IBR Approved

ISO 4144

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ISO 4144 (International Organization for Standardization) publication in 1979. ISO 4144 is made by stainless steel castings technologies. ISO 4144 standard covers pressure dimensions, temperature ratings, and material & grade of SS fittings for screwed connections used for steam, oil, air, gas, and water piping system. ISO 4144 stainless steel fittings are available in common types such as 45-degree elbow, male and female elbow, cross, half socket, union, hexagon nipples, and coupling. ISO 4144 socket shall be made from stainless steel material that have been properly heat treated by the solution-annealing technologies. These are standard internal and external threads. ISO 4144 threaded fittings are commonly used in Australia. ISO 4144 stainless steel fittings have low pressure and are mostly termed “Class 150” or “BSP threads”.

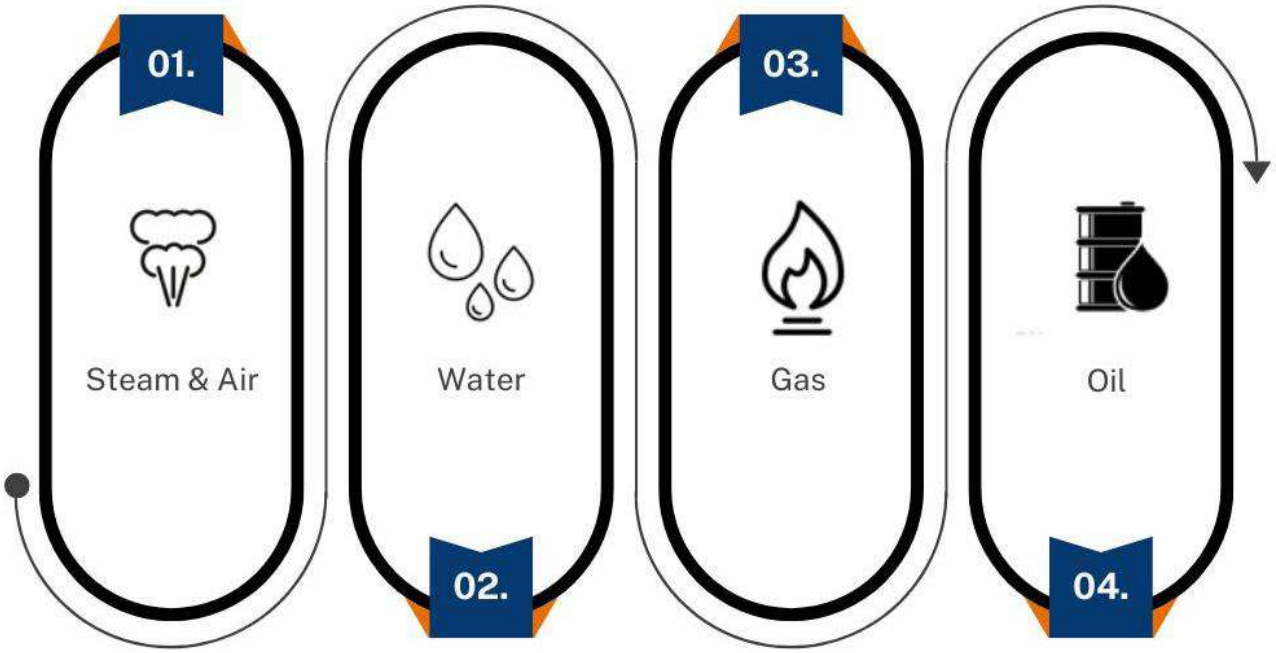
ISO 4144 Socket Specification as per American Standards

ISO 4144 Specification

Standard ISO 4144	**Size** 1/8” To 4”	**Material** Stainless Steel
Use Steam, Air, Gas	**Type** Male & Female Elbow Half Socket Hexagon Nipples	**Grade** ASTM A182 F304/304L ASTM A182 F316/ F316L
Class 150 LB	**Method** Castings	**Threads** BSP BSPT

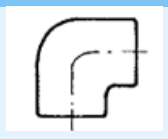
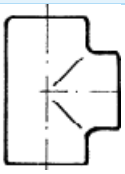
ISO 4144 Socket Used in Water, Air, Steam, Gas and Oil

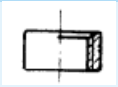
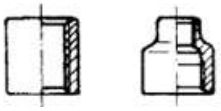
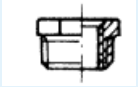
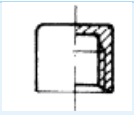
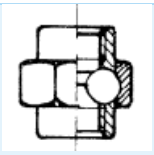
ISO 4144 Fittings Application



Check Types of ISO 4144 Threaded Fittings and Their Symbols

Types of ISO 4144 Stainless Steel Fittings with Symbol

Diagram	Type	Symbol
	Elbow	A1
	Tee	B1

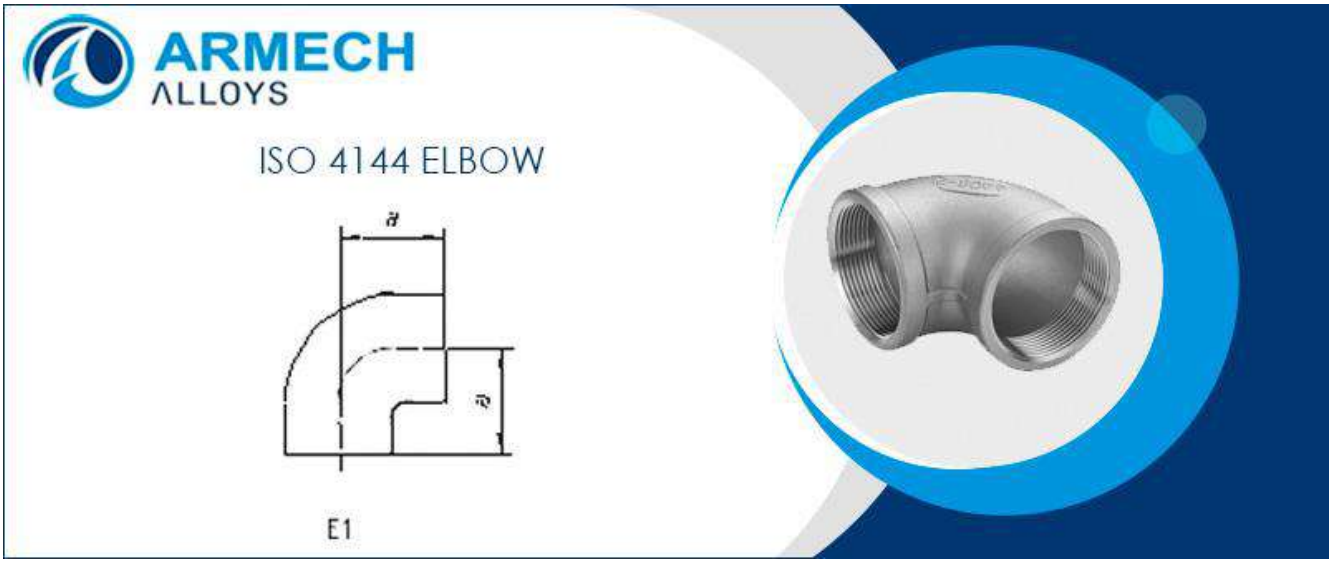
	Half sockets	M1
	Sockets, reducing and equal	M2
	Reducing bushes	N4
	Hex nipple	N8
	Cap	T2
	Plug	T8 -T10
	Union	U1 - U11

Pressure-Temperature Ratings for ISO 4144 Threaded Fittings

Temperature	Working Pressure (Maximum)
- 20 to 40°C	20 Bar
100°C	16,5 Bar
150°C	15 Bar
200°C	14 Bar
220°C	13.5 Bar

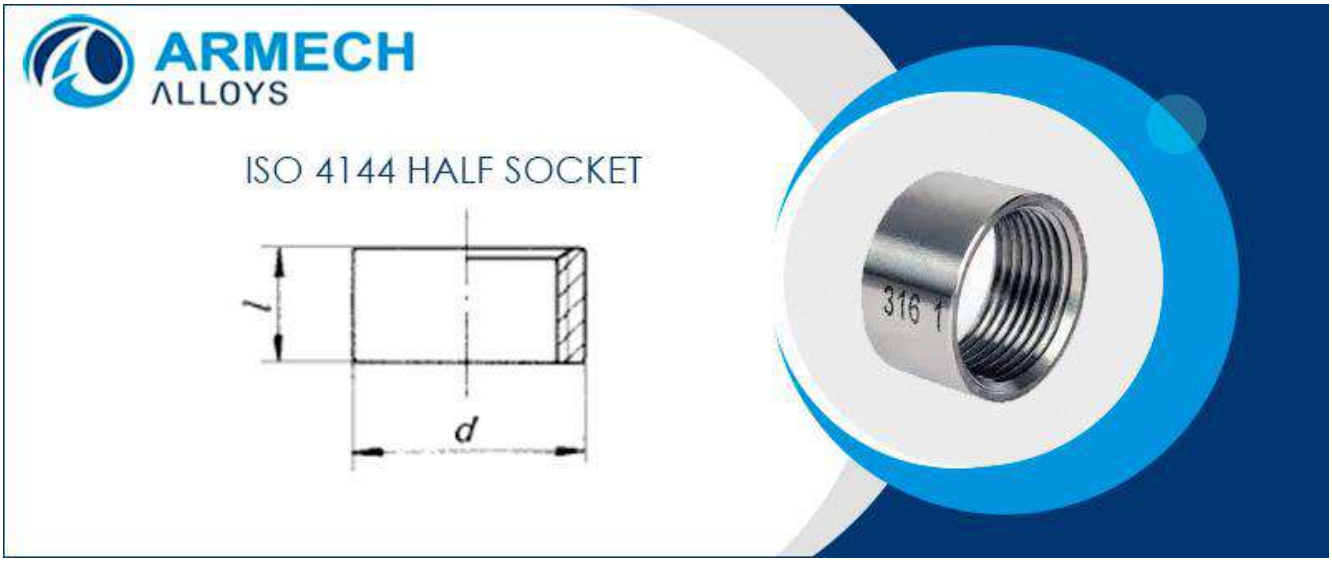
Refer ISO 4144 Hexagon Nipples and Half Socket Dimensions in BSP Threaded

ISO 4144 Elbow Dimensions



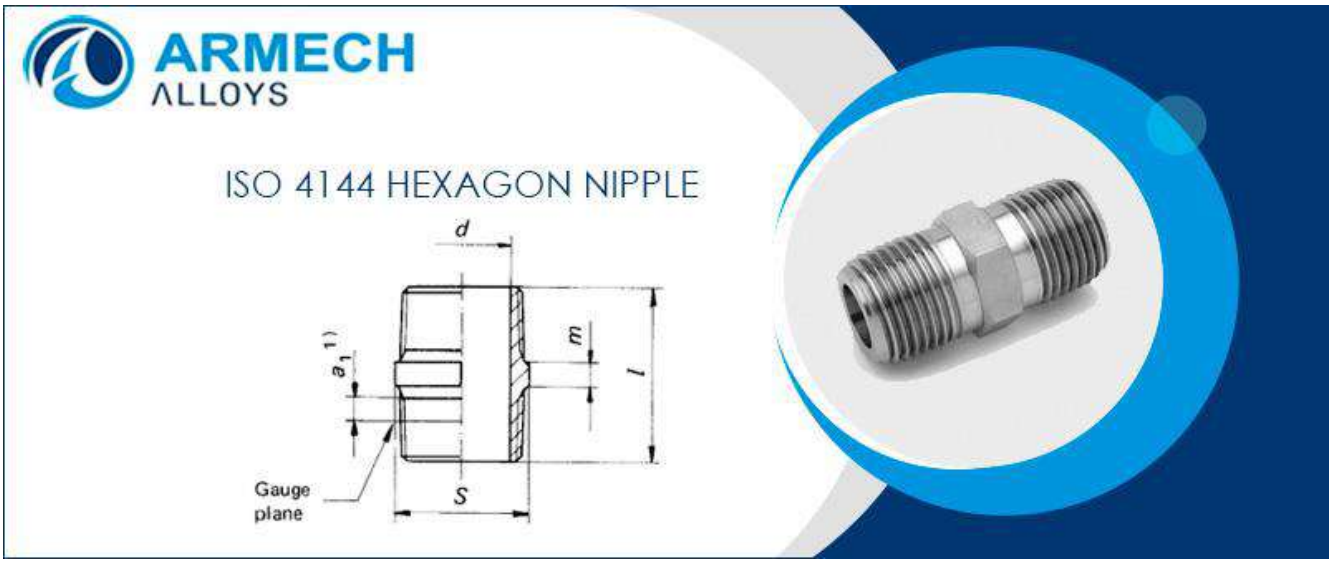
Thread Diameter Size	DN	A (MM)
1/8	6	17
1/4	8	19
3/8	10	23
1/2	15	27
3/4	20	32
1	25	38
1 1/4	32	45
1 1/2	40	48
2	50	57
3	80	78
4	100	96

ISO 4144 Half sockets Dimensions



Thread Diameter Size	DN	D Min. (MM)	L Min. (MM)
1/8	DN6	14.0	8
1/4	DN8	18.5	11
3/8	DN10	21.3	12
1/2	DN15	26.4	15
3/4	DN20	32.5	17
1	DN25	39.5	19.5
1 1/4	DN32	48.3	22
1 1/2	DN40	55.5	22
2	DN50	68.0	26
2 1/2	DN65	84.0	30.5
3	DN80	98.0	34

ISO 4144 Hexagon Nipples Dimensions



Thread Diameter Size	DN	L Min. (MM)	M Min. (MM)	D Max. (MM)	S (MM)
1/8	DN6	21	4.0	6.0	2.5
1/4	DN8	28	4.0	8.9	3.7
3/8	DN10	29	5.0	12.4	3.7
1/2	DN15	36	5.0	16.1	5.0
3/4	DN20	41	5.5	21.6	5.0
1	DN25	46.5	6.0	27.1	6.4
1 1/4	DN32	54	6.5	35.8	6.4
1 1/2	DN40	54	6.5	41.7	6.4
2	DN50	65.5	7.0	52.9	7.5
2 1/2	DN65	76.5	7.0	68.7	9.2
3	DN80	85	7.5	81.0	9.2