

FLANGES & GASKETS

Most of the flanges have intelligent custom properties built into their design tables (making extensive use of the 'concatenate function') to populate your Bills of Materials (example below).

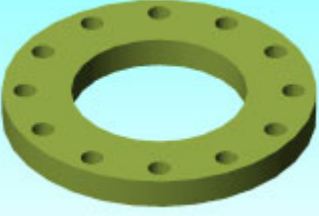
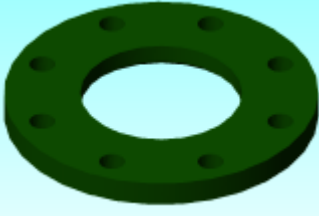

ITEM No.	QTY.	DESCRIPTION	SIZE	MATERIAL	MASS (kg)
1	1	FLANGE RFWN - DN100 300# Sch 80	DN100mm 300# Sch 80	A-105	11.9

This intelligent design table approach allows them to be quickly modified to suit your company's requirements or easily copied to create a flange with different material properties, etc.

	<p><u>ANSI RF WN - A105</u></p> <p>Contains over 500 configurations with sizes ranging from DN15 to 600, ratings from 150 to 2500# and the full range of wall thicknesses.</p>
	<p><u>ANSI RF WN - S/S 304H</u></p> <p>Contains over 500 configurations with sizes ranging from DN15 to 600, ratings from 150 to 2500# and the full range of wall thicknesses.</p>
	<p><u>DIN RF SOW - STEEL</u></p> <p>Configurations from DN15 to DN300, ratings from PN16 to PN40.</p>
	<p><u>STUB END - DIN - STEEL</u></p> <p>Configurations from DN32 to DN250</p>
	<p><u>FLANGE FOR STUB END - DIN - GAL</u></p> <p>Configurations from DN32 to DN250</p>

	<p><u>GASKET SEF – DIN (for Stub End Flange)</u></p> <p>Configurations from DN32 to DN250 - 1.5 & 3mm thick.</p>
	<p><u>STUB END FLANGE SET – DIN – STEEL / GAL</u></p> <p>Configurations from DN32 to DN250 Made up of the above 2 components, plus gasket, nuts & bolts.</p>
	<p><u>DIN RF THREADED - GALVANISED</u></p> <p>Configurations from DN6 to DN150, ratings from PN6 to PN100 (DIN 2565 to 2568).</p>
	<p><u>DIN RF THREADED - STEEL</u></p> <p>Configurations from DN6 to DN150, ratings from PN6 to PN100 (DIN 2565 to 2568).</p>
	<p><u>ANSI RF BLIND – A105</u></p> <p>Configurations from DN15 to DN600, ratings of 150#, 300# & 600#</p>
	<p><u>ANSI RF BLIND – 316</u></p> <p>Configurations from DN15 to DN600, ratings of 150#, 300# & 600#</p>
	<p><u>ANSI RF BLIND – 316L</u></p> <p>Configurations from DN15 to DN600, ratings of 150#, 300# & 600#</p>
	<p><u>ANSI RF SOW – A105</u></p> <p>Configurations from DN15 to DN600, ratings of 150#, 300# & 600#</p>

	<p><u>ANSI RF SOW – 316L</u></p> <p>Configurations from DN15 to DN600, ratings of 150#, 300# & 600#</p>
	<p><u>ANSI RF SOW – 316</u></p> <p>Configurations from DN15 to DN600, ratings of 150#, 300# & 600#</p>
	<p><u>ANSI RF SOW – 304</u></p> <p>Configurations from DN15 to DN600, ratings of 150#, 300# & 600#</p>
	<p><u>ANSI RF SOW – 304L</u></p> <p>Configurations from DN15 to DN600, ratings of 150#, 300# & 600#</p>
	<p><u>GASKET, FULL FACE – ANSI (RUBBER)</u></p> <p>Configurations from DN15 to DN600, ratings of 150# & 300# - 1.5 & 3.0mm thick (gasket shown in uncompressed state). Details per Klinger Catalogue.</p>
	<p><u>GASKET, FULL FACE – ANSI</u></p> <p>Configurations from DN15 to DN600, ratings of 150# & 300# - 1.5 & 3.0mm thick (gasket shown in uncompressed state). Details per Klinger Catalogue.</p>
	<p><u>GASKET, RING – ANSI</u></p> <p>Configurations from DN15 to DN600, - 1.5 & 3.0mm thick (gasket shown in uncompressed state). Details per Klinger Catalogue.</p>
	<p><u>GASKET, SPIRAL WOUND – ANSI (S/S 304)</u></p> <p>300+ Configurations from DN15 to DN600, ratings of 150# & 300# - 3.2, 4.4, 6.4 & 7.2mm thick (gasket shown in uncompressed state) CRIR & CR configs. Details per Klinger Catalogue.</p>

	<p><u>GASKET, SPIRAL WOUND – ANSI (S/S 316)</u></p> <p>300+ Configurations from DN15 to DN600, ratings of 150# & 300# - 3.2, 4.4, 6.4 & 7.2 thick (gasket shown in uncompressed state) CRIR & CR configs. Details per Klinger Catalogue.</p>
	<p><u>AS2129 FF BLIND – STEEL GR 250</u></p> <p>Configurations from DN15 to DN600 in ratings of Table D, Table E, Table F & Table H.</p>
	<p><u>AS 2129 FF SOW – STEEL GR 250</u></p> <p>Configurations from DN15 to DN600 in ratings of Table D, Table E, Table F & Table H.</p>
	<p><u>GASKET, FULL FACE – AS2129</u></p> <p>Configurations from DN15 to DN600 in ratings of Table D, Table E, Table F & Table H – 1.5 & 3.0mm thick. Details per Klinger Catalogue.</p>
	<p><u>INNER FLANGE – CuNiFe – DIN 86037</u> <u>(CuNi10Fe1,6Mn) – uses loose flange DIN 86037</u></p> <p>Configurations from 20 OD to 914 OD. Details per Eucaro Catalogue. www.eucaro.de</p>
	<p><u>LOOSE FLANGE – GAL – DIN 86037</u> <u>Use with inner flange DIN 86037</u></p> <p>Configurations from 20 OD to 914 OD in ratings of PN16 & 10. Details per Eucaro Catalogue. www.eucaro.de</p>
	<p><u>INNER FLANGE – CuNiFe – VG 85387</u> <u>(CuNi10Fe1,6Mn) – uses loose flange VG 85387</u></p> <p>Configurations from 38 OD to 133 OD. Details per Eucaro Catalogue. www.eucaro.de</p>

	<p><u>LOOSE FLANGE VG 85387 (GAL & G-CuSn10)</u> <u>Use with inner flange VG 85387</u></p> <p>Configurations from 38 OD to 133 OD in ratings of PN25 & 10. Details per Eucaro Catalogue. www.eucaro.de</p>
	<p><u>INNER FLANGE – CuNiFe – VG 85356</u> <u>(CuNi10Fe1,6Mn) – uses loose flange VG 85356</u></p> <p>Configurations from 25 OD to 324 OD. Details per Eucaro Catalogue. www.eucaro.de</p>
	<p><u>LOOSE FLANGE – VG 85356 (GAL & G-CuSn10)</u> <u>Use with inner flange VG 85356</u></p> <p>Configurations from 25 OD to 324 OD in ratings of PN25, 16 & 10. Details per Eucaro Catalogue. www.eucaro.de</p>
	<p><u>DIN 86033 SOW – CuNiFe (CuNi10Fe1,6Mn)</u></p> <p>Configurations from 16 OD to 108 OD in ratings of PN16/10. Details per Eucaro Catalogue. www.eucaro.de</p>

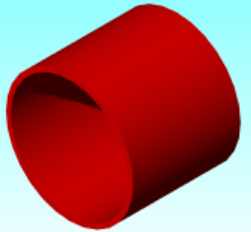
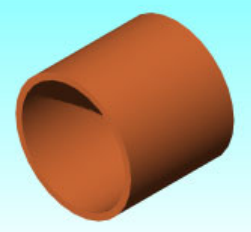

PIPES

All pipes have intelligent custom properties built into their design tables (making extensive use of the 'concatenate function') to populate your Bills of Materials (example below).

ITEM	QTY	Part No.	DESCRIPTION	CUT LENGTH	SIZE	MATERIAL
1	1	150mm, Schedule 40	PIPE - 150NS, SCH 40	750mm		ASTM A106

This intelligent design table approach allows them to be quickly modified to suit your company's requirements or easily copied to create a fitting with different material properties, etc.

	<p><u>PIPE – A106</u></p> <p>DN 6 TO DN 900 – SCH 10 to SCH 160 & STD to XXXS (WT per availability).</p>
	<p><u>PIPE – A53</u></p> <p>DN 6 TO DN 900 – SCH 10 to SCH 160 & STD to XXXS (WT per availability).</p>
	<p><u>PIPE – API 5L</u></p> <p>DN 6 TO DN 900 – SCH 10 to SCH 160 & STD to XXXS (WT per availability).</p>
	<p><u>LINEPIPE</u></p> <p>DN 6 TO DN 900 – SCH 10 to SCH 160 & STD to XXXS (WT per availability).</p>
	<p><u>PIPE – 304H</u></p> <p>To DN 300</p>

	<p><u>PIPE – DIN 2458 (ERW)</u></p> <p>DN 6 TO DN 300</p>
	<p><u>PIPE – CuNi10Fe1.6Mn – DIN 86019 (seamless)</u></p> <p>8 OD TO 419 OD, WT from 1.0 to 10mm.</p> <p>Modelled from Eucaro catalogue www.eucaro.de</p>
	<p><u>PIPE – CuNi10Fe1.6Mn – DIN 86018 (welded)</u></p> <p>324 OD TO 1620 OD, WT from 4.0 to 10mm.</p> <p>Modelled from Eucaro catalogue www.eucaro.de</p>

BUTT WELD FITTINGS

All butt weld fittings have intelligent custom properties built into their design tables (making extensive use of the 'concatenate' & 'VLookup' functions) to populate your Bills of Materials (example below).

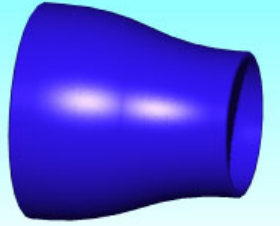
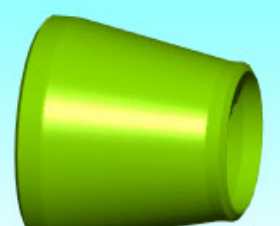
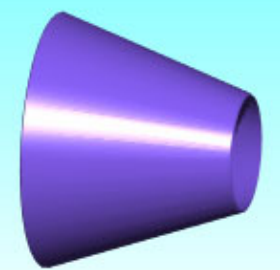
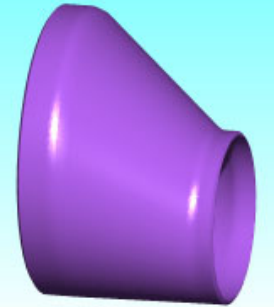

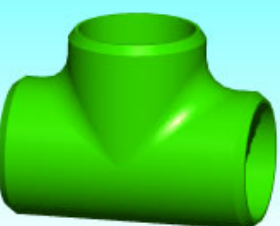
ITEM	QTY	DESCRIPTION	SIZE	MATERIAL	Kg EA
1	1	FLANGE - 100 nb RFSO ANSI 150#	100 nb-150#	ASME B16.5 - A105	5.3
2	1	CONCENTRIC REDUCER - DN100 x 80 SCH. 40	DN100x80 SCH. 40	A-234 WPB	1.4
3	1	ELBOW 90 deg LRBW 100NS Sch 40	100NS Sch 40	A-234 WPB	3.8

This intelligent design table approach allows them to be quickly modified to suit your company's requirements or easily copied to create a fitting with different material properties, etc.


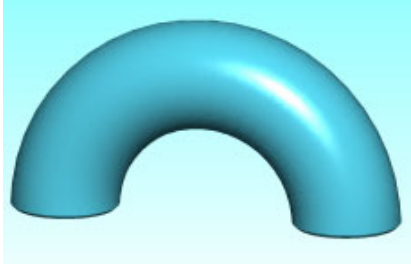
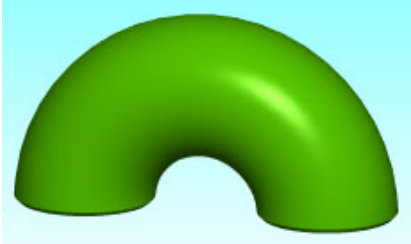
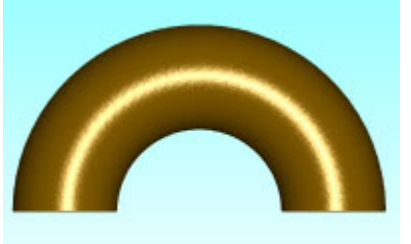

These butt weld fittings have the CPoints offset to create a 2mm weld gap. Should your company's standard require a different gap it is a simple amendment on each of the models.

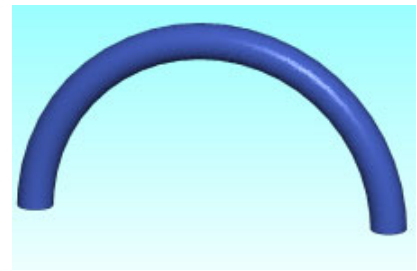
	<p><u>ELBOW- LONG RADIUS(1.5D) - DIN – STEEL (45 & 90 DEG.)</u></p> <p>Configurations DN25 to DN200 in both 45 & 90 deg. This allows SW Piping to automatically select the appropriate elbow.</p>
	<p><u>ELBOW – SHORT RADIUS (1D) – DIN – STEEL (45 & 90 DEG)</u></p> <p>Configurations DN25 to DN200 in both 45 & 90 deg. This allows SW Piping to automatically select the appropriate elbow.</p>
	<p><u>ELBOW- LONG RADIUS(1.5D) - DIN 86090 – CuNi10Fe1,6Mn (30, 45, 60 & 90 DEG.)</u></p> <p>Configurations 20 OD to 914 OD in angles of 30, 45, 60 & 90 deg. This allows SW Piping to automatically select the appropriate elbow. Per Eucaro catalogue – www.eucaro.de</p>
	<p><u>ELBOW- SHORT RADIUS(1D) – EHN 9603/600 – CuNi10Fe1,6Mn (30, 45, 60 & 90 DEG.)</u></p> <p>Configurations 20 OD to 914 OD in angles of 30, 45, 60 & 90 deg. This allows SW Piping to automatically select the appropriate elbow. Per Eucaro catalogue – www.eucaro.de</p>

	<p><u>ELBOW LONG RADIUS (1.5D) – ANSI – A234 (45 & 90 DEG).</u></p> <p>430 configurations DN15 TO DN900 SCH 10 to 160 & STD to XXS (WT per availability) in both 45 & 90 deg. This allows SW Piping to automatically select the appropriate elbow.</p>
	<p><u>ELBOW SHORT RADIUS (1D) – ANSI – A234 (45 & 90 DEG).</u></p> <p>420 configurations DN20 TO DN900 SCH 10 to 160 & STD to XXS (WT per availability) in both 45 & 90 deg. This allows SW Piping to automatically select the appropriate elbow.</p>
	<p><u>ELBOW LRBW – ANSI – SS304#</u></p> <p>DN15 to DN300 SCH 5S to 80S (WT per availability).</p>
	<p><u>ELBOW 3D – ANSI – A234 (45 & 90 DEG).</u></p> <p>430 configurations DN15 TO DN900 SCH 10 to 160 & STD to XXS (WT per availability) in both 45 & 90 deg. This allows SW Piping to automatically select the appropriate elbow.</p>
	<p><u>ELBOW 5D – ANSI – A234 (45 & 90 DEG).</u></p> <p>430 configurations DN15 TO DN900 SCH 10 to 160 & STD to XXS (WT per availability) in both 45 & 90 deg. This allows SW Piping to automatically select the appropriate elbow..</p>
	<p><u>CONCENTRIC REDUCER – A234</u></p> <p>DN20 x 15 to DN900 x 850 (950 configs) SCH 10 to 160 & STD to XXS (WT per availability).</p>
	<p><u>ECCENTRIC REDUCER – A234</u></p> <p>DN20 x 15 to DN900 x 850 (950 configs) SCH 10 to 160 & STD to XXS (WT per availability).</p>

	<p><u>CONCENTRIC REDUCER – DIN - STEEL</u></p> <p>DN20 x 16 to DN300 x 250, limited wall thicknesses.</p>
	<p><u>CONCENTRIC REDUCER – DIN 86089- CuNi10Fe1,6Mn (SMLS)</u></p> <p>20 x 16 OD to 368 x 324 OD, all pipe wall thicknesses (seamless only).</p> <p>Per Eucaro catalogue – www.eucaro.de</p>
	<p><u>CONCENTRIC REDUCER – 419 to 914 - DIN 86089- CuNi10Fe1,6Mn (WELDED)</u></p> <p>419 x 194 OD to 914 x 813 OD, all pipe wall thicknesses (welded only).</p> <p>Per Eucaro catalogue – www.eucaro.de</p>
	<p><u>ECCENTRIC REDUCER – EHN 9603/440- CuNi10Fe1,6Mn (SMLS)</u></p> <p>20 x 16 OD to 457 x 419 OD, all pipe wall thicknesses.</p> <p>Per Eucaro catalogue – www.eucaro.de</p>
	<p><u>ECCENTRIC REDUCER – 508 to 914 – EHN- 9603/450- CuNi10Fe1,6Mn (WELDED)</u></p> <p>508 x 267 OD to 914 x 813 OD, all pipe wall thicknesses.</p> <p>Per Eucaro catalogue – www.eucaro.de</p>
	<p><u>EQUAL TEE – A234</u></p> <p>DN20 to DN900 (except DN650, 700, 800 & 850) SCH 10 to 160 & STD to XXS (WT per availability).</p> <p>Per Tubemakers Techniref 1994</p>

	<p><u>REDUCING TEE – A234 (ANSI 16.9)</u></p> <p>DN20 x 15 to DN900 x 750 (except DN650, 700, 800 & 850) SCH 10 to 160 & STD to XXS (WT per availability).</p> <p>Per Tubemakers Techniref 1994</p>
	<p><u>EQUAL TEE – DIN- STEEL</u></p> <p>DN20 to DN300, limited wall thicknesses.</p>
	<p><u>REDUCING TEE – DIN – STEEL</u></p> <p>DN20 x 16 to DN300 x 250, limited wall thicknesses.</p>
	<p><u>EQUAL TEE – DIN & EHN – CuNi10Fe1,6Mn</u></p> <p>20 OD to 914 OD, all pipe wall thicknesses (seamless & welded).</p> <p>Per Eucaro catalogue – www.eucaro.de</p>
	<p><u>REDUCING TEE – DIN & EHN – CuNi10Fe1,6Mn</u></p> <p>25 x 20 OD to 914 x 813 OD, all pipe wall thicknesses (seamless & welded).</p> <p>Per Eucaro catalogue – www.eucaro.de</p>
	<p><u>END CAP- 15 to 150NB – A-234</u></p> <p>DN15 to DN150 Sch 40, to 160 & STD, to XXS (WT per availability).</p>
	<p><u>END CAP – 200-900 - SE – A-234</u></p> <p>DN200 to DN900 Sch 10 to 160 & STD TO XXS (WT per availability).</p>

	<p><u>END CAP – DIN 28011 – CuNi10Fe1,6Mn</u></p> <p>30 OD to 914 OD, all pipe wall thicknesses (seamless & welded).</p> <p>Per Eucaro catalogue – www.eucaro.de</p>
	<p><u>BEND 180 DEG – LONG RADIUS (1.5D) - A-234</u></p> <p>200+ configurations DN15 TO DN900 SCH 10 to 160 & STD to XXS (WT per availability). <i>Note that SW cannot handle elbows greater than 90 degrees; therefore these bends have to be inserted as a fitting at the end of the route, then RMB on CPoint 2 and 'add to route' (as per an eccentric reducer in the piping help).</i></p>
	<p><u>BEND 180 DEG – SHORT RADIUS (1D) - A-234</u></p> <p>430 configurations DN15 TO DN900 SCH 10 to 160 & STD to XXS (WT per availability). <i>Note that SW cannot handle elbows greater than 90 degrees; therefore these bends have to be inserted as a fitting at the end of the route, then RMB on CPoint 2 and 'add to route' (as per an eccentric reducer in the piping help).</i></p>
	<p><u>BEND 180 DEG – LONG RADIUS (1.5D) DIN - STEEL</u></p> <p>DN25 – DN200 <i>Note that SW cannot handle elbows greater than 90 degrees; therefore these bends have to be inserted as a fitting at the end of the route, then RMB on CPoint 2 and 'add to route' (as per an eccentric reducer in the piping help).</i></p>
	<p><u>BEND 180 DEG – 3D - A-234</u></p> <p>200+ configurations DN15 TO DN900 SCH 10 to 160 & STD to XXS (WT per availability). <i>Note that SW cannot handle elbows greater than 90 degrees; therefore these bends have to be inserted as a fitting at the end of the route, then RMB on CPoint 2 and 'add to route' (as per an eccentric reducer in the piping help).</i></p>

	<p><u>BEND 180 DEG – 5D - A-234</u></p> <p>200+ configurations DN15 TO DN900 SCH 10 to 160 & STD to XXS (WT per availability). <i>Note that SW cannot handle elbows greater than 90 degrees; therefore these bends have to be inserted as a fitting at the end of the route, then RMB on CPoint 2 and 'add to route' (as per an eccentric reducer in the piping help).</i></p>
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THREADED FITTINGS

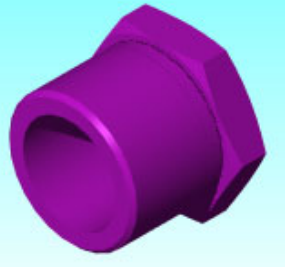
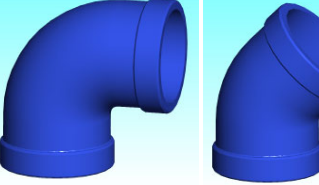
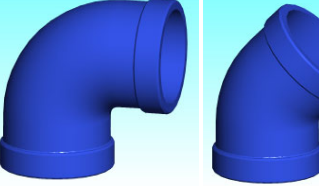


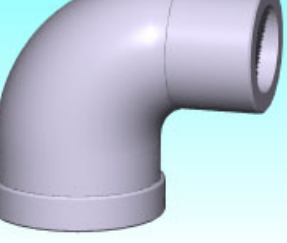
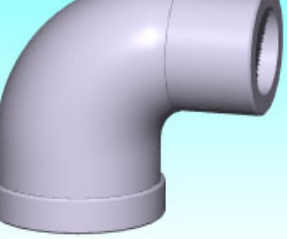
All threaded fittings have intelligent custom properties built into their design tables (making extensive use of the 'concatenate' & 'VLookup' functions) to populate your Bills of Materials (example below).

ITEM	QTY	DESCRIPTION	CUT LENGTH	SIZE	MATERIAL	Kg EA
1	1	HEX BUSH - 25 x 20 BSP		25x20 BSP	STEEL - GALV	0.1
2	1	HEX NIPPLE - 20BSP - 150lb		20BSP	STEEL - GALV	0.1
3	1	F/F REDUCER - 20 x 15 BSP		20 x 15 BSP	STEEL - GALV	0.1

This intelligent design table approach allows them to be quickly modified to suit your company's requirements or easily copied to create a fitting with different material properties, etc.

Threaded fitting make extensive use of the 'remove pipe' function in the route sketch, this allows multiple fittings to be 'screwed into each other'.

	<p><u>HEXAGON BUSH – GALVANISED (END)</u></p> <p>Configurations DN8x6 to DN100x80 in BSP & NPT.</p> <p><i>This part is used to start a piping route.</i></p>
	<p><u>HEXAGON BUSH –STEEL (END)</u></p> <p>Configurations DN8x6 to DN100x80 in BSP & NPT.</p> <p><i>This part is used to start a piping route.</i></p>
	<p><u>HEXAGON BUSH – GALVANISED (IN-LINE)</u></p> <p>Configurations DN8x6 to DN100x80 in BSP & NPT.</p> <p><i>This part is dragged onto a split point in a piping route.</i></p>

	<p><u>HEXAGON BUSH – STEEL (IN-LINE)</u></p> <p>Configurations DN8x6 to DN100x80 in BSP & NPT.</p> <p><i>This part is dragged onto a split point in a piping route.</i></p>
	<p><u>THREADED ELBOW F/F – GALVANISED (45 & 90 DEG)</u></p> <p>Configurations DN6 to DN100 in BSP & NPT – in both 45 & 90 deg. This allows SW Piping to automatically select the appropriate elbow.</p>
	<p><u>THREADED ELBOW F/F – STEEL (45 & 90 DEG)</u></p> <p>Configurations DN6 to DN100 in BSP & NPT – in both 45 & 90 deg. This allows SW Piping to automatically select the appropriate elbow.</p>
	<p><u>THREADED REDUCING ELBOW F/F – GALV (90 DEG)</u></p> <p>Configurations DN8x6 to DN80x65 in BSP & NPT. <i>To use this elbow you must remove the 'auto-radius' created in your route, then insert the elbow as you would any other fitting. This allows you to toggle the elbow to achieve the correct orientation.</i></p>
	<p><u>THREADED REDUCING ELBOW F/F – STEEL (90 DEG)</u></p> <p>Configurations DN8x6 to DN80x65 in BSP & NPT. <i>To use this elbow you must remove the 'auto-radius' created in your route, then insert the elbow as you would any other fitting. This allows you to toggle the elbow to achieve the correct orientation.</i></p>
	<p><u>THREADED ELBOW M/F – GALVANISED (90 DEG)</u></p> <p>Configurations DN8 to DN80 in BSP. <i>To use this elbow you must remove the 'auto-radius' created in your route, then insert the elbow as you would any other fitting. This allows you to toggle the elbow to achieve the correct orientation.</i></p>
	<p><u>THREADED ELBOW M/F – STEEL (90 DEG)</u></p> <p>Configurations DN8 to DN80 in BSP. <i>To use this elbow you must remove the 'auto-radius' created in your route, then insert the elbow as you would any other fitting. This allows you to toggle the elbow to achieve the correct orientation.</i></p>

	<p><u>90 DEG THREADED ELBOW – ANSI B16.11 – A105</u></p> <p>Modified SW library part to metric DN6 to DN100 2000#, 3000# & 6000#</p>
	<p><u>90 DEG THREADED ELBOW- ANSI B16.11 GALVANISED</u></p> <p>Modified SW library part to metric DN6 to DN100 2000#, 3000# & 6000#</p>
	<p><u>45 DEG THREADED ELBOW – ANSI B16.11 - A105</u></p> <p>Modified SW library part to metric DN6 to DN100 2000#, 3000# & 6000#</p>
	<p><u>45 DEG THREADED ELBOW – ANSI B16.11 - GALVANISED</u></p> <p>Modified SW library part to metric DN6 to DN100 2000#, 3000# & 6000#</p>
	<p><u>THREADED CROSS – A105</u></p> <p>Modified SW library part to metric DN6 to DN100 2000#, 3000# & 6000#</p>
	<p><u>THREADED CROSS- GALVANISED</u></p> <p>Modified SW library part to metric DN6 to DN100 2000#, 3000# & 6000#</p>

	<p><u>HEX NIPPLE (150#) - GALVANISED (BOTH IN-LINE & END VERSIONS)</u></p> <p>DN6 to DN100 in BSP & NPT</p>
	<p><u>HEX NIPPLE (150#) – STEEL (BOTH IN-LINE & END VERSIONS)</u></p> <p>DN6 to DN100 in BSP & NPT <i>This part is dragged onto a split point in a piping route.</i></p>
	<p><u>HEX REDUCING NIPPLE (150#)- GALVANISED</u></p> <p>DN 8 X 6 TO DN 100 X 80 IN BSP & NPT <i>This part is dragged onto a split point in a piping route.</i></p>
	<p><u>HEX REDUCING NIPPLE (150#) - STEEL</u></p> <p>DN 8 X 6 TO DN 100 X 80 IN BSP & NPT <i>This part is dragged onto a split point in a piping route.</i></p>
	<p><u>HEX HEAD PLUG – GALVANISED</u></p> <p>DN6 TO DN100 IN BSP & NPT</p>
	<p><u>HEX HEAD PLUG – STEEL</u></p> <p>DN6 TO DN100 IN BSP & NPT</p>
	<p><u>THREADED REDUCER F-F-150# - GALVANISED(IN-LINE)</u></p> <p>DN 8 X 6 TO DN 80 X 70 BSP & NPT <i>This part is dragged onto a split point in a piping route.</i></p>

	<p><u>THREADED REDUCER F-F-150# - STEEL (IN-LINE)</u></p> <p>DN 8 X 6 TO DN 80 X 70 BSP & NPT</p> <p><i>This part is dragged onto a split point in a piping route.</i></p>
	<p><u>SOCKET - 150# - GALVANISED (IN-LINE)</u></p> <p>DN6 to DN 100 in BSP</p> <p><i>This part is dragged onto a split point in a piping route.</i></p>
	<p><u>SOCKET - 150# - STEEL (IN-LINE)</u></p> <p>DN6 to DN 100 in BSP</p> <p><i>This part is dragged onto a split point in a piping route.</i></p>
	<p><u>TANK (HALF) SOCKET- 150# - GALVANISED (END)</u></p> <p>DN6 TO DN100 in BSP</p> <p><i>This part is used to start a piping route.</i></p>
	<p><u>TANK (HALF) SOCKET- 150# - STEEL (END)</u></p> <p>DN6 TO DN100 in BSP</p> <p><i>This part is used to start a piping route.</i></p>
	<p><u>THREADED EQUAL TEE - 150# - GALVANISED</u></p> <p>DN6 to DN100 BSP & NPT</p>

	<p><u>THREADED EQUAL TEE – 150# - STEEL</u></p> <p>DN6 to DN100 BSP & NPT</p>
	<p><u>THREADED EQUAL TEE – ANSI B16.11 –A105</u></p> <p>DN8 to DN100 – 2000, 3000 & 6000#</p> <p>Modified SW library part to metric – per others</p>
	<p><u>THREADED EQUAL TEE – ANSI B16.11 –GALVANISED</u></p> <p>DN8 to DN100 – 2000, 3000 & 6000#</p> <p>Modified SW library part to metric – per others</p>
	<p><u>THREADED UNION – ANSI B16.11 – A105 (IN- LINE)</u></p> <p>DN6 to DN80 – 3000 & 6000#</p> <p><i>This part is dragged onto a split point in a piping route.</i></p>
	<p><u>THREADED UNION – ANSI B16.11 – GALVANISED (IN- LINE)</u></p> <p>DN6 to DN80 – 3000 & 6000#</p> <p><i>This part is dragged onto a split point in a piping route.</i></p>
	<p><u>THREADED UNION – ANSI B16.11 – A105 (END)</u></p> <p>DN6 to DN80 – 3000 & 6000#</p> <p><i>This part is used to start a piping route.</i></p>

	<p><u>THREADED UNION – ANSI B16.11 – GALVANISED (END)</u></p> <p>DN6 to DN80 – 3000 & 6000#</p> <p><i>This part is used to start a piping route.</i></p>
	<p><u>THREADED UNION F/F – 150# - GALVANISED (END)</u></p> <p>DN6 to DN80 BSP & NPT</p> <p><i>This part is used to start a piping route.</i></p>
	<p><u>THREADED UNION F/F – 150# - STEEL (END)</u></p> <p>DN6 to DN80 BSP & NPT</p> <p><i>This part is used to start a piping route.</i></p>
	<p><u>THREADED UNION F/F – 150# - GALVANISED (IN-LINE)</u></p> <p>DN6 to DN80 BSP & NPT</p> <p><i>This part is dragged onto a split point in a piping route.</i></p>
	<p><u>THREADED UNION F/F – 150# - STEEL (IN-LINE)</u></p> <p>DN6 to DN80 BSP & NPT</p> <p><i>This part is dragged onto a split point in a piping route.</i></p>

SOCKET WELD FITTINGS

All socket weld fittings have intelligent custom properties built into their design tables (making extensive use of the 'concatenate function') to populate your Bills of Materials (example below).

ITEM	QTY	DESCRIPTION	CUT LENGTH	SIZE	MATERIAL	Kg EA
1	1	SOCKET WELD UNION - DN40 - 6000#		DN40 - 6000#	ASTM A105	1.4
2	1	SOCKET WELD UNION - DN40 - 3000#		DN40 - 3000#	ASTM A105	1.4
3	1	PIPE - 40NS, SCH 40	285.82mm		ASTM A106	0.2

This intelligent design table approach allows them to be quickly modified to suit your company's requirements or easily copied to create a fitting with different material properties, etc.

	<p><u>SOCKET WELD UNION – ANSI B16.11 – A105 (END)</u></p> <p>DN6 to DN80 – 3000 & 6000#</p> <p><i>This part is used to start a piping route.</i></p>
	<p><u>SOCKET WELD UNION – ANSI B16.11 – A105 (IN-LINE)</u></p> <p>DN6 to DN80 – 3000 & 6000#</p> <p><i>This part is dragged onto a split point in a piping route.</i></p>
	<p><u>XXX</u></p>
	<p><u>XXX</u></p>
	<p><u>XXX</u></p>
	<p><u>XXX</u></p>
	<p><u>XXX</u></p>

VALVES

All valves have intelligent custom properties built into their design tables (making extensive use of the 'concatenate function') to populate your Bills of Materials (example below).


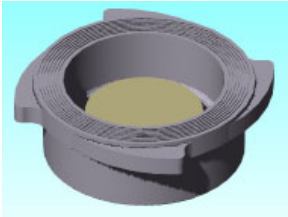
ITEM	QTY.	DESCRIPTION	SIZE	kg
1	1	KNIFE GATE VALVE - 250NB TABLE D	DN250 TABLE D	57.3
2	1	BALL VALVE - DN65 BSPT	DN65 BSPT	7.9
3	1	BALL VALVE - 3 PIECE - DN40-NPT	DN40 NPT	2.9

This intelligent design table approach allows them to be quickly modified to suit your companies requirements or easily copied to create a valve with different material properties, etc.

	<p><u>3 Piece Ball Valve.</u></p> <p>Configurations DN8 to 50 in BSP, NPT & SW</p> <p><i>This part is dragged onto a split point in a piping route.</i></p>
	<p><u>INSTRUMENT NEEDLE VALVE</u></p> <p>Configurations 6 to 25 NPT S/S 316 With both a round and Tee handle.</p>
	<p><u>BUTTERFLY VALVE, LUGGED</u></p> <p>Configurations DN50 to DN300 in ANSI 150#, BST 'E' & BST 'D'.</p> <p>Modelled from Keystone AR2 catalogue.</p>
	<p><u>BUTTERFLY VALVE, LUGGED - NO HANDLE</u></p> <p>Configurations DN50 to DN900 in ANSI 150# and DN50 to DN300 in BST 'E' & BST 'D'.</p> <p>Modelled from Keystone AR2 catalogue. No handle to allow use with various actuators.</p>

	<p><u>BUTTERFLY VALVE – 50 TO 300 – PNEUMATIC</u> <u>(THIS IS AN ASSEMBLY)</u></p> <p>Configurations DN50 to DN300 in ANSI 150#, BST 'E' & BST 'D' with both the single & double acting F79U/E actuators.</p> <p>Modelled from Keystone AR2 & 79U/E catalogues.</p>
	<p><u>BUTTERFLY VALVE – 50 TO 900 – GEARED HANDWHEEL</u> <u>(THIS IS AN ASSEMBLY)</u></p> <p>Configurations DN50 to DN900 in ANSI 150#, BST 'E' & BST 'D' with geared handwheel F427 .</p> <p>Modelled from Keystone AR2 & F427 catalogues.</p>
	<p><u>FLANGE BALL VALVE – PNEUMATIC</u> <u>(THIS IS AN ASSEMBLY)</u></p> <p>DN15 to 50, Full & Reduced Bore 150# & 300# with F79U/E actuator.</p> <p>Modelled from Keystone F344 & 79U/E catalogues.</p>
	<p><u>F79U/E PNEUMATIC ACTUATOR</u></p> <p>Sizes 003 to 036, Spring Return & Double Acting fitted with positioner..</p> <p>Modelled from Keystone 79U/E catalogue.</p>
	<p><u>BALL VALVE – DN80-200 - FLANGED</u></p> <p>DN80 to 200, 150# & 300#</p> <p>Modelled from Keystone F344 & F345 catalogues.</p>

	<p><u>BALL VALVE – DN65-100 – REDUCED BORE</u></p> <p>DN65 to 100, BSPT, NPT, SW & Sch 40 BW - With either handle or pneumatic actuator.</p> <p>Modelled from Keystone F382 & 79U/E catalogues. <i>This part is dragged onto a split point in a piping route.</i></p>
	<p><u>BALL VALVE – DN15-50 - FLANGED</u></p> <p>DN15 to 50, 150# & 300#</p> <p>Modelled from Keystone F344 & F345 catalogues.</p>
	<p><u>BALL VALVE – DN15-50-FLANGED – FOR ACTUATOR</u></p> <p>DN15 to DN50, 150# & 300# to accept F79U/E.</p> <p>Modelled from Keystone F344 & F345 catalogues.</p>
	<p><u>GATE VALVE – CAST STEEL</u></p> <p>DN50 to DN300, 150# & 300#</p>
	<p><u>KNIFE GATE VALVE – DN25-600</u></p> <p>DN250 to 600, Table D.</p> <p>Modelled from the Keystone F952 catalogue.</p>

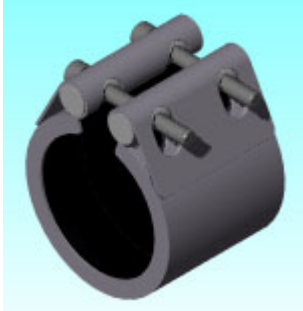
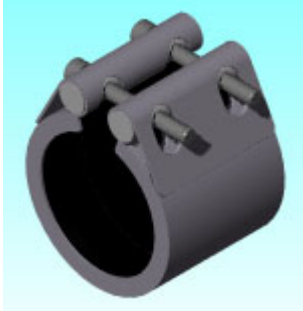
	<p><u>JORDAN MK 50 BACK PRESSURE VALVE</u></p> <p>DN15 to DN50, NPT & BSP</p> <p>Modelled from the Jordan Treloar MK 50 catalogue.</p>
	<p><u>SPIRAX SARCO DCV 2 WAFER CHECK VALVE</u></p> <p>DN15 to DN100. Can be fitted between the following flanges: BS10 table E (except DN65 & 80) Table H and BS4504/DIN PN6 to 40.</p> <p>Modelled from the Spirax Sarco product handbook (1995-96)</p>

MISCELLANEOUS PIPING ITEMS

All parts have intelligent custom properties built into their design tables (making extensive use of the 'concatenate function) to populate your Bills of Materials (example below).

ITEM	QTY	DESCRIPTION	SIZE	MATERIAL	Kg EA
1	1	STRAUB COUPLING (W2 - EPDM) - DN80 (OD 88.9)	PIPE OD 88.9	STRAUB METAL GRIP (W2 - EPDM)	2

This intelligent design table approach allows them to be quickly modified to suit your company's requirements or easily copied to create a similar part with different material properties, etc.

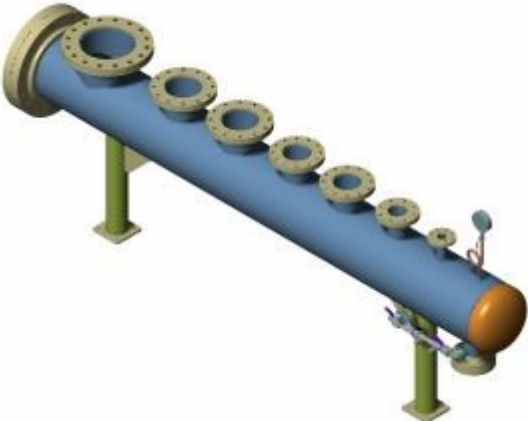
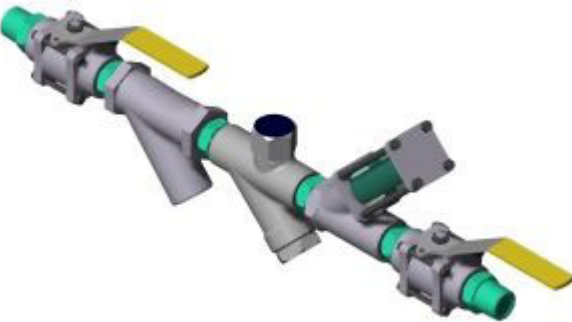

	<p><u>STRAUB COUPLING – 'METAL GRIP' (END)</u></p> <p>PIPE OD 30mm to 609.6 Material grades W1, W2 & W4 with both NBR & EPDM seals.</p> <p><i>This part is used to start a piping route.</i></p>
	<p><u>STRAUB COUPLING – METAL GRIP (IN-LINE)</u></p> <p>PIPE OD 30mm to 609.6 Material grades W1, W2 & W4 with both NBR & EPDM seals.</p> <p><i>This part is dragged onto a split point in a piping route</i></p>

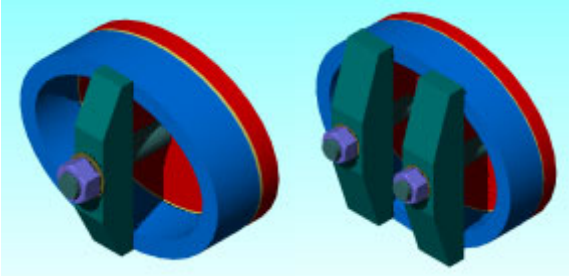
MISCELLANEOUS ASSEMBLIES

Below are a collection of assemblies that you may find useful for use in a piping / plant installation project.

DISCLAIMER:

Please note that any pressure containing parts/vessels MUST have the appropriate design calculations & design verification conducted by an accredited company/person to ensure that they comply with your country's design codes and are deemed suitable for use in your piping/ pressure vessel design.

	<p><u>Steam header assembly.</u></p> <p>Modelled using SW Piping plus a number of my library parts & assemblies and controlled by a driving part (containing the driving sketch & associated planes).</p> <p>Shown here with a 400nb body and nozzles ranging from 300nb to 80nb. However, this header can be copied, re-named and re-sized to suit your requirements.</p>
	<p><u>Steam Trap (Thermodynamic) Set.</u></p> <p>Based on Spirax Sarco thermodynamic steam trap set – inlet isolating valve, strainer, steam trap, sight/check & discharge isolating valve.</p> <p>Has 2 configurations: 15 & 20 BSP</p>
	<p><u>Steam Trap (Float) Set.</u></p> <p>Based on Spirax Sarco float type steam trap set – inlet isolating valve, strainer, steam trap, sight/check & discharge isolating valve.</p> <p>Has 2 configurations: 15 & 20 BSP</p>

	<p><u>ELLIPTICAL INSPECTION OPENING – AS 1210 (material AS1548-7-460R)</u></p>
	<p>Configurations: 400x300, 225x180, 180x125 & 115x90.</p>
	<p>Based on the now defunct Rheem Tank Products inspection openings..</p>