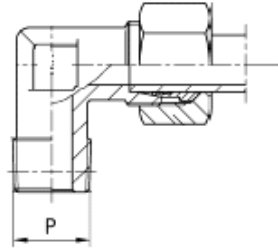
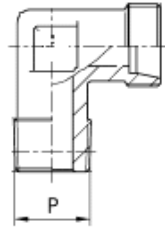


## Conexão Joelho 90° rosca NPT (cônica)

Somente Corpo

Com porca e anilha

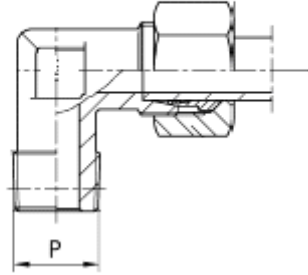
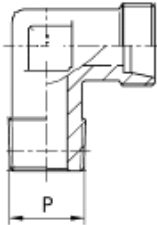


Série	Bar	Código Antigo	Tubo	Rosca Tubo	P	Código Novo
LEVE	315	JMA 06X1/8 NPT-L	6	12x1.5	1/8"-27	XX5017271X-06-02
		JMA 08X1/4 NPT-L	8	14x1.5	1/4"-18	XX5017271X-08-04
		JMA 10X1/4 NPT-L	10	16x1.5	1/4"-18	XX5017271X-10-04
		JMA 12X3/8 NPT-L	12	18x1.5	3/8"-18	XX5017271X-12-06
		JMA 15X1/2 NPT-L	15	22x1.5	1/2"-14	XX5017271X-15-08
		JMA 18X1/2 NPT-L	18	26x1.5	1/2"-14	XX5017271X-18-08
	160	JMA 22X3/4 NPT-L	22	30x2.0	3/4"-14	XX5017271X-22-12
		JMA 28X1 NPT-L	28	36x2.0	1"-11	XX5017271X-28-16
		JMA 35X1 NPT-L	35	45x2.0	1"-11.1/2	XX5017271X-35-16
		JMA 35X1.1/4 NPT-L	35	45x2.0	1.1/4"-11.1/2	XX5017271X-35-20
		JMA 35X1.1/2 NPT-L	35	45x2.0	1.1/2"-11.1/2	XX5017271X-35-24
		JMA 42X1.1/2 NPT-L	42	52x2.0	1.1/2"-11.1/2	XX5017271X-42-24
PESADA	630	JMA 06X1/4 NPT-S	6	14x1.5	1/4"-18	XX5018271X-06-04
		JMA 08X1/4 NPT-S	8	16x1.5	1/4"-18	XX5018271X-08-04
		JMA 10X3/8 NPT-S	10	18x1.5	3/8"-18	XX5018271X-10-06
		JMA 12X3/8 NPT-S	12	20x1.5	3/8"-18	XX5018271X-12-06
		JMA 14X1/2 NPT-S	14	22x1.5	1/2"-14	XX5018271X-14-08
		JMA 16X1/2 NPT-S	16	24x1.5	1/2"-14	XX5018271X-16-08
	400	JMA 20X3/4 NPT-S	20	30x2.0	3/4"-14	XX5018271X-20-12
		JMA 25X1 NPT-S	25	36x2.0	1"-11.1/2	XX5018271X-25-16
		JMA 30X1.1/4 NPT-S	30	30x2.0	1.1/4"-11.1/2	XX5018271X-30-20
		JMA 38X1.1/2 NPT-S	38	52x2.0	1.1/2"-11.1/2	XX5018271X-38-24
	315					

## Conexão Joelho 90° rosca NPT (cônica)

Somente Corpo

Com porca e anilha



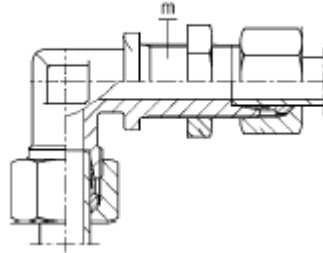
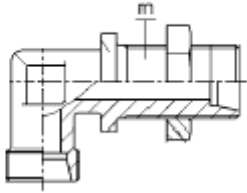
Continuação

Série	Bar	Código Novo	Tubo	Rosca Tubo	P	Código Novo
LEVE	315	JMA 06X1/4 NPT-L	6	12x1.5	1/4"-18	XX5017271X-06-04
		JMA 08X1/8 NPT-L	8	14x1.5	1/8"-27	XX5017271X-08-02
		JMA 08X3/8 NPT-L	8	14x1.5	3/8"-18	XX5017271X-08-06
		JMA 08X1/2 NPT-L	8	14x1.5	1/2"-14	XX5017271X-08-08
		JMA 10X1/8 NPT-L	10	16x1.5	1/8"-27	XX5017271X-10-02
		JMA 10X3/8 NPT-L	10	16x1.5	3/8"-18	XX5017271X-10-06
		JMA 10X1/2 NPT-L	10	16x1.5	1/2"-14	XX5017271X-10-08
		JMA 12X1/4 NPT-L	12	18x1.5	1/4"-18	XX5017271X-12-04
		JMA 12X1/2 NPT-L	12	18x1.5	1/2"-14	XX5017271X-12-08
		JMA 15X3/8 NPT-L	15	22x1.5	3/8"-18	XX5017271X-15-06
JMA 18X3/4 NPT-L	18	26x1.5	3/4"-14	XX5017271X-18-12		
PESADA	630	JMA 12X1/2 NPT-S	12	20x1.5	1/2"-14	XX5018271X-12-08
		JMA 12X1/4 NPT-S	12	20x1.5	1/4"-18	XX5018271X-12-04
		JMA 14X3/8 NPT-S	14	22x1.5	3/8"-18	XX5018271X-14-06
	400	JMA 16X3/8 NPT-S	16	24x1.5	3/8"-18	XX5018271X-16-06
		JMA 16X3/4 NPT-S	16	24x1.5	3/4"-14	XX5018271X-16-12
		JMA 20X1/2 NPT-S	20	30x2.0	1/2"-14	XX5018271X-20-08
		JMA 25X3/4 NPT-S	25	36x2.0	3/4"-14	XX5018271X-25-12
JMA 30X1 NPT-S	30	42x2.0	1"-11.1/2	XX5018271X-30-16		

## Conexão Igual 90° Painel

Somente Corpo

Com porca e anilha

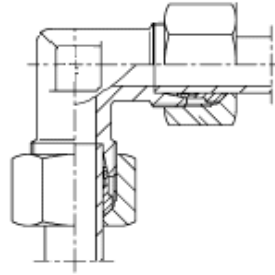
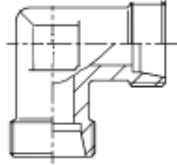


Série	Bar	Código Antigo	Tubo	Rosca Tubo	Código Novo
LEVE	315	JCA 06-L	6	12x1.5	XX5217171X-06-06
		JCA 08-L	8	14x1.5	XX5217171X-08-08
		JCA 10-L	10	16x1.5	XX5217171X-10-10
		JCA 12-L	12	18x1.5	XX5217171X-12-12
		JCA 15-L	15	22x1.5	XX5217171X-15-15
	JCA 18-L	18	26x1.5	XX5217171X-18-18	
	160	JCA 22-L	22	30x2.0	XX5217171X-22-22
		JCA 28-L	28	36x2.0	XX5217171X-28-28
		JCA 35-L	35	45x2.0	XX5217171X-35-35
		JCA 42-L	42	52x2.0	XX5217171X-42-42
PESADA	630	JCA 06-S	6	14x1.5	XX5218181X-06-06
		JCA 08-S	8	16x1.5	XX5218181X-08-08
		JCA 10-S	10	18x1.5	XX5218181X-10-10
		JCA 12-S	12	20x1.5	XX5218181X-12-12
		JCA 14-S	14	22x1.5	XX5218181X-14-14
	400	JCA 16-S	16	24x1.5	XX5218181X-16-16
		JCA 20-S	20	30x2.0	XX5218181X-20-20
		JCA 25-S	25	36x2.0	XX5218181X-25-25
		JCA 30-S	30	42x2.0	XX5218181X-30-30
	315	JCA 38-S	38	52x2.0	XX5218181X-38-38

## Joelho Igual 90° Aço

Somente Corpo

Com porca e anilha

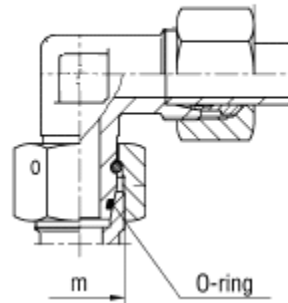
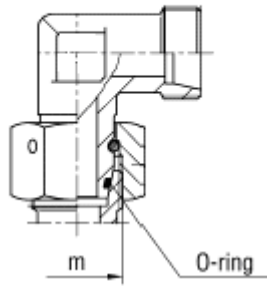


Série	Bar	Código Antigo	Tubo	Rosca Tubo	Código Novo
Super Leve	100	JIA 04-LL	4	8x1.0	XX5016161X-04-04
		JIA 06-LL	6	10x1.0	XX5016161X-06-06
		JIA 08-LL	8	12x1.0	XX5016161X-08-08
LEVE	315	JIA 06-L	6	12x1.5	XX5017171X-06-06
		JIA 08-L	8	14x1.5	XX5017171X-08-08
		JIA 10-L	10	16x1.5	XX5017171X-10-10
		JIA 12-L	12	18x1.5	XX5017171X-12-12
		JIA 15-L	15	22x1.5	XX5017171X-15-15
	160	JIA 18-L	18	26x1.5	XX5017171X-18-18
		JIA 22-L	22	30x2.0	XX5017171X-22-22
		JIA 28-L	28	36x2.0	XX5017171X-28-28
		JIA 35-L	35	45x2.0	XX5017171X-35-35
		JIA 42-L	42	52x2.0	XX5017171X-42-42
PESADA	630	JIA 06-S	6	14x1.5	XX5018181X-06-06
		JIA 08-S	8	16x1.5	XX5018181X-08-08
		JIA 10-S	10	18x1.5	XX5018181X-10-10
		JIA 12-S	12	20x1.5	XX5018181X-12-12
		JIA 14-S	14	22x1.5	XX5018181X-14-14
	400	JIA 16-S	16	24x1.5	XX5018181X-16-16
		JIA 20-S	20	30x2.0	XX5018181X-20-20
		JIA 25-S	25	36x2.0	XX5018181X-25-25
		JIA 30-S	30	42x2.0	XX5018181X-30-30
315	JIA 38-S	38	52x2.0	XX5018181X-38-38	

## Conexão 90°, para tubo vedação DKO x Tubo com porca e anilha

Somente Corpo

Com porca e anilha

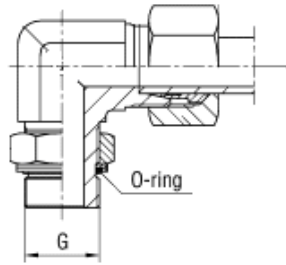
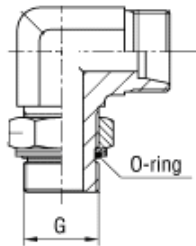


Série	Bar	Código Antigo	Tubo	Rosca Tubo	Código Novo
LEVE	315	MJLA 06-L	6	12x1.5	XX5117431X-06-06
		MJLA 08-L	8	14x1.5	XX5117431X-08-08
		MJLA 10-L	10	16x1.5	XX5117431X-10-10
		MJLA 12-L	12	18x1.5	XX5117431X-12-12
		MJLA 15-L	15	22x1.5	XX5117431X-15-15
		MJLA 18-L	18	26x1.5	XX5117431X-18-18
	160	MJLA 22-L	22	30x2.0	XX5117431X-22-22
		MJLA 28-L	28	36x2.0	XX5117431X-28-28
		MJLA 35-L	35	45x2.0	XX5117431X-35-35
		MJLA 42-L	42	52x2.0	XX5117431X-42-42
PESADA	630	MJLA 06-S	6	14x1.5	XX5118441X-06-06
		MJLA 08-S	8	16x1.5	XX5118441X-08-08
		MJLA 10-S	10	18x1.5	XX5118441X-10-10
		MJLA 12-S	12	20x1.5	XX5118441X-12-12
		MJLA 14-S	14	22x1.5	XX5118441X-14-14
	400	MJLA 16-S	16	24x1.5	XX5118441X-16-16
		MJLA 20-S	20	30x2.0	XX5118441X-20-20
		MJLA 25-S	25	36x2.0	XX5118441X-25-25
		MJLA 30-S	30	42x2.0	XX5118441X-30-30
	315	MJLA 38-S	38	52x2.0	XX5118441X-38-38

## Joelho 90° Macho Orientável para tubo rosca BSP (Paralela)

Somente Corpo

Com porca e anilha

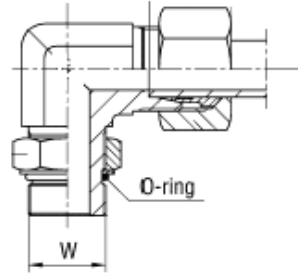
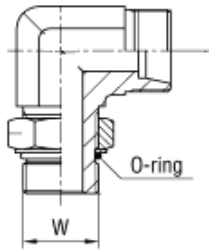


Série	Bar	Código Antigo	Tubo	Rosca Tubo	G	Código Novo
LEVE	315	JOA 06X1/8 BSP-L	6	12x1.5	1/8"-28	XX5117141X-06-02
		JOA 08X1/4 BSP-L	8	14x1.5	1/4"-19	XX5117141X-08-04
		JOA 10X1/4 BSP-L	10	16x1.5	1/4"-19	XX5117141X-10-04
	250	JOA 12X3/8 BSP-L	12	18x1.5	3/8"-19	XX5117141X-12-06
		JOA 15X1/2 BSP-L	15	22x1.5	1/2"-14	XX5117141X-15-08
		JOA 18X1/2 BSP-L	18	26x2.0	1/2"-14	XX5117141X-18-08
	160	JOA 22X3/4 BSP-L	22	30x2.0	3/4"-14	XX5117141X-22-12
		JOA 28X1 BSP-L	28	36x2.0	1"-11	XX5117141X-28-16
		JOA 35X1.1/4 BSP-L	35	45x2.0	1.1/4"-11	XX5117141X-35-20
		JOA 42X1.1/2 BSP-L	42	52x2.0	1.1/2"-11	XX5117141X-42-24
PESADA	315	JOA 06X1/4 BSP-S	6	14x1.5	1/4"-19	XX5118141X-06-04
		JOA 08X1/4 BSP-S	8	16x1.5	1/4"-19	XX5118141X-08-04
	250	JOA 10X3/8 BSP-S	10	18x1.5	3/8"-19	XX5118141X-10-06
		JOA 12X3/8 BSP-S	12	20x1.5	3/8"-19	XX5118141X-12-06
		JOA 14X1/2 BSP-S	14	22x1.5	1/2"-14	XX5118141X-14-08
		JOA 16X3/8 BSP-S	16	24x1.5	3/8"-19	XX5118141X-16-06
		JOA 16X1/2 BSP-S	16	24x1.5	1/2"-14	XX5118141X-16-08
		JOA 16X3/4 BSP-S	16	24x1.5	3/4"-14	XX5118141X-16-12
	200	JOA 20X3/4 BSP-S	20	30x2.0	3/4"-14	XX5118141X-20-12
		JOA 25X1 BSP-S	25	36x2.0	1"-11	XX5118141X-25-16
	160	JOA 30X1.1/4 BSP-S	30	42x2.0	1.1/4"-11	XX5118141X-30-20
		JOA 38X1.1/2 BSP-S	38	52x2.0	1.1/2"-11	XX5118141X-38-24

## Joelho 90° Macho Orientável para tubo rosca UNF

Somente Corpo

Com porca e anilha



Série	Bar	Código Novo	Tubo	Rosca Tubo	W	Código Novo
LEVE	315	JOA 06X7/16 UNF-L	6	12x1.5	7/16"-20	XX5117331X-06-04
		JOA 08X7/16 UNF-L	8	14x1.5	7/16"-20	XX5117331X-08-04
		JOA 10X9/16 UNF-L	10	16x1.5	9/16"-18	XX5117331X-10-06
		JOA 12X3/4 UNF-L	12	18x1.5	3/4"-16	XX5117331X-12-08
		JOA 15X7/8 UNF-L	15	22x1.5	7/8"-14	XX5117331X-15-10
		JOA 18X7/8 UNF-L	18	26x2.0	7/8"-14	XX5117331X-18-10
	160	JOA 22X1.1/16 UNF-L	22	30x2.0	1.1/16"-12	XX5117331X-22-12
		JOA 28X1.5/16 UNF-L	28	36x2.0	1.5/16"-12	XX5117331X-28-16
		JOA 35X1.5/8 UNF-L	35	45x2.0	1.5/8"-12	XX5117331X-35-20
		JOA 42X1.7/8 UNF-L	42	52x2.0	1.7/8"-12	XX5117331X-42-24
PESADA	400	JOA 06X7/16 UNF-S	6	14x1.5	7/16"-20	XX5118331X-06-04
		JOA 08X9/16 UNF-S	8	16x1.5	9/16"-18	XX5118331X-08-06
		JOA 10X9/16 UNF-S	10	18x1.5	9/16"-18	XX5118331X-10-06
		JOA 12X3/4 UNF-S	12	20x1.5	3/4"-16	XX5118331X-12-08
		JOA 14X7/8 UNF-S	14	22x1.5	7/8"-14	XX5118331X-14-10
		JOA 16X3/4 UNF-S	16	24x1.5	3/4"-16	XX5118331X-16-08
		JOA 16X7/8 UNF-S	16	24x1.5	7/8"-14	XX5118331X-16-10
		JOA 20X1.1/16 UNF-S	20	30x2.0	1.1/16"-12	XX5118331X-20-12
		JOA 25X1.1/16 UNF-S	25	36x2.0	1.1/16"-12	XX5118331X-25-12
		JOA 25X1.5/16 UNF-S	25	36x2.0	1.5/16"-12	XX5118331X-25-16
	250	JOA 30X1.5/8 UNF-S	30	42x2.0	1.5/8"-12	XX5118331X-30-20
		JOA 38X1.7/8 UNF-S	38	52x2.0	1.7/8"-12	XX5118331X-38-24