17.4	3	-
XTR100-72-1388	NW100	152	89	19.9	4	-
XTR150-72-1389	NW150	203	136	22.3	6.5	-

LEAD GLASS X-RAY PROTECTION DISCS

Part Number	To Fit	A	B	C	D	E
XTR16-73-1390	XTR16-72-1378	17	5	-	-	-
XTR38-73-1391	XTR38-72-1379	40	5	-	-	-
XTR64-73-1392	XTR64-72-1381	70	5	-	-	-
XTR100-73-1393	XTR100-72-1382	93	5	-	-	-
XTR150-73-1394	XTR150-72-1383	143	5	-	-	-

The graph below shows the relationship between glass thickness and equivalent lead thickness for three X-ray energies.



CF VIEWPORTS WITH FITTED LEAD GLASS DISC

The range of zero length Kodial windows can be supplied with fitted lead glass disc. To be used with annealed copper gaskets (page 48).

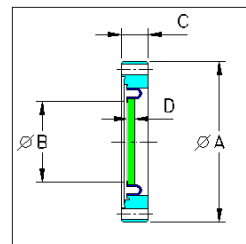
Part Number	Window	Lead Glass
XTR16-73-1395	XTR16-72-1378	XTR16-73-1390
XTR38-73-1396	XTR38-72-1379	XTR38-73-1391
XTR64-73-1397	XTR64-72-1381	XTR64-73-1392
XTR100-73-1398	XTR100-72-1382	XTR100-73-1393



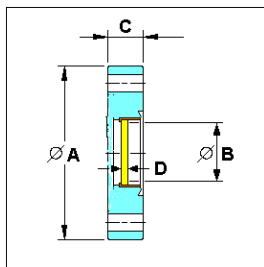
CF InSnO₂ COATED ZERO LENGTH KODIAL VIEWPORTS

Standard zero length viewports with an Indium Tin Oxide conducting layer on vacuum side of window. To be used with annealed copper gaskets (page 48).

Part Number	Pneurop	A	B	C	D
XTR35-73-1399	NW35	70	38	12.7	2.5
XTR64-73-1400	NW63	114	63	17.4	3
XTR100-73-1401	NW100	152	89	19.9	4
XTR150-73-1402	NW150	203	136	22.3	6.5

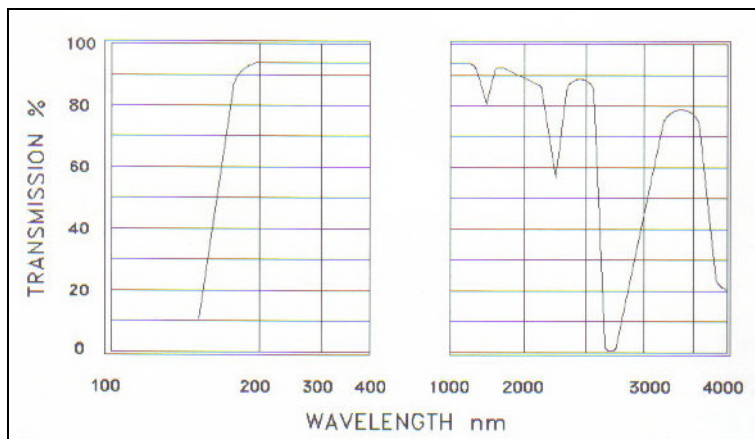


CF ZERO LENGTH QUARTZ VIEWPORTS



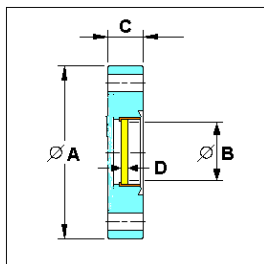
X-TRONIX Quality quartz viewports are manufactured from the best grade synthetic fused silica giving excellent optical homogeneity, freedom from bubbles and transmission in the ultra-violet to below 180nm. There are, however, strong absorption bands in infra-red wavelengths above 1000nm. The windows are entirely satisfactory for most applications having a maximum operating temperature of 200°C. Windows for operation at temperatures up to 250°C are also available. All standard windows are polished to a minimum spectroscopic quality (flatness 5 fringes/cm, parallelism 3 arc minutes, polish 80/50). Other specifications may be available on application. These viewports should only be used with annealed copper gaskets (page 48).

Part Number	Pneurop	A	B	C	D	E
XTR38-74-1403	NW35	70	29.5	12.7	4	-
XTR63-74-1404	NW63	114	60	17.3	6	-
XTR100-74-1405	NW100	152	95	19.9	8	-
XTR150-74-1406	NW150	203	140	22.4	10	-



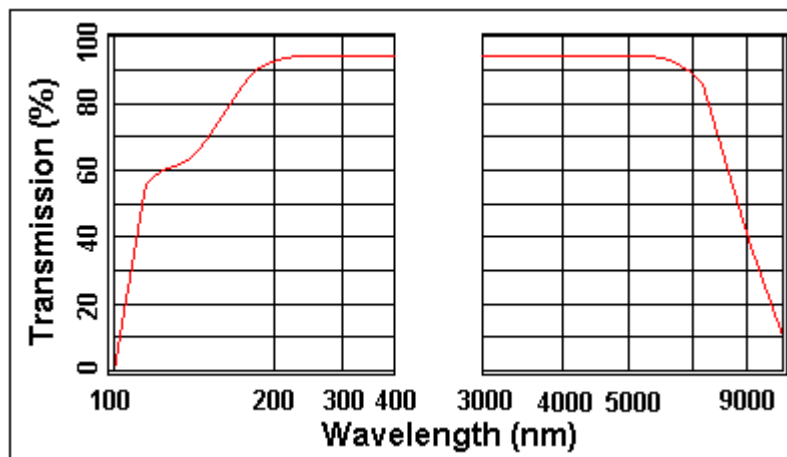
Quartz transmission curve. This curve is a guide to the transmission of fused Silica and shows typical transmission. Where there are specific requirements, please contact our sales office for guidance. A transmission curve can be produced for any window at a small extra cost. High bakeout, non-magnetic and laser quality versions available on request.

CF ZERO LENGTH MAGNESIUM FLUORIDE VIEWPORTS



Magnesium fluoride zero length viewports sealed by means of a frit technique are bakeable to 300°C. To be used with annealed copper gaskets (page 48).

Part Number	Pneurop	A	B	C	D	E
XTR20-74-1407	NW35	70	20	12.7	2	-
XTR38-74-1408	NW35	70	38	12.7	3	-



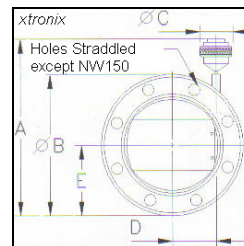
Magnesium fluoride transmission curve

CF VIEWPORT SHUTTERS

Magnetically driven viewport shutters with demountable shutter plate, bakeable to 230°C with magnet removed.

Part Number	Pneuop	A	B	C	D	E
XTR35-75-1409	NW35	70	130	63	*	35
XTR63-75-1410	NW63	114	185	63	30	57
XTR100-75-1411	NW100	152	210	63	45	76
XTR150-75-1412	NW150	203	255	63	62	101

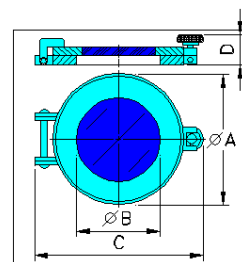
*This model has shutter plate axis through centre of flange and thickness of flange is 22 mm. Other sizes have standard thickness flanges. Rotary motion driven shutters on request.



CF QUICK ACCESS DOORS WITH KODIAL VIEWPORT

Quick access doors comprise a tapped CF flange mounting face and viewport door based around our standard range of Kodial zero length windows. The door will bolt directly to a chamber using socket head cap screws, and utilizes a supplied Viton® seal bakeable to 200°C.

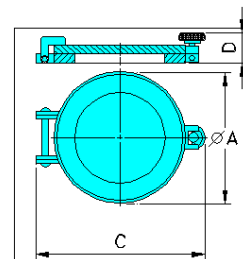
Part Number	Pneuop	A	B	C	D	E
XTR35-75-1413	NW35	70	40	101	36	-
XTR60-75-1414	NW63	114	63	165	44	-
XTR100-75-1415	NW100	152	63	206	63	-
XTR150-75-1416	NW150	203	136	263	70	-



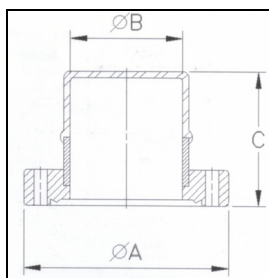
CF QUICK ACCESS DOORS - BLANK

Quick access with a blank door which bolts directly to a chamber using socket head cap screws, and utilizes a supplied Viton® seal bakeable to 200°C.

Part Number	Pneuop	A	B	C	D	E
XTR35-75-1417	NW35	70	-	101	36	-
XTR63-75-1418	NW63	114	-	165	44	-
XTR100-75-1419	NW100	152	-	206	63	-
XTR150-75-1420	NW150	203	-	263	70	-

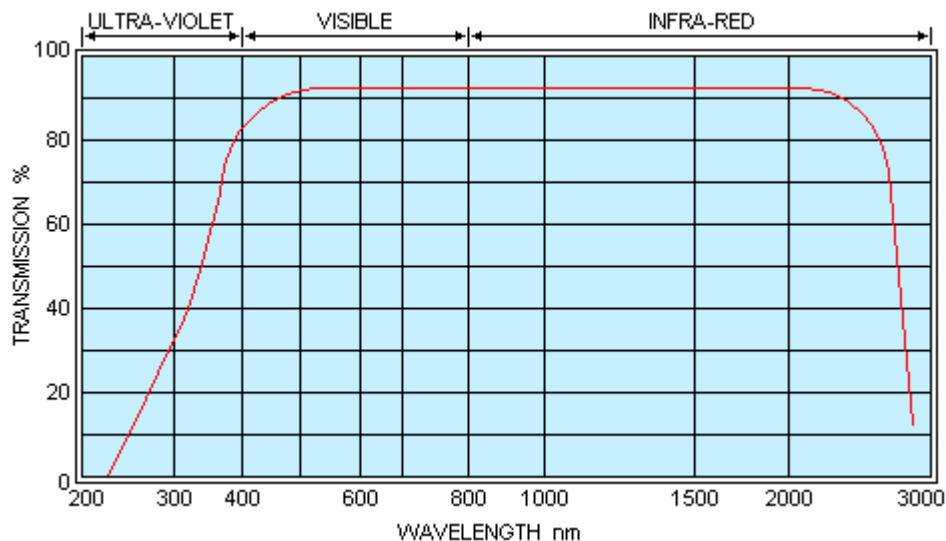


CF TUBULATED KODIAL VIEWPORTS



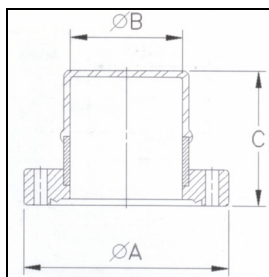
Bakeable to 350°C at not greater than 2-3°C per minute. To be used with annealed copper gaskets (page 48).

Part Number	Pneurop	A	B ± 1	C ± 5	D	E
XTR13-76-1421	NW16	34	11	30	-	-
XTR19-76-1422	NW35	70	17	30	-	-
XTR100-76-1423	NW100	152	88	70	-	-



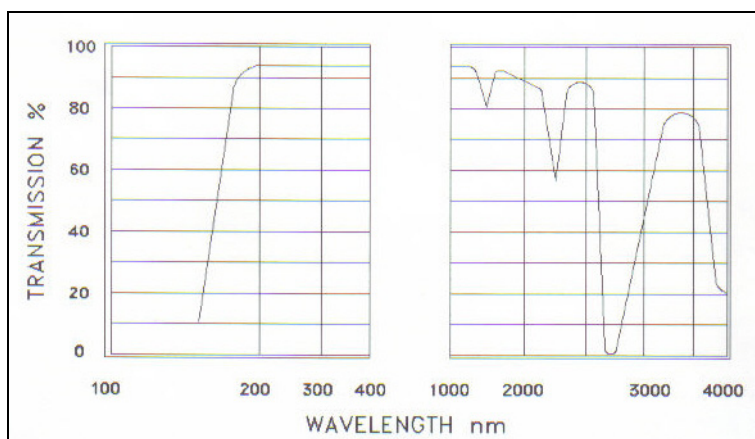
Kodial transmission curve

CF TUBULATED QUARTZ VIEWPORTS



A tubulation of graded seals between flange and quartz provides UHV compatible quartz viewports bakeable to 350°C at not greater than 2-3°C per minute. To be used with annealed copper gaskets (page 48).

Part Number	Pneurop	A	B ± 1	C ± 5	D	E
XTR13-76-1424	NW16	34	11	48	-	-
XTR63-76-1425	NW63	114	61	160	-	-

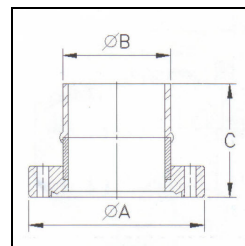


Quartz transmission curve

CF KODIAL TUBULATIONS

Bakeable to 350°C at not greater than 2-3°C per minute. To be used with annealed copper gaskets (page 48).

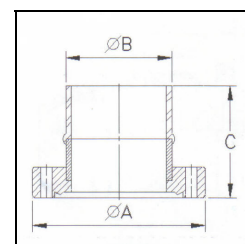
Part Number	Pneuop	A	B ± 1	C ± 5	D	E
XTR13-77-1426	NW16	34	13	100	-	-
XTR19-77-1427	NW35	70	19	100	-	-
XTR38-77-1428	NW35	70	38	100	-	-



CF PYREX® TUBULATIONS

Graded seal tubulations terminating in a length of Pyrex. Bakeable to 350°C at not greater than 2-3°C per minute. To be used with annealed copper gaskets (page 48).

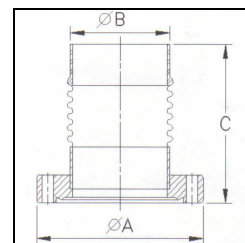
Part Number	Pneuop	A	B ± 1	C ± 5	D	E
XTR6-77-1429	NW16	34	6	100	-	-
XTR13-77-1430	NW16	34	13	100	-	-
XTR19-77-1431	NW35	70	19	100	-	-
XTR25-77-1432	NW35	70	25	100	-	-
XTR38-77-1433	NW35	70	38	100	-	-



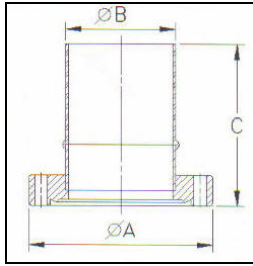
CF PYREX® TUBULATIONS WITH HYDROFORMED BELLOWS

Graded seal tubulations terminating in a length of Pyrex. Bakeable to 350°C at not greater than 2-3°C per minute. To be used with annealed copper gaskets (page 48).

Part Number	Pneuop	A	B ± 1	C ± 5	D	E
XTR6-77-1434	NW16	34	6	170	-	-
XTR13-77-1435	NW16	34	13	170	-	-
XTR19-77-1436	NW35	70	19	190	-	-
XTR25-77-1437	NW35	70	25	200	-	-
XTR38-77-1438	NW35	70	38	200	-	-



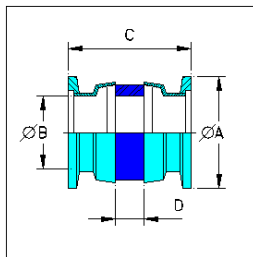
CF QUARTZ TUBULATIONS



Graded seal tubulations terminating in a length of Quartz. Bakeable to 350°C at not greater than 2-3°C per minute. To be used with annealed copper gaskets (page 48).

Part Number	Pneuop	A	B ± 1	C ± 2	D	E
XTR13-78-1439	NW16	34	13	100	-	-
XTR25-78-1440	NW35	70	25	100	-	-
XTR38-78-1441	NW35	70	38	100	-	-
XTR100-78-1442	NW100	152	100	200	-	-

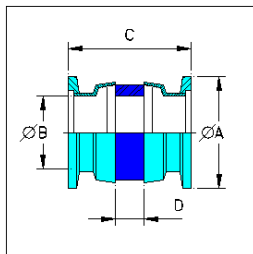
CF CERAMIC BREAKS - FIXED



Bakeable to 250°C. Bolt holes in a line as standard.

Part Number	Pneuop	A	B	C	D	Voltage
XTR16-78-1443	NW16	34	16	75	25.4	10kV
XTR35-78-1444	NW35	70	34	62	6.4	3kV
XTR35-78-1445	NW35	70	34	107	50.8	15kV
XTR63-78-1446	NW63	114	58	114	19	7.5kV

CF CERAMIC BREAKS – 1 FLANGE ROTATABLE



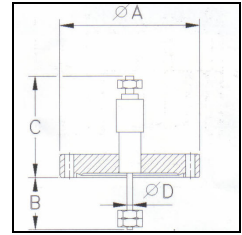
Bakeable to 250°C.

Part Number	Pneuop	A	B	C	D	Voltage
XTR16-78-1447	NW16	34	16	75	25.4	10kV
XTR35-78-1448	NW35	70	34	62	6.4	3kV
XTR35-78-1449	NW35	70	34	107	50.8	15kV
XTR63-78-1450	NW63	114	58	114	19	7.5kV

CF POWER FEEDTHROUGHS

The range of power feedthroughs has stainless steel conductors of 40 amp 15kV rating. Bakeable to 350°C.

Part Number	Pneurop	A	B ± 1	C	D	No. of Conductors
XTR1-79-1451	Unflanged	-	64	73	M5	1
XTR1-79-1452	NW16	34	62	73	M5	1
XTR1-79-1453	NW35	70	62	73	M5	1
XTR2-79-1454	NW35	70	62	73	M5	2
XTR4-79-1455	NW35	70	62	73	M5	4

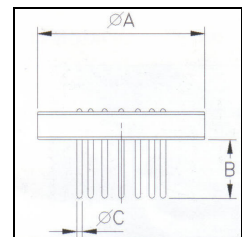


CF MULTIPIN CERAMIC FEEDTHROUGHS

Part Number	Pneurop	A	B ± 1*	C	Amps	kV	No. and Type of Conductors
XTR10-79-1456	NW35	70	10	1.0	5	5	10 x nickel
XTR12-79-1457	NW35	70	10	1.0	5	3	12 x nickel

*Vacuum side

Please note that internal and external socket connectors are available page 80.

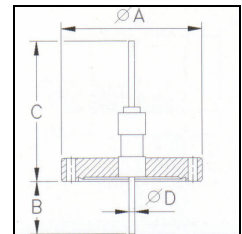


CF INSTRUMENTATION FEEDTHROUGHS

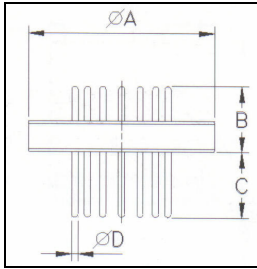
A range of instrumentation feedthroughs containing power and thermocouple feedthroughs. The electrical ratings are 3 amps, 5kV. Conductor types are N = nickel and K = type K thermocouple (Chromel® non-magnetic T1 positive pin NiCr, Alumel® magnetic T2 negative pin NiAlSi Mn). Bakeable to 350°C.

Part Number	Pneurop	A	B ± 1	C	D	No. and Type of Conductors
XTR1-79-1458	Unflanged	-	75	60	1.2	1 x N
XTR2-79-1459	NW16	34	75	60	1.2	2 x N
XTR2-79-1460	NW35	34	75	60	1.2	2 x N
XTR4-79-1461	NW35	34	2 x 75 2 x 65	60	1.2	4 x K
XTR4-79-1462	NW35	34	2 x 75 2 x 65	60	1.2	2 x N 2 x K

Other thermocouple materials and combinations on request



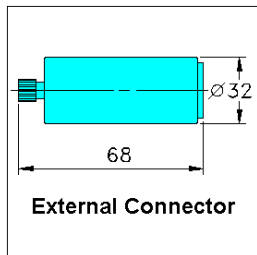
CF OCTAL BASE FEEDTHROUGHS



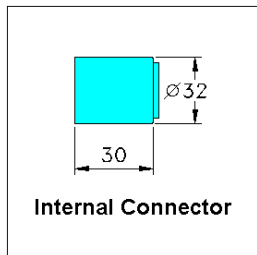
Part Number	Pneurop	A	B	C	D	Connectors	Amps	kV
XTR1C-80-1463	NW35	70	22	4	2.3	9 x Kovar	10	5
XTR1D-80-1464	NW35	70	16	10	2.3	9 x Kovar	10	1

Please note that XTR1C-80-1463 has Kovar pins sealed into an all glass base and XTR1D-80-1464 has Kovar pins sealed into a metal base with glass beads. Internal and external connectors are available for both (see socket connectors below).

SOCKET CONNECTORS



External Connector



Internal Connector

Internal and external connectors for the current range of ceramic and octal base feedthroughs. All connectors have a unique fitting orientation to obviate incorrect wiring connections. All external connectors are bakeable to 250°C and all internal connectors are bakeable to 150°C maximum.

Part Number	Crimp Sockets*	Internal/ External	To fit F/T	Amps	kV
XTR12-80-1465	10 x 1.0	External	XTR12-79-1457	5	3
XTR12-80-1466	11 x 1.0†	Internal	XTR12-79-1457	5	3
XTR8-80-1467	8 x 2.3	External	XTR1C-80-1463 & 1464	3	1
XTR8-80-1468	8 x 2.3	Internal	XTR1C-80-1463 & 1464	3	1
XTR10-80-1469	9 x 1.0	External	XTR10-79-1456	5	3
XTR10-80-1470	9 x 1.0†	Internal	XTR10-79-1456	5	3

*Number and ID mm

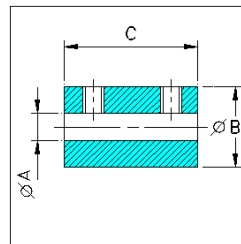
†Note: Central pin requires separate flying lead (connector supplied)



BARREL CONNECTORS

Part Number	A	B	C	Screws	Material
XTR10-81-1471	1.1	4.7	10	2 x Grub	St. St.
XTR23-81-1472	2.4	4.7	10	2 x Grub	St. St.
XTR15-81-1473	1.5	4.7	13	2 x Pan	St. St.
XTR18-81-1474	1.8	4.7	13	2 x Pan	St. St.
XTR30-81-1475	3.0	6.4	14	2 x Pan	St. St.

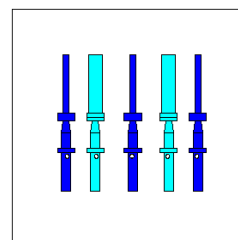
Supplied in packs of 10 complete with stainless steel screws.



FEEDTHROUGH CRIMP SETS

Part Number	Bore (mm)	Type	Vacuum Compatible	Pack Qty
XTR10-81-1476	1.0	Female	Yes	20
XTR10-81-1477	1.0	Male	Yes	20
XTR23-81-1478	2.3	Female	No	20
XTR23-81-1479	2.3	Male	No	20
XTR23-81-1479X	2.3	Female	Yes	20

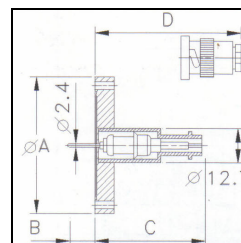
Please note, non-vacuum compatible crimps should only be used on atmosphere side of flange.



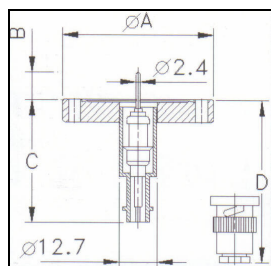
CF BNC FEEDTHROUGHS – SINGLE ENDED, GROUND SHIELD

These BNCs are suited for high vacuum applications and are non-magnetic. Electrical rating 500V DC, 3A. Bakeable to 450°C without connector. Atmosphere side connector supplied.

Part Number	Pneurop	A	B	C	D	# of F/T
XTR16-81-1480	NW16	34	9	35	52	1
XTR35-81-1481	NW35	70	9	35	52	1
XTR35-81-1482	NW35	70	9	35	52	2
XTR35-81-1483	NW35	70	9	35	52	4



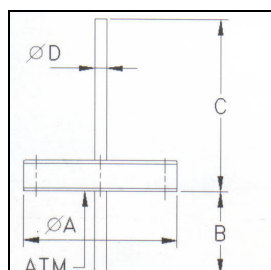
CF SHV FEEDTHROUGHS – SINGLE ENDED, GROUNDED SHIELD



These SHV (Safety High Voltage) feedthroughs are suited for high and ultra-high vacuum applications. Safety feature include recessed female contacts in cable connectors to reduce possibility of shock and prevent cross mating with BNC components. Electrical rating 5000V DC, 3A. Bakeable to 450°C without connector. Atmosphere side connector supplied.

Part Number	Pneurop	A	B	C	D	# of F/T
XTR16-82-1484	NW16	34	8	42	71	1
XTR35-82-1485	NW35	70	8	42	71	1
XTR35-82-1486	NW35	70	8	42	71	2
XTR35-82-1487	NW35	70	8	42	71	4

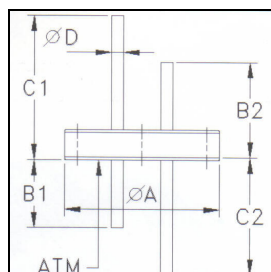
CF LIQUID FEEDTHROUGHS – STAINLESS STEEL



Part Number	Pneurop	A	B	C	D	E
XTR16-82-1488	NW16	34	45	75	6	PP
XTR16-82-1489	NW16	34	45	103	6	SP
XTR16-82-1490	NW16	34	103	103	6	SS
XTR35-82-1491	NW35	70	45	75	6	PP
XTR35-82-1492	NW35	70	45	103	6	SP
XTR35-82-1493	NW35	70	103	103	6	SS

E denotes tube termination, first letter indicates termination on vacuum side (C) and second on atmosphere side (B). P = plain; S = 6 mm metric Swagelok®.

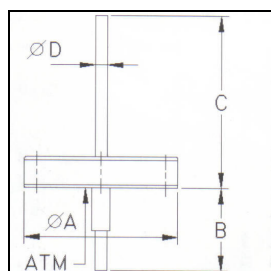
CF 2-WAY LIQUID FEEDTHROUGHS – STAINLESS STEEL



Part Number	Pneurop	A	B1	B2	C1	C2	D	E
XTR352-82-1494	NW16	70	45	45	75	75	6	PP
XTR352-82-1495	NW35	70	45	73	103	75	6	SP
XTR352-82-1496	NW35	70	73	73	103	103	6	SS

E denotes tube termination, first letter indicates termination on vacuum side (C) and second on atmosphere side (C2). P = plain; S = 6 mm metric Swagelok®.

CF LIQUID NITROGEN FEEDTHROUGHS – STAINLESS STEEL



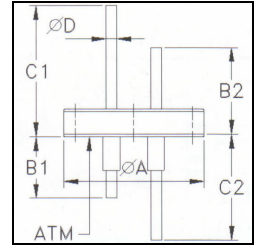
Part Number	Pneurop	A	B	C	D	E
XTR16-82-1497	NW16	34	45	75	6	PP
XTR35-82-1498	NW35	70	45	75	6	PP
XTR35-82-1499	NW35	70	84	112	12	SS

E denotes tube termination, first letter indicates termination on vacuum side (C) and second on atmosphere side (B). P = plain; S = 6 mm or 12 mm Swagelok®.

CF 2-WAY LN2 FEEDTHROUGHS – STAINLESS STEEL

Part Number	Pneurop	A	B1	B2	C1	C2	D	E
XTR352-83-1500	NW35	70	45	45	75	75	6	PP
XTR352-83-1501	NW35	70	73	73	103	103	6	SS

E denotes tube termination; first letter indicates termination on vacuum side (C1) and second on atmosphere side (C2).
P = plain, S = 6 mm metric Swagelok®.

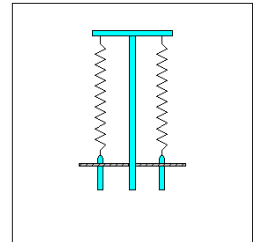


IONISATION GAUGE FILAMENT KIT

Filaments are supplied in boxed kits complete with suitable grub screws.

Part Number	Filament Type	To Fit Gauges
XTR1E-83-1502	Twin thoriated iridium	XTR9-84-1516
XTR2-83-1503	Twin tungsten	XTR9-84-1516
XTR8-83-1504	Single thoriated iridium	XTR9-84-1514
XTR8-83-1505	Twin thoriated iridium	XTR9-84-1514

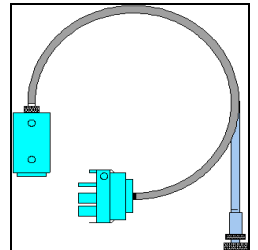
► X-TRONIX has replacement filaments for most brands of Bayard-Alpert gauges. We also supply filaments for electron beam guns, ion beam sources and for the certain helium leak detectors. Contact us with your requirements.



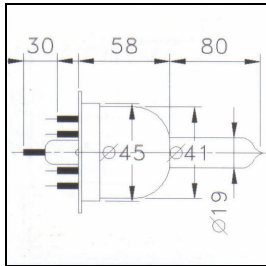
IONISATION GAUGE CONNECTORS AND LEAD SETS

Part Number	Type	To Fit Gauges
XTR8-83-1506	Bakeable lead set	XTR9-84-1514
XTR8-83-1507	Non-bakeable lead set	XTR9-84-1514
XTR8-83-1508	Non-bakeable lead set	XTR9-84-1514
XTR1F-83-1509	Bakeable lead set	XTR9-84-1516

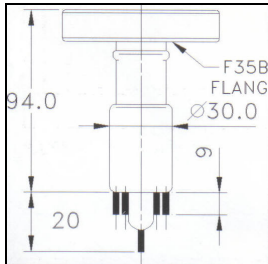
Note: Two meter lead lengths are standard. Longer leads are available on request.



CF IONISATION GAUGE – GLASS ENCAPSULATED



XTR30-84-151



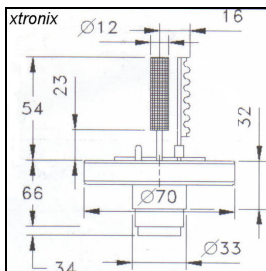
XTR9-84-1512

Part Number	Pressure mbar	Sensitivity mbar ⁻¹	X-Ray Light mbar	Filament
XTR30-84-1510	10 ⁻³ to 10 ⁻¹⁰	13	3 x 10 ⁻¹⁰	Twin tungsten
XTR39-84-1511	10 ⁻² to 10 ⁻⁷	7	7 x 10 ⁻⁸	Single tungsten*
XTR9-84-1512	10 ⁻³ to 10 ⁻¹⁰	9	3 x 10 ⁻¹⁰	Twin thoriated Ir

* Iridium version available on request.

► X-TRONIX proposes a complete range of glass Bayard-Alpert and nude UHV Ionisation Gauges. We supply B-A gauges for 85 - 90% of market requirements in this class. Contact us with your brand model replacement needs; chances are we have a 1:1 direct equivalent. We are also a major supplier of rough vacuum gauges, i.e. Thermocouples and Piranis, including to OEM's!

CF IONISATION GAUGES - NUDE

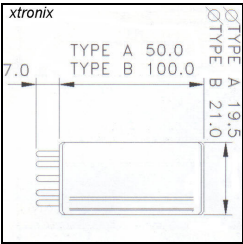


XTR9-84-1515

Part Number	Pressure mbar	Sensitivity mbar ⁻¹	X-Ray Light mbar	Filament
XTR9-84-1513	10 ⁻³ to 10 ⁻¹⁰	13	3 x 10 ⁻¹⁰	Twin thoriated Ir
XTR9-84-1514	10 ⁻³ to 10 ⁻⁹	8	5 x 10 ⁻¹⁰	Replaceable single thoriated Iridium
XTR9-84-1515	10 ⁻³ to 10 ⁻⁹	8	5 x 10 ⁻¹⁰	Replaceable twin tungsten
XTR9-84-1516	10 ⁻³ to 10 ⁻¹¹	17	4 x 10 ⁻¹¹	Replaceable twin tungsten

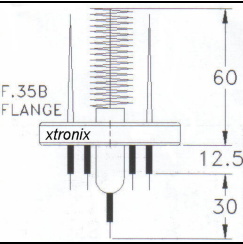


Base Type	Filament Voltage	Collector Voltage	Grid Voltage	Connector / Lead
Glass	0 to 5V	-20 to -80V	112 to 180V	Barrel or Crimp
Glass	2 – 5V	-20 to -60V	120 to 250V	Barrel or Crimp
Glass	3 to 6V	-25 to -60V	150 to 250V	Lead

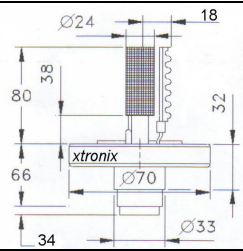


XTR39-84-1511

Base Type	Filament Voltage	Collector Voltage	Grid Voltage	Connector / Lead
Glass	0V to 5V	-20V to -80V	112V to 180V	Barrel or Crimp
Metal / Glass bead	2V to 5V	-50V	150V	Lead
Metal / Glass bead	3V to 6V	-50V	150V	Lead
Ceramic	6V to 20V	-50V	180V	Lead

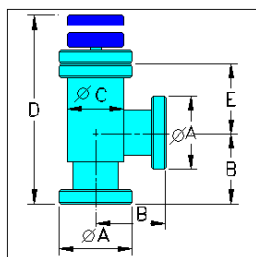


XTR9-84-1513



XTR9-84-1516

CF VITON® SEALED RIGHT ANGLE VALVE - MANUAL



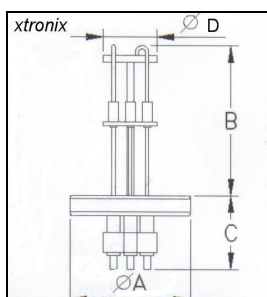
Right angle valves with Viton face seal and demountable metal or welded bonnet seal. Bakeable to 250°C open and 140°C closed. Demountable valves have replaceable movement mechanisms.

Part Number	Pneurop	Type*	A	B	C	D closed	D† open	E
XTR16-86-1517	NW16	W	34	38	20	128	128	40
XTR16-86-1518	NW16 Rotatable	W	34	38	20	128	128	40
XTR16-86-1519	Unflanged	W	20.0 mm tube	33	20	123	123	40
XTR35-86-1520	NW35	D	70	63	41	155	175	53
XTR35-86-1521	NW35 Rotatable	D	70	63	41	155	175	53
XTR35-86-1522	Unflanged	D	41.3 mm tube	58	41	150	170	53

W = welded, D = demountable

†where both 'D' dimensions are identical, movement is internal within the valve.

CF TITANIUM SUBLIMATION PUMP CARTRIDGE



Part Number	Pneurop	A	B	C	D	Number of Filaments
XTR3-86-1523	NW35	70	237	58	40	3
XTR1G-86-1524	Replacement filament kit					24

Extended cartridges also available.

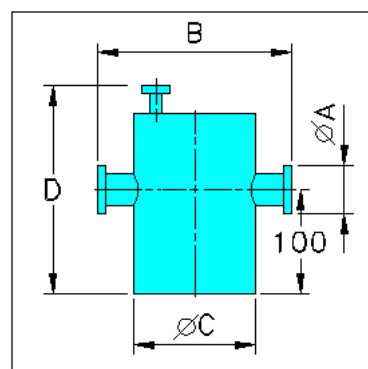
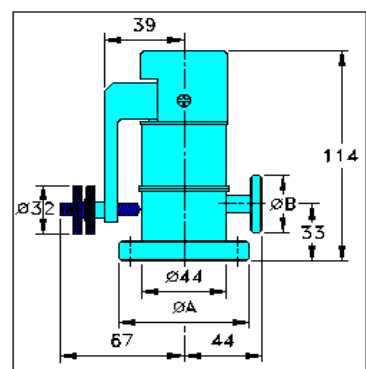
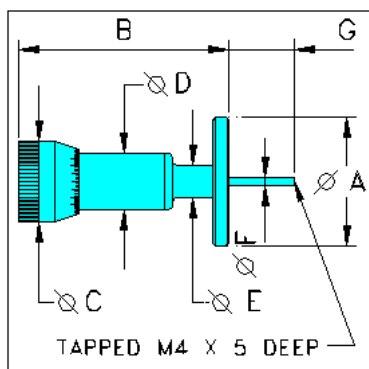
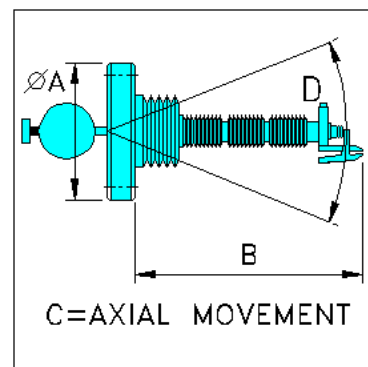
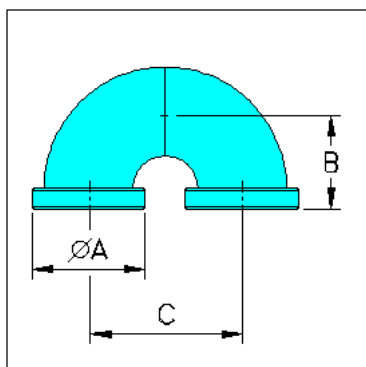
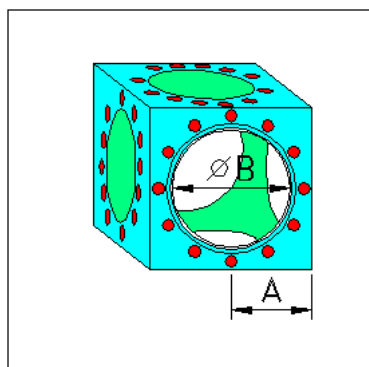
Typical pumping speed for titanium in l.s⁻¹ cm².

Gas	H ₂ O	H ₂ O	CO	N ₂	O ₂	CO ₂
20°C condenser	4	3	9	4	2	8
-196°C condenser	10	14	11	10	6	9

Filament material 85% Titanium, 15% Molybdenum.

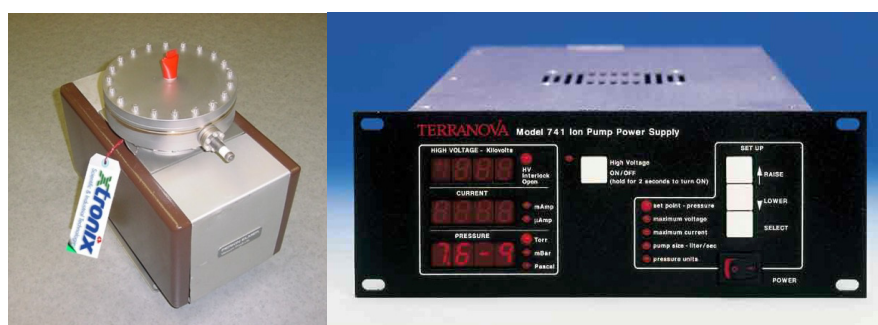
► Replacement filaments available for most European & US brands of TSPs.

Though this catalogue holds well over 1500 standard vacuum line items, not all the X-TRONIX selection is shown. If the vacuum component you need is not listed, please do contact us. We have several dozen more components and we do cater to custom designs too.



ION PUMPS

X-TRONIX can refurbish most brands of European and USA ion pumps. This includes replacement of the titanium cathodes, ceramic insulators and HV feedthroughs. X-TRONIX also supplies generic ion pumps from the mini and 2 l/s appendage sizes to 400 l/s triodes or 500 l/s diodes, with or without the magnets. We also propose a modern design high voltage power supply. Standard and bakeable cables are available.

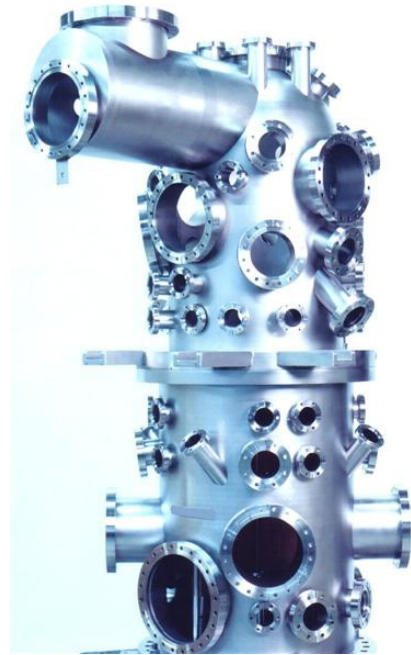
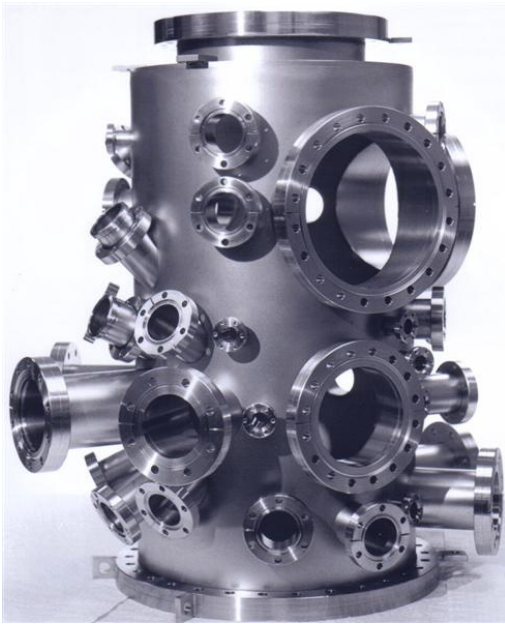


UHV CHAMBERS

X-TRONIX is also dedicated to the fabrication of special vacuum assemblies and chambers and can fulfill demands for chambers up to one meter in diameter (or 0.75 meters cube).

Each chamber body is milled to close tolerances which assist in maintaining port alignment. When machining is completed, all the parts are cleaned for welding and leak checking. Port alignment is then rechecked and certified before the final cleaning and packaging. The manufacturing process eliminates the possibility of virtual leaks and ensures vacuum performance to 10^{-11} mbar range.

We invite you to send us your drawing for a quotation.



QUARTZ CRYSTALS

X-TRONIX Quality Quartz Crystals for thin film deposition monitors are individually tested and guaranteed to meet or exceed original manufacturers' specifications. From our selection of the most consistently cut and finished quartz crystals, to the deposition of the contact electrodes in a class 100 process area, we strive to minimize the variability that is so often seen in deposition controller crystals.

