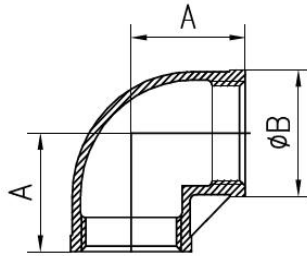


ISO4144 FITTINGS

(Measures:mm)

90°Elbow ISO4144 (LB)



Type II

Item \ Size	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
A	17	19	23	27	32	38	45	48	57	69	78	96
B	13.7	16.5	21	25.5	32	39	48	54.5	68	84	97.5	124

Type I

Item \ Size	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
A			23.5	28	32.5		45.5	48.5	57.5			
B			20.5	27.5	32.5		48	55	69			

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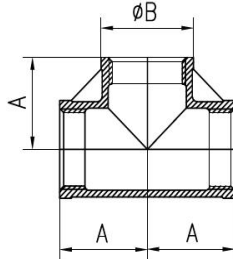
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Tees ISO4144 (TB)



Type II

Item \ Size	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
A	17	19	23	27	32	38	45	48	57	69	78	96
B	13	16.5	20.5	25	31	38.5	48	54	67	83.5	96.5	123.5

Type I

Item \ Size	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
A		19.5	23.5		32.5	38.5	45.5	48.5				
B		17	20.5		32.5	39	48	55				

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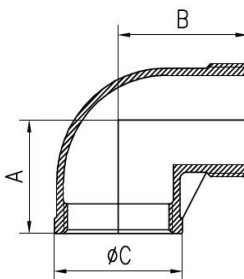
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90°Street Elbows ISO4144 (SLB)



Type II (Normal Type)

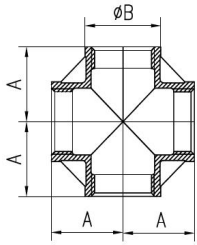
Item \ Size	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
A	17	19.3	23.5				45	48	57	69	78	97
B	26	27	29.4				54	57	70	83	94	115
C	13.8	16.7	22				48	55	68	84.5	97.5	124.5

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Type I (Heavy type)

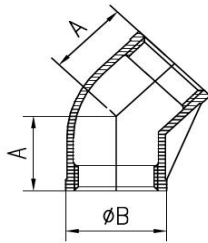
Item \ Size	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
A				27.5	32.5	38.5	45.5		57.5			
B				35.5	40.5	46.5	54.5		70.5			
C				26	32.5	39	48		68.5			

Cross ISO4144 (+B)



Size Item	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
A	17	19	23	27	32	38	45	48	57	69	78	96
B	13.8	17.8	21	26.3	32	39	48.5	55	68.5	83.5	98.2	125.4

45°Elbows ISO4144 (45°LB)



Size Item	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
A	16	17	19	21	25	29	33	37	43	49	54	64
B	13	18	21	26	32	39	49	56	67.5	83.5	97.5	124.5

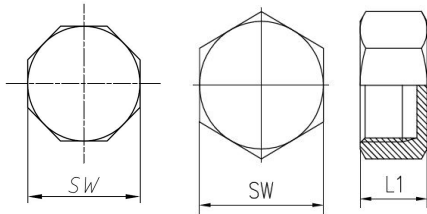
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Hexagon Caps ISO4144 (HCB)



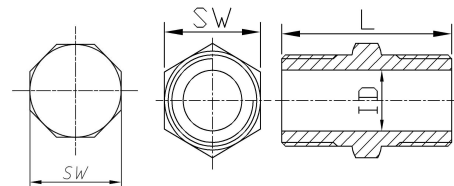
Size Item	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
SW	12.5	16	18.8	25	31	37.5	47	53.5	66	83.5	93	121
L1	12.5	16	16.5	19	24	26	29	29.5	34	38.5	38.5	41
Square	6	6	6	6	8	8	8	8	8	8	8	8

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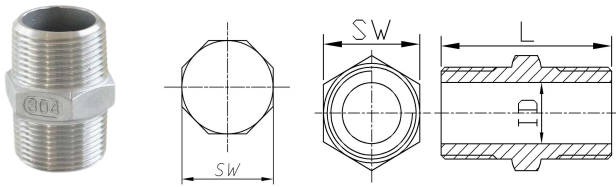
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Hexagon Nipples (Heavy & Long TYPE)



Size Item	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
SW	12	14.5	17.5	22.6	27.7	36	43.5	50	63	77.5	91.5	116.4
L	23.2	25	28.7	37	41	45.5	50	53.3	61.5	72	77	83
ID	5.6	9	11.2	15.3	20	26.6	35	40	50	64.5	77.5	102.3
Square	6	6	6	6	6	8	8	8	8	8	8	8

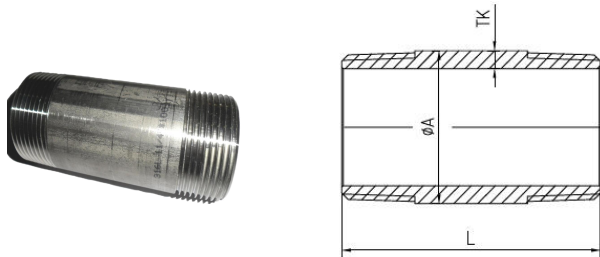
Hexagon Nipples(ISO4144 TYPE)



Size Item	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
SW	12	14.5	17.5	21.5	27.5	34	43	48.5	61.2	76.5	90	115.5
L	23.2	25	28.7	34.5	37	42	48	47.5	57	61	67.5	80
ID	5.6	9	11.2	15.6	20.8	27	35.4	40.7	52	66.5	79.2	104
Square	6	6	6	6	6	10	10	10	10	10	10	10

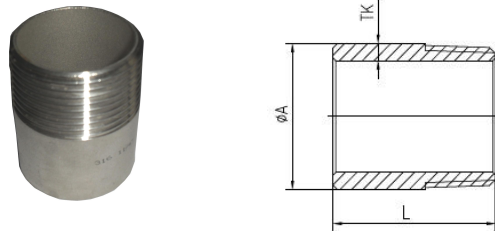
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Barrel Nipples(BN)



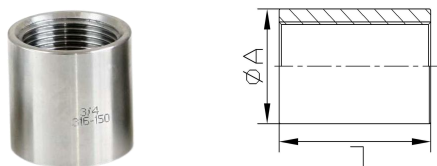
Size Item	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
L	40	40	40	60	60	60	80	80	100	100	120	120
A	10	13.72	17.15	21.34	26.67	33.4	42.16	48.26	60.33	76.3	88.9	114.3
Tk-Sch20S				2.5	2.5	3	3	3	3.5	4	4	5
Tk-Sch40S	2	2.24	2.31	2.77	2.87	3.38	3.56	3.68	3.91	5.2	5.49	6.02

Welding Nipples(WN)



Size Item	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
L	30	30	30	35	40	40	50	50	50	60	70	80
A	10	13.72	17.15	21.34	26.67	33.4	42.16	48.26	60.33	76.3	88.9	114.3
Tk-Sch20S				2.5	2.5	3	3	3	3.5	4	4	5
Tk-Sch40S	2	2.24	2.31	2.77	2.87	3.38	3.56	3.68	3.91	5.2	5.49	6.02

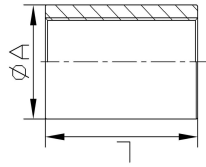
Couplings ISO4144



Size Item	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
A	13	16.5	20	24.5	30	37.5	46.5	53	65.5	82	95.5	121.5
L	17	24	25	32	35	41	45	45	54	63	69	81

Surface : pipe surface, polished , machined.

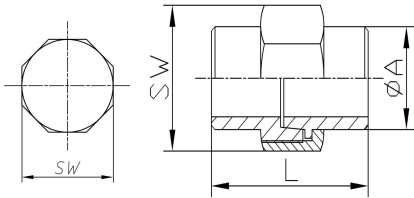
Couplings DIN2986



Size Item	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
A	14	18.5	21.3	26.4	31.8	39.5	48.3	54.5	66.3	82	95	122
L	17	25	26	34	36	43	48	48	56	65	71	83

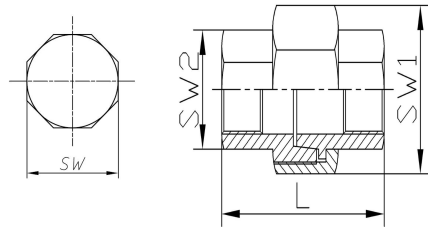
Surface : pipe surface, polished , machined.

Unions Conical BW/BW



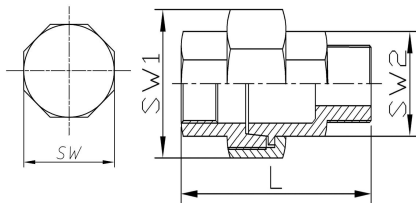
Size Item	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
sw	25	30.5	34	37.5	46	52	64	69.5	86	105	117.5	
A	10.2	14.3	17.2	21.2	27	33.7	42.4	48.2	60.5	76.1	91	
L	33.5	38	40	42.5	45	47.5	53	53	62	68.5	77	
Square	8	8	8	8	8	8	10	10	10	10	10	

Unions conical F/F



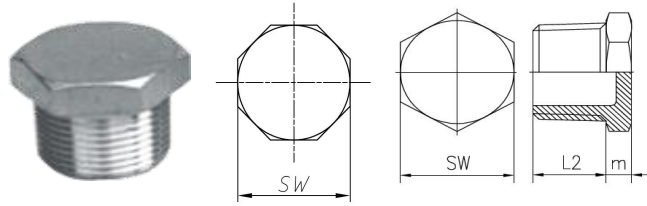
Size Item	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
SW1	25	30.5	34	37	45.5	52	64.5	71	86	101	116.5	145.5
SW2	13	17	21.5	25	30.5	38	47	54	67.5	80.5	96.5	121
L	30	33.5	36.5	40	43	50.5	54	58.5	65	75	83	110
Square	8	8	8	8	8	8	10	10	10	10	10	10

Unions conical M/F



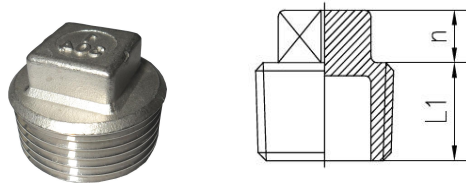
Size Item	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
SW1	25	30.5	34	37	45.5	52	64.5	71	86	101	116.5	145.5
SW2	13	17	21.5	25	30.5	38	47	54	67.5	80.5	96.5	121
L	38	44	47.5	54.5	59.5	70.6	75	79.5	90	102	113	146
Square	8	8	8	8	8	8	10	10	10	10	10	10

Hexagon Plug ISO4144 (HP)



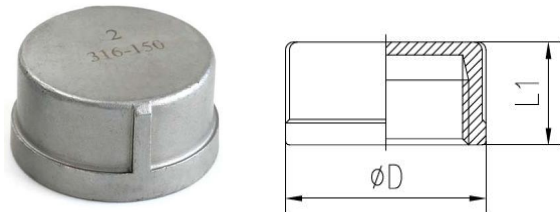
Item \ Size	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
SW	12	15	18	22	28	36	44	50	62	78.2	92	116
m	5	5	6	6	8	8	9.5	10	9.2	11	11.6	10.5
L2	8.5	11.5	12	15.3	16.5	18.4	21	20.5	25	28	30.2	36
Square	6	6	6	6	6	8	8	8	8	8	8	8
Note	solid	solid	solid	hollow	hollow	hollow	hollow	hollow	hollow	hollow	hollow	hollow

Square Plug (SQ)



Item \ Size	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
n	5	5	6	7	8.5	11.5	11	12.5	13.1	15.5	16	17.7
L1	6.8	10	10	12.8	14	16	19.2	18.5	23.5	24.5	28.3	31.2
Note	solid	solid	solid	hollow	hollow	hollow	hollow	hollow	hollow	hollow	hollow	hollow

Round Caps (CB)



Type II

Item \ Size	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
D	14	17.5	20.1	25.6	31	40.1	47.8	53.5	65.5	82.8	97.8	124.3
L	12.5	16	16.5	20	20.5	24.5	24.2	25.2	29.5	31.8	36	37

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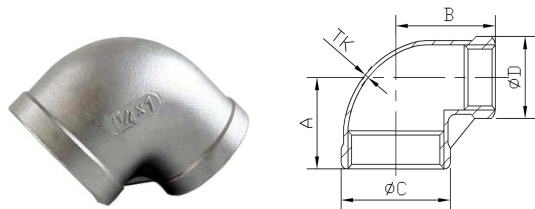
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Type I

Item \ Size	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
D				28	34.8	40						
L				21	22	24						

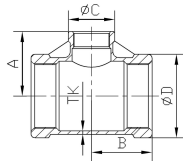
Reduce 90 Elbow (RLB)



Size:

1/2"×3/8"	1/2"×1/4"	3/4"×1/2"	3/4"×3/8"	3/4"×1/4"	1"×3/4"	1"×1/2"	1"×3/8"	1"×1/4"	1 1/4"×1"	1 1/4"×3/4"	1 1/4"×1/2"	1 1/2"×1 1/4"
1 1/2"×1"	1 1/2"×3/4"	1 1/2"×1/2"	2"×1 1/2"	2"×1 1/4"	2"×1"	2"×3/4"	2"×1/2"					

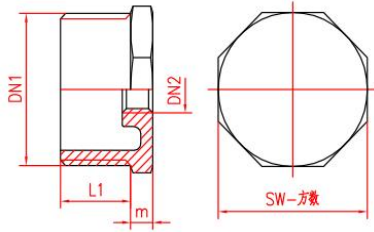
Reduce Tee (RTB)



Size:

1/2"*3/8"	1/2"*1/4"	3/4"*1/2"	3/4"*3/8"	3/4"*1/4"	1"*3/4"	1"*1/2"	1"*3/8"	1"*1/4"	1 1/4"*1"	1 1/4"*3/4"	1 1/4"*1/2"	1 1/2"*1 1/4"
1 1/2"*1"	1 1/2"*3/4"	1 1/2"*1/2"	2"*1 1/2"	2"*1 1/4"	2"*1"	2"*3/4"	2"*1/2"					

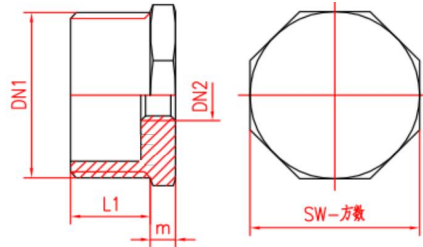
Hex. Bushing ISO4144 Type (HB)



DN1*DN2	m	L1	SW
1 1/2"*1 1/2"	6.5	20.5	49
1 1/2"*3/4"	6.5	20.5	49
1 1/2"*1"	6.5	20.5	49
1 1/2"*1 1/4"	6.5	20.5	49
2"*1 1/2"	7	25	62
2"*3/4"	7	25	62
2"*1"	7	25	62
2"*1 1/4"	7	25	62
2 1/2"*1"	7	27	78
2 1/2"*1 1/4"	7	27	78
2 1/2"*1 1/2"	7	27	78
2 1/2"*2"	7	27	78

DN1*DN2	m	L1	SW
3"*1"	7.5	30	90
3"*1 1/4"	7.5	30	90
3"*1 1/2"	7.5	30	90
3"*2"	7.5	30	90
3"*2 1/2"	7.5	30	90
4"*1 1/2"	8	36	115
4"*2"	8	36	115
4"*2 1/2"	8	36	115
4"*3"	8	36	115

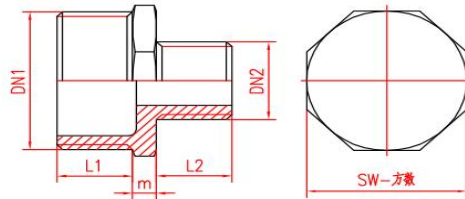
Hex. Bushing Heavy Type (HB)



DN1*DN2	m	L1	SW
1/4"*1/8"	4	11	15
3/8"*1/8"	3.5	11.5	17.5
3/8"*1/4"	5	12.7	18.5
1/2"*1/8"	4.8	15.2	22.5
1/2"*1/4"	4.8	15.4	22.5
1/2"*3/8"	4.8	15.1	22.5
3/4"*1/4"	5.7	16.6	28
3/4"*3/8"	5.8	16.7	28.3
3/4"*1/2"	5.6	16.9	28.5
1"*1/4"	6.8	19	34.8
1"*3/8"	6.8	19	34.8
1"*1/2"	7	18.9	34.8
1"*3/4"	7.2	18.8	35
1 1/4"*1/2"	8.5	20.5	44
1 1/4"*3/4"	8.5	20.3	43.4
1 1/4"*1"	8.4	20.6	43.9
1 1/2"*1/2"	8	21.5	48.8
1 1/2"*3/4"	8.5	21.5	49
1 1/2"*1"	8.4	21.6	49

DN1*DN2	m	L1	SW
1 1/2"*1 1/4"	8.2	21.8	49
2"*1/2"	8.2	25.6	62
2"*3/4"	8.4	25.2	62
2"*1"	8.4	25.6	61.8
2"*1 1/4"	8.5	25.5	62.5
2"/1 1/2"	8.8	25.4	62.3
2 1/2"*1"	10.8	28	78.3
2 1/2"*1 1/4"	10.5	28.2	77.8
2 1/2"*1 1/2"	10.7	28.1	78.3
2 1/2"*2"	10.8	28.2	78
3"*1"	10.8	30	89.5
3"*1 1/4"	10.8	30	89.5
3"*1 1/2"	11	29.7	89.7
3"*2"	12	28.5	89.8
3"*2 1/2"	11.8	30.2	92.5
4"*1 1/2"	12	35.8	116.2
4"*2"	12	35.6	115.7
4"/2 1/2"	12	35.6	115.7
4"*3"	13	34.8	115.8

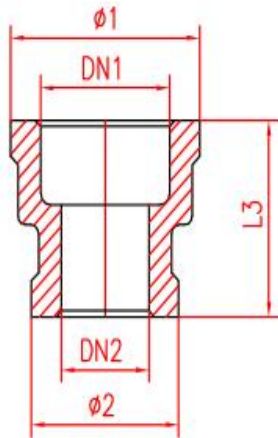
Red. Hex. Nipple(RHN)



DN1*DN2	m	L1	L2	SW
1/4"*1/8"	5.7	12.1	9.3	15
3/8"*1/8"	5.7	12.2	9.1	18.5
3/8"*1/4"	6	12	12	18.5
1/2"*1/8"	5.5	14.5	8.8	22
1/2"*1/4"	5.8	14.5	11.7	22
1/2"*3/8"	5.5	14.6	12.3	22.5
3/4"*1/4"	6	15.5	11.3	28
3/4"*3/8"	6.6	16.6	13	28.4
3/4"*1/2"	6.3	17	14.5	28.4
1"*1/4"	8.8	19.2	12	35
1"*3/8"	7.2	18.8	12.8	35.3
1"*1/2"	6.3	19	15	34.5
1"*3/4"	7	18.3	16.6	35.2
1 1/4"*3/8"	25.5	2	12	44
1 1/4"*1/2"	7.8	20.2	15	44.2
1 1/4"*3/4"	7.7	20.5	16.8	44
1 1/4"*1"	7.8	20.5	18.3	44

DN1*DN2	m	L1	L2	SW
1 1/2"*1/2"	8.5	21	15	50
1 1/2"*3/4"	9.4	21	17	50
1 1/2"*1"	9.9	20.8	18.6	49.9
1 1/2"*1 1/4"	9.9	20.8	20.3	50
2"*1/2"	9.8	26	14.6	62.3
2"*3/4"	9.7	25.7	17	62
2"*1"	9.4	26	18.6	62
2"*1 1/4"	10.3	25.3	20.7	61.9
2"/1 1/2"	9.5	26	21.5	62
2 1/2"*1"	10.8	28	18.2	78.5
2 1/2"*1 1/4"	10.6	28	20.4	78
2 1/2"*1 1/2"	10.3	28.5	21	78
2 1/2"*2"	11	29.5	25	78
3"*2"	12	30	25.3	92
3"*2 1/2"	12.2	30	28.5	92
4"*3"	12	34	32	115.5

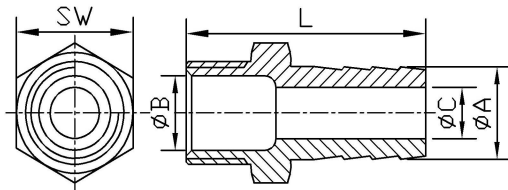
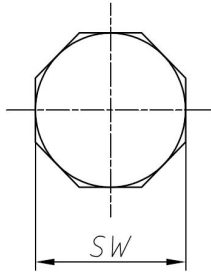
Reduce Socket Banded(RSB)



DN1*DN2	Ø1	Ø2	L3
1/4"*1/8"	17.1	14	21.1
3/8"*1/8"	22	14	25
3/8"*1/4"	22	17.5	28.1
1/2"*1/4"	26.5	17.3	29.1
1/2"*3/8"	26.1	21	31.7
3/4"*1/4"	32	17	30.8
3/4"*3/8"	32.2	21	33.4
3/4"*1/2"	32.1	27	36.6
1"*1/4"	40	17.2	33
1"*3/8"	39.6	21.2	35.5
1"*1/2"	38.77	26	36.5
1"*3/4"	39.5	32	40
1 1/4"*1/2"	46.1	25	41.2
1 1/4"*3/4"	49	32	42.4
1 1/4"*1"	48.9	39	43.2
1 1/2"*1/2"	55.2	26.3	38.2
1 1/2"*3/4"	52.3	30.8	42

DN1*DN2	Ø1	Ø2	L3
1 1/2"*1"	55.2	38.5	43
1 1/2"*1 1/4"	55.3	48.5	46
2"*1/2"	64.4	25.3	45.5
2"*3/4"	64.5	30.8	45.5
2"*1"	66.3	38.7	49.2
2"*1 1/4"	68.7	49.2	51.2
2"/1 1/2"	69	55.5	51.5
2 1/2"*1 1/4"	82.3	47	53
2 1/2"*1 1/2"	82.2	53	53
2 1/2"*2"	83	65.75	58.3
3"*2"	95.5	66	60
3"*2 1/2"	95.5	81.9	63.3
3"*2 1/2"	95.5	82.2	72
4"*2"	123.5	68.4	68
4"/2 1/2"	124	83.3	68.2
4"*3"	124	97.7	95.5

Hose Nipples (HON)



Hose Nipples Long Type (HON)

Item \ Size	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
A	7	9	11	15	20	26	34	40.5	52.5	63.5	76.1	100
SW	11.2	15	18.3	22	28	36	44	50	62	78	91.3	116
L	41	48	48	52.6	61	66	75	82	98.5	116	119.5	127
B	4.3	8	11.3	15.4	20	26.2	35.4	40.2	51	64.7	77	102
C	4.2	5	7	10	15.1	20.4	27.6	33.5	45.5	53.4	66.7	91
Square	6	6	6	6	6	8	8	8	8	8	8	8

Hose Nipples Long Type (HON, ØA special)

Item \ Size	1/4"	3/8"	1/2"	1/2"	1/2"	3/4"	1"
A	11	12	11	13	20	25	27
SW	13.5	17	21.5	21.5	23.5	28.5	36
L	41.5	51.5	47	51.5	56.5	66.5	65
B	9	11	15	15	15	20.4	26
C	7	8.5	7	8.5	15	20.4	22
Square	6	6	6	6	6	6	8

Hose Nipples Short Type (HON-II)

Item \ Size	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
A							34	40.5	52.5	63.5	76.1	100
SW							43.5	50	62	77.5	91.5	115.5
L							66	68.5	82	96.5	105	115
B							35.2	40.4	51.5	64.2	77.3	102.2
C							27.8	33.8	45.7	55	66.8	90.6
Square							8	8	8	8	8	8

Hose Nipples Short Type (HON TUK type)

Item \ Size	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
A				15	20.5	27	33	39	53			
SW				22	28	34	44	49.5	61.5			
L				57.5	66	76	79	82.5	92.5			
B				15.2	20.5	26	35	40.3	51.3			
C				10.5	15.5	22	27	33	46			
Square				6	8	8	8	8	8			