



**JAKS STEEL INDUSTRIES SDN BHD**

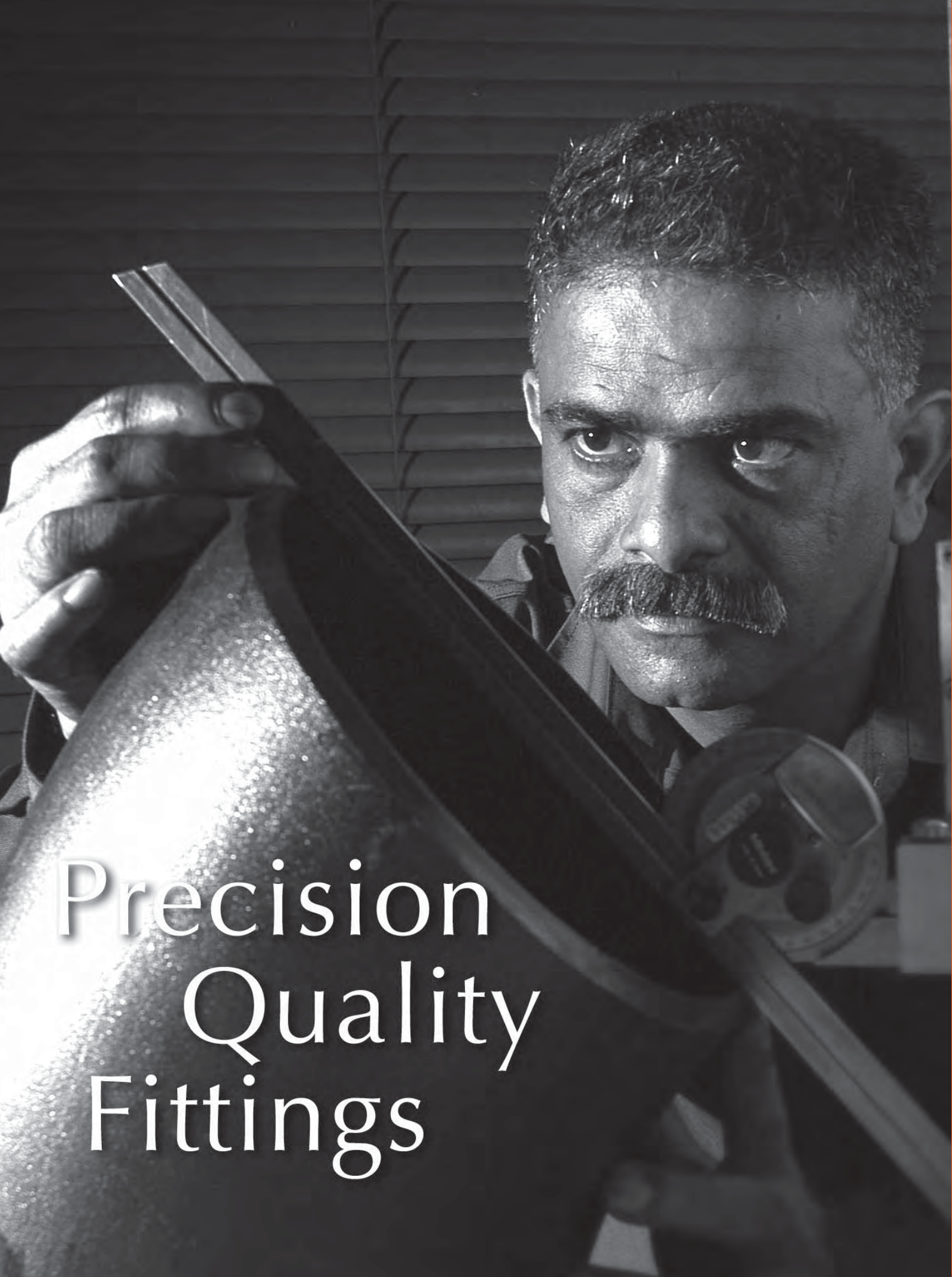
*(A Member of JAKS GROUP)*

# Product Catalogue

**Carbon Steel Butt-Welded Fittings**

**Precision Quality Fittings**





Precision  
Quality  
Fittings

Contents:

# Product Catalogue

## Carbon Steel Butt-Welded Fittings

### 2 The Organization



### 3 Range of Products



### 4 Technical Specifications

5 90° Elbow - Long Radius

6 90° Elbow - Short Radius

7 45° Elbow - Long Radius

8 180° Returns - Long Radius

9 Cap

10 Concentric Reducers

12 Equal and Reducing Tee

### 14 Production Process Flow



### 16 Experience the JAKS Difference



# The Organization



JAKS Steel Industries Sdn. Bhd. - Fittings Division prides itself as one of Malaysia's leading manufacturers of carbon steel butt welded fittings trademarked 'WT'. The organization is guided by a vision, managed through careful planning that strives towards continuous improvements in technological innovations, adhering to strict quality control and serviced by efficient logistics support.

All these operational elements are integrated to produce excellence in quality products and customer service.

Operational quality assurance is constantly upgraded, with certification to internationally recognized standards such as ASTM, ASME and ISO 9001:2000. An efficient logistics network ensures timely delivery to clients locally and internationally. With an alliance of strategic global partners, the company is set to further enhance its business and future growth.



## Range of Products

### Carbon Steel Butt-Welded Fitting



*90° Elbow - Long/Short Radius*



*45° Elbow - Long Radius*



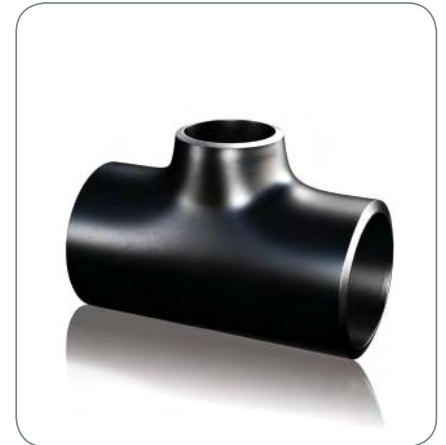
*180° Returns - Long Radius*



*Cap*



*Concentric Reducers*



*Equal and Reducing Tee*

## Our Quality Assurance

**S**trict adherence to quality controls enables the company to produce and provide excellent quality products and customer's satisfaction.



Quality management system is assessed and registered to the provisions of ISO 9001:2000. The company's operational standards are constantly upgraded and enhanced with a mission towards quality excellence through continuous improvement.



# Technical Specifications

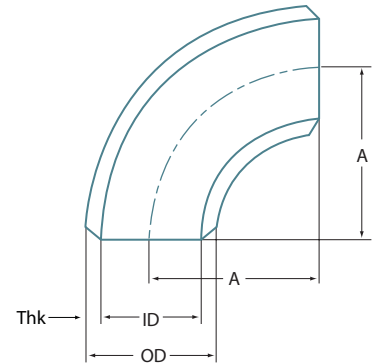
Carbon Steel Butt-Welded Fitting

## 90° Elbow - Long Radius

ASTM A234

ASME B16.9

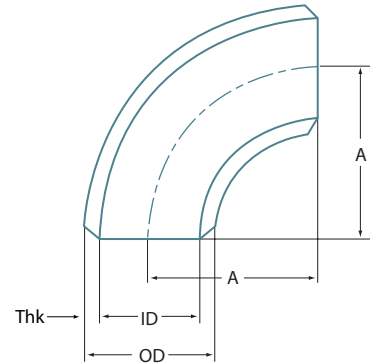
Standard (STD) & Extra Heavy (XH)



Nominal Pipe Size	Outside Diameter	STD		XH		Center to End	Approx. Unit Weight	
		ID (mm)	Thk (mm)	ID (mm)	Thk (mm)		STD (kg)	XH (kg)
1/2	21.3	15.8	2.77	-	-	38.1	0.08	-
3/4	26.7	20.9	2.87	-	-	38.1	0.11	-
1	33.5	26.8	3.38	-	-	38.1	0.16	-
1 1/4	42.2	35.0	3.56	32.5	4.85	47.8	0.26	0.35
1 1/2	48.3	40.9	3.68	38.1	5.08	57.2	0.37	0.50
2	60.5	52.6	3.91	49.4	5.54	76.2	0.66	0.90
2 1/2	73.2	62.8	5.16	59.1	7.01	95.3	1.29	1.79
3	88.9	77.9	5.49	73.7	7.62	114.3	2.04	2.74
4	114.3	102.3	6.02	97.2	8.56	152.4	3.84	5.36
5	141.2	128.1	6.55	-	-	190.5	6.48	-
6	168.1	153.9	7.11	-	-	228.6	9.94	-
8	218.9	202.6	8.18	193.5	12.70	304.8	20.10	30.50
10	273.1	254.5	9.27	247.7	12.70	381.0	35.40	47.70
12	323.9	304.8	9.52	298.5	12.70	457.2	52.00	68.70
14	355.6	336.6	9.52	330.2	12.70	533.4	67.90	89.90
16	406.4	387.4	9.52	381.0	12.70	609.6	89.00	118.00

## 90° Elbow - Short Radius

ASTM A234  
ASME B16.9  
Standard (STD)



Nominal Pipe Size	Outside Diameter	STD		Center to End	Approx. Unit Weight
NPS (inch)	OD (mm)	ID (mm)	Thk (mm)	A (mm)	STD (kg)
2	60.5	52.6	3.91	50.8	0.44
2½	73.2	62.8	5.16	63.5	0.91
3	88.9	77.9	5.49	76.2	1.36
4	114.3	102.3	6.02	101.6	2.56
6	168.1	153.9	7.11	152.4	6.63
8	218.9	202.6	8.18	203.2	13.40
10	273.1	254.5	9.27	254.0	23.60
12	323.9	304.8	9.52	304.8	34.60
14	355.6	336.6	9.52	355.6	45.30
16	406.4	387.4	9.52	406.4	59.10

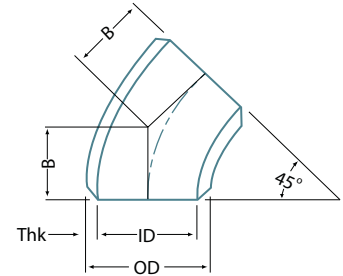


## 45° Elbow - Long Radius

ASTM A234

ASME B16.9

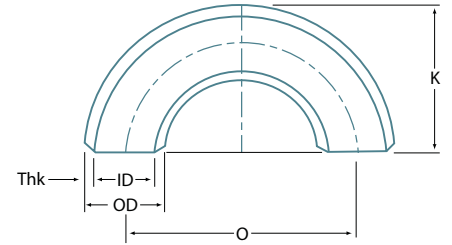
Standard (STD) & Extra Heavy (XH)



Nominal Pipe Size	Outside Diameter	STD		XH		Center to End	Approx. Unit Weight	
		ID (mm)	Thk (mm)	ID (mm)	Thk (mm)		STD (kg)	XH (kg)
2	60.5	52.6	3.91	49.4	5.54	35.1	0.33	0.45
2½	73.2	62.8	5.16	59.1	7.01	44.5	0.69	0.90
3	88.9	77.9	5.49	73.7	7.62	50.8	1.02	1.37
4	114.3	102.3	6.02	97.2	8.56	63.5	1.92	2.68
5	141.2	128.1	6.55	-	-	79.2	3.24	-
6	168.1	153.9	7.11	-	-	95.3	4.97	-
8	218.9	202.6	8.18	193.5	12.70	127.0	10.10	15.30
10	273.1	254.5	9.27	247.7	12.70	158.8	17.70	23.90
12	323.9	304.8	9.52	298.5	12.70	190.5	26.00	34.40
14	355.6	336.6	9.52	330.2	12.70	222.3	34.00	45.00
16	406.4	387.4	9.52	381.0	12.70	254.0	44.50	59.00

## 180° Returns - Long Radius

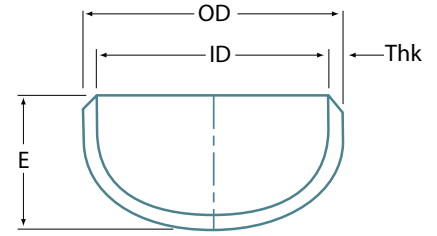
ASTM A234  
ASME B16.9  
Standard (STD)



Nominal Pipe Size		Outside Diameter		STD		Center to Center	Back to Face	Approx. Unit Weight
NPS (inch)	OD (mm)	ID (mm)	Thk (mm)	O (mm)	K (mm)	STD (kg)		
2	60.5	52.6	3.91	152.4	106.4	1.30		
2½	73.2	62.8	5.16	190.5	131.8	2.58		
3	88.9	77.9	5.49	228.6	158.8	4.05		
4	114.3	102.3	6.02	304.8	209.6	7.69		

## Cap

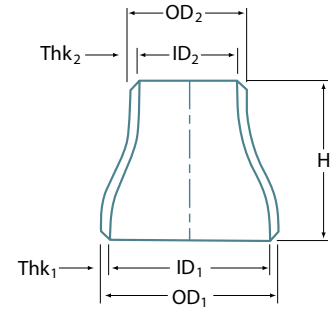
ASTM A234  
ASME B16.9  
Standard (STD)



Nominal Pipe Size	Outside Diameter	STD		Length	Approx. Unit Weight
NPS (inch)	OD (mm)	ID (mm)	Thk (mm)	E (mm)	STD (kg)
1 <sup>1</sup> / <sub>4</sub>	42.2	35.0	3.56	38.1	0.14
1 <sup>1</sup> / <sub>2</sub>	48.3	40.9	3.68	38.1	0.17
2	60.5	52.6	3.91	38.1	0.24
2 <sup>1</sup> / <sub>2</sub>	73.2	62.8	5.16	38.1	0.42
3	88.9	77.9	5.49	50.8	0.67
4	114.3	102.3	6.02	63.5	1.17
5	141.2	128.1	6.55	76.2	1.90
6	168.1	153.9	7.11	88.9	2.83

## Concentric Reducers

ASTM A234  
ASME B16.9  
Standard (STD) & Extra Heavy (XH)



Nominal Pipe Size	Outside Diameter		STD				XH				End to End	Approx. Unit Weight	
	Large End	Small End	Large End		Small End		Large End		Small End			STD (kg)	XH (kg)
NPS (inch)	OD <sub>1</sub> (mm)	OD <sub>2</sub> (mm)	ID <sub>1</sub> (mm)	Thk <sub>1</sub> (mm)	ID <sub>2</sub> (mm)	Thk <sub>2</sub> (mm)	ID <sub>1</sub> (mm)	Thk <sub>1</sub> (mm)	ID <sub>2</sub> (mm)	Thk <sub>2</sub> (mm)	H (mm)	STD (kg)	XH (kg)
3/4 x 1/2	26.7	21.3	20.9	2.87	15.8	2.77	18.9	3.91	13.9	3.73	38.1	0.06	0.08
1 x 3/4	33.5	26.7	26.8	3.38	20.9	2.87	24.4	4.55	18.9	3.91	50.8	0.12	0.15
1 x 1/2	33.5	21.3	26.8	3.38	15.8	2.77	24.4	4.55	13.9	3.73	50.8	0.11	0.14
1 1/4 x 1	42.2	33.5	35.0	3.56	26.8	3.38	32.5	4.85	24.4	4.55	50.8	0.16	0.21
1 1/4 x 3/4	42.2	26.7	35.0	3.56	20.9	2.87	32.5	4.85	18.9	3.91	50.8	0.15	0.19
1 1/4 x 1/2	42.2	21.3	35.0	3.56	15.8	2.77	32.5	4.85	13.9	3.73	50.8	0.14	0.18
1 1/2 x 1 1/4	48.3	42.2	40.9	3.68	35.0	3.56	38.1	5.08	32.5	4.85	63.5	0.25	0.33
1 1/2 x 1	48.3	33.5	40.9	3.68	26.8	3.38	38.1	5.08	24.4	4.55	63.5	0.22	0.30
1 1/2 x 3/4	48.3	26.7	40.9	3.68	20.9	2.87	38.1	5.08	18.9	3.91	63.5	0.21	0.27
1 1/2 x 1/2	48.3	21.3	40.9	3.68	15.8	2.77	38.1	5.08	13.9	3.73	63.5	0.18	0.24
2 x 1 1/2	60.5	48.3	52.6	3.91	40.9	3.68	49.4	5.54	38.1	5.08	76.2	0.38	0.51
2 x 1 1/4	60.5	42.2	52.6	3.91	35.0	3.56	49.4	5.54	32.5	4.85	76.2	0.36	0.48
2 x 1	60.5	33.5	52.6	3.91	26.8	3.38	49.4	5.54	24.4	4.55	76.2	0.33	0.44
2 x 3/4	60.5	26.7	52.6	3.91	20.9	2.87	49.4	5.54	18.9	3.91	76.2	0.30	0.40
2 1/2 x 2	73.2	60.5	62.8	5.16	52.6	3.91	59.1	7.01	49.4	5.54	88.9	0.73	0.95
2 1/2 x 1 1/2	73.2	48.3	62.8	5.16	40.9	3.68	59.1	7.01	38.1	5.08	88.9	0.67	0.87
2 1/2 x 1 1/4	73.2	42.2	62.8	5.16	35.0	3.56	59.1	7.01	32.5	4.85	88.9	0.64	0.83
2 1/2 x 1	73.2	33.5	62.8	5.16	26.8	3.38	59.1	7.01	24.4	4.55	88.9	0.56	0.73
3 x 2 1/2	88.9	73.2	77.9	5.49	62.8	5.16	73.7	7.62	59.1	7.01	88.9	0.94	1.25
3 x 2	88.9	60.5	77.9	5.49	52.6	3.91	73.7	7.62	49.4	5.54	88.9	0.85	1.13
3 x 1 1/2	88.9	48.3	77.9	5.49	40.9	3.68	73.7	7.62	38.1	5.08	88.9	0.79	1.04

## Concentric Reducers (cont')

ASTM A234

ASME B16.9

Standard (STD) & Extra Heavy (XH)

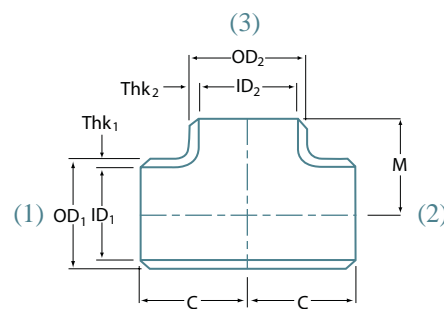
Nominal Pipe Size	Outside Diameter		STD				XH				End to End	Approx. Unit Weight	
	Large End	Small End	Large End		Small End		Large End		Small End			STD (kg)	XH (kg)
NPS (inch)	OD <sub>1</sub> (mm)	OD <sub>2</sub> (mm)	ID <sub>1</sub> (mm)	Thk <sub>1</sub> (mm)	ID <sub>2</sub> (mm)	Thk <sub>2</sub> (mm)	ID <sub>1</sub> (mm)	Thk <sub>1</sub> (mm)	ID <sub>2</sub> (mm)	Thk <sub>2</sub> (mm)	H (mm)	STD (kg)	XH (kg)
3 x 1 <sup>1</sup> / <sub>4</sub>	88.9	42.2	77.9	5.49	35.0	3.56	73.7	7.62	32.5	4.85	88.9	0.75	1.00
3 x 1	88.9	33.5	77.9	5.49	26.8	3.38	73.7	7.62	24.4	4.55	88.9	0.71	0.96
4 x 3	114.3	88.9	102.3	6.02	77.9	5.49	97.2	8.56	73.7	7.62	101.6	1.45	2.02
4 x 2 <sup>1</sup> / <sub>2</sub>	114.3	73.2	102.3	6.02	62.8	5.16	97.2	8.56	59.1	7.01	101.6	1.37	1.90
4 x 2	114.3	60.5	102.3	6.02	52.6	3.91	97.2	8.56	49.4	5.54	101.6	1.27	1.76
5 x 4	141.2	114.3	128.1	6.55	102.3	6.02	122.2	9.52	97.2	8.56	127.0	2.50	3.52
5 x 3	141.2	88.9	128.1	6.55	77.9	5.49	122.2	9.52	73.7	7.62	127.0	2.27	3.18
5 x 2 <sup>1</sup> / <sub>2</sub>	141.2	73.2	128.1	6.55	62.8	5.16	-	-	-	-	127.0	2.16	-
5 x 2	141.2	60.5	128.1	6.55	52.6	3.91	-	-	-	-	127.0	2.03	-
6 x 5	168.1	141.2	153.9	7.11	128.1	6.55	146.2	10.97	122.2	9.52	139.7	3.57	5.38
6 x 4	168.1	114.3	153.9	7.11	102.3	6.02	146.2	10.97	97.2	8.56	139.7	3.30	4.96
6 x 3	168.1	88.9	153.9	7.11	77.9	5.49	146.2	10.97	73.7	7.62	139.7	3.04	4.56
6 x 2 <sup>1</sup> / <sub>2</sub>	168.1	73.2	153.9	7.11	62.8	5.16	-	-	-	-	139.7	2.94	-
6 x 2	168.1	60.5	153.9	7.11	52.6	3.91	-	-	-	-	139.7	2.81	-
8 x 6	218.9	168.1	202.6	8.18	153.9	7.11	193.5	12.70	146.2	10.97	152.4	5.71	8.63
10 x 8	273.1	218.9	254.5	9.27	202.6	8.18	247.7	12.70	193.5	12.70	177.8	9.58	12.90

## Equal & Reducing Tee

ASTM A234

ASME B16.9

Standard (STD) & Extra Heavy (XH)

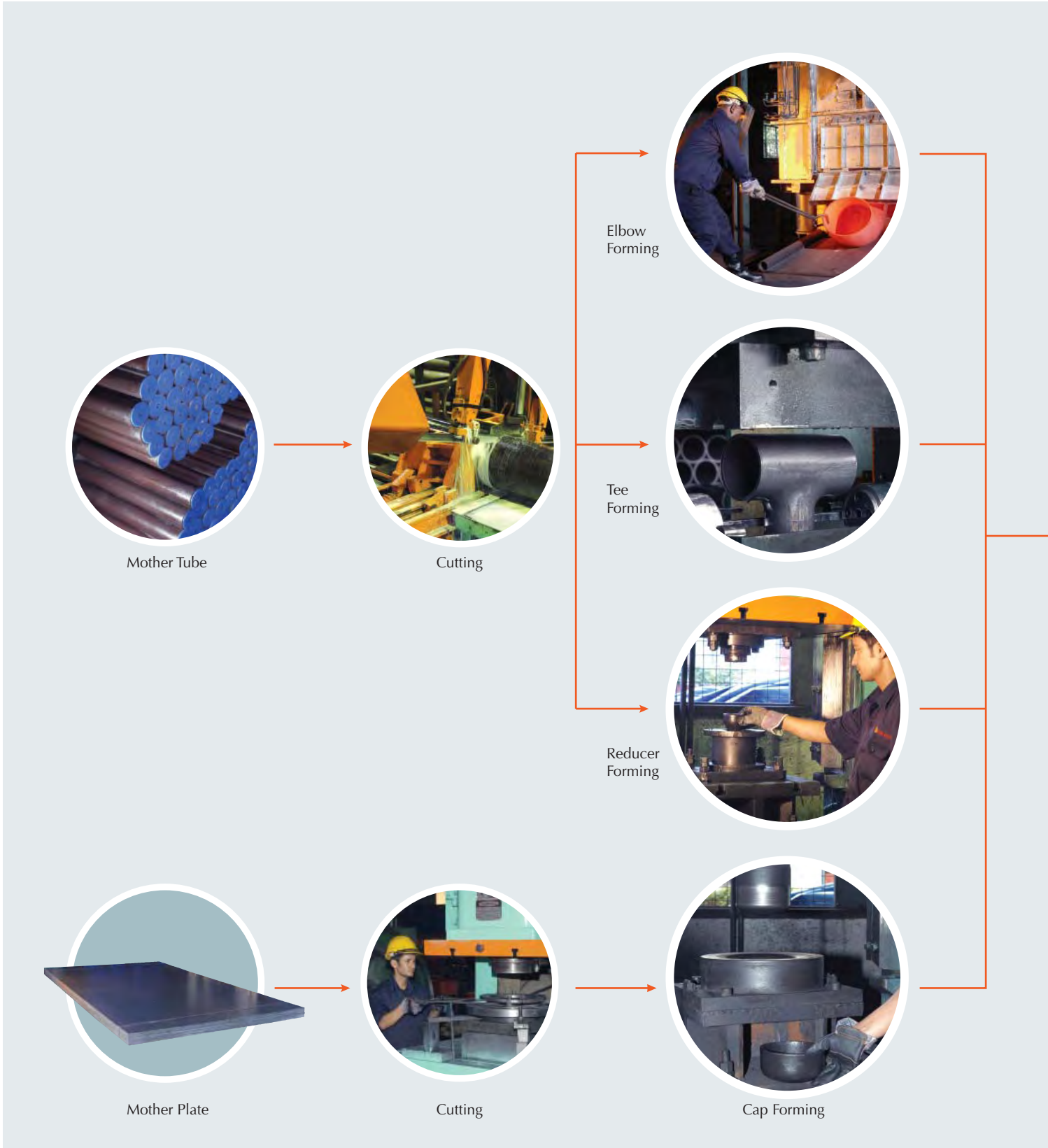


Nominal Pipe Size (1)x(2)x(3)	Outside Diameter		STD				XH				Center to End		Approx. Unit Weight	
			Run		Outlet		Run		Outlet		Run	Outlet	STD (kg)	XH (kg)
NPS (inch)	OD <sub>1</sub> (mm)	OD <sub>2</sub> (mm)	ID <sub>1</sub> (mm)	Thk <sub>1</sub> (mm)	ID <sub>2</sub> (mm)	Thk <sub>2</sub> (mm)	ID <sub>1</sub> (mm)	Thk <sub>1</sub> (mm)	ID <sub>2</sub> (mm)	Thk <sub>2</sub> (mm)	C (mm)	M (mm)	STD (kg)	XH (kg)
1/2 x 1/2 x 1/2	21.3	21.3	15.8	2.77	15.8	2.77	13.9	3.73	13.9	3.73	25.4	25.4	0.09	0.11
3/4 x 3/4 x 3/4	26.7	26.7	20.9	2.87	20.9	2.87	18.9	3.91	18.9	3.91	28.4	28.4	0.13	0.17
1 x 1 x 1	33.5	33.5	26.8	3.38	26.8	3.38	24.4	4.55	24.4	4.55	38.1	38.1	0.25	0.32
1 1/4 x 1 1/4 x 1 1/4	42.2	42.2	35.0	3.56	35.0	3.56	32.5	4.85	32.5	4.85	47.8	47.8	0.43	0.56
1 1/2 x 1 1/2 x 1 1/2	48.3	48.3	40.9	3.68	40.9	3.68	38.1	5.08	38.1	5.08	57.2	57.2	0.61	0.81
2 x 2 x 2	60.5	60.5	52.6	3.91	52.6	3.91	49.4	5.54	49.4	5.54	63.5	63.5	0.88	1.20
2 x 2 x 1	60.5	33.5	52.6	3.91	26.8	3.38	49.4	5.54	24.4	4.55	63.5	50.8	0.75	1.01
2 1/2 x 2 1/2 x 2 1/2	73.2	73.2	62.8	5.16	62.8	5.16	59.1	7.01	59.1	7.01	76.2	76.2	1.74	2.28
3 x 3 x 3	88.9	88.9	77.9	5.49	77.9	5.49	73.7	7.62	73.7	7.62	85.9	85.9	2.41	3.25
3 x 3 x 2	88.9	60.5	77.9	5.49	52.6	3.91	73.7	7.62	49.4	5.54	85.9	76.2	2.12	2.85
4 x 4 x 4	114.3	114.3	102.3	6.02	102.3	6.02	97.2	8.56	97.2	8.56	104.6	104.6	4.12	5.77
4 x 4 x 3	114.3	88.9	102.3	6.02	77.9	5.49	97.2	8.56	73.7	7.62	104.6	98.6	3.83	5.33
4 x 4 x 2 1/2	114.3	73.2	102.3	6.02	62.8	5.16	97.2	8.56	59.1	7.01	104.6	95.3	3.71	5.15
5 x 5 x 5	141.2	141.2	128.1	6.55	128.1	6.55	-	-	-	-	124.0	124.0	6.54	-
6 x 6 x 6	168.1	168.1	153.9	7.11	153.9	7.11	-	-	-	-	142.7	142.7	9.58	-
6 x 6 x 4	168.1	114.3	153.9	7.11	102.3	6.02	-	-	-	-	142.7	130.0	8.67	-
6 x 6 x 3	168.1	88.9	153.9	7.11	77.9	5.49	-	-	-	-	142.7	124.0	8.38	-

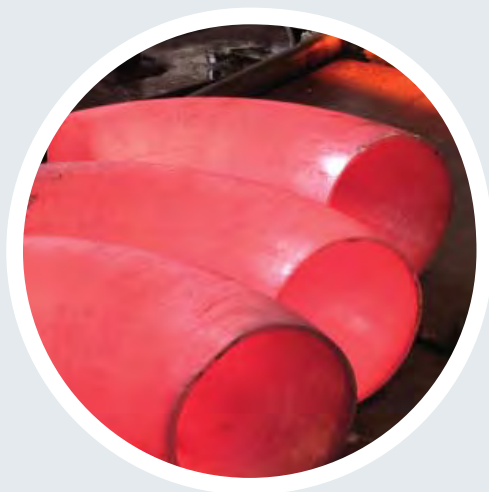
# Precision Quality Fittings



# Production Process Flow







Annealing



Beveling



90° Elbow -  
Long/Short Radius



45° Elbow -  
Long Radius



180° Returns  
- Long Radius



Equal &  
Reducing Tee



Concentric  
Reducers



Cap



## Experience the JAKS Difference

There is not a single element that makes a business successful. It is a combination of attributes efficiently integrated that makes a business successful and sustainable.

To learn how JAKS Steel Industries can help service your needs and experience our difference, contact us with your inquiry.



## Head Office and Manufacturing Facilities

**JAKS STEEL INDUSTRIES SDN BHD** (128652-U)

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