ISOGEN
Symbol Key (SKEY)
Definitions

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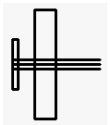
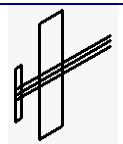
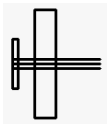
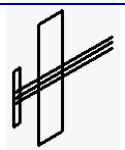
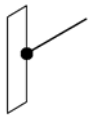
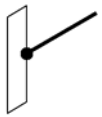
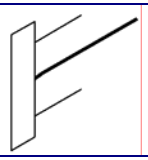
Overview

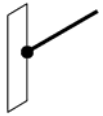
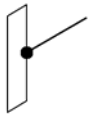
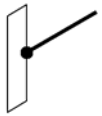
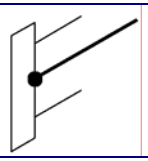
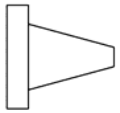
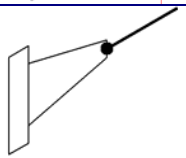
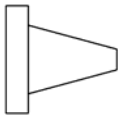
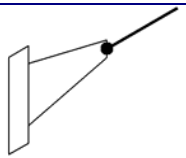
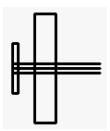
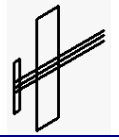
This document is intended to comprehensively cover all current ISOGEN SKEY symbol shapes. Below is a brief description about SKEY's and some further information to help understand SKEY construction.

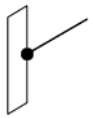
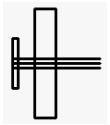
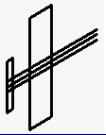
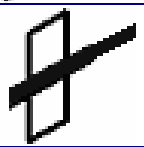
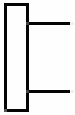
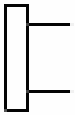
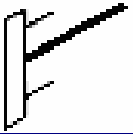
All components generated by ISOGEN are defined by a unique code called an SKEY (symbol key). All components have a 2 to 4 letter SKEY, the first two characters define the type of component it is and if the component can have different end types such as flanged, butt weld, screwed etc. then these are defined by the last two characters.

- The ** characters in the SKEY may be replaced for an appropriate end condition from the following:
  - BW for Butt Weld
  - CP for Compression
  - SW for Socket Weld
  - FL for Flanged
  - SC for Screwed
  - PL for Plain End
  - LN for Liner/Nut
  - LC for Liner/Clamp
  - LR for Reducing Liner/Nut
  - MP for Male Part
  - PF for Push Fit
  - GL for Glued
  - CL for Clamped
  - FA for Flared
  - BS (or SB) for Ball and Socket (used on fixed length type pipe work)
  - GF for Gland (used on fixed length type pipe work)
- The @ character in the SKEY may be replaced with an integer value in the range 1 to 9 to denote the number of segments.
- The + character in the SKEY may be replaced with an integer value in the range 1 to 9 to denote the bend radius. This is for identification only and will not be used for pipe length calculations.

Symbol Keys for Flanges / Bolted Joints

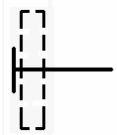
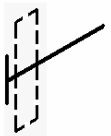
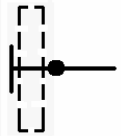
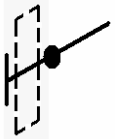
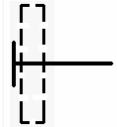
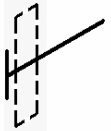
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Flange – Blind (also known as a blank – symbol includes tapping connections)	FLBL			YES	FLANGE-BLIND	107
Flange – Flared / Loose Backing	FLFL			YES	FLANGE	105
Flange – Loose backing	FLLB			YES	FLANGE	105
Flange – Reducing Concentric	FLRC			YES	FLANGE-REDUCING-CONCENTRIC	65/0
Flange – Reducing Eccentric	FLRE			YES	FLANGE-REDUCING-ECCENTRIC	65/0
Flange – Screwed	FLSC			YES	FLANGE	105

Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Flange – Slip on with 'J' type weld	FLSJ			YES	FLANGE	105
Flange – Slip on	FLSO			YES	FLANGE	105
Flange – Orifice slip on with Tap points	FOSO			YES	FLANGE	105
Flange – Socket weld	FLSW			YES	FLANGE	105
Flange – Weld Neck	FLWN			YES	FLANGE	105
Flange Orifice Weld neck with Tap points	FOWN			YES	FLANGE	105
Flange – Lap Joint Ring / Stub End Combined	FBSE			YES	FLANGE	105

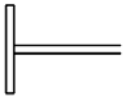
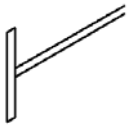
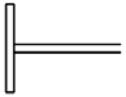
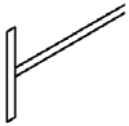
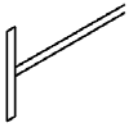
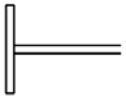
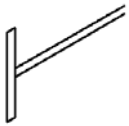
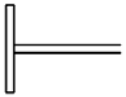
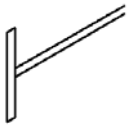
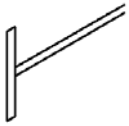
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Cast / Lined Fixed Flange (Female) – cast / lined flange	FLFF			YES	FLANGE	105
Cast / Lined Rotating Flange	FLFR			YES	FLANGE	105
Cast / Lined Flange – Gland Type (Female)	FLGF			YES	FLANGE	105
Cast / Lined Flange – Gland Type (Male)	FLGM			YES	FLANGE	105
Glued (Female) connection	FLGL			YES	FLANGE	105
Push Fit (Female) connection	FLPF			YES	FLANGE	105
Seal Welded Flange (Sarlun / Sargol) (Female) connection	FLSF			YES	FLANGE	105

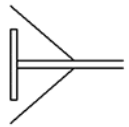
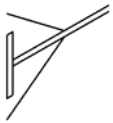
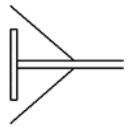
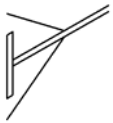
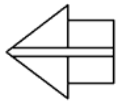
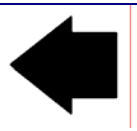
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Seal Welded Flange (Sarlun / Sargol) (Male) connection	FLSM			YES	FLANGE	105

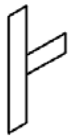
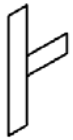
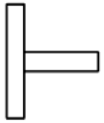
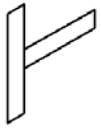
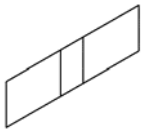
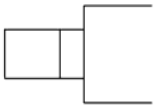
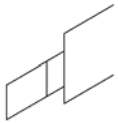
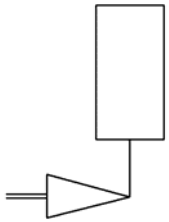
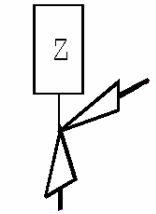
Symbol Keys for LJSE Type Flanges

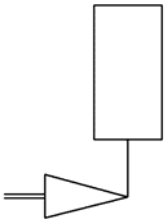
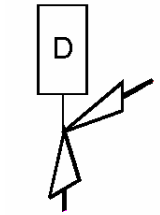
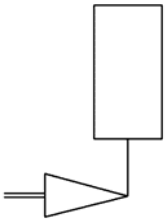
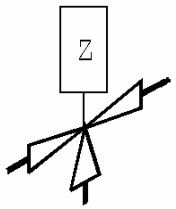
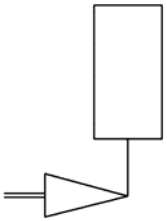
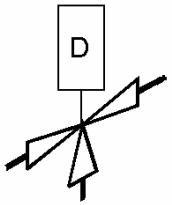
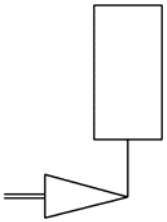
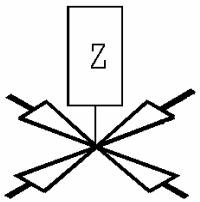
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Lap Joint Ring (Loose Backing Flange)	FLRG			YES	LAPJOINT-RING	106
Lap Joint Stub End (Loose Backing Flange	FLSE			YES	LAPJOINT-STUB-END	106
Stub End (LJSE) – use with glued / push fit systems	FLMP			YES	LAPJOINT-STUB-END	106

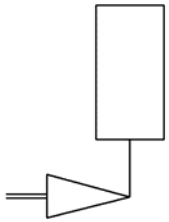
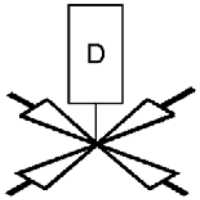
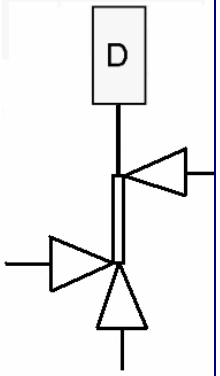
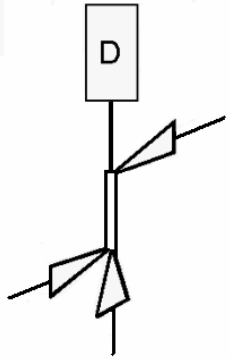
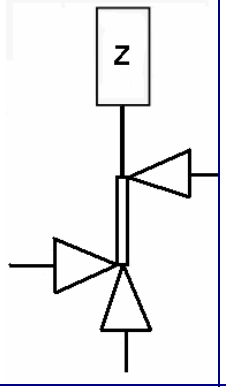
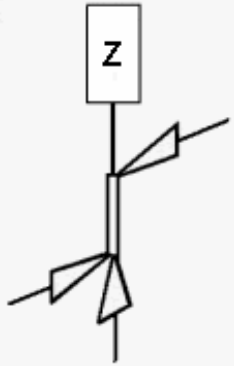
Symbol Keys for Hygienic Fittings

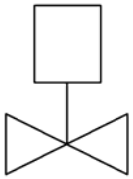
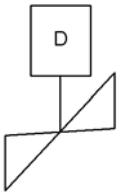
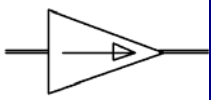
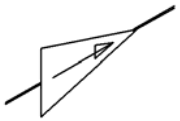
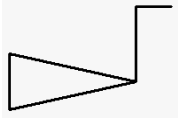
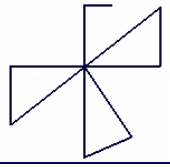
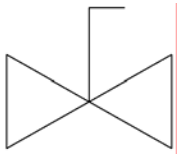
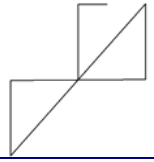
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	Flow Arrow	Flow Dependency	PCF Identification	IDF Record
Male Part Connector Butt Weld	MPBW			YES	N	N	CONNECTOR	111
Male Part Connector Expanded	MPEX			YES	N	N	CONNECTOR	111
Clamp Liner Butt Weld	LCBW			YES	N	N	CONNECTOR	111
Clamp Liner Expanded	LCEX			YES	N	N	CONNECTOR	111
Backing Nut Liner Butt Weld	LNBW			YES	N	N	CONNECTOR	111
Backing Nut Liner	LN			YES	N	N	CONNECTOR	111

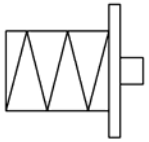
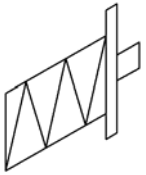
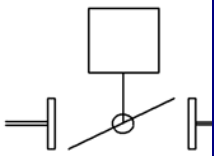
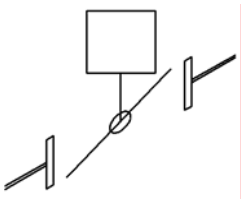
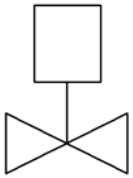
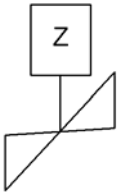
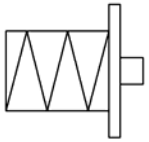
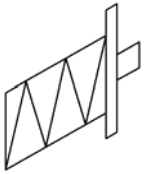
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	Flow Arrow	Flow Dependency	PCF Identification	IDF Record
Backing Nut Reducing Liner Butt Weld	LRBW			YES	N	N	CONNECTOR	111
Backing Nut Reducing Liner Expanded	LREX			YES	N	N	CONNECTOR	111
Backing Nut	BNUT			YES	N	N	NUT	112
Clamp	CLMP			YES	N	N	CLAMP	113
Drain / Vent Plug	DVP			YES	N	N	MISC-HYGENIC	114
Male Blanking Plug	BM			YES	N	N	MISC-HYGENIC	114
Blank Plain	BP			YES	N	N	MISC-HYGENIC	114

Description	SKEY	Shape	Plotted Isometric Shape	User Definable	Flow Arrow	Flow Dependency	PCF Identification	IDF Record
Reducing Concentric Blank Boss	BBC			YES	N	N	MISC-HYGENIC	114/0
Reducing Eccentric Blank Boss	BBE			YES	N	N	MISC-HYGENIC	114/0
Blank Thermocouple Connector	BTP			YES	N		MISC-HYGENIC	114/0
Male to Male Adapter	ADMM			YES	N		MISC-HYGENIC	114
Male to Female Adapter	ADMF			YES	N		MISC-HYGENIC	114
2 Port Single Level (Angle Type) Valve (Z)	2Z**			YES	N		VALVE-ANGLE	75/76

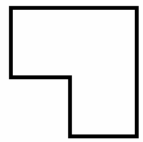
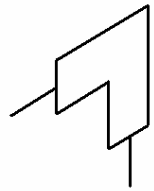
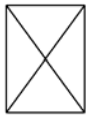
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	Flow Arrow	Flow Dependency	PCF Identification	IDF Record
2 Port Single Level (Angle Type) Valve (D)	2D**			YES	N		VALVE-ANGLE	75/76
3 Port Single Level Valve (Z)	3Z**			YES	N		VALVE-3WAY	80/0/81/ 82
3 Port Single Level Valve (D)	3D**			YES	N	N	VALVE-3WAY	80/0/81/ 82
4 Port Single Level Valve (Z)	4Z**			YES	N	N	VALVE-4WAY	85/0/86/ 87/ 88

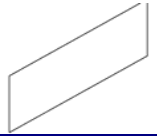
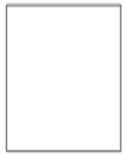
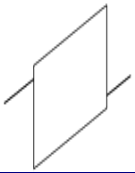
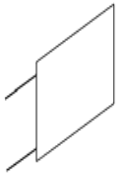
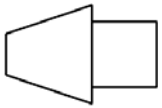
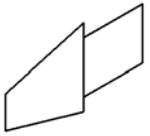
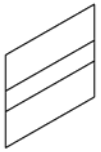
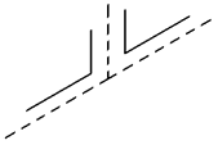
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	Flow Arrow	Flow Dependency	PCF Identification	IDF Record
4 Port Single Level Valve (D)	4D**			YES	N	N	VALVE-4WAY	85/0/86/ 87/ 88
Multi-Port Dual Level Valve with D Spindle	MD**			YES	N	N	VALVE-MULTIWAY	75/76 80/0/81/ 82 85/0/86/ 87/ 88
Multi-Port Dual Level Valve with Z Spindle	MZ**			YES	N	N	VALVE-MULTIWAY	75/76 80/0/81/ 82 85/0/86/ 87/ 88

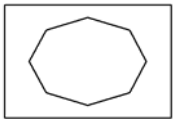
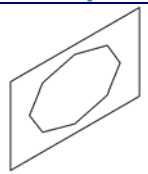
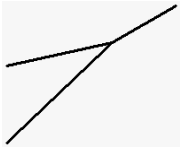
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	Flow Arrow	Flow Dependency	PCF Identification	IDF Record
Separator for Multi Level Valve	DUMY			YES	N	N	N/A	N/A
Graduated Control Valve (D)	IG**			YES	Y	N	INSTRUMENT	90/93
Non Return Valve	NV**			YES	N	Y	VALVE	130
3 Way Check Valve	K3**			YES	N	N	VALVE-3WAY	80/0/81/ 82
Wide Angle Cock	KV**			YES	Y	N	VALVE	130

Description	SKEY	Shape	Plotted Isometric Shape	User Definable	Flow Arrow	Flow Dependency	PCF Identification	IDF Record
Pressure Relief Valve (Z)	VZ**			YES	N	Y	VALVE	130
Butterfly Valve	ZB**			YES	Y	N	VALVE	130
Graduated Control Valve (Z)	ZG**			YES	Y	N	VALVE	130
Pressure Relief Valve (Instrument Type) (I)	ZV**			YES	N	Y	INSTRUMENT	90/93

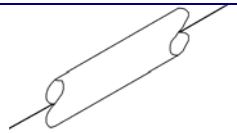
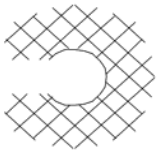
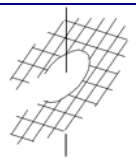
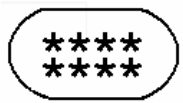
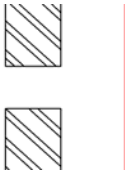
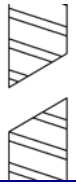
Symbol Keys for Miscellaneous Pipe Components

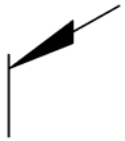
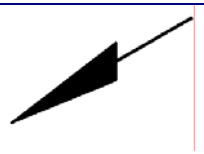
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	Flow Arrow	Flow Dependency	PCF Identification	IDF Record
Block - Angle	BA**			YES	N	N	MISC-COMPONENT-ANGLE	95/96
Expansion Bellows	EX**			YES	Y	N	MISC-COMPONENT	95/96
Flame Trap	FT**			YES	Y	N	MISC-COMPONENT	95/96
Flexible Hose	FX**			YES	Y	N	MISC-COMPONENT	95/96
Hose Coupling	CH**			YES	N	N	MISC-COMPONENT	95/96

Description	SKEY	Shape	Plotted Isometric Shape	User Definable	Flow Arrow	Flow Dependency	PCF Identification	IDF Record
Non Category Item	NC**			YES	N	N	MISC-COMPONENT	95/96
Block Offset	BO**			YES	Y	N	MISC-COMPONENT-OFFSET	95/96
Block Return	BR**			YES	Y	N	MISC-COMPONENT-RETURN	95/96
Plug	PL			YES	N	N	MISC-COMPONENT	95/96
Restrictor Plate	RP			YES	Y	N	MISC-COMPONENT	95/96
Reinforcing Pad	RPAD			NO	N	N	REINFORCE-MENT PAD	NONE

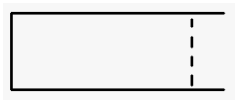
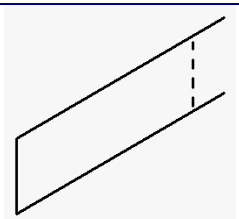
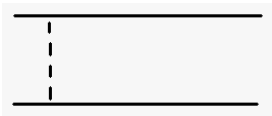
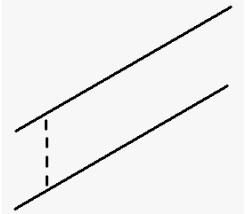
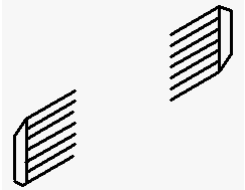
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	Flow Arrow	Flow Dependency	PCF Identification	IDF Record
Sight Glass	SG**			YES	Y	N	MISC-COMPONENT	95/96
Slip Plate	SP			YES	N	N	MISC-COMPONENT	95/96
Slip Ring	SR			YES	N	N	MISC-COMPONENT	95/96
Spectacle Blind	SB			YES	N	N	MISC-COMPONENT	95/96
Tundish (funnel)	TU**			YES	Y	Y	MISC-COMPONENT	95/96

Symbol Keys for Miscellaneous Items

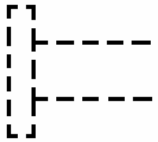
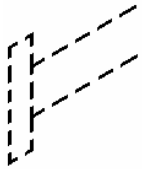
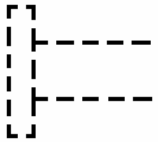
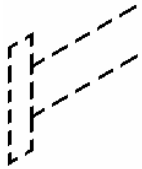
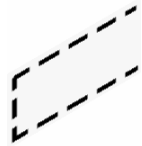
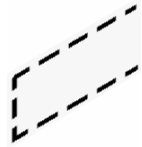
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Insulation Symbol	INPP			YES	INSULATION-SYMBOL	149
Floor Symbol	FLOR			YES	FLOOR-SYMBOL	149
Flow Arrow	FLOW			YES	FLOW-ARROW	149
Location Point	LOPT			NO	LOCATION-POINT	149
Wall	WALL			YES		149

Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Arrow Head – Dimension Line	AR01			YES	N/A	N/A
Arrow Head – Message Line	AR02			YES	N/A	N/A
Line Break	AR04			YES	N/A	N/A

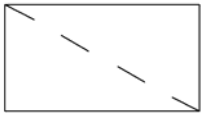
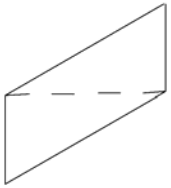
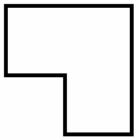
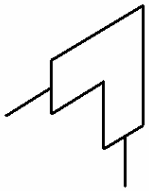
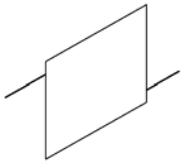
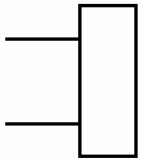
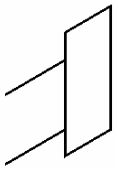
Symbol Keys for Penetration Plate Items

Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Penetration Plate End Sections	PLT1			YES	Used with PENETRATION-PLATE	Used with CRPP
Penetration Plate Centre Sections	PLT2			YES	Used with PENETRATION-PLATE	Used with CRPP
Locating Pin	LPIN			YES	MISC-COMPONENT	95/96

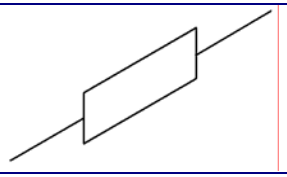
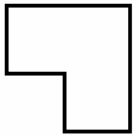
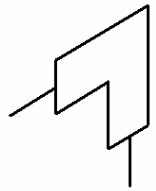
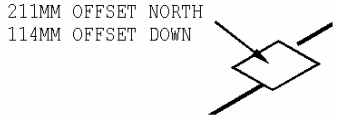
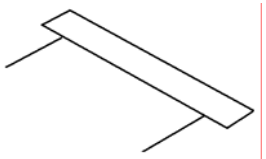
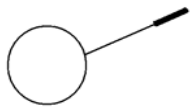
Symbol Keys for Nozzles

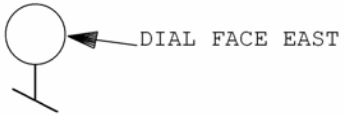
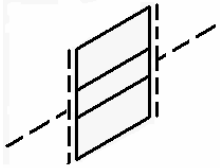
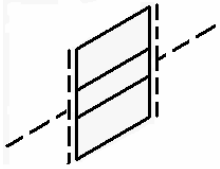
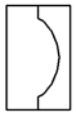
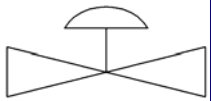
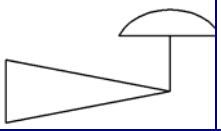
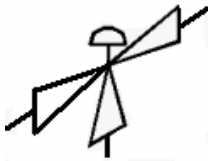
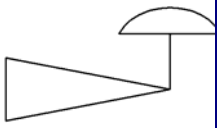
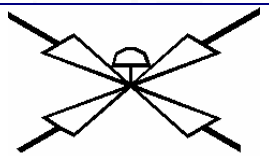
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Nozzle - Start Flanged	NZFS			YES	NOZZLE	-31
Nozzle - End Flanged	NZFE			YES	NOZZLE	-31
Nozzle - Start Welded	NZWS			YES	NOZZLE	-31
Nozzle - End Welded	NZWE			YES	NOZZLE	-31

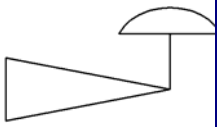
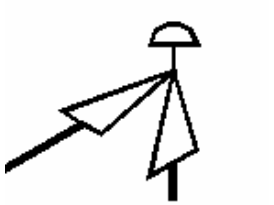
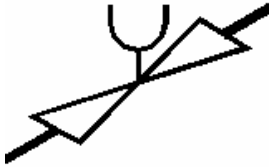
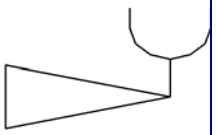
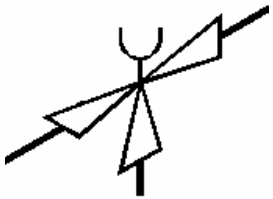
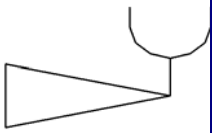
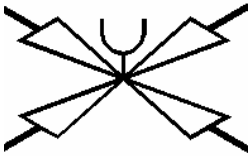
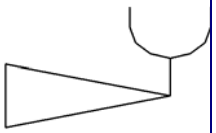
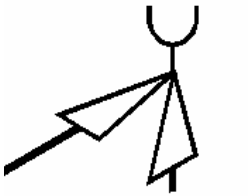
Symbol Keys for Inline Filters

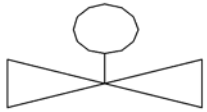
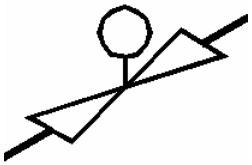
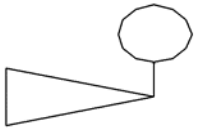
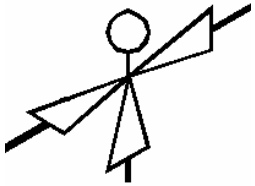
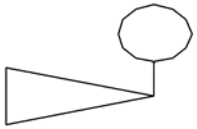
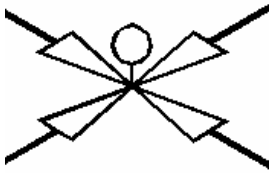
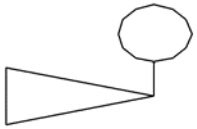
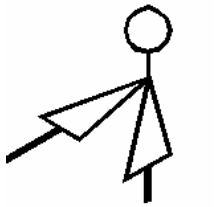
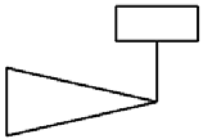
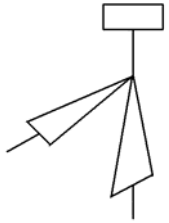
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	Flow Arrow	Flow Dependency	PCF Identification	IDF Record
Filter / Strainer – Straight Through	FI**			YES	Y	Y	FILTER	136/137
Filter / Strainer – Angle	FA**			YES	N	N	FILTER-ANGLE	136/137
Filter / Strainer – Offset	FO**			YES	Y	N	FILTER-OFFSET	136/137
Filter / Strainer – Return	FR**			YES	Y	N	FILTER-RETURN	136/137

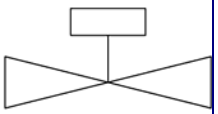
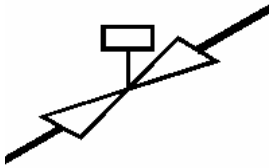
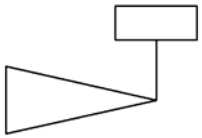
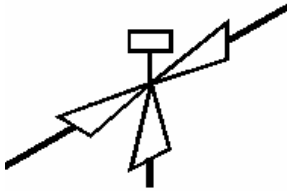
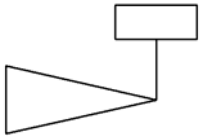
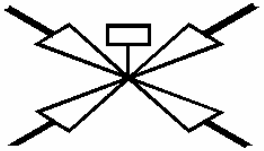
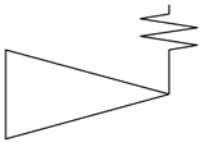
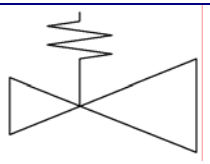
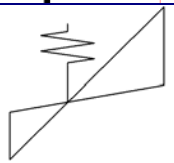
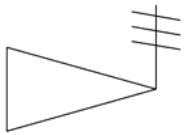
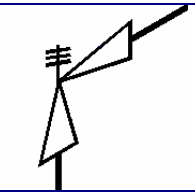
Symbol Keys for Instruments

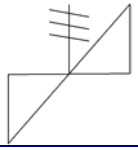
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	Flow Arrow	Flow Dependency	PCF Identification	IDF Record
Instrument	II**			YES	N	N	INSTRUMENT	90/93
Instrument - Angle	IA**			YES	N	N	INSTRUMENT-ANGLE	90/93
Instrument - Offset	IO**			YES	Y	N	INSTRUMENT-OFFSET	90/93
Instrument - Offset	IR**			YES	Y	N	INSTRUMENT-RETURN	90/93
Instrument - Dial	IDPL	N/A		NO	N	N	INSTRUMENT-DIAL	90

Instrument – Dial Flanged	IDFL	N/A		NO	N	N	INSTRUMENT-DIAL	90
Orifice Plate	OP			YES	Y	N	INSTRUMENT	90/93
Restrictor Plate	PR			YES	Y	N	INSTRUMENT	90/93
Rupture Disk	DR			YES	Y	Y	INSTRUMENT	90/93
Control Valve	CV**			YES	Y	N	INSTRUMENT	90/93
3 Way Control Valve	C3**			YES	N	N	INSTRUMENT-3WAY	90/0/91/93
4 Way Control Valve	C4**			YES	N	N	INSTRUMENT-4WAY	90/0/91/92/93

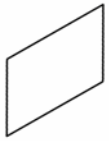
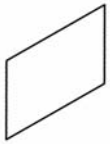
Angled Control Valve	CA**			YES	N	N	INSTRUMENT-ANGLE	90/93
Hand Operated Control Valve	HV**			YES	Y	N	INSTRUMENT	90/93
Hand Operated 3 Way Control Valve	H3**			YES	N	N	INSTRUMENT-3WAY	90/0/91/93
Hand Operated 4 Way Control Valve	H4**			YES	N	N	INSTRUMENT-4WAY	90/0/91/92/93
Hand Operated Angled Control Valve	HA**			YES	N	N	INSTRUMENT-ANGLE	90/93

Motor Operated Control Valve	MV**			YES	Y	N	INSTRUMENT	90/93
Motor Operated 3 Way Control Valve	M3**			YES	N	N	INSTRUMENT-3WAY	90/0/91/93
Motor Operated 4 Way Control Valve	M4**			YES	N	N	INSTRUMENT-4WAY	90/0/91/92/93
Motor Operated Angled Control Valve	MA**			YES	N	N	INSTRUMENT-ANGLE	90/93
Instrument Angle Control Valve with Square Indicator	SA**			YES	N	N	INSTRUMENT-ANGLE	90/93

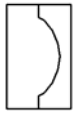
Square Indicator Control Valve	SV**			YES	Y	N	INSTRUMENT	90/93
Square Indicator 3 Way Control Valve	S3**			YES	N	N	INSTRUMENT-3WAY	90/0/91/93
Square Indicator 4 Way Control Valve	S4**			YES	N	N	INSTRUMENT-4WAY	90/0/91/92/93
Angled Pressure Reducing Angle	XA**			YES	Y	N	INSTRUMENT-ANGLE	90/93
Pressure Reducing Instrument Valve	XV**			YES	Y	Y	INSTRUMENT-ANGLE	90/93
Angled Relief/Vent Instrument Valve	RA**			YES	Y	N	INSTRUMENT-ANGLE	90/93

Relief/Vent Instrument Valve	RV**			YES	Y	N	INSTRUMENT	90/93

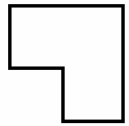
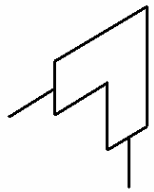
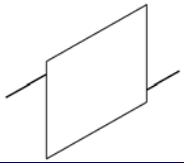
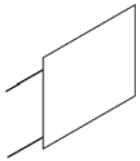
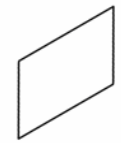
Symbol Keys for Pipe Blocks

Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Pipe Block Fixed Length	PF			YES	PIPE-BLOCK-FIXED	102
Pipe Block Variable Length	PV			YES	PIPE-BLOCK-VARIABLE	103

Symbol Keys for Vents

Description	SKEY	Shape	Plotted Isometric Shape	User Definable	Flow Arrow	Flow Dependency	PCF Identification	IDF Record
Rupture Disk	RD			YES	Y	Y	SAFETY-DISC	134

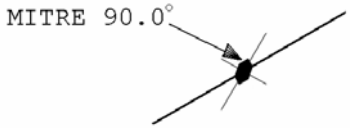
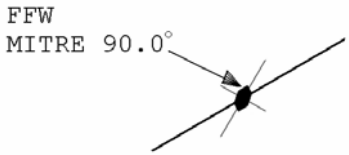
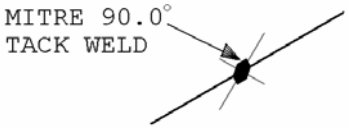
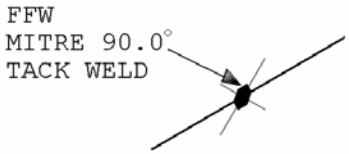
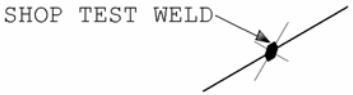
Symbol Keys for Traps

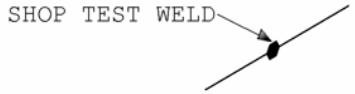
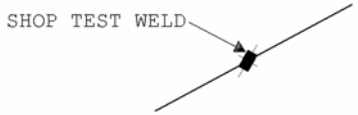
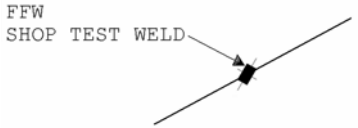
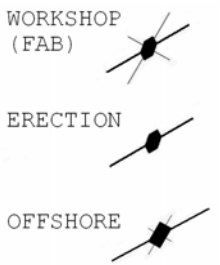
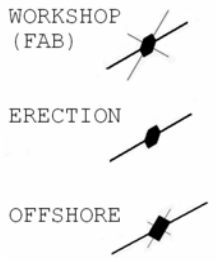
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	Flow Arrow	Flow Dependency	PCF Identification	IDF Record
Trap - Angle	TA**			YES	N	N	TRAP-ANGLE	132/133
Trap – Offset	TO**			YES	Y	N	TRAP-OFFSET	132/133
Trap – Return	TR**			YES	Y	N	TRAP-RETURN	132/133
Trap - Inline	TI**			YES	N	N	TRAP	132/133

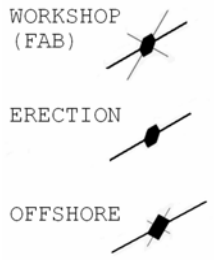
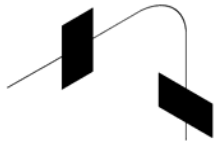
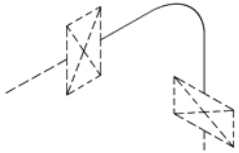
Symbol Keys for Welds

Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Weld – Workshop Weld	WW			YES	WELD	120
Weld – Dotted Workshop Weld	WWD			YES	WELD	120
Weld – Site	WS			YES	WELD	120
Weld – Tack for site weld	WST			YES	WELD	120
Weld – Dotted Site Weld	WSD			YES	WELD	120
Weld – Field Fit	WF			YES	WELD	120
Weld – Tack for Field Fit	WFT			YES	WELD	120

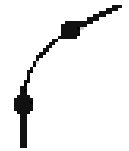
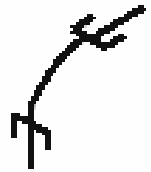
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Weld – Dotted Field Fit Weld	WFD			YES	WELD	120
Weld – Offshore	WO			YES	WELD	120
Weld – Tack for Offshore Weld	WOT			YES	WELD	120
Weld – Dotted Offshore Weld	WOD			YES	WELD	120
Weld – Offshore Field Fit Weld	WOF			YES	WELD	120
Weld – Tack for Offshore Field Fit Weld	WOFT			YES	WELD	120
Weld – Special Site Weld (non spooling)	WSSP			YES	WELD	120
Weld – Automatic Workshop Weld	WWA			YES	WELD	120

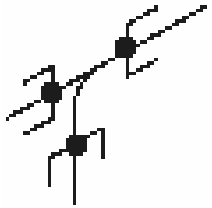
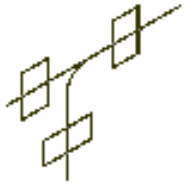
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Eld – Field Fit Weld with Shop Test Requirement	WFST			YES	WELD	120
Weld – Field Fit Offshore Dotted	WOFD			YES	WELD	120
Weld – Mitre	WM	N/A		NO	WELD	120
Weld – Mitre Field Fit	WMF	N/A		NO	WELD	120
Weld – Mitre Tack	WMT	N/A		NO	WELD	120
Weld – Mitre Field Fit Tack	WMFT	N/A		NO	WELD	120
Weld – Site Workshop Test	WSST			NO	WELD	120

Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Weld – WorkShop Shop Test	WWST			NO	WELD	120
Weld – Offshore Shop Test	WOST			NO	WELD	120
Weld – Offshore Field Fit Shop Test	WVST			NO	WELD	120
Weld – Support	ZSP*			NO	WELD	120
Weld – Trunnion	ZTN*			NO	WELD	120

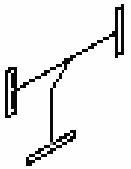
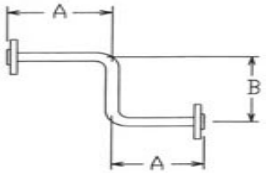
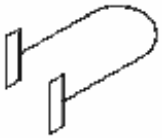
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Weld – Reinforced Trunnion	ZTR*			NO	WELD	120
Weld – Site Socket /Screwed/Compression	XX	N/A		NO	WELD	120
Weld – Site Socket /Screwed/Compression Dotted	XXD	N/A		NO	WELD	120
Seal Weld – Erection	WSSR			YES	WELD	120
Seal Weld – Offshore	WOSR			YES	WELD	120

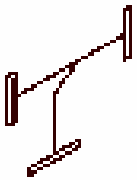
Symbol Keys for Elbows and Bends

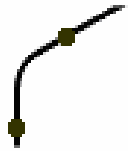
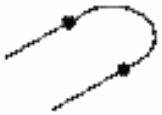
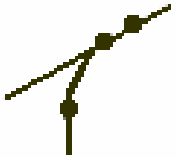
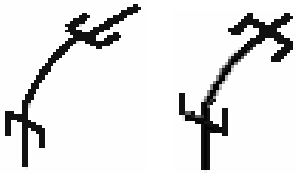
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Elbow – Butt Weld (90° and 45°)	ELBW	N/A		NO	ELBOW	35/36
Elbow – Compression (90° and 45°)	ELCP	N/A		NO	ELBOW	35/36
Elbow -Screwed (90° and 45°) With Female Ends	ELSC	N/A		NO	ELBOW	35/36
Elbow – Socket Weld (90° and 45°)	ELSW	N/A		NO	ELBOW	35/36
Elbow – Screwed (90° and 45°) With Male Ends	EBSC	N/A		NO	ELBOW	35/36

Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Teed Elbow – Socket Weld (90° and 45°)	ETSW	N/A		NO	ELBOW-TEED	70/0/71/72
Teed Elbow – Screwed (90° and 45°)	ETSC	N/A		NO	ELBOW-TEED	70/0/71/72
Teed Elbow – Compression (90° and 45°)	ETCP	N/A		NO	ELBOW-TEED	70/0/71/72
Teed Elbow – Butt Weld (90° and 45°)	ETBW	N/A		NO	ELBOW-TEED	70/0/71/72
Reducing Elbow	ER**	N/A		NO	ELBOW-REDUCING	35/36

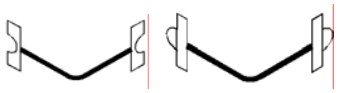
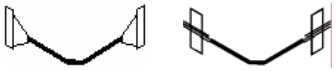
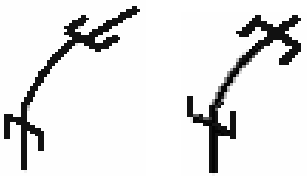
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Return Elbow – Butt Weld 180°	EUBW	N/A		NO	ELBOW	35/36
Return Elbow - Plain End 180°	EUPL	N/A		NO	ELBOW	35/36
Teed Bend – Flanged (all angles)	BTFL	N/A		NO	BEND-TEED	70/0/71/72
Mitre Tee Bend – Butt Weld	MTBW	N/A		NO	BEND-TEED	70/0/71/72
Mitre Bend – Butt Weld	MIBW	N/A		NO	BEND	30/31
Mitre Bend – Flanged	MIFL	N/A		NO	BEND	30/31

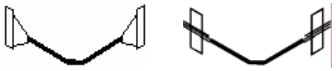
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Mitre Tee Bend - with Plain Ends	MTPL	N/A		NO	BEND-TEED	70/0/71/72
Mitre Tee Bend - Flanged	MTFL	N/A		NO	BEND-TEED	70/0/71/72
Bend – Flanged (all angles)	BEFL	N/A		NO	BEND	30/31
Bend - Multi-Axis Lined Pipes Must be used in conjunction with PIPELINE-TYPE	BM**	N/A		NO	BEND	30/31
180° Return Bend - Flanged	BUFL	N/A		NO	BEND	30/31
Lobster Bend – Butt Weld	L@BW	N/A		NO	BEND	30/31

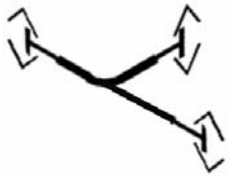
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Lobster Tee Bend – Butt Weld	T@BW	N/A		NO	BEND-TEED	70/0/71/72
Lobster Bend – Flanged	L@FL	N/A		NO	BEND	30/31
Lobster Tee Bend – Flanged	T@FL	N/A		NO	BEND-TEED	70/0/71/72
Bend – Pulled (all angles)	PB+D	N/A		NO	BEND	30/31
180° Return Bend – Pulled	BU+D	N/A		NO	BEND	30/31
Tee Bend – Pulled (all angles)	TB+D	N/A		NO	BEND-TEED	70/0/71/72

Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Bend - Pulled with Weld at each end	PBBW	N/A		NO	BEND	30/31
180° Return Bend - Pulled with Weld at each end	BUBW	N/A		NO	BEND	30/31
Tee Bend - Pulled with Weld at each end	TBBW	N/A		NO	BEND-TEED	70/0/71/72
Bend with glued end connection (Ends can be individually designated MALE or FEMALE)	BEGL	N/A	 FEMALE MALE	YES	BEND	30/31
Bend with push fit connection (Ends can be individually designated MALE or FEMALE)	BEPF	N/A	 FEMALE MALE	YES	BEND	30/31
Bend with flared end connection	BEFA	N/A		YES	BEND	30/31

Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Bend with clamped end connection	BECL	N/A		YES	BEND	30/31

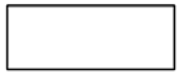
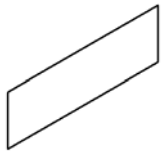
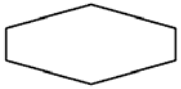
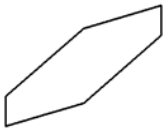
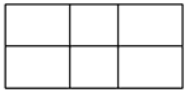
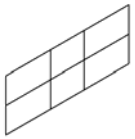
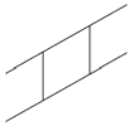
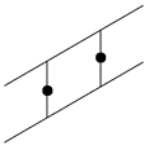
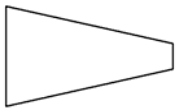
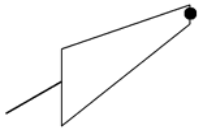
Bend with flanged ball / socket end connection (Ends can be individually designated MALE or FEMALE)	BEBS	N/A	 FEMALE MALE	YES	BEND	30/31
Tee Bend with flanged ball / socket end connections (Ends can be individually designated MALE or FEMALE)	BTBS	N/A	 FEMALE MALE	YES	BEND-TEED	70/0/71/72
Bend with flanged gland type end connections (Ends can be individually designated MALE or FEMALE)	BEGF	N/A	 FEMALE MALE	YES	BEND	30/31
Tee Bend with flanged gland type end connection (Ends can be individually designated MALE or FEMALE)	TBGF	N/A	 FEMALE MALE	YES	BEND-TEED	70/0/71/72
Elbow with glued end connections (Ends can be individually designated MALE or FEMALE)	ELGL	N/A	 FEMALE MALE	YES	ELBOW	35/36
Elbow with push fit end connections (Ends can be individually designated MALE or FEMALE)	ELPF	N/A		YES	ELBOW	35/36

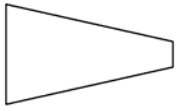
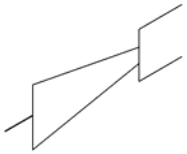
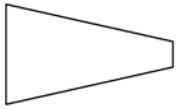
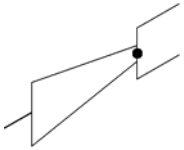
			FEMALE MALE			
Elbow with flared end connections	ELFA	N/A		YES	ELBOW	35/36
Elbow with clamped end connections	ELCL	N/A		YES	ELBOW	35/36
Elbow with flanged ball / socket end connections (Ends can be individually designated MALE or FEMALE)	ELBS	N/A	 FEMALE MALE	YES	ELBOW	35/36
Elbow with flanged gland type end connections (Ends can be individually designated MALE or FEMALE)	ELGF	N/A	 FEMALE MALE	YES	ELBOW	35/36
Teed Elbow with glued end connections (Ends can be individually designated MALE or FEMALE)	ETGL	N/A	 FEMALE MALE	YES	ELBOW-TEED	70/71/72

Teed Elbow with push fit end connections (Ends can be individually designated MALE or FEMALE)	ETPF	N/A	 FEMALE MALE	YES	ELBOW-TEED	70/71/72
Teed Elbow with flared end connections	ETFA	N/A		YES	ELBOW-TEED	70/71/72
Teed Elbow with clamped end connections	ETCL	N/A		YES	ELBOW-TEED	70/71/72
Reducing Elbow with glued end connections connections (Ends can be individually designated MALE or FEMALE)	ERGL	N/A	 FEMALE MALE	YES	ELBOW--REDUCING	35/36
Reducing Elbow with push fit end connections (Ends can be individually designated MALE or FEMALE)	ERPF	N/A	 FEMALE MALE	YES	ELBOW--REDUCING	35/36
Reducing Elbow with flared end connections	ERFA	N/A		YES	ELBOW--REDUCING	35/36

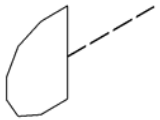
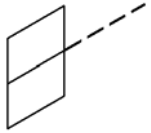
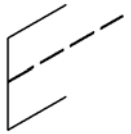
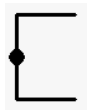
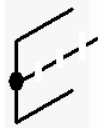
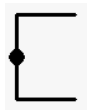
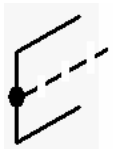
Reducing Elbow with clamped end connections	ERCL	N/A		YES	ELBOW--REDUCING	35/36

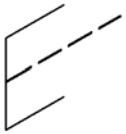
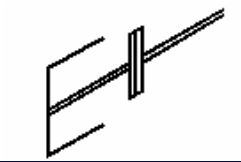
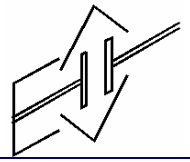
Symbol Keys for Couplings

Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Nipple – Running Screwed	NRSC			YES	COUPLING	126
Nipple – Barrel Screwed	NBSC			YES	COUPLING	126
Coupling – Compression	COCP			YES	COUPLING	126
Coupling – Screwed	COSC			YES	COUPLING	126
Coupling – Socket Weld	COSW			YES	COUPLING	126
Elbolet Coupling Butt Weld	CEBW			YES	ELBOLET	126/0

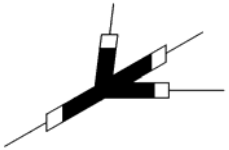
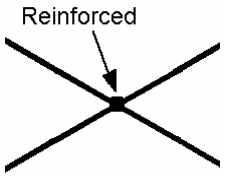
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Elbolet Coupling Screwed	CESC			YES	ELBOLET	126/0
Elbolet Coupling Socket Weld	CESW			YES	ELBOLET	126/0

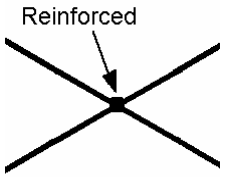
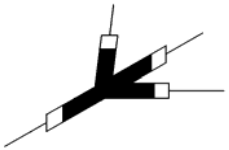
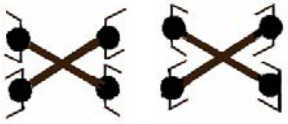
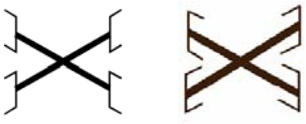
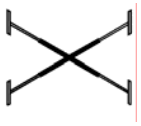
Symbol Keys for Caps

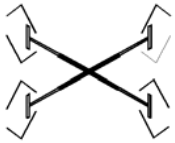
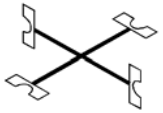
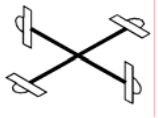
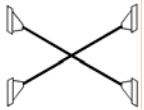
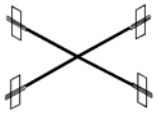
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Butt Weld Cap (symbol includes tapping connections)	KABW			YES	CAP	125/0
Compression Cap	KACP			YES	CAP	125/0
Screwed Cap	KASC			YES	CAP	125/0
Socket Weld Cap	KASW			YES	CAP	125/0
Flanged Cap	KAFL			YES	CAP	125/0
Glued Cap	KAGL			YES	CAP	125/0

Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Push Fit Cap	KAPF			YES	CAP	125/0
Flared Cap	KAFA	N/A		YES	CAP	125/0
Clamped Cap	KACL	N/A		YES	CAP	125/0

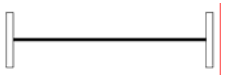
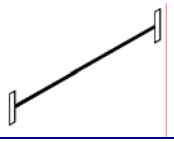
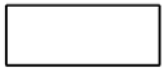
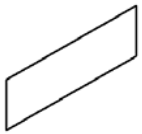
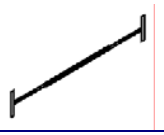
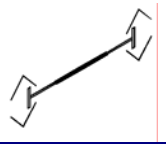
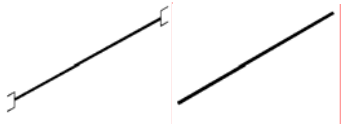
Symbol Keys for Crosses

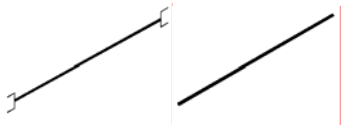
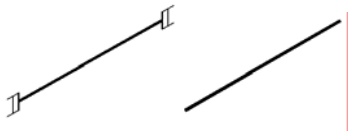
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Cross	CR**	N/A		NO	CROSS	50/0/51/52/53
Cross – 'Y' Type	CY**	Uses YSML YMED YLRG		YES	CROSS	50/0/51/52/53
Cross – Set On	CRSO	N/A		NO	CROSS-SET-ON Or CROSS-STUB	50/0/51/52/53
Cross – Set On Reinforced	CRRF	N/A		NO	CROSS-SET-ON Or CROSS-STUB	50/0/51/52/53
Cross – Stub In	CSSO	N/A		NO	CROSS-SET-ON Or CROSS-STUB	50/0/51/52/53

Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Cross – Stub In Reinforced	CSRF	N/A		NO	CROSS-SET-ON Or CROSS-STUB	50/0/51/52/53
Cross – Set On 'Y' Type	CYSO	Uses YSML YMED YLRG		YES	CROSS-SET-ON Or CROSS-STUB	50/0/51/52/53
Cross with glued end connections (Ends can be individually designated MALE or FEMALE)	CRGL	N/A	 FEMALE MALE	YES	CROSS	50/0/51/52/53
Cross with push fit end connections (Ends can be individually designated MALE or FEMALE)	CRPF	N/A	 FEMALE MALE	YES	CROSS	50/0/51/52/53
Cross with flared end connections	CRFA	N/A		YES	CROSS	50/0/51/52/53

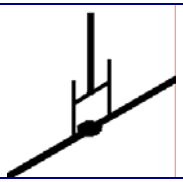
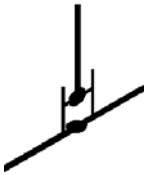
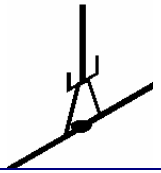
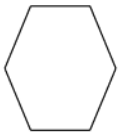
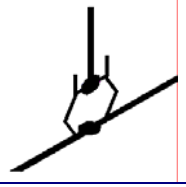
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Cross with clamped end connections	CRCL	N/A		YES	CROSS	50/0/51/52/53
Cross with flanged ball / socket end connections (Ends can be individually designated MALE or FEMALE)	CRBS	N/A	  FEMALE MALE	YES	CROSS	50/0/51/52/53
Cross with flanged gland type end connections (Ends can be individually designated MALE or FEMALE)	CRGF		  FEMALE MALE	YES	CROSS	50/0/51/52/53

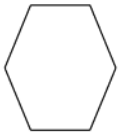
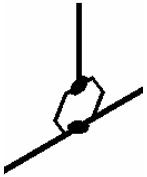
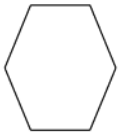
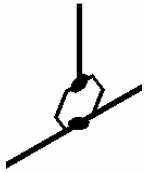
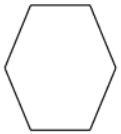
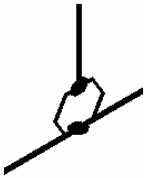
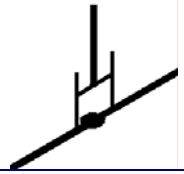
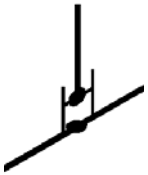
Symbol Keys for Fixed Length Pipes

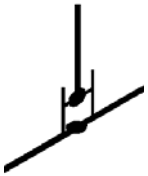
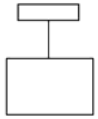
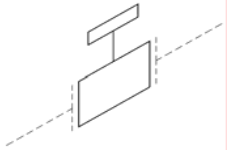
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Fixed Length Pipe with Integral ends	FPFL			NO	PIPE-FIXED	101
Fixed Length Pipe without Flanged ends	FPPL			YES	PIPE-FIXED	101
Fixed Pipe – flared end connections	FPFA			YES	PIPE-FIXED	101
Fixed Pipe – clamped end conditions	FPCL			YES	PIPE-FIXED	101
Fixed Pipe – glued end connections (Ends can be individually designated MALE or FEMALE)	FPGL		 FEMALE MALE	YES	PIPE-FIXED	101
Fixed Pipe – push fit end conditions (Ends can be individually designated	FPPF			YES	PIPE-FIXED	101

Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
MALE or FEMALE)			FEMALE MALE			
Fixed Pipe – screwed end conditions (Ends can be individually designated MALE or FEMALE)	FPSC		 FEMALE MALE	YES	PIPE-FIXED	101
Fixed Pipe – socket weld end conditions (Ends can be individually designated MALE or FEMALE)	FPSW		 FEMALE MALE	YES	PIPE-FIXED	101
Fixed Pipe – compression end conditions (Ends can be individually designated MALE or FEMALE)	FPCP		 FEMALE MALE	YES	PIPE-FIXED	101
Fixed Pipe – with flanged ball and socket (Ends can be individually designated MALE or FEMALE)	FPFL	 FEMALE MALE	 FEMALE MALE	YES	PIPE-FIXED	101

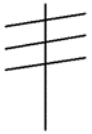
Symbol Keys for Olets

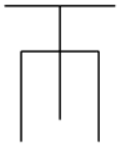
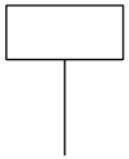
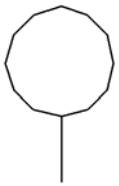
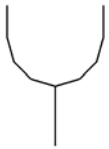
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Olet – Half Coupling Screwed	HCSC			YES	OLET	40/0/41/42
Olet – Half Coupling Socket Weld	HCSW			YES	OLET	40/0/41/42
Olet – Nipolet	NI**			YES	OLET	40/0/41/42
Olet – Nipolet Screwed	NISC			YES	OLET	40/0/41/42
Olet – Sockolet Socket Weld	SKSW			YES	OLET	40/0/41/42

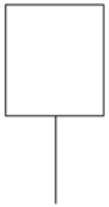
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Olet – Sweepolet Butt Weld	SWBW			YES	OLET	40/0/41/42
Olet – Thredolet Screwed	THSC			YES	OLET	40/0/41/42
Olet – Weldolet Butt Weld	WTBW			YES	OLET	40/0/41/42
Olet – Latrolet Screwed	LASC			YES	OLET	40/0/41/42
Olet – Latrolet Socket Weld	LASW			YES	OLET	40/0/41/42

Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Olet – Latrolet Butt Weld	LABW			YES	OLET	40/0/41/42
Instrument Tee - Flanged	ITFL			N	INSTRUMENT-TEE	40/0/41/42

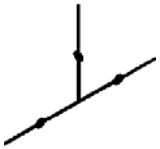
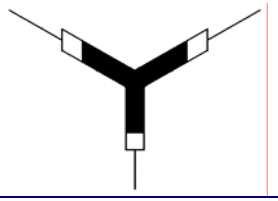
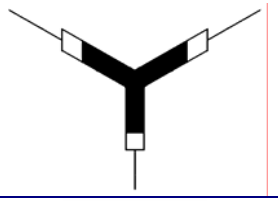
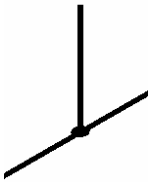
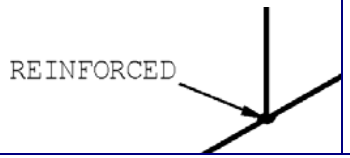
Symbol Keys for Spindles

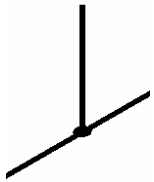
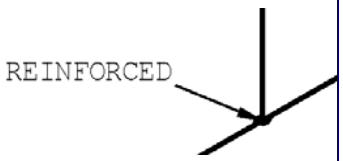
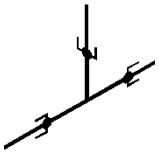
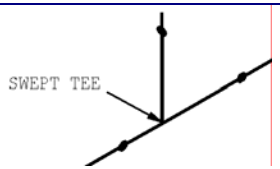
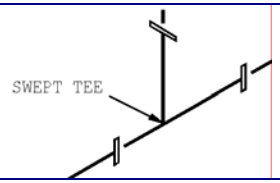
Description	SKEY	Shape	User Definable	PCF Identification	IDF Record
Spindle 1	01SP		YES	N/A	N/A
Spindle 2	02SP		YES	N/A	N/A
Spindle 3	03SP		YES	N/A	N/A
Spindle 4	04SP		YES	N/A	N/A
Spindle 5	05SP		YES	N/A	N/A
Spindle 6	06SP		YES	N/A	N/A

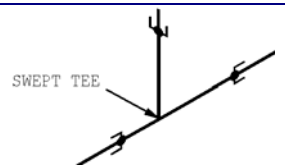
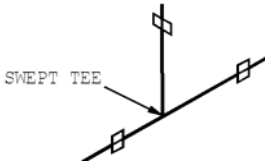
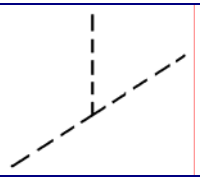
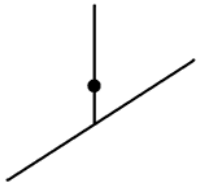
Description	SKEY	Shape	User Definable	PCF Identification	IDF Record
Spindle 7	07SP		YES	N/A	N/A
Spindle 8	08SP		YES	N/A	N/A
Spindle 9	09SP		YES	N/A	N/A
Spindle 10	10SP		YES	N/A	N/A
Spindle 11	11SP		YES	N/A	N/A
Spindle 12	12SP		YES	N/A	N/A

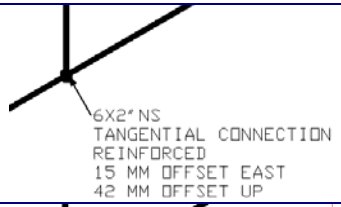
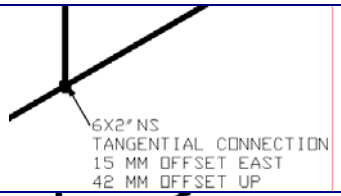
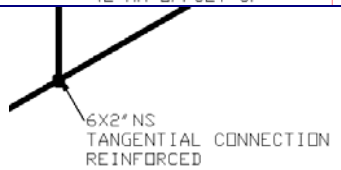
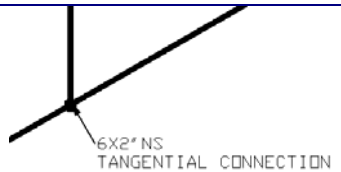
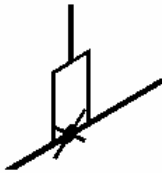
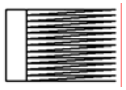
Description	SKEY	Shape	User Definable	PCF Identification	IDF Record
Spindle 13	13SP		YES	N/A	N/A
Spindle 14	14SP		YES	N/A	N/A
Spindle 15	15SP		YES	N/A	N/A

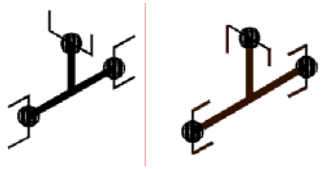
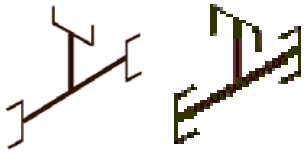
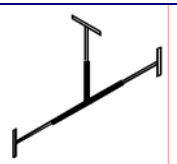
Symbol Keys for Tees

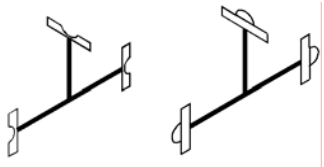
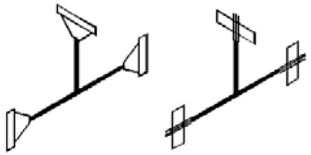
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Tee	TE**	N/A		NO	TEE	45/0/46/47
Tee – 'Y' Type	TY**	Uses YSML YMED YLRG		YES	TEE	45/0/46/47
Tee – Set On 'Y' Type	TYSO	Uses YSML YMED YLRG		YES	TEE-SET-ON Or TEE-STUB	45/0/46/47
Tee – Set On	TESO	N/A		NO	TEE-SET-ON Or TEE-STUB	45/0/46/47
Tee – Set On Reinforced	TERF	N/A		NO	TEE-SET-ON Or TEE-STUB	45/0/46/47

Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Tee – Stub In	TSSO	N/A		NO	TEE-SET-ON Or TEE-STUB	45/0/46/47
Tee – Stub In Reinforced	TERF	N/A		NO	TEE-SET-ON Or TEE-STUB	45/0/46/47
Tee – Socket Weld	TESW	N/A		NO	TEE	45/0/46/47
Tee – Swept Branch Butt Weld	TSBW	N/A		NO	TEE	45/0/46/47
Tee – Swept Branch Flanged	TSFL	N/A		NO	TEE	45/0/46/47

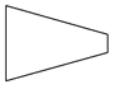
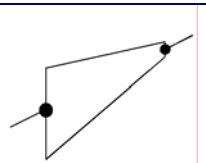
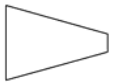
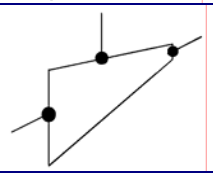
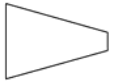
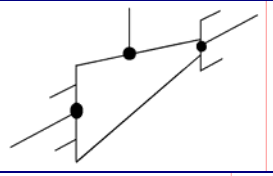
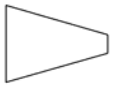
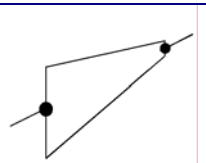
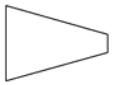
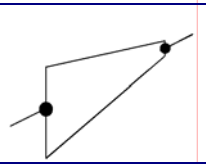
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Tee – Swept Socket Weld	TSSW	N/A		NO	TEE	45/0/46/47
Tee – Swept Compression	TSCP	N/A		NO	TEE	45/0/46/47
Tee – Ghost Tee	TEGG	N/A		NO	TEE	45/0/46/47
Tee – Pulled Out	TPUL	N/A		NO	TEE	45/0/46/47

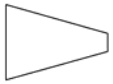
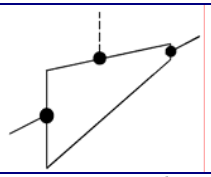
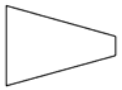
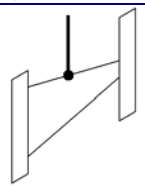
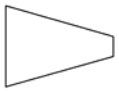
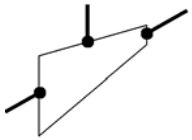
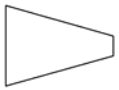
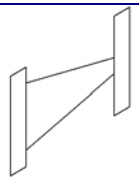
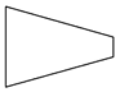
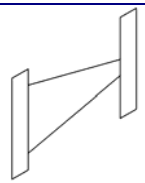
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Tee – Offset Tee Reinforced Set-on	TROF	N/A		NO	TEE	45/0/46/47
Tee – Tangential Tee Set-on	TOSO	N/A		NO	TEE	45/0/46/47
Tee – Tangential Tee Reinforced Set-on	TTRF	N/A		NO	TEE	45/0/46/47
Tee – Offset Tee Set-on	TTSO	N/A		NO	TEE	45/0/46/47
Instrument Tee	IT**	N/A		NO	INSTRUMENT-TEE	40/41/42/0
'Y' Type Tee - Large Used for 'Y' Type Tees/Crosses	YLRG		See 'Y' Type Tee/Cross	YES	See 'Y' Type Tee/Cross	

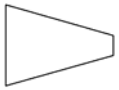
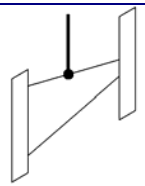
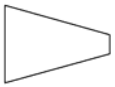
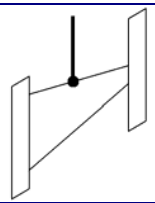
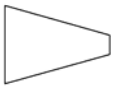
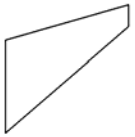
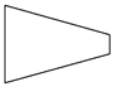
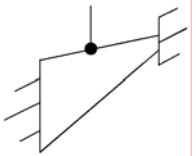
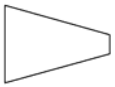
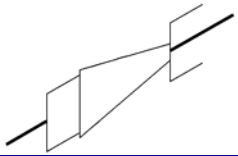
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
'Y' Type Tee - Medium Used for 'Y' Type Tees/Crosses	YMED		See 'Y' Type Tee/Cross	YES	See 'Y' Type Tee/Cross	
'Y' Type Tee - Small Used for 'Y' Type Tees/Crosses	YSML		See 'Y' Type Tee/Cross	YES	See 'Y' Type Tee/Cross	
Tee with glued end connections (Ends can be individually designated MALE or FEMALE)	TEGL	N/A	 FEMALE MALE	YES	TEE	45/0/46/47
Tee with push fit end connections (Ends can be individually designated MALE or FEMALE)	TEPF	N/A	 FEMALE MALE	YES	TEE	45/0/46/47
Tee with flared end connections	TEFA	N/A		YES	TEE	45/0/46/47
Tee with clamped end connections	TECL	N/A		YES	TEE	45/0/46/47

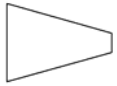
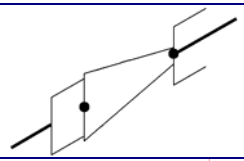
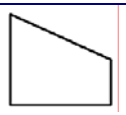
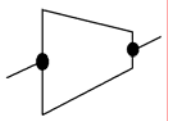
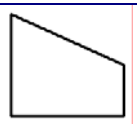
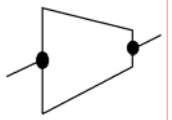
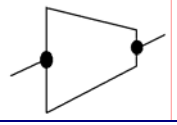
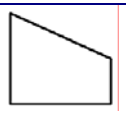
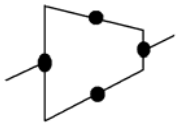
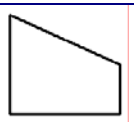
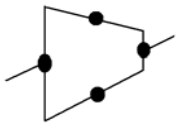
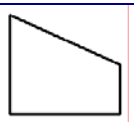
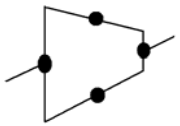
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Tee with flanged ball / socket end connections (Ends can be individually designated MALE or FEMALE)	TEBS	N/A	 FEMALE MALE	YES	TEE	45/0/46/47
Tee with flanged gland type end connections (Ends can be individually designated MALE or FEMALE)	TEGF	N/A	 FEMALE MALE	YES	TEE	45/0/46/47

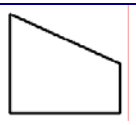
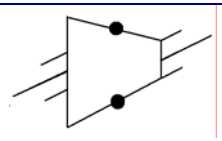
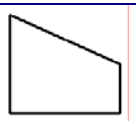
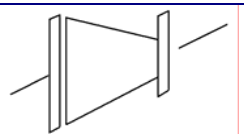
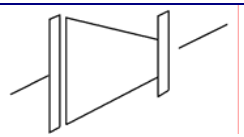
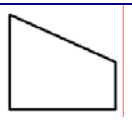
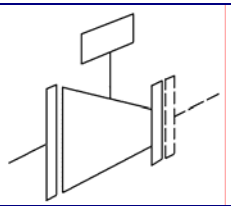
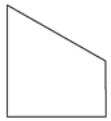
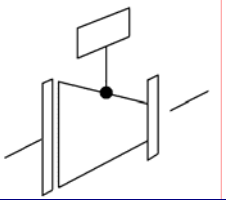
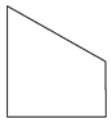
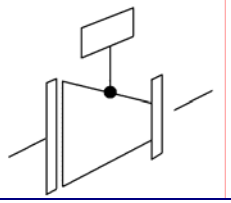
Symbol Keys for Reducers

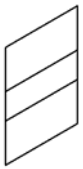
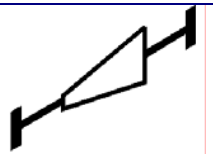
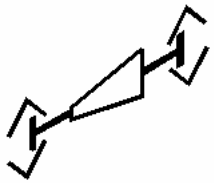
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	Flow Arrow	Flow Dependency	PCF Identification	IDF Record
Reducer – Concentric	RC**			YES	N	N	REDUCER-CONCENTRIC	55/0
Reducer – Concentric Butt Weld with a Connection	CTBW			YES	N	N	REDUCER-CONCENTRIC-TEED	60/0/61/62
Reducer – Concentric Socket Weld with a Connection	CTSW			YES	N	N	REDUCER-CONCENTRIC-TEED	60/0/61/62
Reducer – Concentric Butt Weld Fabricated from plate	CPBW			YES	N	N	REDUCER-CONCENTRIC	55/0
Reducer – Concentric Butt Weld Swaged from pipe	CSBW			YES	N	N	REDUCER-CONCENTRIC	55/0

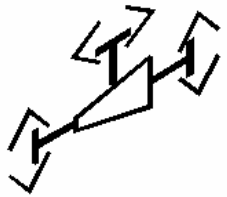
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	Flow Arrow	Flow Dependency	PCF Identification	IDF Record
Reducer – Concentric Fabricated from plate with a Connection	CZBW			YES	N	N	REDUCER-CONCENTRIC-TEED	60/0/61/62
Reducer – Concentric Fabricated from Plate Flanged with a Connection	CZFL			YES	N	N	REDUCER-CONCENTRIC-TEED	60/0/61/62
Reducer – Concentric Swaged from pipe with a connection	CXBW			YES	N	N	REDUCER-CONCENTRIC-TEED	60/0/61/62
Reducer – Concentric Fabricated from plate - Flanged	CPFL			YES	N	N	REDUCER-CONCENTRIC	55/0
Reducer – Concentric Swaged from plate - Flanged	CSFL			YES	N	N	REDUCER-CONCENTRIC	55/0

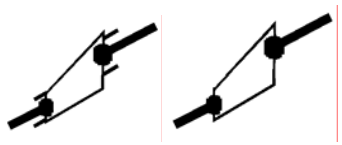
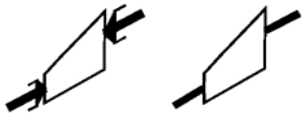
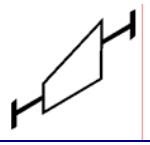
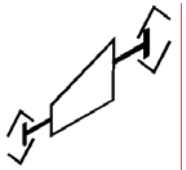
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	Flow Arrow	Flow Dependency	PCF Identification	IDF Record
Reducer – Concentric Flanged with a connection	CTFL			YES	N	N	REDUCER-CONCENTRIC-TEED	60/0/61/62
Reducer – Concentric Swaged from pipe Flanged with a connection	CXFL			YES	N	N	REDUCER-CONCENTRIC-TEED	60/0/61/62
Reducer – Concentric Screwed Nipple	RNSC			YES	N	N	REDUCER-CONCENTRIC	55/0
Reducer – Concentric Screwed with a connection	CTSC			YES	N	N	REDUCER-CONCENTRIC-TEED	60/0/61/62
Reducer – Concentric Screwed Bush	RBSC			YES	N	N	REDUCER-CONCENTRIC	55/0

Description	SKEY	Shape	Plotted Isometric Shape	User Definable	Flow Arrow	Flow Dependency	PCF Identification	IDF Record
Reducer – Concentric Socket Weld Bush	RBSW			YES	N	N	REDUCER-CONCENTRIC	55/0
Reducer – Eccentric	RE**			YES	N	N	REDUCER-ECCENTRIC	55/0
Reducer – Eccentric Fabricated from Plate	EPBW			YES	N	N	REDUCER-ECCENTRIC	55/0
Reducer – Eccentric Swaged from Pipe	ESBW			YES	N	N	REDUCER-ECCENTRIC	55/0
Reducer – Eccentric Butt Weld with a Connection	OTBW			YES	N	N	REDUCER-ECCENTRIC-TEED	60/0/61/62
Reducer – Eccentric Butt Weld Fabricated from Plate with a Connection	EZBW			YES	N	N	REDUCER-ECCENTRIC-TEED	60/0/61/62
Reducer – Eccentric Butt Weld Swaged from Pipe with a Connection	EXBW			YES	N	N	REDUCER-ECCENTRIC-TEED	60/0/61/62

Description	SKEY	Shape	Plotted Isometric Shape	User Definable	Flow Arrow	Flow Dependency	PCF Identification	IDF Record
Reducer – Eccentric Screwed with a Connection	OTSC			YES	N	N	REDUCER-ECCENTRIC-TEED	60/0/61/62
Reducer – Eccentric Flanged Fabricated from Plate	EPFL			YES	N	N	REDUCER-ECCENTRIC	55/0
Reducer – Eccentric Flanged Swaged from Pipe	ESFL			YES	N	N	REDUCER-ECCENTRIC	55/0
Reducer – Eccentric Flanged with a Connection	OTFL			YES	N	N	REDUCER-ECCENTRIC-TEED	60/0/61/62
Reducer – Eccentric Flanged Fabricated from Plate with a Connection	EZFL			YES	N	N	REDUCER-ECCENTRIC-TEED	60/0/61/62
Reducer – Eccentric Flanged Swaged from Pipe with a Connection	EXFL			YES	N	N	REDUCER-ECCENTRIC-TEED	60/0/61/62

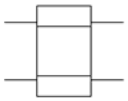
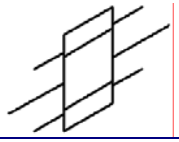
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	Flow Arrow	Flow Dependency	PCF Identification	IDF Record
Reducing Block	RFPL			YES	Y	N	REDUCER-CONCENTRIC	55/0
Concentric Reducer with glued end conditions (Ends can be individually designated MALE or FEMALE)	RCGL	N/A	 FEMALE MALE	YES	Y	N	REDUCER-CONCENTRIC	55/0
Concentric Reducer with push fit end connections (Ends can be individually designated MALE or FEMALE)	RCPF	N/A	 FEMALE MALE	YES	Y	N	REDUCER-CONCENTRIC	55/0
Concentric Reducer with flared end connections	RCFA	N/A		YES	Y	N	REDUCER-CONCENTRIC	55/0
Concentric Reducer with clamped end connections	RCCL	N/A		YES	Y	N	REDUCER-CONCENTRIC	55/0

Description	SKEY	Shape	Plotted Isometric Shape	User Definable	Flow Arrow	Flow Dependency	PCF Identification	IDF Record
Concentric Teed Reducer with glued end connections (Ends can be individually designated MALE or FEMALE)	CTGL	N/A	 FEMALE MALE	YES	N	N	REDUCER-CONCENTRIC-TEED	60/0/61/62
Concentric Teed Reducer with push fit end connections (Ends can be individually designated MALE or FEMALE)	CTPF	N/A	 FE MALE MALE	YES	N	N	REDUCER-CONCENTRIC-TEED	60/0/61/62
Concentric Teed Reducer with flared end connections	CTFA	N/A		YES	N	N	REDUCER-CONCENTRIC-TEED	60/0/61/62
Concentric Teed Reducer with clamped end connections	CTCL	N/A		YES	N	N	REDUCER-CONCENTRIC-TEED	60/0/61/62

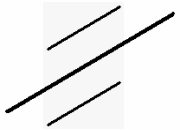
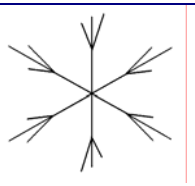
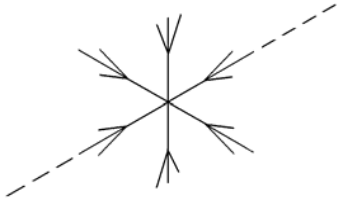
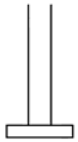
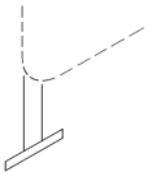
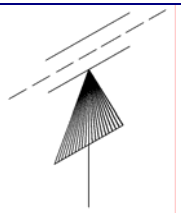
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	Flow Arrow	Flow Dependency	PCF Identification	IDF Record
Eccentric Reducer with glued end conditions (Ends can be individually designated MALE or FEMALE)	REGL	N/A	 FEMALE MALE	YES	N	N	REDUCER-ECCENTRIC	55/0
Eccentric Reducer with push fit end connections (Ends can be individually designated MALE or FEMALE)	REPF	N/A	 FEMALE MALE	YES	N	N	REDUCER-ECCENTRIC	55/0
Eccentric Reducer with flared end connections	REFA	N/A		YES	N	N	REDUCER-ECCENTRIC	55/0
Eccentric Reducer with clamped end connections	RECL	N/A		YES	N	N	REDUCER-ECCENTRIC	55/0
Eccentric Teed Reducer with glued end connections (Ends can be individually designated MALE or FEMALE	OTGL	N/A	 FEMALE MALE	YES	N	N	REDUCER-CONCENTRIC-TEED	60/0/61/62

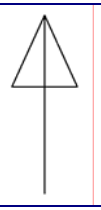
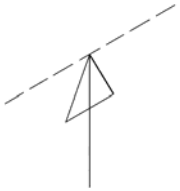
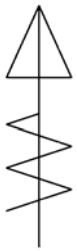
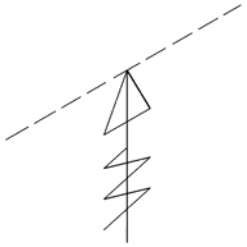
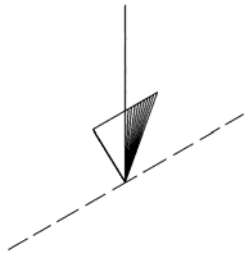
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	Flow Arrow	Flow Dependency	PCF Identification	IDF Record
Eccentric Teed Reducer with push fit end connections (Ends can be individually designated MALE or FEMALE	OTPF	N/A	 FEMALE MALE	YES	N	N	REDUCER-CONCENTRIC-TEED	60/0/61/62
Eccentric Teed Reducer with flared end connections	OTFA	N/A		YES	N	N	REDUCER-CONCENTRIC-TEED	60/0/61/62
Eccentric Teed Reducer with clamped end connections	OTCL	N/A		YES	N	N	REDUCER-CONCENTRIC-TEED	60/0/61/62

Symbol Keys for Unions

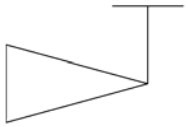
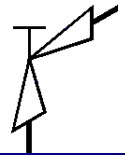
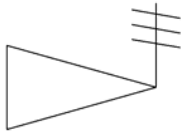
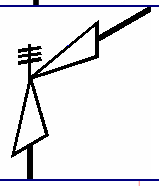
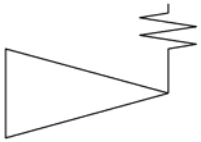
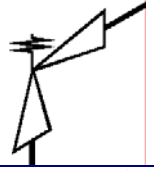
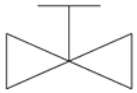
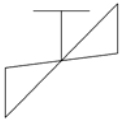
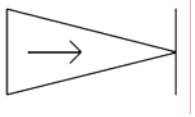
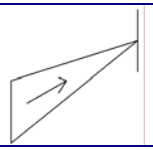
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Union	UN**			YES	UNION	127/0

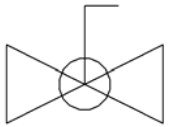
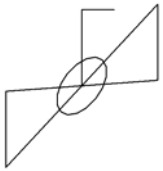
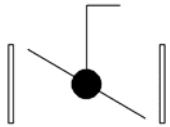
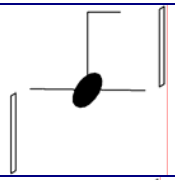
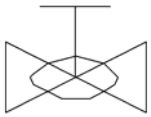
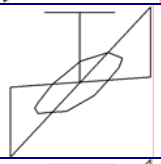
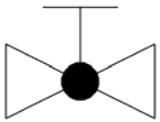
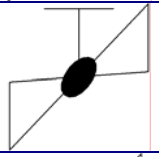
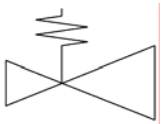
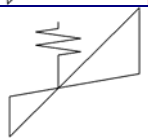
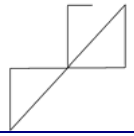
Symbol Keys for Supports

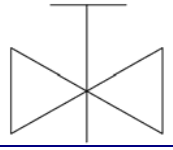
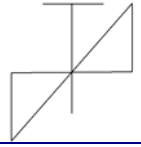
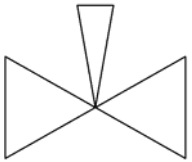
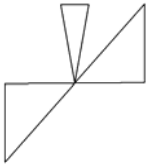
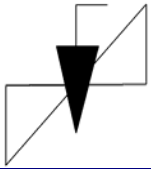
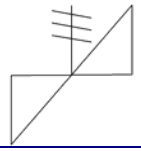
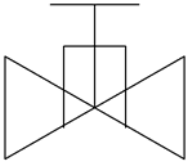
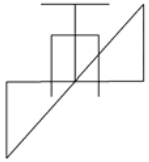
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Hanger / Support	01HG (or Blank)			YES	SUPPORT	150
Support - Anchor	ANCH			YES	SUPPORT	150
Support - Duck Foot	DUCK			YES	SUPPORT	150
Support - Guide / Steady	GUID			YES	SUPPORT	150

Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Support - Skid	SKID			YES	SUPPORT	150
Support - Spring	SPRG			YES	SUPPORT	150
Support - Hanger	HANG			YES	SUPPORT	150

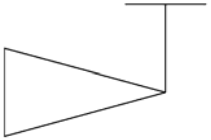
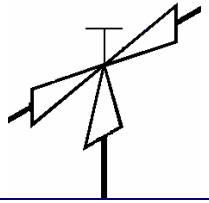
Symbol Keys for Valves

Description	SKEY	Shape	Plotted Isometric Shape	User Definable	Flow Arrow	Flow Dependency	PCF Identification	IDF Record
Valve - Angle	AV**			YES	Y	N	VALVE-ANGLE	75/76
Valve – Relief/Vent angle	AR**			YES	Y	N	VALVE-ANGLE	75/76
Valve – Pressure Reducing Angle	AX**			YES	Y	N	VALVE-ANGLE	75/76
Valve – Basic	VV**			YES	Y	N	VALVE	130/0
Valve – Check	VC**			YES	Y	N	VALVE	130/0
Valve – Check (alternative)	CK**			YES	N	Y	VALVE	130/0

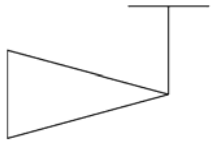
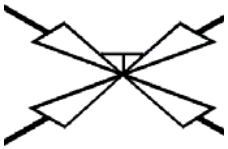
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	Flow Arrow	Flow Dependency	PCF Identification	IDF Record
Valve – Ball	VB**			YES	Y	N	VALVE	130/0
Valve – Butterfly	VY**			YES	Y	N	VALVE	130/0
Valve – Diaphragm	VD**			YES	Y	N	VALVE	130/0
Valve – Globe	VG**			YES	Y	N	VALVE	130/0
Valve – Pressure reducing	VX**			YES	Y	Y	VALVE	130/0
Valve – Cock	VK**			YES	Y	N	VALVE	130/0

Description	SKEY	Shape	Plotted Isometric Shape	User Definable	Flow Arrow	Flow Dependency	PCF Identification	IDF Record
Valve – Gate	VT**			YES	Y	N	VALVE	130/0
Valve – Needle	VN**			YES	Y	N	VALVE	130/0
Valve – Plug	VP**			YES	Y	N	VALVE	130/0
Valve – Relief/Vent	VR**			YES	Y	N	VALVE	130/0
Valve – Slide	VS**			YES	Y	N	VALVE	130/0

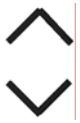
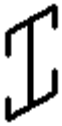
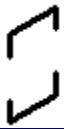
Symbol Keys for 3-Way Valves

Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Valve – 3 Way	V3**			YES	VALVE-3WAY	80/0/81/82/ 83

Symbol Keys for 4-Way Valves

Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Valve – 4 Way	V4**			YES	VALVE-4WAY	80/0/81/82/ 83

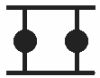
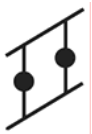
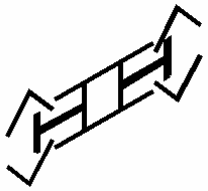
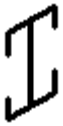
Symbol Clamped Joints

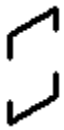
Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Flared Clamp	CLMP			YES	CLAMP	113
Victaulic (Grooved pipe end type)	CLVT			YES	CLAMP	113
Victaulic (Welded / Forged ring type)	CLVR			YES	CLAMP	113
Compression sleeve coupling	CLCS			YES	CLAMP	113
Grayloc type coupling	CLGY			YES	CLAMP	113

Symbol Liners (Connectors)

Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Grayloc socket weld connector	LNSW					
Grayloc (**Female**) screwed connector	LNSC					
Victaulic welded ring type (No. of welds set by Option Switch 77 position. 7)	LVBW					

Symbol Couplings

Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Coupling with glued end connections	COGL			YES	COUPLING	126
Coupling with push fit end connections	COPF			YES	COUPLING	126
Coupling with flared end connections	COFA			YES	COUPLING	126
Coupling with clamped end connections	COCL			YES	COUPLING	126
Coupling with Victaulic connections (grooved pipe)	COVT			YES	COUPLING	126

Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Coupling with Victaulic connections (welded connections)	COVR			YES	COUPLING	126
Coupling with compression sleeve connections	CSCP			YES	COUPLING	126
Coupling with Grayloc connections	COGY			YES	COUPLING	126