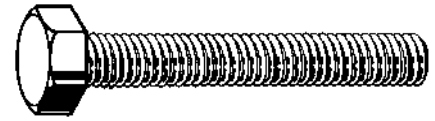
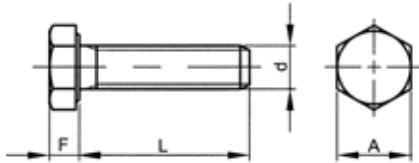


Hexagon head screw UNC

ANSI=B18.2.1
BS ≈1768



1

Technical data

d	Threads per inch	F	A
1/4	20	4	7/16
5/16	18	5,2	1/2
3/8	16	6	9/16
7/16	14	7,1	5/8
1/2	13	7,9	3/4
9/16	12	9,1	13/16
5/8	11	9,9	15/16
3/4	10	11,9	1.1/8
7/8	9	13,9	1.5/16
1.IN.	8	15,5	1.1/2
1.1/8	7	17,5	1.11/16
1.1/4	7	19,8	1.7/8
1.1/2	6	23,8	2.1/4

Article groups


Thread	Driving features	Material	Class	Surface treatment	Packaging	Code	Page
UNC	hexagon	St	Grade 5		Standard	02410	1-47
UNC	hexagon	St	Grade 5	Zipl	Standard	02430	1-48
UNC	hexagon	St.St. A2			Standard	51016	1-48
UNC	hexagon	St.St. A4			Standard	55016	1-48

02410 Hexagon head screw UNC

X01A

Thread	Unified National Coarse
Material	Steel
Class	Grade 5
Packaging	Standard




- Grade 5 acc. to the American standards SAE J429/ASTM A449 (marking sign ) corresponds much the same with property class 8.8 acc. to ISO 898-1. When the bolts are also marked with 8.8, then they meet the properties of property class 8.8. Depending on availability also the equal class S acc. to BS 1768 (marking sign S) can be supplied.

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
1/4X1/2	200	02410.063.012	3/8X1.3/4	100	02410.096.044	5/8X2.1/2	25	02410.158.063
1/4X5/8	200	02410.063.015	3/8X2.IN.	100	02410.096.050	5/8X3.IN.	25	02410.158.076
1/4X3/4	200	02410.063.019	3/8X2.1/2	100	02410.096.063			
1/4X7/8	200	02410.063.022				3/4X1.1/2	25	02410.191.038
1/4X1.IN.	200	02410.063.025	7/16X3/4	100	02410.111.019	3/4X1.3/4	25	02410.191.044
1/4X1.1/2	200	02410.063.038	7/16X1.IN.	100	02410.111.025	3/4X2.IN.	10	02410.191.050
			7/16X1.1/4	100	02410.111.031			
			7/16X1.1/2	100	02410.111.038	7/8X2.IN.	10	02410.222.050
			7/16X2.IN.	100	02410.111.050	7/8X2.1/4	10	02410.222.057
5/16X1/2	200	02410.079.012				7/8X2.1/2	10	02410.222.063
5/16X5/8	200	02410.079.015	1/2X3/4	100	02410.127.019			
5/16X3/4	200	02410.079.019	1/2X1.IN.	100	02410.127.025	1.IN.X2.IN.	10	02410.254.050
5/16X7/8	200	02410.079.022	1/2X1.1/4	50	02410.127.031	1.IN.X2.1/2	10	02410.254.063
5/16X1.IN.	200	02410.079.025	1/2X1.1/2	50	02410.127.038	1.IN.X2.3/4	10	02410.254.069
5/16X1.1/4	200	02410.079.031	1/2X2.IN.	50	02410.127.050			
5/16X1.1/2	200	02410.079.038	1/2X2.1/2	50	02410.127.063	1.1/8X2.3/4	4	02410.285.069
5/16X2.IN.	100	02410.079.050	1/2X3.IN.	50	02410.127.076	1.1/4X2.1/2	2	02410.317.063
						1.1/4X3.IN.	2	02410.317.076
3/8X5/8	100	02410.096.015	5/8X1.IN.	50	02410.158.025			
3/8X3/4	100	02410.096.019	5/8X1.1/4	50	02410.158.031	1.1/2X3.1/4	2	02410.381.082
3/8X7/8	100	02410.096.022	5/8X1.1/2	50	02410.158.038	1.1/2X3.1/2	2	02410.381.088
3/8X1.IN.	100	02410.096.025	5/8X1.3/4	50	02410.158.044			
3/8X1.1/8	100	02410.096.028	5/8X2.IN.	50	02410.158.050			
3/8X1.1/4	100	02410.096.031						
3/8X1.1/2	100	02410.096.038						

1

02430 Hexagon head screw UNC		X01A
Thread	Unified National Coarse	
Material	Steel	
Class	Grade 5	
Surface treatment	Zinc plated	
Packaging	Standard	

- Grade 5 acc. to the American standards SAE J429/ASTM A449 (marking sign ) corresponds much the same with property class 8.8 acc. to ISO 898-1. When the bolts are also marked with 8.8, then they meet the properties of property class 8.8. Depending on availability also the equal class S acc. to BS 1768 (marking sign S) can be supplied.

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
1/4X1/2	200	02430.063.012	3/8X2.IN.	200	02430.096.050	5/8X1.IN.	50	02430.158.025
1/4X5/8	200	02430.063.015	3/8X2.1/2	200	02430.096.063	5/8X1.1/4	50	02430.158.031
1/4X3/4	200	02430.063.019	3/8X3.IN.	200	02430.096.076	5/8X1.1/2	50	02430.158.038
1/4X7/8	200	02430.063.022				5/8X1.3/4	50	02430.158.044
1/4X1.IN.	200	02430.063.025	7/16X3/4	100	02430.111.019	5/8X2.IN.	50	02430.158.050
1/4X1.1/2	200	02430.063.038	7/16X7/8	100	02430.111.022	5/8X2.1/2	50	02430.158.063
			7/16X1.IN.	100	02430.111.025	5/8X3.IN.	50	02430.158.076
5/16X1/2	200	02430.079.012	7/16X1.1/4	100	02430.111.031			
5/16X5/8	200	02430.079.015	7/16X1.1/2	100	02430.111.038			
5/16X3/4	200	02430.079.019				3/4X1.IN.	50	02430.191.025
5/16X7/8	200	02430.079.022	1/2X3/4	100	02430.127.019	3/4X1.1/2	50	02430.191.038
5/16X1.IN.	200	02430.079.025	1/2X7/8	100	02430.127.022	3/4X1.3/4	50	02430.191.044
5/16X1.1/2	200	02430.079.038	1/2X1.IN.	100	02430.127.025	3/4X2.IN.	10	02430.191.050
5/16X2.IN.	200	02430.079.050	1/2X1.1/4	100	02430.127.031			
5/16X2.1/2	200	02430.079.063	1/2X1.1/2	100	02430.127.038	7/8X2.IN.	25	02430.222.050
			1/2X2.IN.	100	02430.127.050	7/8X2.1/2	25	02430.222.063
3/8X1/2	200	02430.096.012	1/2X2.1/2	100	02430.127.063			
3/8X5/8	200	02430.096.015	1/2X3.IN.	100	02430.127.076			
3/8X3/4	200	02430.096.019				1.IN.X2.IN.	25	02430.254.050
3/8X7/8	200	02430.096.022	9/16X1.IN.	50	02430.142.025	1.IN.X2.1/4	25	02430.254.057
3/8X1.IN.	200	02430.096.025	9/16X1.1/4	50	02430.142.031	1.IN.X2.1/2	25	02430.254.063
3/8X1.1/4	200	02430.096.031	9/16X1.1/2	50	02430.142.038	1.IN.X2.3/4	25	02430.254.069
3/8X1.1/2	200	02430.096.038	9/16X1.3/4	50	02430.142.044			

51016 Hexagon head screw UNC		X15A
Thread	Unified National Coarse	
Material	Stainless steel A2	
Packaging	Standard	

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
1/4X1/2	100	51016.063.012	3/8X7/8	50	51016.096.022	5/8X1.IN.	25	51016.158.025
1/4X5/8	100	51016.063.015	3/8X1.IN.	50	51016.096.025	5/8X1.1/4	25	51016.158.031
1/4X3/4	100	51016.063.019	3/8X1.1/4	50	51016.096.031	5/8X1.1/2	25	51016.158.038
			3/8X1.1/2	100	51016.096.038	5/8X1.3/4	25	51016.158.044
5/16X1/2	100	51016.079.012	3/8X2.IN.	50	51016.096.050			
5/16X5/8	100	51016.079.015				3/4X1.1/2	5	51016.191.038
5/16X3/4	100	51016.079.019	1/2X3/4	25	51016.127.019	3/4X1.3/4	5	51016.191.044
5/16X1.IN.	100	51016.079.025	1/2X1.IN.	25	51016.127.025	3/4X2.IN.	5	51016.191.050
5/16X1.1/2	100	51016.079.038	1/2X1.1/4	25	51016.127.031			
			1/2X1.1/2	25	51016.127.038			
3/8X3/4	50	51016.096.019						

- Depending on availability the austenitic steel type is comparable to AISI 304 with mechanical properties acc. to ASTM F593.

55016 Hexagon head screw UNC		X15A
Thread	Unified National Coarse	
Material	Stainless steel A4	
Packaging	Standard	

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
1/4X1/2	100	55016.063.012	5/16X3/4	100	55016.079.019	3/8X1.1/4	50	55016.096.031
1/4X5/8	100	55016.063.015	5/16X1IN	100	55016.079.025	3/8X1.1/2	50	55016.096.038
1/4X3/4	100	55016.063.019	5/16X1.1/4	100	55016.079.031			
1/4X1IN	100	55016.063.025	5/16X1.1/2	100	55016.079.038	1/2X3/4	25	55016.127.019
						1/2X1IN	25	55016.127.025
5/16X1/2	100	55016.079.012	3/8X3/4	50	55016.096.019	1/2X1.1/4	25	55016.127.031
5/16X5/8	100	55016.079.015	3/8X1IN	50	55016.096.025	1/2X1.1/2	25	55016.127.038

55016 Hexagon head screw UNC

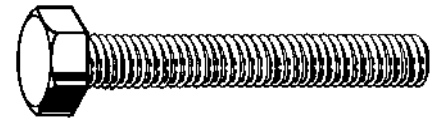
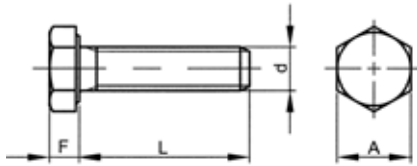
d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
1/2X1.3/4	25	55016.127.044	5/8X1.1/2	25	55016.158.038	3/4X1.1/2	5	55016.191.038
1/2X2IN	25	55016.127.050	5/8X1.3/4	25	55016.158.044	3/4X2IN	5	55016.191.050
5/8X1IN	25	55016.158.025	5/8X2IN	10	55016.158.050			
5/8X1.1/4	25	55016.158.031	5/8X2.1/2	10	55016.158.063			

- Depending on availability the austenitic steel type is comparable to AISI 316 with mechanical properties acc. to ASTM F593.

1

1

Hexagon head screw UNF

 ANSI ≈B18.2.1
 BS ≈1768


Technical data

d	Threads per inch	F	A
No.10	32	3	5/16
1/4	28	4	7/16
5/16	24	5,2	1/2
3/8	24	6	9/16
7/16	20	7,1	5/8
1/2	20	7,9	3/4
9/16	18	9,1	13/16
5/8	18	9,9	15/16
3/4	16	11,9	1.1./8
7/8	14	13,9	1.5/16
1.IN.-12G	12	15,5	1.1/2
1.IN.-14G	14	15,5	1.1/2

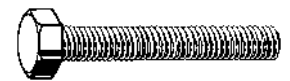
Article groups


Thread	Driving features	Material	Class	Surface treatment	Packaging	Code	Page
UNF	hexagon	St	Grade 5		Standard	02010	1-50
UNF	hexagon	St	Grade 5	Zipl	Standard	02130	1-51
UNF	hexagon	St.St. A2			Standard	51017	1-51

02010 Hexagon head screw UNF

X01A


Thread	Unified National Fine
Material	Steel
Class	Grade 5
Packaging	Standard



- Grade 5 acc. to the American standards SAE J429/ASTM A449 (marking sign ) corresponds much the same with property class 8.8 acc. to ISO 898-1. When the bolts are also marked with 8.8, then they meet the properties of property class 8.8. Depending on availability also the equal class S acc. to BS 1768 (marking sign S) can be supplied.
- If when ordering, UNF 1 inch-12 is not stated, then we supply the type with 14 threads per inch (UNS).

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
NO.10X1/2	200	02010.048.012	3/8X7/8	100	02010.096.022	9/16X1.IN.	50	02010.142.025
NO.10X5/8	200	02010.048.015	3/8X1.IN.	100	02010.096.025	9/16X1.1/2	50	02010.142.038
NO.10X3/4	200	02010.048.019	3/8X1.1/4	100	02010.096.031			
NO.10X1.IN.	200	02010.048.025	3/8X1.1/2	100	02010.096.038			
NO.10X1.1/4	200	02010.048.031	3/8X1.3/4	100	02010.096.044	5/8X1.1/4	50	02010.158.031
1/4X1/2	200	02010.063.012	3/8X2.IN.	100	02010.096.050	5/8X1.1/2	50	02010.158.038
1/4X5/8	200	02010.063.015	3/8X2.1/4	100	02010.096.057	5/8X1.3/4	50	02010.158.044
1/4X3/4	200	02010.063.019				5/8X2.IN.	50	02010.158.050
1/4X7/8	200	02010.063.022	7/16X3/4	100	02010.111.019			
1/4X1.IN.	200	02010.063.025	7/16X1.IN.	100	02010.111.025	3/4X1.1/2	25	02010.191.038
			7/16X1.1/4	100	02010.111.031	3/4X2.IN.	25	02010.191.050
			7/16X1.1/2	100	02010.111.038			
5/16X5/8	200	02010.079.015				7/8X2.IN.	25	02010.222.050
5/16X3/4	200	02010.079.019	1/2X3/4	100	02010.127.019	1-12GX2.IN.	25	02010.255.050
5/16X7/8	200	02010.079.022	1/2X1.IN.	100	02010.127.025	1-14GX2.IN.	25	02010.256.050
5/16X1.IN.	200	02010.079.025	1/2X1.1/4	100	02010.127.031			
5/16X1.1/4	200	02010.079.031	1/2X1.1/2	50	02010.127.038			
5/16X2.IN.	100	02010.079.050	1/2X2.IN.	50	02010.127.050			

02130 Hexagon head screw UNF		X01A
Thread	Unified National Fine	
Material	Steel	
Class	Grade 5	
Surface treatment	Zinc plated	
Packaging	Standard	

- Grade 5 acc. to the American standards SAE J429/ASTM A449 (marking sign ) corresponds much the same with property class 8.8 acc. to ISO 898-1. When the bolts are also marked with 8.8, then they meet the properties of property class 8.8. Depending on availability also the equal class S acc. to BS 1768 (marking sign S) can be supplied.
- If when ordering, UNF 1 inch-12 is not stated, then we supply the type with 14 threads per inch (UNS).

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
1/4X1/2	200	02130.063.012	3/8X1.IN.	200	02130.096.025	9/16X1.IN.	100	02130.142.025
1/4X5/8	200	02130.063.015	3/8X1.1/4	200	02130.096.031	9/16X1.1/4	100	02130.142.031
1/4X3/4	200	02130.063.019	3/8X1.1/2	200	02130.096.038	9/16X1.1/2	100	02130.142.038
1/4X7/8	200	02130.063.022	3/8X1.3/4	200	02130.096.044			
1/4X1.IN.	200	02130.063.025	3/8X2.IN.	200	02130.096.050			
1/4X1.1/4	200	02130.063.031	3/8X2.1/4	200	02130.096.057	5/8X1.IN.	50	02130.158.025
1/4X1.1/2	200	02130.063.038				5/8X1.1/4	50	02130.158.031
			7/16X3/4	100	02130.111.019	5/8X1.1/2	50	02130.158.038
5/16X1/2	200	02130.079.012	7/16X7/8	100	02130.111.022	5/8X1.3/4	50	02130.158.044
5/16X5/8	200	02130.079.015	7/16X1.IN.	100	02130.111.025	5/8X2.IN.	50	02130.158.050
5/16X3/4	200	02130.079.019	7/16X1.1/4	100	02130.111.031	5/8X2.1/2	50	02130.158.063
5/16X7/8	200	02130.079.022	7/16X1.1/2	100	02130.111.038			
5/16X1.IN.	200	02130.079.025	7/16X2.IN.	100	02130.111.050	3/4X1.IN.	50	02130.191.025
5/16X1.1/4	200	02130.079.031				3/4X1.1/4	50	02130.191.031
5/16X1.1/2	200	02130.079.038	1/2X3/4	100	02130.127.019	3/4X1.1/2	50	02130.191.038
5/16X2.IN.	200	02130.079.050	1/2X7/8	100	02130.127.022	3/4X1.3/4	50	02130.191.044
			1/2X1.IN.	100	02130.127.025	3/4X2.IN.	50	02130.191.050
3/8X1/2	200	02130.096.012	1/2X1.1/4	100	02130.127.031			
3/8X5/8	200	02130.096.015	1/2X1.1/2	100	02130.127.038	7/8X2.IN.	25	02130.222.050
3/8X3/4	200	02130.096.019	1/2X1.3/4	100	02130.127.044			
3/8X7/8	200	02130.096.022	1/2X2.IN.	100	02130.127.050			

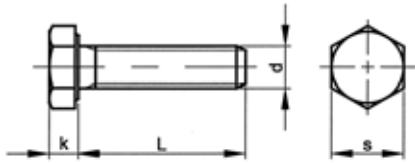
51017 Hexagon head screw UNF		X15A
Thread	Unified National Fine	
Material	Stainless steel A2	
Packaging	Standard	

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
1/4X1/2	100	51017.063.012	3/8X3/4	50	51017.096.019	1/2X1.1/2	25	51017.127.038
1/4X5/8	100	51017.063.015	3/8X1IN	50	51017.096.025	5/8X1IN	25	51017.158.025
1/4X3/4	100	51017.063.019	3/8X1.1/2	50	51017.096.038	5/8X1.1/4	25	51017.158.031
1/4X1.IN.	100	51017.063.025				5/8X1.1/2	25	51017.158.038
1/4X1.1/2	100	51017.063.038	7/16X1IN	25	51017.111.025	5/8X1.3/4	25	51017.158.044
			7/16X1.1/2	25	51017.111.038			
5/16X1/2	100	51017.079.012	7/16X2IN	25	51017.111.050	3/4X1.1/2	25	51017.191.038
5/16X5/8	100	51017.079.015				3/4X2IN	25	51017.191.050
5/16X3/4	100	51017.079.019	1/2X1.1/4	25	51017.127.031			
5/16X1.IN.	100	51017.079.025						
5/16X1.1/2	100	51017.079.038						

- Depending on availability the austenitic steel type is comparable to AISI 304 with mechanical properties acc. to ASTM F593.

Hexagon head screw BSW

1



DIN ≈933 (1954)
 NEN ≈2337 (1961)



Technical data

d	Threads per inch	k	s
1/4	20	5	11
5/16	18	6	14
3/8	16	7	17
1/2	12	9	22
5/8	11	11	27
3/4	10	13	32
7/8	9	16	36

- Whitworth thread (BSW/BSF) is not internationally recommended. It is advised to use metric (M/MF) or unified threads (UNC/UNF).
- Depending on availability the dimensions may deviate.

Article groups

Thread	Driving features	Material	Class	Packaging	Code	Page
BSW	hexagon	St	8.8	Standard	03410	1-52
BSW	hexagon	Br Cu2		Standard	46210	1-52

03410 Hexagon head screw BSW

X03A

Thread	British Standard Whitworth
Material	Steel
Class	8.8
Packaging	Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
1/4X10MM	100	03410.063.010	3/8X15MM	100	03410.096.015	1/2X50MM	50	03410.127.050
1/4X15MM	100	03410.063.015	3/8X20MM	100	03410.096.020	1/2X55MM	50	03410.127.055
1/4X20MM	100	03410.063.020	3/8X25MM	100	03410.096.025	1/2X60MM	50	03410.127.060
1/4X25MM	100	03410.063.025	3/8X30MM	100	03410.096.030	1/2X70MM	50	03410.127.070
1/4X30MM	100	03410.063.030	3/8X35MM	100	03410.096.035			
1/4X40MM	100	03410.063.040	3/8X40MM	100	03410.096.040	5/8X30MM	50	03410.158.030
1/4X50MM	100	03410.063.050	3/8X50MM	100	03410.096.050	5/8X40MM	25	03410.158.040
			3/8X60MM	100	03410.096.060	5/8X50MM	25	03410.158.050
5/16X20MM	100	03410.079.020	3/8X70MM	100	03410.096.070	5/8X60MM	25	03410.158.060
5/16X25MM	100	03410.079.025						
5/16X30MM	100	03410.079.030	1/2X20MM	100	03410.127.020	3/4X50MM	10	03410.191.050
5/16X40MM	100	03410.079.040	1/2X25MM	100	03410.127.025	3/4X60MM	10	03410.191.060
5/16X50MM	100	03410.079.050	1/2X30MM	100	03410.127.030	3/4X70MM	10	03410.191.070
5/16X60MM	100	03410.079.060	1/2X35MM	100	03410.127.035			
			1/2X40MM	50	03410.127.040			

46210 Hexagon head screw BSW

X08A

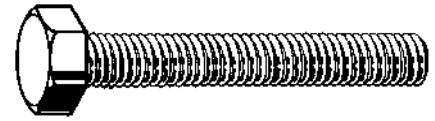
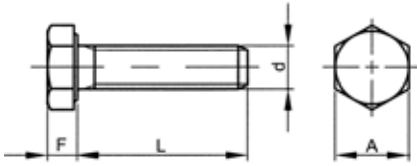
Thread	British Standard Whitworth
Material	Brass Cu2
Packaging	Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
1/4X10MM	100	46210.063.010	5/16X25MM	100	46210.079.025	1/2X25MM	25	46210.127.025
1/4X12MM	100	46210.063.012	5/16X30MM	50	46210.079.030	1/2X30MM	25	46210.127.030
1/4X15MM	100	46210.063.015	5/16X40MM	50	46210.079.040	1/2X40MM	25	46210.127.040
1/4X20MM	100	46210.063.020	5/16X50MM	50	46210.079.050	1/2X50MM	25	46210.127.050
1/4X25MM	100	46210.063.025						
1/4X30MM	100	46210.063.030	3/8X20MM	50	46210.096.020	5/8X16MM	25	46210.158.016
1/4X40MM	50	46210.063.040	3/8X25MM	50	46210.096.025	5/8X40MM	10	46210.158.040
1/4X50MM	50	46210.063.050	3/8X30MM	25	46210.096.030	5/8X50MM	10	46210.158.050
			3/8X40MM	25	46210.096.040			
5/16X16MM	100	46210.079.016	3/8X50MM	25	46210.096.050			
5/16X20MM	100	46210.079.020						

Hexagon head screw BSF

BS ≈1083 (1965)



1

Technical data

d	Threads per inch	F	A
1/4	26	4,6	0.445
5/16	22	5,5	0.525
3/8	20	6,6	0.6
1/2	16	8,7	0.82

- Whitworth thread (BSW/BSF) is not internationally recommended. It is advised to use metric (M/MF) or unified threads (UNC/UNF).
- Minimum Grade R acc. to ≈ BS 1083 (1965) corresponds much the same with property class 6.8 acc. to DIN ISO 898-1. The bolthead is marked with the symbol of property class R.

03010 Hexagon head screw BSF

X90A

Thread British Standard Fine
Material Steel
Class ≥Grade R
Packaging Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
1/4X5/8	200	03010.063.015	5/16X3/4	200	03010.079.019	3/8X3/4	100	03010.096.019
1/4X3/4	200	03010.063.019	5/16X1.IN.	200	03010.079.025	3/8X1.IN.	100	03010.096.025
1/4X1.IN.	200	03010.063.025	5/16X1.1/4	200	03010.079.031			
1/4X1.1/4	200	03010.063.031	5/16X1.1/2	200	03010.079.038	1/2X1.IN.	100	03010.127.025
1/4X1.1/2	200	03010.063.038				1/2X1.1/4	50	03010.127.031
5/16X5/8	200	03010.079.015	3/8X1/2	100	03010.096.012			
			3/8X5/8	100	03010.096.015			