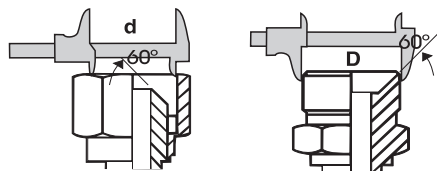
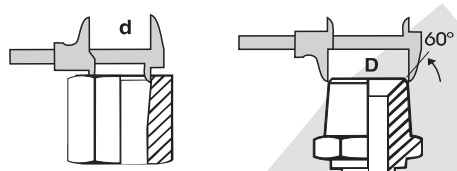


ROSCA BSP



ROSCA	d (mm)	D (mm)	FIOS
1/8"	8.4	9.6	28
1/4"	11.7	13.0	19
3/8"	15.2	16.5	19
1/2"	18.9	20.8	14
5/8"	20.9	22.8	14
3/4"	24.4	26.8	14
1"	30.6	33.1	11
1.1/4"	39.3	41.8	11
1.1/2"	45.2	47.7	11
2"	57.4	59.5	11
2.1/2"	72.6	75.1	11
3"	85.4	87.9	11
4"	110.0	113.0	11

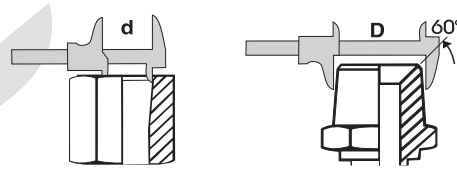
ROSCA BSPT *



ROSCA	d (mm)	FIOS	ROSCA	D (mm)	FIOS
1/8"	8.4	28	1/8"	10.1	28
1/4"	11.7	19	1/4"	13.6	19
3/8"	15.2	19	3/8"	17.1	19
1/2"	18.9	14	1/2"	21.5	14
5/8"	20.9	14	5/8"	23.4	14
3/4"	24.4	14	3/4"	27.0	14
1"	30.6	11	1"	33.9	11
1.1/4"	39.3	11	1.1/4"	42.6	11
1.1/2"	45.2	11	1.1/2"	48.5	11
2"	59.5	11	2"	60.5	11

* A dimensão neste tipo de rosca é medida no 4º filete da rosca.

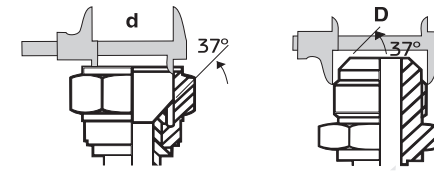
ROSCA NPT *



ROSCA	d (mm)	FIOS	ROSCA	D (mm)	FIOS
1/8"	9.1	27	1/8"	10.3	27
1/4"	11.9	18	1/4"	13.9	18
3/8"	15.1	18	3/8"	17.3	18
1/2"	19.0	14	1/2"	21.6	14
3/4"	24.2	14	3/4"	27.0	14
1"	30.6	11.5	1"	33.7	11.5
1.1/4"	38.9	11.5	1.1/4"	42.5	11.5
1.1/2"	45.2	11.5	1.1/2"	48.6	11.5
2"	57.2	11.5	2"	60.7	11.5
2.1/2"	72.0	8	2.1/2"	73.4	8
3"	88.9	8	3"	89.2	8

* A dimensão neste tipo de rosca é medida no 4º filete da rosca.

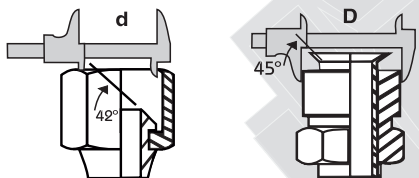
ROSCA JIC/SAE



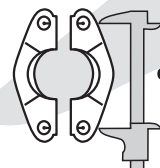
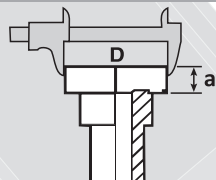
ROSCA	d (mm)	D (mm)	FIOS
5/16"	6.9	7.9	24
3/8"	8.5	9.5	24
7/16"	9.9	11.0	20
1/2"	11.5	12.5	20
9/16"	12.9	14.1	18
5/8"	14.5	15.8	18
3/4"	17.5	18.9	16
7/8"	20.5	22.1	14
1.1/16"	25.0	26.9	12
1.3/16"	28.2	30.0	12
1.5/16"	31.3	33.2	12
1.5/8"	39.2	41.2	12
1.7/8"	45.5	47.5	12
2.1/2"	61.4	63.3	12

FLANGES

ROSCA S.A.E. INVERTIDA

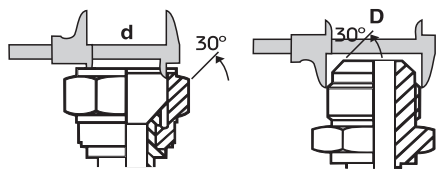


ROSCA	d (mm)	D (mm)	FIOS
7/16"	10.32	11.12	24
1/2"	11.12	12.70	20
5/8"	14.29	15.90	18
11/16"	15.90	17.46	18
3/4"	18.26	19.05	18



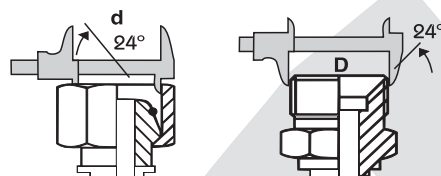
3000 PSI				6000 PSI			9000 PSI (CAT)		
D (in)	D (mm)	a (mm)	d (mm)	D (mm)	a (mm)	d (mm)	D (mm)	a (mm)	d (mm)
1/2"	30.2	6.7	38.20	31.8	7.8	40.48	31.8	14.2	40.5
5/8"	34.0	6.7	(Komatsu) 47.60	41.3	8.8	50.80	41.3	14.2	50.8
3/4"	38.1	6.7	47.60	47.6	9.5	57.15	47.6	14.2	57.2
1"	44.5	8.0	52.40	54.0	10.3	66.67	54.0	14.2	66.7
1.1/4"	50.8	8.0	58.70	63.5	12.6	79.37	63.5	14.2	79.4
1.1/2"	60.3	8.0	69.85	79.4	12.6	96.83	79.4	14.2	96.8
2"	71.4	9.5	77.80	107.8	20.6	123.8			
2.1/2"	84.1	9.5	88.90	131.7	20.6	152.4			
3"	101.6	9.5	106.40						

ROSCA JIS (BSP) (Toyota)



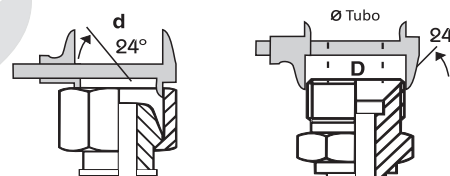
ROSCA	d (mm)	D (mm)	FIOS
1/8"	8.4	9.6	28
1/4"	11.7	13.0	19
3/8"	15.2	16.5	19
1/2"	18.9	20.8	14
5/8"	20.9	22.8	14
3/4"	24.4	26.8	14
1"	30.6	33.1	11
1.1/4"	39.3	41.8	11
1.1/2"	45.2	47.7	11
2"	57.4	59.5	11

ROSCA MÉTRICA



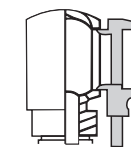
ROSCA	d (mm)	D (mm)	Ø Tubo L (mm)	Ø Tubo S (mm)
M10 x 1.0	9.0	10.00	4	-
M12 x 1.5	10.5	12.00	6	-
M14 x 1.5	12.5	14.00	8	6
M16 x 1.5	14.5	16.00	10	8
M18 x 1.5	16.5	18.00	12	10
M20 x 1.5	18.5	20.00	-	12
M22 x 1.5	20.5	22.00	15	14
M24 x 1.5	22.5	24.00	-	16
M26 x 1.5	24.5	26.00	18	-
M30 x 2.0	28.0	30.00	22	20
M36 x 2.0	34.0	36.00	28	25
M42 x 2.0	40.0	42.00	-	30
M45 x 2.0	43.0	45.00	35	-
M52 x 2.0	50.0	52.00	42	38

ROSCA MÉTRICA FRANCE



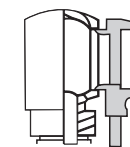
ROSCA	d (mm)	D (mm)	Ø Tubo (mm)
M12 X 1	11.00	12.00	6.20
M14 X 1.5	12.50	14.00	8.15
M16 X 1.5	14.50	16.00	10.20
M18 X 1.5	16.50	18.00	12.15
M20 x 1.5	18.50	20.00	13.25
M20 x 1.5	18.50	20.00	14.15
M22 X 1.5	20.50	22.00	15.15
M24 X 1.5	22.50	24.00	16.75
M24 X 1.5	22.50	24.00	17.00
M27 X 1.5	25.50	27.00	18.15
M27 X 1.5	25.50	27.00	20.15
M30 x 1.5	28.50	30.00	21.50
M30 x 1.5	28.50	30.00	22.15
M33 X 1.5	31.50	33.00	25.15
M36 x 1.5	34.50	36.00	26.75
M36 x 1.5	34.50	36.00	28.25
M39 X 1.5	37.50	39.00	30.25
M42 X 1.5	40.50	42.00	32.25
M45 X 1.5	43.50	45.00	33.80
M45 X 1.5	43.50	45.00	33.50
M48 X 1.5	46.50	48.00	38.25
M52 X 1.5	50.50	52.00	40.35
M52 X 1.5	50.50	52.00	42.25
M58 X 2	56.00	58.00	49.00

BANJO MÉTRICO

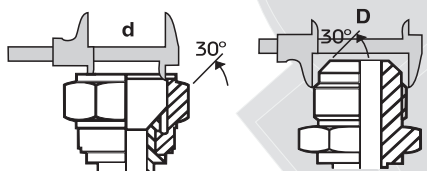


ROSCA	d (mm)	ROSCA	d (mm)
M10 X 1.0	10.2	1/8" - 28	9.9
M12 X 1.5	12.2	1/4" - 19	13.3
M14 X 1.5	14.2	3/8" - 19	16.8
M16 X 1.5	16.2	1/2" - 14	21.1
M18 X 1.5	18.2	5/8" - 14	23.1
M20 X 1.5	20.2	3/4" - 14	26.6
M22 X 1.5	22.2	1" - 11	33.5
M26 X 1.5	26.2		
M30 X 1.5	30.2		

BANJO BSP

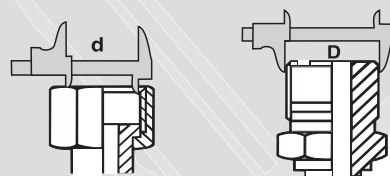


ROSCA JIS (MÉTRICA) (Komatsu)



ROSCA	d (mm)	D (mm)	PASSO
M14 x 1.5	12.5	14.0	1.5
M16 x 1.5	14.5	16.0	1.5
M18 x 1.5	16.5	18.0	1.5
M22 x 1.5	20.5	22.0	1.5
M24 x 1.5	22.5	24.0	1.5
M27 x 2.0	25.0	27.0	2.0
M30 x 1.5	28.5	30.0	1.5
M33 x 1.5	31.5	33.0	1.5
M42 x 1.5	40.5	42.0	1.5
M50 x 2.0	48.0	50.0	2
M60 x 2.0	58.0	60.0	2

ROSCA ORFS



ROSCA	d (mm)	D (mm)	FIOS
9/16"	12.9	14.3	18
11/16"	16.0	17.3	16
13/16"	19.1	20.6	16
1"	23.6	25.4	14
1.3/16"	28.2	30.0	12
1.7/16"	34.3	36.3	12
1.11/16"	40.6	42.7	12
2"	48.8	51.8	12