

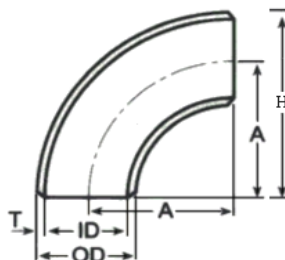


PIPING SYSTEM PTE LTD
PROFESSIONAL SUPPLIER OF PIPELINE MATERIALS AND EQUIPMENT

DRAWING NO.: ELBOW-DRAWING-AND-DATA-2026-02-25-16-37
DRAWING DATE: 25-Feb-2026

ELBOW DRAWING AND DIMENSIONS DATA

OR No.:	OR999999	DESCRIPTION:	ELBOW-18INCHES-90DEG-BEVELLED ENDS-SEAMLESS-SCH140(39.67MM)-CARBON STEEL-LONG RADIUS-GR WPB-ASTM A234-ASME B16.9-NACE MR0175
ITEM:	221		



ANSI ASME B16.9 / MSS SP-75 (in mm)

ITEM	NAME	TYPE	DEGREE	MATERIAL STANDARD	DN	OD INCH(ES)	ODMM	WALL THICKNESS	UNIT Volume (m³)	DIMENSIONS(MM)		
										L=A+½OD	W=A+½OD	H=OD
221	ELBOW	R=1.5D	90	ASTM A234/A234M GR WPB	450	18	457.2	39.67	0.38227743	914.4	914.4	457.2

MATERIAL STANDARD: ASTM A234/A234M GR WPB Chemical element composition content (%)

COMPONENT	C	Si	Mn	P	S	Cr	Ni	Cu	Mo	V
Max	—	—	0.29	—	—	—	—	—	—	—
Min	0.3	0.1	1.06	0.05	0.058	0.4	0.4	0.4	0.15	0.08

ASTM A234/A234M GR WPB Mechanical Properties

Condition	TENSILE STRENGTH σ_b Mpa	YIELD POINT σ_s Mpa	ELONGATION OR ELONGATION AT BREAK δ %
PIPE FITTINGS	≥415	≥240	Standard round specimen, or small specimen, or strip specimen long. : tr. : L0=4D: ≥22* L0=4D: ≥14* L0=50: ≥30% L0=50: ≥20



PIPING SYSTEM PTE LTD

[HTTPS://PIPING.COM.CN](https://piping.com.cn)

PROFESSIONAL SUPPLIER OF PIPELINE MATERIALS AND EQUIPMENT

STANDING IN SINGAPORE, SERVING THE WORLD

DRAWING

HuBiao

AUDIT

王建

APPROVAL

王