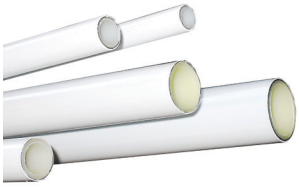
Aço Carbono
Carbon Steel

Pipes - Fittings - Flanges
According to EN DIN Rules

ÍNDICE CONTENT

Tubo multicamada e acessórios
Multilayer pipe and fittings

Tubo multicamada (PE-RT / AL / PE-RT) COMISA
Multilayer pipe



Dimensão	Rolo m	Palete m
16 x 2	100	1800
16 x 2	200	3600
16 x 2	500	3000
16 x 2	250	3000
18 x 2	100	1800
20 x 2	100	1800
20 x 2	300	2400
26 x 3	50	900
32 x 3	50	600

Dimensão	Barra m	Palete m
16 x 2	5	300
20 x 2	5	200
26 x 3	5	110
32 x 3	5	75
40 x 3,5	5	35
50 x 4	5	15
63 x 6	5	5

Caracteristicas
· Baixa expansão térmica
· Fácil instalação
· Fácil de curvar
· Homologado para água potável
· Total impermeabilidade ao oxigénio
· Resistência à corrosão

Áreas de aplicação
· Aquecimento com radiadores
· Uso sanitário
· Aquecimento por piso radiante
· Redes de ar comprimido
· Sistemas industriais
· Aquecimento mural
· Redes de água refrigerada

Performance
· Máxima pressão de serviço 10 bar
· Máxima temperatura de serviço 95º C
· Máxima temperatura de pico 110º C
· Pressão de rebentamento 80 bar

Tubo multicamada com isolamento
Multilayer pipe

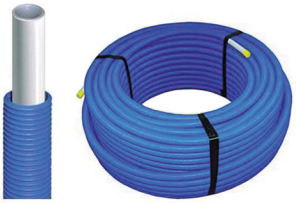
Dimensão	Rolo m	Palete m
16 x 2	50	600
18 x 2	50	600
20 x 2	50	600
26 x 3	50	450

Dimensão	Barra m	Palete m
16 x 2	50	500
18 x 2	50	450
20 x 2	50	450
26 x 3	50	400
32 x 3	25	250

Dimensão	Rolo m	Palete m
16 x 2	50	600
20 x 2	50	600

Dimensão	Barra m	Palete m
16 x 2	50	600
20 x 2	50	600

Tubo multicamada com isolamento
Multilayer pipe



Dimensão	Rolo m	Palete m
16 x 2	50	600
18 x 2	50	600
20 x 2	50	600
26 x 3	50	450

Dimensão	Barra m	Palete m
16 x 2	50	500
18 x 2	50	450
20 x 2	50	450
26 x 3	50	400
32 x 3	25	250

A Tubo interno em PE-RT (Polietileno resistente a altas temperaturas)

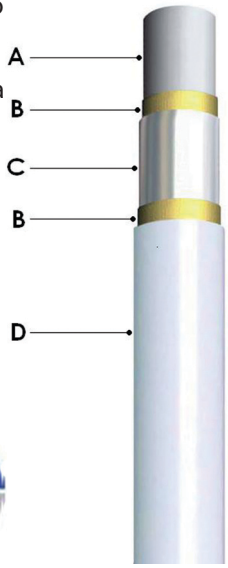
Reticulado na origem segundo a norma DIN 16833

B Camada adesiva

C Alumínio

B Camada adesiva

D Revestimento externo em PE-RT (Polietileno resistente a altas temperaturas)



Com certificado DVGW

Acessórios em latão para tubo multicamada
Multilayer fittings

Os acessórios são compostos pelos seguintes elementos:

Corpo em latão EN 12165 CW 617 N / EN 12164 CW 617 N.
As peças direitas são fabricadas a partir de barra e as restantes peças a partir de latão forjado.

O-rings fabricados com uma mistura de EPDM/Peróxido
Cada perfil do acessório é provido de dois o-rings, cujos diâmetros variam segundo a dimensão do mesmo. A sua função é a de assegurar a perfeita vedação entre o acessório e o tubo, garantindo uma perfeita estanquidade, tanto com água quente como com água fria.

Camisa em aço inoxidável AISI 304 DIN EN 10088-2
A camisa é a peça sobre a qual o mordente exerce a força de cravação, garantindo a fixação do tubo. Depois de cravada, a deformação da camisa em aço inox, mantém-se, não havendo lugar a nenhum retorno elástico. A fim de garantir a irreversibilidade da deformação a camisa é previamente submetida a um tratamento de solubilização.

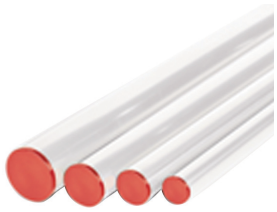
Anel em material plástico
Este anel tem como função unir a camisa inox ao corpo do acessório e também servir como espaçador. Devido ao seu formato, serve de separador, não permitindo qualquer contacto entre o latão e a camada de alumínio do tubo, evitando assim a propagação das altamente prejudiciais correntes galvânicas.

Para a prensagem do sistema multicamada devem usar-se ferramentas de cravar Novopress equipadas com mordentes de perfil TH.

Ferramentas para instalação do sistema multicamada

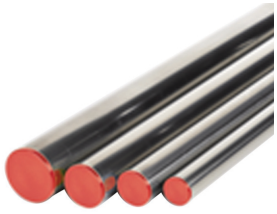
Tubo em aço carbono com costura EN10305-3 (ex- Din2394)
Welded carbon steel pipe EN10305-3 (ex- Din2394)

Tubo galvanizado exteriormente e revestido com polipropileno branco RAL9001 EN 10305-3 (ex-DIN2394)
Welded galvanized line pipe politylene coated, lenght 6m to be used with pressfitting system

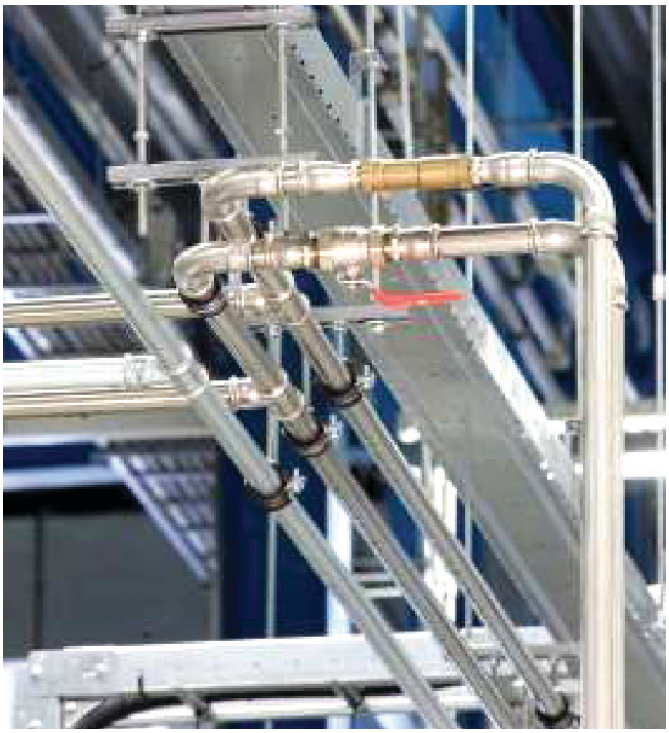


DN	Dimensão	Kg/ m Weight
12	15,0 x 1,2	0,434
15	18,0 x 1,2	0,536
20	22,0 x 1,5	0,824
25	28,0 x 1,5	1,052
32	35,0 x 1,5	1,320
40	42,0 x 1,5	1,620
50	54,0 x 1,5	2,098

Tubo galvanizado exteriormente EN 10305-3 (ex-DIN2394) para ser usado no sistema "Pressfitting"
Welded galvanized line pipe lenght 6m to be used on pressfitting system



DN	Dimensão	Kg/ m Weight
10	12,0 x 1,2	0,271
12	15,0 x 1,2	0,420
15	18,0 x 1,2	0,493
20	22,0 x 1,5	0,761
25	28,0 x 1,5	0,980
32	35,0 x 1,5	1,239
40	42,0 x 1,5	1,500
50	54,0 x 1,5	2,100
65	76,1 x 2,0	3,712
80	88,9 x 2,0	4,459
100	108,0 x 2,0	5,307



Tubo soldado EN 10255-M preto, (série média DIN 2440) comprimento 6m
Black welded pipe lenght 6m

DN	OD mm	Espessura Thickness	Kg/ m Weight
1/2"	21,30 mm	2,6 mm	1,22
3/4"	26,90 mm	2,6 mm	1,58
1"	33,70 mm	3,2 mm	2,44
1 1/4"	42,40 mm	3,2 mm	3,14
1 1/2"	48,30 mm	3,2 mm	3,61
2"	60,30 mm	3,6 mm	5,10
2 1/2"	76,10 mm	3,6 mm	6,51
3"	88,90 mm	4,0 mm	8,47
4"	114,30 mm	4,5 mm	12,20
5"	139,70 mm	4,8 mm	16,20
6"	165,10 mm	4,8 mm	19,20

Tubo soldado EN 10255-M, EN 10240 A.1. galvanizado, (série média DIN 2440) comprimento 6m
Galvanized welded pipe lenght 6m

DN	OD mm	Espessura Thickness	Kg/ m Weight
1/2"	21,30 mm	2,6 mm	1,31
3/4"	26,90 mm	2,6 mm	1,65
1"	33,70 mm	3,2 mm	2,56
1 1/4"	42,40 mm	3,2 mm	3,29
1 1/2"	48,30 mm	3,2 mm	3,79
2"	60,30 mm	3,6 mm	5,31
2 1/2"	76,10 mm	3,6 mm	6,80
3"	88,90 mm	4,0 mm	8,85
4"	114,30 mm	4,5 mm	12,70
5"	139,70 mm	4,8 mm	16,71
6"	165,10 mm	4,8 mm	19,50

Tubo EN 10255-M preto roscado, BSP série média com costura (DIN 2440)comprimento 6m
Welded threaded galvanized line pipe lenght 6m

DN	Dimensão	Espessura Thickness	Kg/ m Weight
1/2"	21,3 mm	2,6 mm	1,22
3/4"	26,9 mm	2,6 mm	1,58
1"	33,7 mm	3,2 mm	2,44
1 1/4"	42,4 mm	3,2 mm	3,14
1 1/2"	48,3 mm	3,2 mm	3,61
2"	60,3 mm	3,6 mm	5,10
2 1/2"	76,1 mm	3,6 mm	6,51
3"	88,9 mm	4,0 mm	8,47
4"	114,3 mm	4,5 mm	12,20

Tubo EN 10255-M, EN 10240 A.1. galvanizado, roscado, BSP série média com costura (DIN 2440)
Welded threaded galvanized line pipe lenght 6m

DN	Dimensão	Espessura Thickness	Kg/ m Weight
1/2"	21,3 mm	2,6 mm	1,31
3/4"	26,9 mm	2,6 mm	1,65
1"	33,7 mm	3,2 mm	2,56
1 1/4"	42,4 mm	3,2 mm	3,29
1 1/2"	48,3 mm	3,2 mm	3,79
2"	60,3 mm	3,6 mm	5,31
2 1/2"	76,1 mm	3,6 mm	6,80
3"	88,9 mm	4,0 mm	8,85
4"	114,3 mm	4,5 mm	12,70

Tubo em aço carbono com costura longitudinal
Welded carbon steel pipe

Tubo com costura EN 10255, preto, (ISO série ligeira II) comprimento 6m
Black welded pipe, ISO ligth II lenght 6m

DN	OD mm	Espessura Thickness	Kg/ m Weight
1/2"	21,30 mm	2,0 mm	0,95
3/4"	26,90 mm	2,3 mm	1,41
1"	33,70 mm	2,6 mm	2,01
1 1/4"	42,40 mm	2,6 mm	2,58
1 1/2"	48,30 mm	2,9 mm	3,25
2"	60,30 mm	2,90 mm	4,11
2 1/2"	76,10 mm	3,2 mm	5,80
3"	88,90 mm	3,2 mm	6,81
4"	114,30 mm	3,6 mm	10,20

Tubo EN 10255, EN 10240 A.1. galvanizado, (ISO série ligeira II) comprimento 6m
Galvanized welded pipe ISO ligth II lenght 6m

DN	OD mm	Espessura Thickness	Kg/ m Weight
1/2"	21,30 mm	2,0 mm	1,02
3/4"	26,90 mm	2,3 mm	1,47
1"	33,70 mm	2,6 mm	2,10
1 1/4"	42,40 mm	2,6 mm	2,69
1 1/2"	48,30 mm	2,9 mm	3,40
2"	60,30 mm	2,90 mm	4,30
2 1/2"	76,10 mm	3,2 mm	5,98
3"	88,90 mm	3,2 mm	7,04
4"	114,30 mm	3,6 mm	10,20

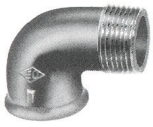
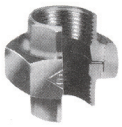
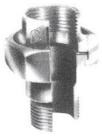
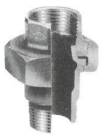
Tubo com costura EN 10217.1 P235TR1 (DIN 2458, St37.2) comprimento 6 a 12m
Welded black line pipe lenght 6m to 13m

DN	Dimensão	Espessura Thickness	Kg/ m Weight
DN150 (6")	168,3	4,0 mm	16,21
DN 150 (6")	168,3	4,5 mm	18,17
DN 200 (8")	219,1	4,5 mm	23,8
	219,1	6,3 mm	
DN 250 (10")	273,0	5,0 mm	33,0
DN 300 (12")	323,9	5,6 mm	44,0
DN 350 (14")	355,6	5,6 mm	48,3
DN 400 (16")	406,4	6,3 mm	62,2
DN 450 (18")	457,0	6,3 mm	70,0
DN 500 (20")	508,0	6,3 mm	77,9

Tubo EN 10255 Preto ou galvanizado, série média, (DIN 2440) ranhurado para Juntas Victaulic, comprimento de 6m
Grooved welded black or galvanised pipe lenght 6m

DN	OD mm	Espessura Thickness	Kg/ m Weight
1/2"	21,30 mm	2,6 mm	1,22
3/4"	26,90 mm	2,6 mm	1,58
1"	33,70 mm	3,2 mm	2,44
1 1/4"	42,40 mm	3,2 mm	3,14
1 1/2"	48,30 mm	3,2 mm	3,61
2"	60,30 mm	3,6 mm	5,10
2 1/2"	76,10 mm	3,6 mm	6,51
3"	88,90 mm	4,0 mm	8,47
4"	114,30 mm	4,50 mm	12,40
5"	139,70 mm	4,8 mm	16,20
6"	165,10 mm	4,8 mm	19,20

Acessórios em ferro fundido pretos ou galnizados
Fittings black or galvanized

						
Curva 90º longa macho - femea 3/8″ a 4″	Curva 90º curta macho - femea 1/2″ a 2″	Curva 90º longa femea - femea 3/8″ a 4″	Curva 90º curta femea - femea 1/2″ a 2″	Curva 90º longa macho - macho 3/8″ a 4″	Curva 45º longa macho - femea 3/8″ a 4″	Curva 45º longa femea - femea 3/8″ a 4″
1	1A	2	2A	3	40	41
						
Curva ponte femea - femea 3/8″ a 1″	Joelho 90º femea - femea 3/8″ a 6″	Joelho red. 90º femea - femea 3/8″ a 2 1/2″	Joelho 90º macho - femea 3/8″ a 4″	Joelho red. 90º macho - femea 1/2″x3/8 a 1″x3/4″	Joelho 90º c/junção sede plana F.F. 3/8″ a 4″	Joelho 90º c/junção sede cónica F.F. 3/8″ a 4″
85	90	90R	92	92R	95	96
						
Joelho 90º M.F. c/junção sede plana M.F. 3/8″ a 4″	Joelho 90º M.F. c/junção sede cónica M.F. 3/8″ a 4″	Joelho 45º femea - femea 1/2″ a 2″	Joelho 45º macho - femea 3/8″ a 2 1/2″	Tê igual F.F.F. 3/8″ a 6″	Tê 90º redução 3/8″ a 2″ a 1/2″ a2″	Tê curva F.F.F. 3/8″ a 2″
97	98	120	121	130	130R	131
						
Tê Y 45º F.F.F. 3/8″ a 2 1/2″	Cruzeta F.F.F.F. 3/8″ a 4″	Forquilha F.F.F. 3/8″a 1″	Joelho distribuidor F.F.F. 3/8″ a 2″	Tê com saída lateral F.F.F.F. 1/2″ a 2″	União redução femea - femea 1/2″x 3/8″ a 6″ x4″	Porca de redução fêmea - fêmea 1/2″x3/8″ a 6″x5″
165	180	220	221	223	240	241
						
Casq. redução macho - macho 3/8″x1/8″a 3″x21/2″	Casq. de redução macho - femea 3/8″x1/4″a 3″x2/2″	União femea - femea 3/8″ a 6″	Casquilho macho - macho 3/8″ a 6″	Tampão macho Cab. quadrada 3/8″ a 4″	Tampão macho 3/8″ a 4″	Tampão fêmea 3/8″ a 4″
245	246	270	280	290	291	300
						
Porca sextavada 3/8″a 4″	Flange roscada Aço St37 Galv. DIN 2566 1/2″ a 4″	JunçãoF.F. sede plana 3/8″ a 4″	Junção M.F. sede plana 3/8″ a 4″	Junção F.F. sede cónica 3/8″ a 4″	Junção M.F. sede cónica 3/8″ a 4″	Junção M.M. 3/8″ a 2″
310	321	330	331	340	341	344

Acessórios ferro fundido maleável preto ou galvanizado EN 10242
Black or galvanized ductil cast iron fittings

Curva 90º M/F
Bend 90º long sweep

Fig 1

DN	Kg Weight
3/8″	0,082
1/2″	0,139
3/4″	0,240
1″	0,415
1 1/4″	0,684
1 1/2″	0,863
2″	1,380
2 1/2″	2,343
3″	3,939
4″	4,890

Curva 90º F/F
Bend 90º long sweep

Fig 2

DN	Kg Weight
3/8″	0,082
1/2″	0,139
3/4″	0,240
1″	0,415
1 1/4″	0,684
1 1/2″	0,863
2″	1,380
2 1/2″	2,343
3″	3,939
4″	4,890

Curva 45º F/F
Bend 90º long sweep

Fig 41

DN	Kg Weight
3/8″	0,082
1/2″	0,122
3/4″	0,153
1″	0,268
1 1/4″	0,435
1 1/2″	0,578
2″	0,971
2 1/2″	1,500
3″	2,400
4″	3,110

União de cruzamento

Fig 85

DN	Kg Weight
3/8″	0,082
1/2″	0,122
3/4″	0,153
1″	0,268
1 1/4″	0,435

Joelho 90º F/F
Elbow 90º

Fig 90

DN	Kg Weight
3/8″	0,051
1/2″	0,111
3/4″	0,128
1″	0,185
1 1/4″	0,321
1 1/2″	0,372
2″	0,582
2 1/2″	1,109
3″	1,382
4″	2,331

Joelho de redução 90º F/F
Elbow 90º

Fig 90R

DN	Kg Weight
1/2″ - 3/8″	
3/4″ - 3/8″	
3/4″ - 1/2″	
1″ - 1/2″	
1″ - 3/4″	
1 1/4″ - 1/2″	
1 1/4″ - 3/4″	
1 1/4″ - 1″	
1 1/2″ - 3/4″	
1 1/2″ - 1″	
1 1/2″ - 1 1/4″	
2″ - 1″	
2″ - 1 1/4″	
2″ - 1 1/2″	
2 1/2″ - 2″	

Joelho 90º M/F
Elbow 90º

Fig 92

DN	Kg Weight
3/8″	0,051
1/2″	0,099
3/4″	0,165
1″	0,187
1 1/4″	0,326
1 1/2″	0,403
2″	0,622
2 1/2″	1,171
3″	1,368
4″	2,328

Joelho 45º de redução F/F
Elbow 90º

Fig 120

DN	Kg Weight
1/2″	0,099
3/4″	0,122
1″	0,157
1 1/4″	0,280
1 1/2″	0,340
2″	0,615

União de redução F/F
Reducing socket

Fig 240

Rosca	Rosca	Kg Weight
1/2″	1/4″	0,068
1/2″	3/8″	0,065
3/4″	3/8″	0,084
3/4″	1/2″	0,079
1″	3/8″	0,124
1″	1/2″	0,137
1″	3/4″	0,149
1 1/4″	3/8″	0,155
1 1/4″	1/2″	0,170
1 1/4″	3/4″	0,182
1 1/4″	1″	0,192
1 1/2″	1/2″	0,224
1 1/2″	3/4″	0,242
1 1/2″	1″	0,245
1 1/2″	1 1/4″	0,247
2″	1/2″	0,394
2″	3/4″	0,404
2″	1″	0,410
2″	1 1/4″	0,395
2″	1 1/2″	0,385
2 1/2″	1″	0,610
2 1/2″	1 1/4″	0,592
2 1/2″	1 1/2″	0,605
2 1/2″	2″	0,620
3″	1 1/4″	0,836
3″	1 1/2″	0,886
3″	2″	0,665
3″	1 1/4″	0,805
4″	2″	1,210
4″	2 1/2″	1,230
4″	3″	1,180

Porca de redução M/F
Reducing bush

Fig 241

Rosca	Rosca	Kg Weight
1/2″	1/8″	0,035
1/2″	1/4″	0,033
1/2″	3/8″	0,031
3/4″	3/8″	0,065
3/4″	1/2″	0,055
1″	3/8″	0,130
1″	1/2″	0,106
1″	3/4″	0,095
1 1/4″	3/8″	0,202
1 1/4″	1/2″	0,180
1 1/4″	3/4″	0,178
1 1/4″	1″	0,164
1 1/2″	1/2″	0,241
1 1/2″	3/4″	0,157
1 1/2″	1″	0,157
1 1/2″	1 1/4″	0,143
2″	1/2″	0,391
2″	3/4″	0,400
2″	1″	0,359
2″	1 1/4″	0,356
2″	1 1/2″	0,355
2 1/2″	1″	0,708
2 1/2″	1 1/4″	0,609
2 1/2″	1 1/2″	0,600
2 1/2″	2″	0,565
3″	1″	0,890
3″	1 1/4″	0,853
3″	1 1/2″	0,820
3″	2″	0,760
3″	2 1/2″	0,650
4″	2″	1,250
4″	2 1/2″	1,250
4″	3″	1,180

Tê igual F/F/F
Tee 90º equal

Fig 130

DN	Kg Weight
3/8″	0,080
1/2″	0,152
3/4″	0,178
1″	0,247
1 1/4″	0,394
1 1/2″	0,558
2″	0,726
2 1/2″	1,279
3″	1,726
4″	3,300

Tês redução F/F/F
Reducing tee

3

2

1

Fig 130R

Rosca 1	Rosca 2	Rosca 3	Kg Weight		
1/2″	1/4″	1/2″	0,118		
1/2″	3/8″	1/2″	0,119		
3/4″	1/2″	3/4″	0,168		
1″	1/4″	1″	0,220		
1″	1/2″	1″	0,226		
1″	3/4″	1″	0,268		
1 1/4″	1/2″	1 1/4″	0,317		
1 1/4″	3/4″	1 1/4″	0,353		
1 1/4″	1″	1 1/4″	0,435		
1 1/2″	1/2″	1 1/2″	0,400		
1 1/2″	3/4″	1 1/2″	0,408		
1 1/2″	1″	1 1/2″	0,518		
1 1/2″	1 1/4″	1 1/2″	0,563		
2″	1/2″	2″	0,520		
2″	3/4″	2″	0,557		
2″	1″	2″	0,598		
2″	1 1/4″	2″	0,705		
2″	1 1/2″	2″	0,737		
2 1/2″	1/2″	2 1/2″	0,794		
2 1/2″	3/4″	2 1/2″	0,810		
2 1/2″	1″	2 1/2″	0,814		
2 1/2″	1 1/4″	2 1/2″	0,974		
2 1/2″	1 1/2″	2 1/2″	1,020		
2 1/2″	2″	2 1/2″	1,101		
3″	1″	3″	1,258		
3″	1 1/2″	3″	1,359		
3″	2″	3″	1,447		
4″	1 1/2″	4″	2,138		
4″	2″	4″	2,297		
4″	2 1/2″	4″	2,144		
4″	3″	4″	2,639	2130 71653	2130 75653

União de redução M/F
Extension socket

Fig 246

Rosca	Rosca	Kg Weight
1/2″	3/8″	0,072
3/4″	3/8″	0,073
3/4″	1/2″	0,104
1″	3/8″	0,150
1″	1/2″	0,144
1″	3/4″	0,114
1 1/4″	1/2″	0,100
1 1/4″	3/4″	0,185
1 1/4″	1″	0,177
1 1/2″	1/2″	0,240
1 1/2″	3/4″	0,221
1 1/2″	1″	0,271
1 1/2″	1 1/4″	0,239
2″	3/4″	0,333
2″	1″	0,389
2″	1 1/4″	0,403
2″	1 1/2″	0,427
2 1/2″	2″	0,600

União F/F
Socket

Fig 270

DN	Kg Weight
3/8″	0,046
1/2″	0,078
3/4″	0,094
1″	0,133
1 1/4″	0,202
1 1/2″	0,263
2″	0,390
2 1/2″	0,550
3″	0,754
4″	1,176
6″	3,750

União F/F fabricada de tubo de aço
Socket made from steel pipe

Fig 102

DN	L	Kg Weight
1/4″	27	0,035
3/8″	28	0,040
1/2″	37	0,072
3/4″	39	0,100
1″	46	0,160
1 1/4″	51	0,232
1 1/2″	51	0,263
2″	60	0,390
2 1/2″	69	0,550
3″	75	0,754
4″	87	1,176
6″	96	3,600

Porca sextavada EN 10242
Bac nut

Fig 312

DN	Kg Weight
3/8″	0,027
1/2″	0,049
3/4″	0,075
1″	0,142
1 1/4″	0,195
1 1/2″	0,232
2″	0,351
2 1/2″	0,695
3″	0,680
4″	1,655

Casquilho sextavado de redução M/M
Reducing nipple

Fig 245

Rosca	Rosca	Kg Weight
1/2″	3/8″	0,052
3/4″	3/8″	0,086
3/4″	1/2″	0,091
1″	1/2″	0,142
1″	3/4″	0,146
1 1/4″	1/2″	0,213
1 1/4″	3/4″	0,210
1 1/4″	1″	0,228
1 1/2″	3/4″	0,276
1 1/2″	1″	0,284
1 1/2″	1 1/4″	0,302
2″	1″	0,440
2″	1 1/4″	0,457
2″	1 1/2″	0,517
2 1/2″	2″	0,737
3″	2 1/2″	0,857

Casquilho sextavado M/M EN 10242
Hexagonal nipple M/M

Fig 280

DN	Kg Weight
3/8″	0,041
1/2″	0,059
3/4″	0,097
1″	0,156
1 1/4″	0,261
1 1/2″	0,291
2″	0,522
2 1/2″	0,885
3″	1,054
4″	1,410

Tampão cabeça quadrada macho EN 10242
Plug, square head

Fig 290

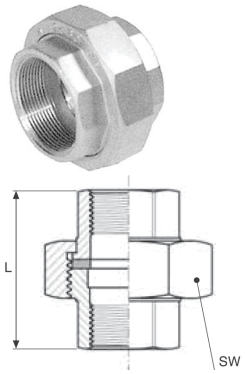
DN	Kg Weight
3/8″	0,037
1/2″	0,061
3/4″	0,081
1″	0,124
1 1/4″	0,154
1 1/2″	0,201
2″	0,315
2 1/2″	0,640
3″	0,920
4″	1,815

Tampão sextavado fêmea EN 10242
Hexagonal cap

Fig 300

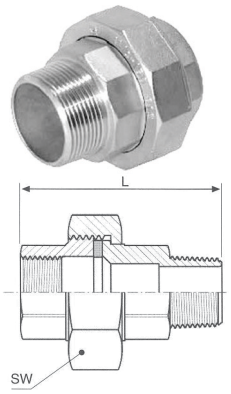
DN	Kg Weight
3/8″	0,021
1/2″	0,032
3/4″	0,044
1″	0,077
1 1/4″	0,122
1 1/2″	0,115
2″	0,215
2 1/2″	0,381
3″	0,480
4″	0,920

Junção F/F sede plana EN 10242, Fig 330
Union flat seat



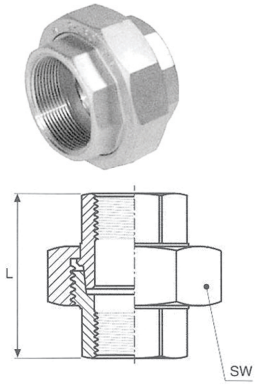
DN	Kg Weight
3/8″	0,143
1/2″	0,175
3/4″	0,295
1″	0,370
1 1/4″	0,660
1 1/2″	0,820
2″	1,080
2 1/2″	1,760
3″	2,335
4″	4,420

Junção M/F sede plana EN 10242 , Fig 331
Union flat seat



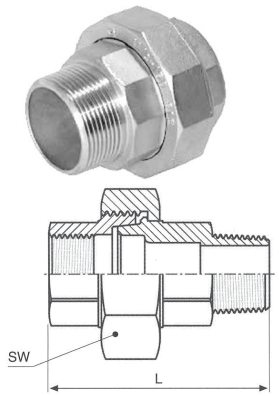
DN	Kg Weight
3/8″	0,160
1/2″	0,200
3/4″	0,345
1″	0,430
1 1/4″	0,775
1 1/2″	0,960
2″	1,315
2 1/2″	2,185
3″	2,705
4″	4,976

Junção F/F sede cónica, EN 10242, Fig 340
Union conic seat



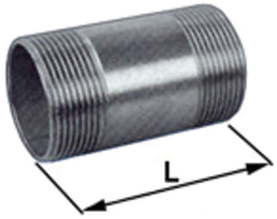
DN	Kg Weight
3/8″	0,143
1/2″	0,175
3/4″	0,295
1″	0,370
1 1/4″	0,660
1 1/2″	0,800
2″	1,080
2 1/2″	1,760
3″	2,335
4″	4,420

Junção M/F sede cónica EN 10242, Fig 341
Union conic seat



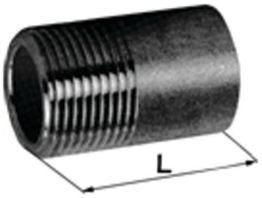
DN	Kg Weight
3/8″	0,160
1/2″	0,200
3/4″	0,345
1″	0,430
1 1/4″	0,775
1 1/2″	0,960
2″	1,315
2 1/2″	2,185
3″	2,705
4″	4,976

Ponteira rosca/rosca tubo EN 10242 (DIN 2440 St33), preto ou galvanizado
Barrel nipple, black or galvanized made from welded pipe



DIN 2982				
DN	OD	Esp.	L	Weight
•1/2″	21,3	2,65	80	0,098
1/2″	21,3	2,65	150	0,183
1/2″	21,3	2,65	200	0,244
•3/4″	26,9	2,65	80	0,126
3/4″	26,9	2,65	150	0,237
3/4″	26,9	2,65	200	0,316
•1″	33,7	3,25	80	0,195
1″	33,7	3,25	150	0,366
1″	33,7	3,25	200	0,488
•1 1/4″	42,4	3,25	100	0,314
1 1/4″	42,4	3,25	150	0,471
1 1/4″	42,4	3,25	200	0,628
•1 1/2″	48,3	3,25	100	0,361
1 1/2″	48,3	3,25	150	0,541
1 1/2″	48,3	3,25	200	0,722
•2″	60,3	3,65	100	0,510
2″	60,3	3,65	150	0,765
2″	60,3	3,65	200	1,020
•2 1/2″	76,1	3,65	120	0,781
2 1/2″	76,1	3,65	150	0,976
2 1/2″	76,1	3,65	200	1,302
•3″	88,9	4,05	150	1,270
3″	88,9	4,05	200	1,694
•4″	114,3	4,50	150	1,815
4″	114,3	4,50	200	2,420

Ponteira rosca/solda, tubo soldado EN 10242 (DIN 2440 St33)
Welded nipple, black, made from welded pipe



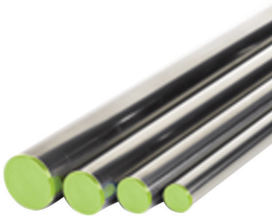
DIN 2981			
DN	OD	Esp.	L
•1/2″	21,3	2,65	40
1/2″	21,3	2,65	75
1/2″	21,3	2,65	100
•3/4″	26,9	2,65	40
3/4″	26,9	2,65	75
3/4″	26,9	2,65	100
•1″	33,7	3,25	40
1″	33,7	3,25	75
1″	33,7	3,25	100
•1 1/4″	42,4	3,25	50
1 1/4″	42,4	3,25	75
1 1/4″	42,4	3,25	100
•1 1/2″	48,3	3,25	50
1 1/2″	48,3	3,25	75
1 1/2″	48,3	3,25	100
•2″	60,3	3,65	50
2″	60,3	3,65	75
2″	60,3	3,65	100
•2 1/2″	76,1	3,65	60
2 1/2″	76,1	3,65	75
2 1/2″	76,1	3,65	100
•3″	88,9	4,05	75
3″	88,9	4,05	100
•4″	114,3	4,50	75
4″	114,3	4,50	100

Produtos para redes de incêndios VSH
VSH Fire Protection system FM Aproved

Tubo aço carbono galvanizado pelo processo Sendzimir, para redes de sprinklers comprimento 6m
Welded galvanized line pipe, lenght 6m

DN	Dimensão	Kg/ m Weight	VSH cod.
20	22,0 x 1,5	0,761	624111.4
25	28,0 x 1,5	0,980	624112.5
32	35,0 x 1,5	1,239	624113.6
40	42,0 x 1,5	1,500	624114.7
50	54,0 x 1,5	2,100	624115.8
65	76,1 x 2,0	3,712	624137.8
80	88,9 x 2,0	4,459	624138.9
100	108,0 x 2,0	5,307	624139.1

Tubo em aço inoxidável1.4404 (AISI 316L) comprimento 6m
Stainless steel welded pipe, lenght 6m



DN	Dimensão	Kg/ m Weight	VSH cod.
20	22,0 x 1,2	0,624	611793.6
25	28,0 x 1,2	0,790	611794.7
32	35,0 x 1,5	1,260	611795.8
40	42,0 x 1,5	1,503	611796.9
50	54,0 x 1,5	1,972	611797.1
65	76,1 x 2,0	3,710	611798.0
80	88,9 x 2,0	4,350	611799.1
100	108,0 x 2,0	5,310	611800.2

Acessórios "Pressfitting" para redes de incêndio
Pressfitting fittings for fire protection FM Aproved

Acessórios
Fittings


União F/F


Casquilho de transição com rosca fêmea


União longa F/F


Casquilho de transição com porca louca


Casquilho de transição com rosca macho


União de redução M/F


Curva 90º F/F


Curva 90º M/F


Curva a 45º F/F


Curva a 45º M/F


Tê de ramos iguais F/F/F


Tê de redução F/F/F


Tê com saída roscada fêmea


Flange de transição PN10/ PN16


Joelho a 90º com rosca macho


Junção de ligação com rosca macho


Tampão de fecho


Sprinkler

Tubo EN 10255 Preto ou pintado, série média, (DIN 2440) ranhurado, comprimento de 6m
Grooved welded black pipe, lenght 6m

DN	OD mm	Espessura Thickness	Kg/ m Weight
1/2"	21,30 mm	2,6 mm	1,35
3/4"	26,90 mm	2,6 mm	1,70
1"	33,70 mm	3,2 mm	2,55
1 1/4"	42,40 mm	3,2 mm	3,25
1 1/2"	48,30 mm	3,2 mm	3,75
2"	60,30 mm	3,6 mm	5,22
2 1/2"	76,10 mm	3,6 mm	6,70
3"	88,90 mm	4,0 mm	8,59
4"	114,30 mm	4,50 mm	12,25
5"	139,70 mm	4,8 mm	16,40
6"	165,10 mm	4,8 mm	19,90

Tubo EN 10255, EN 10240 A.2. galvanizado ou galvanizado pintado, série média, (DIN 2440) ranhurado, comprimento de 6m
Grooved welded galvanized or galvanized and red painted pipe, lenght 6m

DN	OD mm	Espessura Thickness	Kg/ m Weight
1/2"	21,30 mm	2,6 mm	1,40
3/4"	26,90 mm	2,6 mm	1,75
1"	33,70 mm	3,2 mm	2,66
1 1/4"	42,40 mm	3,2 mm	3,40
1 1/2"	48,30 mm	3,2 mm	3,88
2"	60,30 mm	3,6 mm	5,40
2 1/2"	76,10 mm	3,6 mm	6,92
3"	88,90 mm	4,0 mm	8,96
4"	114,30 mm	4,50 mm	12,95
5"	139,70 mm	4,8 mm	16,90
6"	165,10 mm	4,8 mm	19,80

Acessórios Victaulic para redes de Incêndio pintados ou galvanizados
Victaulic for protection FM Aproved

Juntas
Couplings

Junta rigida
tipo 009
Ø 42,4 a 168,3

Junta rigida Zero-Flex
tipo 07
Ø 33,7 a 323,9

Junta flexível
tipo 75

Junta de redução
tipo 750

Junta rigida Firelock
tipo 005

Junta rigida
tipo 107

Acessórios em ferro fundido maleável e acessórios em aço laminado para soldar
Fittings

Curva 90º
nº 001

Curva 45º
nº 003

Tê
nº 002

Redução concentrica
nº 50

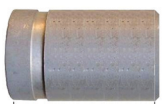
Redução excentrica
nº 51

Junta rigida ou flexivel
tipo AGS

Tomada de pressão
nº 920N

Tomada de pressão
ST 920

Uniões roscadas
BSP para soldar
Não pintadas



Ponteira com ranhura
para soldar 3/4" a 16"
Não pintadas

Ponteira com ranhura
para soldar
Não pintadas

Juntas Victaulic em ferro fundido maleável para Industria
Victaulic system for industrie

Junta rigida tipo 107 (para montar não é necessário abrir)
Rigid coupling, painted

Ø Ext. tubo Pipe	Press. Bar Max.	Kg/ pc Weight
60,3	40,0	1,2
73,0	40,0	1,4
76,1	40,0	1,5
88,9	40,0	1,6
114,3	40,0	2,3
139,7	40,0	2,7
141,3	40,0	3,1
165,1	40,0	3,6
168,3	40,0	3,7
219,1	40,0	4,1

Junta rigida tipo 07
Rigid coupling, painted

Ø Ext. tubo Pipe	Press. Bar Max.	Kg/ pc Weight
33,7	51,75	0,7
42,4	51,75	0,7
48,3	51,75	0,7
60,3	51,75	1,0
73,0	51,75	1,2
76,1	51,75	1,6
88,9	51,75	1,4
108,0	51,75	2,4
114,3	51,75	2,4
133,0	48,25	3,4
139,7	48,25	3,4
141,3	51,75	3,4
159,0	48,25	4,2
165,1	48,25	3,8
168,3	48,25	3,8
219,1	41,30	6,8
273,0	34,50	10,7
323,9	27,5	12,8

Junta flexivel tipo 75
Flexible coupling, painted

Ø Ext. tubo Pipe	Press. Bar	Kg/ pc Weight
33,4	34,5	0,6
42,2	34,5	0,6
48,3	34,5	0,6
60,3	34,5	0,8
73,0	34,5	0,9
76,1	34,5	0,9
88,9	34,5	1,3
108,0	31,0	1,7
114,3	34,5	1,9
133,0	31,0	2,7
139,7	31,0	2,9
141,3	31,0	2,6
159,0	31,0	3,1
165,1	31,0	3,3
168,3	31,0	3,2
219,1	31,0	5,6

Junta flexivel tipo 77
Couplings

Ø Ext. tubo Pipe	Press. Bar	Kg/ pc Weight
26,7	69,0	0,5
33,4	69,0	0,5
42,2	69,0	0,9
48,3	69,0	1,0
60,3	69,0	1,2
73,0	69,0	1,4
76,1	69,0	1,5
88,9	69,0	1,7
108,0	69,0	5,0
114,3	69,0	3,0
133,0	69,0	4,5
139,7	69,0	4,5
141,3	69,0	4,8
159,0	69,0	6,0
165,0	69,0	6,0
168,3	69,0	5,4
219,1	55,0	9,4
273,0	55,0	14,1
323,9	55,0	12,6

Junta tipo 750
Reducing couplings

Ø Ext. tubo Pipe	Press. Bar	Kg/ pc Weight
60,3 x 33,7	24,0	1,2
60,3 x 48,3	24,0	1,0
73,0 x 60,3	34,5	1,4
76,1 x 60,3	24,1	2,1
88,9 x 60,2	24,1	2,2
88,9 x 73,0	34,5	2,0
88,9 x 76,1	24,1	1,9
114,3 x 60,3	24,1	3,7
114,3 x 73,0	24,1	3,9
114,3 x 76,1	24,1	3,1
114,3 x 88,9	34,5	3,0
141,3 x 114,3	24,1	5,1
165,1 x 114,3	24,1	6,9
168,3 x 114,3	24,1	7,6
168,3 x 141,3	24,1	5,9
219,1 x 168,3	24,1	10,2

Flanges tipo 741, PN10
Flanges

Ø Ext. tubo Pipe	Press. Bar (Max.)	Kg/ pc Weight
60,3	20,6	1,4
76,1	20,6	2,1
88,9	20,6	2,4
114,3	20,6	3,5
139,7	20,6	4,2
165,1	20,6	4,5
168,3	20,6	4,5
219,1	20,6	7,5
273,0	20,6	11,0
323,0	20,6	17,4

Flanges tipo 743, PN16
Flanges

Ø Ext. tubo Pipe	Press. Bar	Kg/ pc Weight
60,3	49,6	2,2
73,0	49,6	3,4
88,9	49,6	4,1
114,3	49,6	6,9
141,3	49,6	8,0
168,3	49,6	10,6
219,1	49,6	15,6
273,0	49,6	21,9
323,9	49,6	32,0

Juntas Victaulic em ferro fundido maleável pintadas para Industria
Victaulic system for industrie

Junta tipo 78
Couplings

Ø Ext. tubo Pipe	Press. Bar	Kg/ pc Weight
33,7	20,6	0,4
42,4	20,6	0,5
48,3	20,6	0,8
60,3	20,6	0,8
73,0	20,6	1,1
88,9	20,6	1,4
114,3	20,6	2,5
141,3	20,6	4,4
168,3	20,6	5,2
219,1	20,6	6,9

Junta flexivel tipo W77AGS em 2 peças, com perfil especial
Couplings

Ø Ext. tubo Pipe	Press. Bar	Kg/ pc Weight
355,6	25,0	21,8
406,4	25,0	26,3
457,0	25,0	29,5
508,0	25,0	37,3
610,0	25,0	48,5
660,4	20,65	93,0
711,2	20,65	99,8
762,0	20,65	103,0
812,8	20,65	109,8
914,4	20,65	121,6
1016,0	20,65	154,2
1066,8	20,65	163,3
1168,4	16,00	188,2
1219,2	16,00	192,8
1371,6	12,00	293,9
1422,2	12,00	306,6
1524,0	12,00	326,6

Junta rigida tipo W07AGS em 2 peças, com perfil especial
Couplings

Ø Ext. tubo Pipe	Press. Bar	Kg/ pc Weight
355,6	25,0	22,2
406,4	25,0	27,7
457,0	25,0	32,2
508,0	25,0	37,2
610,0	25,0	52,6
660,4	20,65	93,0
711,2	20,65	99,8
762,0	20,65	103,0
812,8	20,65	109,8
914,4	20,65	121,6
1016,0	20,65	154,2
1066,8	20,65	163,3
1168,4	16,00	188,2
1219,2	16,00	192,8
1371,6	12,00	293,9
1422,2	12,00	306,6
1524,0	12,00	326,6

Junta rigida tipo HP70/ HP-70ES
Couplings

Ø Ext. tubo Pipe	Press. Bar	Kg/ pc Weight
60,3	172,5	1,5
73,0	172,5	1,8
88,9	172,5	2,1
114,3	172,5	3,7
168,3	138,0	7,4
219,1	103,5	11,8
273,0	86,0	14,9
323,9	86,0	20,9

Junta Outlet tipo 72
Couplings

Ø Ext. tubo Pipe	Rosca	Press. Bar	Kg/ pc Weight
42,4	1/2"	34,5	0,6
	3/4"	34,5	0,6
	1"	34,5	0,6
60,3	1/2"	34,5	1,6
	3/4"	34,5	1,1
	1"	34,5	1,1
76,1	1/2"	34,5	2,0
	3/4"	34,5	2,1
	1"	34,5	2,1
	1 1/4"	34,5	2,3
	1 1/2"	34,5	2,3
88,9	3/4"	34,5	1,5
	1"	34,5	3,2
	1 1/4"	34,5	3,2
	1 1/2"	34,5	3,2
114,3	3/4"	34,5	3,1
	1"	34,5	3,1
	1 1/2"	27,5	5,2
	2"	27,5	5,2
165,1	1"	27,5	8,2
	1 1/2"	27,5	8,2
	2"	27,5	8,2

Junta de alta pressão tipo 808, com dupla ranhura, para alta pressão
High pressure couplings double groove, for high pressure

Ø Ext. tubo Pipe	Press. Bar	Kg/ pc Weight
168,3	275	16,3
219,1	275	31,8
273,0	275	38,6
323,9	275	52,3

Acessórios pintados em ferro fundido maleável Victaulic
Victaulic fittings

Curva 90º, nº 001
Elbow

Ø Ext. tubo Pipe	Press. Bar	Kg/ pc Weight
60,3	34	0,80
76,1	34	1,50
88,9	34	1,80
114,3	34	3,00
139,7	31	5,70
141,3	31	5,70
165,0	31	8,30
168,3	31	8,30
219,1	31	11,60

Curva 45º, nº 003
Elbow

Ø Ext. tubo Pipe	Press. Bar	Kg/ pc Weight
60,3	34	0,80
76,1	34	1,10
88,9	34	1,40
114,3	34	2,50
139,7	31	3,80
141,3	31	3,80
165,0	31	5,30
168,3	31	5,30
219,1	31	9,30

Tê, nº 002
Equal tee

Ø Ext. tubo Pipe	Press. Bar	Kg/ pc Weight
60,3	51	1,10
76,1	51	1,60
88,9	51	2,40
114,3	51	3,90
139,7	48	7,10
141,3	51	7,10
165,0	48	10,30
168,3	48	10,30
219,1	41	17,60

Redução concentrica, nº 50
Concentric reducer

Ø Ext. tubo Pipe	Press. Bar	Kg/ pc Weight
76,1 x 60,3	51	0,65
88,9 x 60,3	51	0,70
88,9 x 76,1	51	0,80
114,3 x 60,3	51	1,15
114,3 x 76,1	51	1,20
114,3 x 88,9	51	1,20
139,7 x 88,9	48	1,90
139,7 x 114,3	48	1,90
168,3 x 88,9	48	2,90
168,3 x 114,3	48	2,90
168,3 x 139,7	48	2,90
219,1 x 114,3	41	5,30
219,1 x 139,7	41	5,40
219,1 x 168,0	41	5,40

Redução excentrica, nº 51
Eccentric reducer

Ø Ext. tubo Pipe	Press. Bar	Kg/ pc Weight
60,3 x 42,4	51	2,10
60,3 x 48,3	51	2,10
88,9 x 60,3	51	2,70
114,3 x 48,3	51	3,70
114,3 x 60,3	51	1,50
114,3 x 88,9	51	1,60
168,3 x 88,9	48	6,80
168,3 x 114,3	48	7,70
219,1 x 168,3	41	10,90
273,0 x 114,3	41	14,50
273,0 x 168,3	34	16,70
273,0 x 219,1	34	9,80

Tomada de pressão, ST 920
Mechanical T Bolt branch outlet grooved

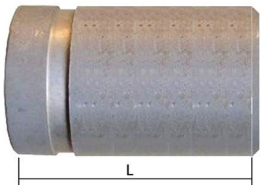
Ø Ext. tubo Pipe	Press. Bar	Kg/ pc Weight
60,3 x 42,0	27,50	1,50
60,3 x 48,0	27,50	1,50
76,1 x 42,0	27,50	1,50
76,1 x 48,0	27,50	1,50
88,9 x 42,4	27,50	1,80
88,9 x 48,3	27,50	1,80
88,9 x 60,3	27,50	2,10
114,3 x 76,1	27,50	2,90
114,3 x 88,9	27,50	2,90
139,7 x 76,1	27,50	5,00
139,7 x 88,9	27,50	6,40
165,0 x 76,1	27,50	3,40
165,0 x 88,9	27,50	3,80
165,0 x 114,3	27,50	3,80
219,1 x 60,3	27,50	5,30
219,1 x 76,1	27,50	5,30

Tomada de pressão, nº 920N
Mechanical -T Bolted Branch Outlet female threaded

Ø Ext. tubo Pipe	Press. Bar	Kg/ pc Weight
60,3 x 21,3	27,50	1,50
60,3 x 26,9	27,50	1,50
60,3 x 33,7	20,65	1,50
76,1 x 21,3	20,65	1,80
76,1 x 26,9	20,65	1,80
76,1 x 33,7	27,50	1,70
88,9 x 21,3	27,50	1,60
88,9 x 26,9	27,50	1,60
88,9 x 33,7	27,50	1,60
114,3 x 21,3	27,50	1,80
114,3 x 26,9	27,50	1,80
114,3 x 33,7	27,50	1,80

Acessórios para sistema Victaulic, em tubo de aço preto para soldar não pintado
Welded fittings, made from black pipe not painting

Ponteira com groove para soldar a topo
Adapter nipple with beveled end

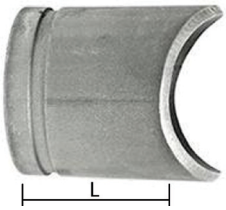


DN	OD x T Pipe	L	Kg/ pc Weight
25 - 1″	33,7 x 3,2	76,0	0,2
40 - 1 1/2″	48,3 x 3,2	102,0	0,4
50 - 2″	60,3 x 3,6	102,0	0,5
65 - 2 1/2″	76,1 x 3,6	102,0	0,9
80 - 3″	88,9 x 4,0	102,0	1,1
100 - 4″	114,3 x 4,5	152,0	2,5
125 - 5″	139,7 x 4,8	152,0	3,4
150 - 6″	165,1 x 4,8	152,0	4,3
150 - 6″	168,3 x 4,5	152,0	4,3
200 - 8″	219,1 x 6,3	152,0	6,4
250 - 10″	273,0 x 6,3	203,0	12,2
300 - 12″	323,9 x 7,1	203,0	15,0
350 - 14″	355,6 x 38,0	202,0	16,3
400 - 16″	406,4 x 8,8	203,0	19,1

Uniões roscadas BSP para soldar, para instalações anti-incendio -"Sprinkler"
Profile sockets for Sprinkle systems BSP Thread

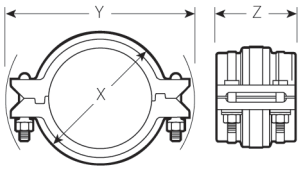
DN	OD	L	Ø Colector	Kg/ pc Weight
1/2″	26,6	28	1 1/4″ a 2″	0,08
3/4″	33,6	30	1 1/2″ a 2″	0,12
1″	40,0	32	2″ a 3″	0,14

Ponteiras com groove, para soldar
Grooved nipple for welding



DN	OD x T	L	Ø Colector	Kg/ pc Weight
1″	33,7 x 3,2	78	2″ - 2 1/2″	0,20
1 1/4″	42,4 x 3,2	78	3″ - 4″	0,27
1 1/2″	48,3 x 3,2	78	3″ - 4″	0,31
2″	60,3 x 3,6	78	4″ - 5″	0,43
2 1/2″	76,1 x 3,6	78	4″ - 5″	0,43
3″	88,9 x 4,0	78	6″ - 5″	0,50

Juntas Victaulic para tubos PEAD, tipo 995 com a espessura desde SDR 32,5 até 7,3
Victaulic plain end piping system for HDPE pipe style 995



OD	X mm	Y mm	Z mm	Kg/ pc Weight
90	116	178	116	3,40
110	145	202	146	5,30
140	176	250	149	6,80
160	195	268	149	7,30
200	259	336	152	9,70
225	265	345	152	10,90
250	314	402	165	17,00
280	321	408	165	17,60
315	356	448	178	20,70
355	414	525	218	36,70
400	465	605	229	45,50
450	516	650	241	57,70
500	566	699	254	64,50

Tubo de aço, sem costura DIN EN10255M - S195T (St 33.2 DIN 2440) comprimento 5 a 7,5m
Seamless black line pipe lenght 5 to 7,5m

DN	OD mm	Espessura Thickness	Kg/ m Weight
1/2″	21,30 mm	2,65 mm	1,22
3/4″	26,90 mm	2,65 mm	1,58
1″	33,70 mm	3,25 mm	2,44
1 1/4″	42,40 mm	3,25 mm	3,14
1 1/2″	48,30 mm	3,25 mm	3,61
2″	60,30 mm	3,65 mm	5,10
2 1/2″	76,10 mm	3,65 mm	6,51
3″	88,90 mm	4,05 mm	8,47
4″	114,30 mm	4,50 mm	12,10

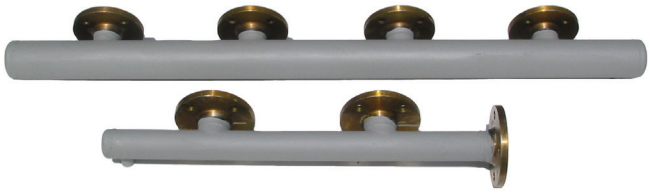
Tubo de aço galvanizado, sem costura EN10255M - EN10240A1 (St 33.2 DIN 2440) comprimento 5 a 7,5m
Seamless galvanized line pipe lenght 5 to 7,5m

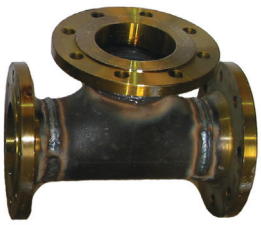
DN	OD mm	Espessura Thickness	Kg/ m Weight	
1/2″	21,30 mm	2,65 mm	1,27	
3/4″	26,90 mm	2,65 mm	1,65	
1″	33,70 mm	3,25 mm	2,55	
1 1/4″	42,40 mm	3,25 mm	3,28	
1 1/2″	48,30 mm	3,25 mm	3,77	
2″	60,30 mm	3,65 mm	5,33	
2 1/2″	76,10 mm	3,65 mm	6,80	
3″	88,90 mm	4,05 mm	8,85	
4″	114,30 mm	4,50 mm	12,70	2A006362G

Tubo em aço carbono sem costura
Seamless carbon steel pipe

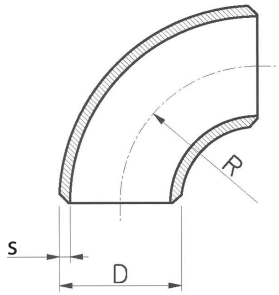
Tubo sem costura EN10.216 - 1/02 P235TR2 - (DIN 2448/ 1629, St 37) comprimento 5 a 13m
Seamless line pipe lenght 5 to 13m

OD mm	Espessura Thickness	Kg/ m Weight
17,20	2,30	0,85
17,20	2,90	1,03
21,30	2,00	0,96
21,30	2,30	1,09
21,30	2,60	1,21
21,30	3,20	1,44
25,00	2,90	1,58
26,90	2,30	1,41
26,90	2,60	1,57
26,90	3,20	1,89
33,70	2,60	2,01
33,70	3,20	2,42
33,70	4,00	2,95
42,40	2,60	2,57
42,40	3,20	3,11
42,40	4,00	3,81
48,30	2,60	2,95
48,30	3,20	3,59
48,30	4,00	4,41
51,00	5,00	5,67
57,00	2,90	3,90
60,30	2,90	4,14
60,30	3,20	4,54
60,30	3,60	5,07
60,30	4,50	6,17
60,30	5,00	6,82
70,00	3,60	5,93
76,10	2,90	5,28
76,10	3,60	6,49
76,10	4,50	7,92
76,10	5,00	8,77
88,90	3,20	6,81
88,90	4,00	8,43
88,90	4,50	9,33
*101,60	3,60	8,76
*108,00	3,60	9,33
114,30	3,60	9,90
114,30	4,50	12,10
133,00	4,00	12,80
139,70	4,00	13,50
159,00	4,50	17,10
168,30	4,50	18,10
193,70	5,60	25,90
219,10	6,30	33,28
273,00	6,30	41,60
323,90	7,10	55,60
355,60	8,00	68,30
406,40	8,80	85,90
508,00	11,00	135,00



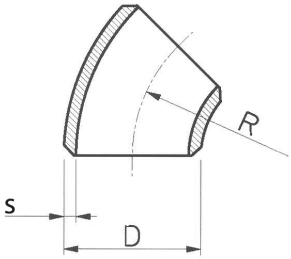


Curvas 90º sem costura DIN 2605 EN 10253/1 S235 (St37)
Elbows 90º (DIN2605) EN 10253/1 (S235) (St 37)



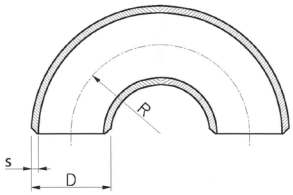
OD mm	s mm	R mm	Kg/Pc Weight
21,30	2,30	38,0	0,07
26,90	2,30	28,5	0,07
33,70	2,60	38,0	0,125
42,40	2,60	47,5	0,190
48,30	2,60	57,0	0,260
57,00	2,90	72,0	0,440
60,30	2,90	76,0	0,490
76,10	2,90	95,0	0,800
88,90	3,20	114,0	1,220
*) 101,6	3,60	133,0	1,800
*) 108,00	3,60	142,0	2,08
114,30	3,60	152,0	2,35
114,30	4,50	152,0	2,92
133,00	4,00	181,0	3,64
139,70	4,00	190,0	4,01
159,00	4,50	216,0	5,82
168,30	4,50	229,0	6,50
193,70	5,60	270,0	10,64
219,70	6,30	305,0	15,80
273,00	6,30	381,0	24,90
323,90	7,10	457,0	40,00
1)355,60	6,35	533,4	40,00
355,60	8,00	533,5	57,47
1) 406,40	6,35	609,6	62,20
406,40	8,80	609,5	82,61
1)457,20	6,35	685,8	55,30
1)457,20	9,53	685,8	119,00
1)508,00	6,35	762,0	94,00
508,00	11,00	762,0	162,00
1)610,00	6,35	914,4	136,00
1)610,00	9,53	914,4	212,00

Curvas 45º sem costura DIN 2605 EN 10253/1 S235 (St37)
Elbows 45º DIN 2605 EN 10253/1 (St 37)



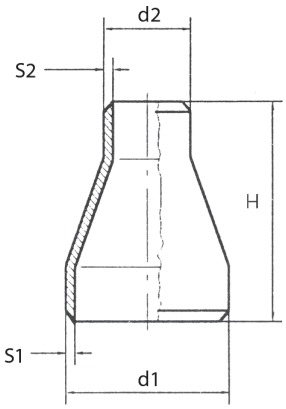
OD mm	s mm	R mm	Kg/Pc Weight
26,90	2,30	28,5	0,04
33,70	2,60	38,0	0,06
42,40	2,60	47,5	0,10
48,30	2,60	51,0	0,13
57,00	2,90	72,0	0,22
60,30	2,90	76,0	0,25
76,10	2,90	95,0	0,395
88,90	3,20	114,0	0,61
*) 108,00	3,60	142,5	1,04
114,30	3,60	152,5	1,18
*) 133,00	4,00	181,0	1,82
139,70	4,00	190,5	2,02
159,00	4,50	216,0	2,91
168,30	4,50	228,5	3,25
193,70	5,60	270,0	5,31
219,70	6,30	305,0	7,50
273,00	6,30	381,0	12,45
323,90	7,10	457,0	20,00
1)355,60	6,35	533,4	22,50
355,60	8,00	533,5	28,10
1)406,40	6,35	609,6	31,60
406,40	8,80	609,5	41,30
1)457,20	6,35	685,8	27,50
1)457,20	9,53	685,8	59,50
1)508,00	6,35	762,0	47,00
508,00	11,00	762,0	81,00
1)610,00	6,35	914,4	68,00
1)610,00	9,53	914,4	106,00

Curvas 180º sem costura EN 10253/1 DIN 2605 S235 TR2 (St37)
Elbows 180º EN 10253/1 DIN 2605 S235 TR2 (St37)



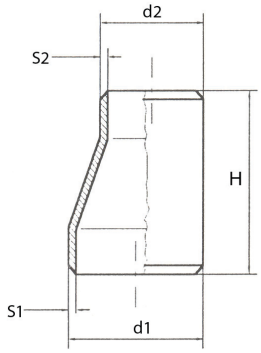
OD mm	s mm	R mm	Kg/Pc Weight
33,70	2,60	38,0	0,24
42,40	2,60	47,5	0,38
48,30	2,60	57,0	0,54
60,30	2,90	76,0	0,98
76,10	2,90	95,0	1,60
88,90	3,20	114,0	2,44
101,60	3,60	133,5	3,66
114,30	3,60	152,0	4,75
139,70	4,00	190,5	8,10
168,30	4,50	228,5	13,10

Reduções concentricas DIN 2616-2 P235 (St37)
BW Concentric Reducers



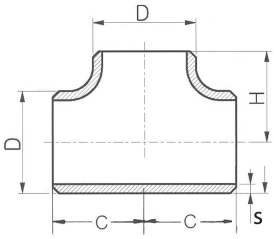
d1 x S1 mm	d2 x S1 mm	H mm	Kg/Pc Weight
26,9 x 2,3	21,3 x 2,3	38,0	0,07
33,7 x 2,6	26,9 x 2,3	50,0	0,09
33,7 x 2,6	21,3 x 2,3	50,0	0,09
42,4 x 2,6	33,7 x 2,6	50,0	0,10
42,4 x 2,6	26,9 x 2,3	50,0	0,13
48,3 x 2,6	42,4 x 2,6	64,0	0,11
48,3 x 2,6	33,7 x 2,6	64,0	0,16
48,3 x 2,6	26,9 x 2,3	64,0	0,12
60,3 x 2,9	48,3 x 2,6	76,0	0,25
60,3 x 2,9	42,4 x 2,6	76,0	0,26
60,3 x 2,9	33,7 x 2,6	76,0	0,33
76,1 x 2,9	60,3 x 2,9	90,0	0,34
76,1 x 2,9	48,3 x 2,6	90,0	0,45
76,1 x 2,9	42,4 x 2,6	90,0	0,50
88,9 x 3,2	76,1 x 2,9	90,0	0,39
88,9 x 3,2	60,3 x 2,9	90,0	0,59
88,9 x 3,2	48,3 x 2,6	90,0	0,75
*) 101,6 x 3,6	60,3 x 2,9	100,0	0,99
114,3 x 3,6	88,9 x 3,2	100,0	0,92
114,3 x 3,6	76,1 x 2,9	100,0	1,17
114,3 x 3,6	60,3 x 2,9	100,0	1,46
139,7 x 4,0	114,3 x 3,6	127,0	1,19
139,7 x 4,0	88,9 x 3,2	127,0	2,10
139,7 x 4,0	76,1 x 2,9	127,0	2,39
*) 168,3 x 4,5	133,0 x 4,0	140,0	2,75
168,3 x 4,5	139,7 x 4,0	140,0	1,78
168,3 x 4,5	114,3 x 3,6	140,0	2,63
168,3 x 4,5	88,9 x 3,2	140,0	3,59
219,1 x 6,3	168,3 x 4,5	152,0	4,10
219,1 x 6,3	139,7 x 4,0	152,0	5,32
219,1 x 6,3	114,3 x 3,6	152,0	6,62
273,0 x 6,3	219,1 x 6,3	178,0	5,39
273,0 x 6,3	168,3 x 6,3	178,0	9,11
273,0 x 6,3	139,7 x 6,3	178,0	10,25
323,9 x 7,1	273,0 x 6,3	203,0	7,12
323,9 x 7,1	219,1 x 6,3	203,0	11,77
323,9 x 7,1	168,3 x 4,5	203,0	15,92
355,6 x 8,0	273,0 x 6,3	330,0	12,00
355,6 x 8,0	219,1 x 6,3	330,0	17,48
406,4 x 8,8	323,9 x 7,1	355,0	12,46
406,4 x 8,8	273,0 x 6,3	355,0	17,80
406,4 x 8,8	219,1 x 6,3	355,0	23,52

Reduções excentricas DIN 2616-1 P235 GH-TC1
Excentric Reducers DIN 2616-1 GH-TC1



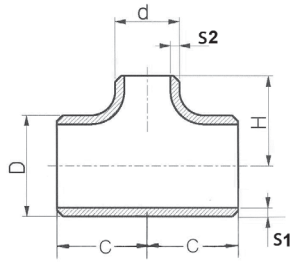
d1 x S1 mm	d2 x S2 mm	H	Kg/Pc Weight
33,7 x 2,6	26,9 x 2,3	50,0	0,09
42,4 x 2,6	33,7 x 2,6	50,0	0,12
42,4 x 2,6	26,9 x 2,3	50,0	0,12
48,3 x 2,6	42,4 x 2,6	64,0	0,18
48,3 x 2,6	33,7 x 2,6	64,0	0,18
60,3 x 2,9	48,3 x 2,6	76,0	0,32
60,3 x 2,9	42,4 x 2,6	76,0	0,32
60,3 x 2,9	33,7 x 2,6	76,0	0,32
76,1 x 2,9	60,3 x 2,9	90,0	0,42
76,1 x 2,9	48,3 x 2,6	90,0	0,42
76,1 x 2,9	42,4 x 2,6	90,0	0,49
88,9 x 3,2	76,1 x 2,9	90,0	0,55
88,9 x 3,2	60,3 x 2,9	90,0	0,55
88,9 x 3,2	48,4 x 2,6	90,0	0,76
114,3 x 3,6	88,9 x 3,2	100,0	0,97
114,3 x 3,6	76,1 x 2,9	100,0	0,97
114,3 x 3,6	60,3 x 2,9	100,0	0,97
139,7 x 4,0	114,3 x 3,6	127,0	1,72
168,3 x 4,5	114,3 x 3,6	140,0	2,55
219,1 x 6,3	168,3 x 4,5	152,0	5,03
273,0 x 6,3	219,1 x 6,3	178,0	7,40
323,9 x 7,1	273,0 x 6,3	203,0	11,10
323,9 x 7,1	219,1 x 6,3	203,0	11,10

Tês DIN 2615 P235 GH-TC1
Equal Tee DIN 2615 P235 GH-TC1



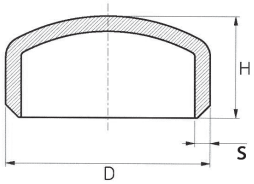
DØ	s mm	C mm	H mm	Kg/Pc Weight
21,3	2,30	25,0	25,0	0,10
26,9	2,30	29,0	29,0	0,15
33,70	2,60	38,0	38,0	0,26
42,40	2,60	48,0	48,0	0,42
48,30	2,60	57,0	57,0	0,59
60,30	2,90	64,0	64,0	0,83
76,10	2,90	76,0	76,0	1,25
88,90	3,20	86,0	86,0	1,85
114,30	3,60	105,0	105,0	3,10
139,70	4,00	124,0	124,0	4,80
168,30	4,50	143,0	143,0	7,00
219,10	6,30	178,0	178,0	14,90
273,00	6,30	216,0	216,0	22,00
323,90	7,10	254,0	254,0	35,00
355,60	8,00	280,0	280,0	63,00
406,40	8,80	305,0	305,0	82,00

Tês redução DIN 2615 P235 GH-TC1
Reduced Tee DIN 2615 P235 GH-TC1



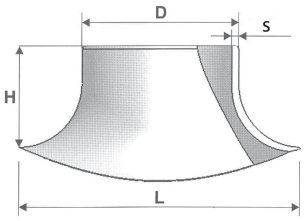
D x s1 mm	d x s2 mm	C mm	H mm	Kg/Pc Weight
33,70 x 2,60	21,30 x 2,30	38,0	38,0	0,26
48,30 x 2,60	33,70 x 2,60	57,0	57,0	0,65
48,30 x 2,60	26,90 x 2,60	57,0	57,0	0,54
60,30 x 2,90	48,30 x 2,60	64,0	64,0	0,80
60,30 x 2,90	33,70 x 2,60	64,0	64,0	0,72
76,10 x 2,90	60,30 x 2,90	76,0	76,0	1,20
76,10 x 2,90	48,30 x 2,60	76,0	76,0	1,16
88,90 x 3,20	60,30 x 2,90	86,0	86,0	1,70
88,90 x 3,20	48,30 x 2,60	86,0	86,0	1,70
114,30 x 3,60	88,90 x 3,20	105,0	105,0	3,10
114,30 x 3,60	76,1 x 2,90	105,0	105,0	3,00
114,30 x 3,60	60,30 x 2,90	105,0	105,0	2,90
139,70 x 4,00	114,30 x 3,60	124,0	124,0	4,70
139,70 x 4,00	88,90 x 3,20	124,0	124,0	4,60
168,30 x 4,50	114,30 x 3,60	143,0	143,0	6,70
168,30 x 4,50	88,90 x 3,20	143,0	143,0	6,60
219,10 x 6,30	168,30 x 4,50	178,0	178,0	14,70
273,00 x 6,30	168,30 x 4,50	216,0	216,0	21,70

Tampo DIN 2617 EN 10253 (St 37.2)
Caps DIN 2617 EN 10253 (St 37.2)



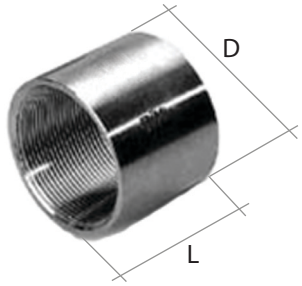
D mm	s mm	H	Kg/Pc Weight
33,7	2,60	38,0	0,03
42,4	2,60	38,0	0,04
48,3	2,60	38,0	0,05
60,3	2,90	38,0	0,10
76,1	2,90	38,0	0,16
88,9	3,20	51,0	0,24
108,0	3,60	64,0	0,37
114,3	3,60	64,0	0,42
139,7	4,00	76,0	0,80
159,0	4,50	90,0	1,22
168,3	4,50	89,0	1,40
219,1	6,30	102,0	3,10
273,0	6,30	127,0	5,40
323,9	7,10	152,0	7,30
355,6	8,00	165,0	9,80
406,4	8,80	178,0	14,50
457,0	6,30	203,0	
508,0	11,00	229,0	31,00

Derivações rectas DIN 2618, P235GH-TC1 (St35.8/I)
Sadles DIN 2618, P235GH-TC1 (St35.8/I)



D	s	L	H	Kg/Pc Weight
48,30	2,60	80	40	0,18
60,30	2,90	100	43	0,27
76,10	2,90	125	50	0,45
88,90	3,20	150	60	0,68
114,30	3,60	185	65	1,11
139,70	4,00	225	85	1,89
168,30	4,50	265	100	2,86
219,10	6,30	345	140	6,50

União EN 10241 BS21/ ISO7.1
Socket



Teste pressure 50bar

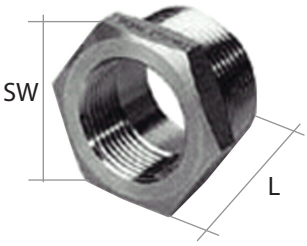
DN	D	L	Kg/Pc Weight
1/4″	18,5	27	0,032
3/8″	22,0	28	0,044
1/2″	27,0	37	0,076
3/4″	32,5	39	0,090
1″	39,5	46	0,115
1 1/4″	49,0	51	0,245
1 1/2″	56,0	51	0,315
2″	68,0	60	0,445
2 1/2″	84,0	69	0,715
3″	98,0	75	0,970
4″	124,0	87	1,530
6″	177,0	96	2,870

Meia união EN 10241 black BS21/ ISO7.1
Half socket

Teste pressure 50bar

DN	D	L	Kg/Pc Weight
1/4″	18,5	11,0	0,010
3/8″	22,0	12,0	0,016
1/2″	27,0	16,0	0,030
3/4″	31,5	19,0	0,045
1″	39,5	21,0	0,065
1 1/4″	49,0	25,0	0,115
1 1/2″	56,0	25,0	0,154
2″	68,0	28,0	0,240

Porca de redução M/F EN 10241 BS21/ ISO7.1
Reducing buching M/F



Teste pressure 50bar

DN	SW	L	Kg/Pc Weight
3/8″ x 1/4″	17,0	20,5	0,016
1/2″ x 3/8″	22,0	25,5	0,030
1/2″ x 1/4″	22,0	25,5	0,047
3/4″ x 1/2″	27,0	29,0	0,060
3/4″ x 3/8″	27,0	29,0	0,080
1″ x 3/4″	36,0	31,0	0,100
1″ x 1/2″	36,0	31,0	0,180
1 1/4″ x 1″	46,0	35,0	0,200
1 1/2″ x 1 1/4″	50,0	37,0	0,343
1 1/2″ x 1″	50,0	37,0	0,340
1 1/2″ x 3/4″	50,0	37,0	0,440
2″ x 1 1/2″	65,0	48,0	0,520
2 1/2″ x 2″	78,0	48,0	0,950

Tampão macho EN 10241 BS21/ ISO7.1
Hexagonal head plug

Teste pressure 150bar

DN	SW	L	Kg/Pc Weight
3/8″	17	20,5	0,035
1/2″	22	25,5	0,070
3/4″	27	29,0	0,120
1″	36	31,0	0,240
1 1/4″	46	35,0	0,410
1 1/2″	50	37,0	0,740
2″	61	41,0	1,020

Acessórios forjados EN10241 pretos roscados BS21 /ISO 7.1
Black threaded forged fittings

Casquilho sextavado M/M EN 10241
Hexagonal nipple

Teste pressure 150bar			
DN	SW	L	Kg/Pc Weight
1/4″	14	31,5	0,024
3/8″	17	33,0	0,038
1/2″	22	43,0	0,071
3/4″	27	48,0	0,110
1″	36	52,0	0,160
1 1/4″	46	59,0	0,260
1 1/2″	50	61,0	0,390
2″	65	68,0	0,650

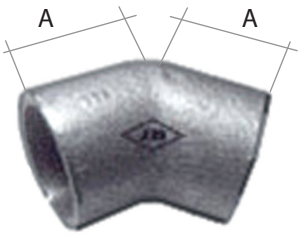
Casquilho sextavado de redução M/M EN 10241
Reducing hexagonal nipple

Teste pressure 150bar			
DN	SW	L	Kg/Pc Weight
3/8″ x 1/8″	17	30,0	0,040
3/8″ x 1/4″	17	33,0	0,040
1/2″ 3/8″	22	38,0	0,070
1/2″ x 1/4″	22	38,0	0,070
3/4″ x 1/2″	27	46,5	0,130
1″ x 3/4″	36	50,0	0,210
1″ x 1/2″	36	48,5	0,230
1″ x 3/8″	36	43,5	0,240
1 1/4″ x 1″	46	56,0	0,300
1 1/2″ x 1″	50	57,0	0,350
1 1/2″ x 3/4″	50	56,0	0,590
2″ x 1 1/2″	65	65,0	0,940

Joelho 90º F/F EN 10241
90º F/F elbow

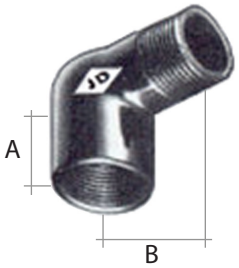
Teste pressure 150bar		
DN	A	Kg/Pc Weight
1/4″	22,0	0,060
3/8″	24,0	0,083
1/2″	32,0	0,159
3/4″	35,0	0,248
1″	43,0	0,340
1 1/4″	51,0	0,660
1 1/2″	52,0	0,795
2″	64,0	1,430

Joelho 45º F/F EN 10241
Elbow 45º F/F



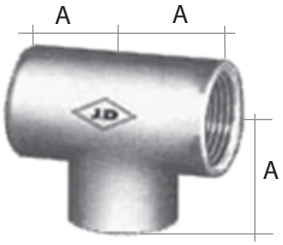
Teste pressure 150bar		
DN	A	Kg/Pc Weight
3/8″	19	0,083
1/2″	22	0,159
3/4″	27	0,248
1″	33	0,340
1 1/4″	38	0,660
1 1/2″	44	0,795
2″	51	1,430

Joelho 90º M/F EN 10241
90º Street elbow



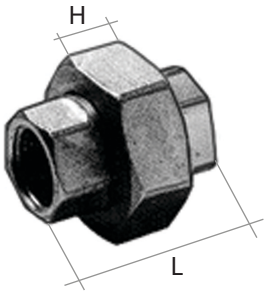
Teste pressure 150bar			
DN	A	B	Kg/Pc Weight
1/4″	19	27	0,052
3/8″	21	29	0,080
1/2″	25	35	0,147
3/4″	30	40	0,220
1″	37	46	0,340
1 1/4″	43	54	0,570
1 1/2″	49	57	0,760
2″	59	70	1,410

Tê simples EN 10241
Iqual tee F/F/F



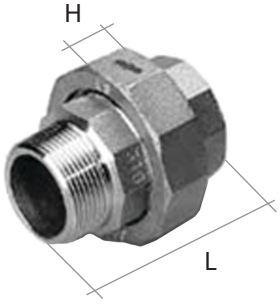
Teste pressure 150bar		
DN	A	Kg/Pc Weight
1/4″	22	0,100
3/8″	24	0,150
1/2″	32	0,243
3/4″	35	0,290
1″	43	0,470
1 1/4″	51	0,760
1 1/2″	52	0,950
2″	64	1,575

Junção F/F sede conica
Union F/ F, conical seat



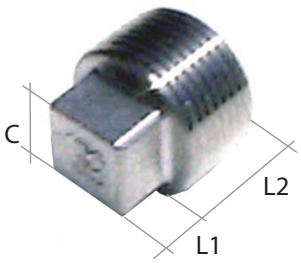
Teste pressure 150bar			
DN	L	H	Kg/Pc Weight
1/4″	40	15	0,140
3/8″	46	16	0,200
1/2″	51	18	0,350
3/4″	57	20	0,425
1″	64	22	0,650
1 1/4″	70	24	0,975
1 1/2″	79	25	1,255
2″	89	27	2,010

Junção M/F EN 10241 sede conica
Union M/ F conical seat



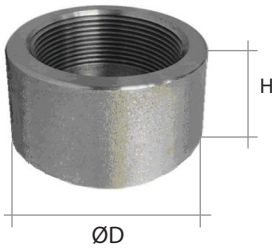
Teste pressure 150bar			
DN	H	L	Kg/Pc Weight
1/4″	52,5	15	0,170
3/8″	58,5	16	0,225
1/2″	68,5	18	0,480
3/4″	76,0	20	0,600
1″	85,0	22	0,900
1 1/4″	94,0	24	1,300
1 1/2″	103,0	25	1,800
2″	106,0	27	2,750

Bujão macho, cabeça quadrada
Square head plugs



Teste pressure 150bar				
DN	C	L1	L2	Kg/Pc Weight
1/4″	9	6	9,7	0,016
3/8″	11	10	10,1	0,027
1/2″	13	10	13,2	0,050
3/4″	14	12	14,5	0,080
1″	17	12	16,8	0,130
1 1/4″	22	16	19,1	0,180
1 1/2″	27	16	19,1	0,236
2″	32	19	23,4	0,650

Tampão fêmea
Female cap

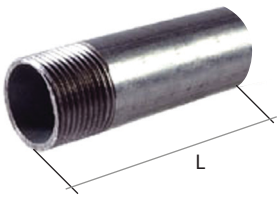


Teste pressure 150bar			
DN	ØD	H	Kg/Pc Weight
1/4″	19	24	0,040
3/8″	24	27	0,050
1/2″	30	37	0,085
3/4″	36	38	0,098
1″	41	44	0,130
1 1/4″	50	51	0,260
1 1/2″	60	54	0,350
2″	70	60	0,500

Casquilho em tubo de aço sem costura, com as duas extremidades roscadas
Barrel nipples from seamless pipe

Teste pressure 50bar		
DN	L mm	Kg/Pc Weight
1/4″	50	0,040
3/8″	50	0,042
1/2″	50	0,061
1/2″	100	0,122
3/4″	50	0,079
3/4″	100	0,158
1″	50	0,122
1″	100	0,244
1 1/4″	50	0,157
1 1/4″	100	0,314
1 1/2″	50	0,180
1 1/2″	100	0,360
2″	50	0,255
2″	100	0,510
2 1/2″	100	0,651
2 1/2″	200	1,302
3″	100	0,847
3″	200	1,694
4″	100	1,210
4″	200	2,420

Ponta roscada em tubo de aço sem costura preto com uma extremidade roscada e outra para soldar



Teste pressure 50bar		
DN	L mm	Kg/Pc Weight
1/4″	50	0,040
3/8″	50	0,042
1/2″	50	0,061
1/2″	100	0,125
3/4″	50	0,079
3/4″	100	0,160
1″	50	0,122
1″	100	0,245
1 1/4″	50	0,157
1 1/4″	100	0,320
1 1/2″	50	0,180
1 1/2″	100	0,365
2″	50	0,255
2″	100	0,520
2 1/2″	50	0,328
2 1/2″	100	0,660
3″	50	0,430
3″	100	0,850
4″	50	0,610
4″	100	1,215

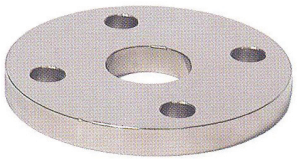
Flanges segundo EN 1092-1 (antes DIN 2501)
Flanges according to EN 1092 - 1 (former DIN 2501)

Principais dimensões das flanges
Main flange dimensions

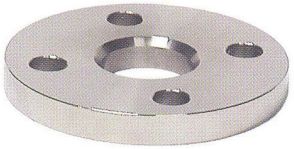
DN	PN 6				PN 10				PN 16				PN 25				PN 40				DN
	D	ØK	Ød2	Nº furos	D	ØK	Ød2	Nº furos	D	ØK	Ød2	Nº furos	D	ØK	Ød2	Nº furos	D	ØK	Ød2	Nº furos	
10	75	50	11	4	Ver dimensões PN40 See dimensions PN40				Ver dimensões PN40 See dimensions PN40				Ver dimensões PN40 See dimensions PN40				90	60	14	4	**10**
15	80	55	11	4													95	65	14	4	**15**
20	90	65	11	4													105	75	14	4	**20**
25	100	75	11	4													115	85	14	4	**25**
32	120	90	14	4													140	100	18	4	**32**
40	130	100	14	4													150	110	18	4	**40**
50	140	110	14	4	Ver dimensões PN16 See dimensions PN16				165	125	18	4					165	125	18	4	**50**
65	160	130	14	4					185	145	18	*8 (4)					185	145	18	8	**65**
80	190	150	18	4					200	160	18	8					200	160	18	8	**80**
100	210	170	18	4					220	180	18	8					235	190	22	8	**100**
125	240	200	18	8					250	210	18	8					270	220	26	8	**125**
150	265	225	18	8					285	240	22	8					300	250	26	8	**150**
200	320	280	18	8	340	295	22	8	340	295	22	12	360	310	26	12	375	320	30	12	**200**
250	375	335	18	12	395	350	22	12	405	355	26	12	425	370	30	12	450	385	33	12	**250**
300	440	395	22	12	445	400	22	12	460	410	26	12	485	430	30	16	515	450	33	16	**300**
350	490	445	22	12	505	460	22	16	520	470	26	16	555	490	33	16	580	510	36	16	**350**
400	540	495	22	16	565	515	26	16	580	525	30	16	620	550	36	16	660	585	39	16	**400**
450	595	550	22	16	615	565	26	20	640	585	30	20	670	600	36	20	685	610	39	20	**450**
500	645	600	22	20	670	620	26	20	715	650	33	20	730	660	36	20	755	670	42	20	**500**
600	755	705	26	20	780	725	30	20	840	770	36	20	845	770	39	20	890	795	48	20	**600**
700	860	810	26	24	895	840	30	24	910	840	36	24	960	875	42	24					**700**
800	975	920	30	24	1015	950	33	24	1025	950	39	24	1085	990	48	24					**800**
900	1075	1020	30	24	1115	1050	33	28	1125	1050	39	28	1185	1090	48	28					**900**
1000	1175	1120	30	28	1230	1160	36	28	1255	1170	42	28	1320	1210	56	28					**1000**

* Conforme última emenda da DIN 2501, as flanges DN65 PN 16 tem 8 furos. Refer to the latest DIN data sheet (Beuth - Vertrieb GmbH Berlin and Köln - Germany)

Tipos de flanges segundo EN 1092-1 **Flanges type according to EN 1092-1**

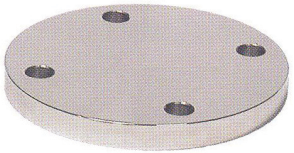


Flange lisa para soldar
Flat welding flange
EN 1092-1 Type 01, PN6 a PN40
(DIN 2573 a 2576)



Flange louca
Loose flange
EN 1092-1 Type 02, PN10 a PN40
(DIN 2641, 2642, 2655, 2656)

Flange com colarinho
Welding neck flange
EN 1092-1 Type 11, PN10 a PN160
(DIN 2631, 2632, 2633, 2634, 2635
2636, 2637, 2638, 2628, 2629, 2627)

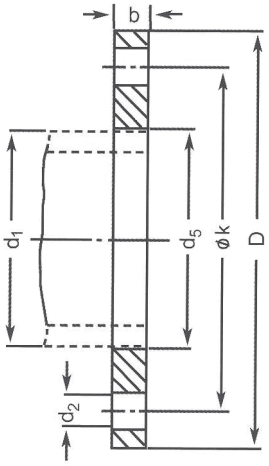


Flange cega
Blind flange
EN 1092-1 Type 05, PN6 a PN160
(DIN 2527 PN6 a PN160)

Flange roscada
Threaded flange
EN 1092-1 Type 13, PN10/40
(DIN 2566)

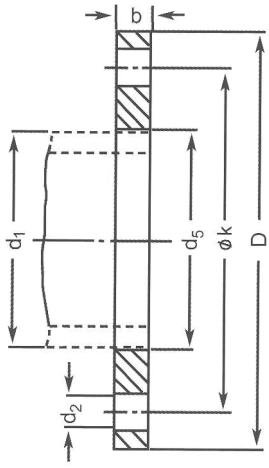
Nota: Para mais detalhes consultar páginas H53 a H57
For details see pages H53 to H57

Flanges, forma B, EN 1092-1 Type 01, PN10, P245GH (C 22.8 DIN 2576)
Flanges



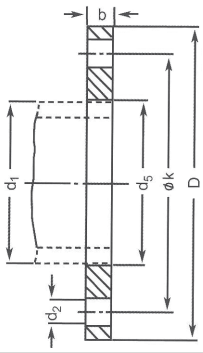
DN	Ø Tubo	D	d5	b	k	d2 Furos x Ø	Kg Weight
DN10 a DN40 ver PN40 DN50 a DN150 ver PN16							
200	219,10	340	221,5	24	295	8 x 22	16,50
250	273,00	395	276,5	26	350	12 x 22	24,00
300	323,90	445	327,5	26	400	12 x 22	30,90
350	355,60	505	359,5	30	460	16 x 22	40,60
400	406,40	565	411,0	32	515	16 x 26	49,40
450	457,00	615	462,0	36	565	20 x 26	63,00
500	508,00	670	513,5	38	620	20 x 26	75,00
600	612,00	780	616,5	42	725	20 x 30	124,00
700	711,00	895	a)	50	840	24 x 30	183,00
800	813,00	1015	a)	56	950	24 x 33	-
900	914,00	1115	a)	62	1050	28 x 33	-
1000	1016,0	1230	a)	70	1160	28 x 36	-
1200	1219,0	1455	a)	83	1380	32 x 39	-

Flanges, forma B, EN 1092-1 Type 01, PN16, P245GH (C 22.8)
Flanges



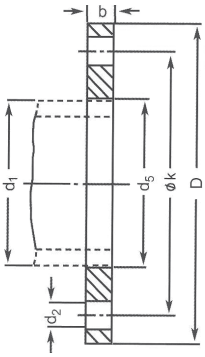
DN	Ø Tubo	D	d5	b	k	d2 Furos x Ø	Kg Weight
DN10 a DN40 ver PN40							
50	60,3	165	61,5	20	125	4 x 18	2,88
65	76,1	185	77,5	20	145	8 x 18	3,66
80	88,9	200	90,5	20	160	8 x 18	4,77
100	114,3	220	116,0	22	180	8 x 18	5,65
125	139,7	250	141,5	22	210	8 x 18	8,42
150	168,3	285	170,5	24	240	8 x 22	10,40
200	219,1	340	221,5	26	295	12 x 22	16,10
250	273,0	405	276,5	29	355	12 x 26	24,90
300	323,9	460	327,5	32	410	12 x 26	35,10
350	355,6	520	359,5	35	470	16 x 26	47,80
400	406,4	580	411,0	38	525	16 x 30	63,50
450	457,0	640	462,0	42	585	20 x 30	96,60
500	508,0	715	513,5	46	650	20 x 33	133,00
600	610,0	840	616,5	55	770	20 x 36	226,00
700	711,0	910	a)	63	840	24 x 36	-
800	813,0	1025	a)	74	950	24 x 39	-
900	914,0	1125	a)	82	1050	28 x 39	-
1000	1016,0	1255	a)	90	1170	28 x 42	-

Flanges, forma B, EN 1092-1 Type 01, PN25, P245GH (C 22.8)
Flanges



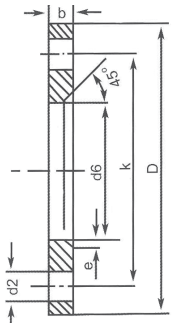
DN	Ø Tubo	D	d5	b	k	d2 Furos x Ø	Kg Weight
DN10 a DN150 ver PN40							
200	219,1	360	221,5	32	310	12 x 26	14,30
250	273,0	425	276,5	35	370	12 x 30	20,10
300	323,9	485	327,5	38	430	16 x 30	26,60
350	355,6	555	359,5	42	490	16 x 33	41,80
400	406,4	620	411,0	48	550	16 x 36	57,60
450	457,0	670	462,0	54	600	20 x 36	69,80
500	508,0	730	513,5	58	660	20 x 36	87,00
600	610,0	845	616,5	68	770	20 x 39	127,00
700	711,0	960	a)	85	875	24 x 42	-
800	813,0	1085	a)	95	990	24 x 48	-

Flanges, forma B, EN 1092-1 Type 01, ISO PN40, P245GH (C 22.8)
Flanges

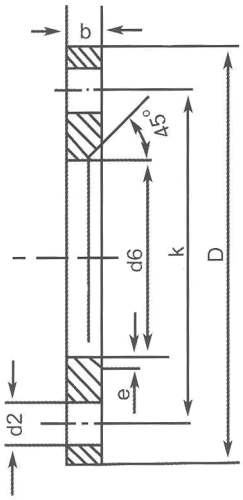


DN	Ø Tubo	b	D	k	d5	d2 Furos x Ø	Kg Weight
10	17,2	14	90	60	18,0	4 x 14	0,60
15	21,3	14	95	65	22,0	4 x 14	0,67
20	26,9	16	105	75	27,5	4 x 14	0,94
25	33,7	16	115	85	34,5	4 x 14	1,11
32	42,4	18	140	100	43,5	4 x 18	1,82
40	48,3	18	150	110	49,5	4 x 18	2,08
50	60,3	20	165	125	61,5	4 x 18	2,73
65	76,1	22	185	145	77,5	8 x 18	3,48
80	88,9	24	200	160	90,5	8 x 18	4,32
100	114,3	26	235	190	116,0	8 x 22	6,07
125	139,7	28	270	220	141,5	8 x 26	8,19
150	168,3	30	300	250	170,5	8 x 26	10,30
200	219,1	36	375	320	221,5	12 x 30	17,90
250	273,0	42	450	385	276,5	12 x 33	29,30
300	323,9	52	515	450	327,5	16 x 33	45,10
350	355,6	58	580	510	359,5	16 x 36	66,70
400	406,4	65	660	585	411,0	16 x 39	97,10
450	457,0	a)	685	610	462,0	20 x 39	-
500	508,0	a)	755	670	513,5	20 x 42	-

Flanges loucas galvanizadas, EN 1092-1 Tipo 02 PN10, P245GH (C 22.8 (DIN 2642)
Loose flanges hot dipped galvanized



DN	Ø Tubo	D	d6	b	k	e	d2 Furos x Ø	Kg Weight
DN10 a DN40 ver PN40 DN50 a DN150 ver PN16								
200	204,00	340,0	211	20	295	5	8 x 22	7,46
200	219,10	340,0	226	20	295	5	12 x 22	7,46
250	254,00	395,0	262	22	350	5	12 x 22	10,30
250	273,00	395,0	281	22	350	5	12 x 22	10,30
300	306,00	445,0	315	26	400	5	12 x 22	14,00
300	323,90	445,0	333	26	400	6	12 x 22	14,00
350	356,00	505,0	365	28	460	6	16 x 22	18,50
400	408,00	565,0	416	32	515	6	16 x 26	25,00
450	457,20	615,0	467	38	565	6	20 x 26	30,60
500	508,00	670,0	519	38	620	6	20 x 26	37,00
600	610,00	780,0	622	44	725	6	20 x 30	56,30



Flanges loucas galvanizadas, EN 1092-1 Tipo 02 PN16, P245GH(C 22.8)

Loose flanges hot dipped galvanized

DN	Ø Tubo	D	d6	b	k	e	d2 Furos x Ø	Kg Weight
DN10 a DN40 ver PN40								
50	54,0	165	58,5	20	125	5	4 x 18	2,60
50	60,3	165	65,0	20	125	6	4 x 18	2,52
65	70,0	185	75,0	20	145	6	*8 x 18	2,93
65	76,1	185	81,0	20	145	6	*8 x 18	2,91
80	84,0	200	89,0	20	160	6	8 x 18	3,54
80	88,9	200	94,0	20	160	6	8 x 18	3,51
100	104,0	220	110,0	22	180	6	8 x 18	4,25
100	114,3	220	120,0	22	180	6	8 x 18	4,20
125	129,0	250	134,0	22	210	6	8 x 18	5,30
125	139,7	250	145,0	22	210	6	8 x 18	5,21
150	154,0	285	160,0	24	240	6	8 x 22	6,98
150	168,3	285	174,0	24	240	6	8 x 22	6,90
200	204,0	340	210,0	26	295	6	12 x 22	9,40
200	219,1	340	226,0	26	295	6	12 x 22	9,31
250	254,0	405	262,0	29	355	8	12 x 26	13,80
250	273,0	405	281,0	29	355	8	12 x 26	13,75
300	306,0	460	315,0	32	410	8	12 x 26	18,30
300	323,9	460	333,0	32	410	8	12 x 26	18,00
350	355,6	520	365,0	35	470	8	16 x 26	27,00
400	406,4	580	416,0	38	525	8	16 x 30	34,60
450	457,0	640	467,0	42	585	8	20 x 30	44,60
500	508,0	715	519,0	46	650	8	20 x 33	62,00

*

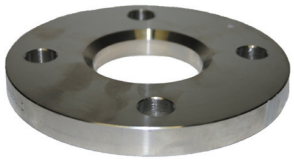
Flanges loucas galvanizadas, EN 1092-1 Tipo 02 PN25, P245GH (C 22.8)

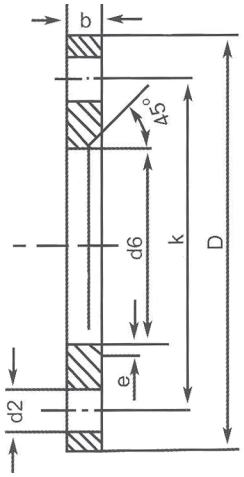
Loose flanges hot dipped galvanized

DN	Ø Tubo	D	d6	b	k	e	d2 Furos x Ø	Kg Weight
DN10 a DN150 ver PN40								
200	206,0	360	212,0	32	310	6	12 x 26	13,85
200	219,1	360	226,0	32	310	6	12 x 26	13,80
250	256,0	425	264,0	35	370	8	12 x 30	19,48
250	273,1	425	281,0	35	370	8	12 x 30	19,40
300	306,0	485	315,0	38	430	8	16 x 30	25,60
300	323,9	485	333,0	38	430	8	16 x 30	26,50
350	355,6	555	365,0	42	490	8	16 x 35	40,50
400	406,4	620	416,0	48	550	8	16 x 36	56,10
450	457,0	670	467,0	54	600	8	20 x 36	67,80
500	508,0	730	519,0	58	660	8	20 x 36	84,60

Flanges loucas galvanizadas, EN 1092-1 Tipo 02 ISO PN40, St 37.2 ou C 22.8

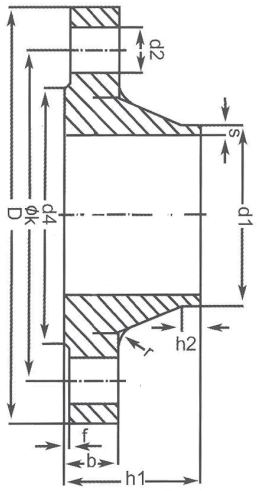
Loose flanges hot dipped galvanized





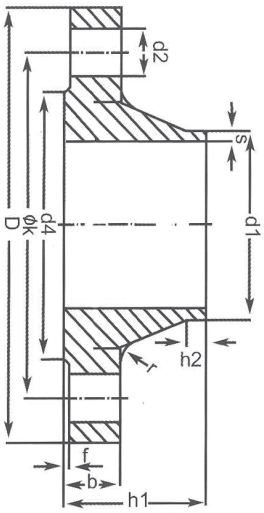
DN	Ø Tubo	D	d6	b	k	e	d2 Furos x Ø	Kg Weight
10	17,2	90	21,0	14	60	3	4 x 14	0,59
15	21,3	95	25,0	14	65	3	4 x 14	0,65
20	26,9	105	31,0	16	75	4	4 x 14	0,91
25	33,7	115	38,0	16	85	4	4 x 14	1,08
32	42,4	140	47,0	18	100	5	4 x 18	1,77
40	48,3	150	53,0	18	110	5	4 x 18	2,02
50	54,0	165	58,5	20	125	5	8 x 18	2,70
50	60,3	165	65,0	20	125	6	8 x 18	2,65
65	70,0	185	75,0	22	145	8	8 x 18	3,42
65	76,1	185	81,0	22	145	8	8 x 18	3,36
80	84,0	200	89,0	24	160	8	8 x 18	4,25
80	88,9	200	94,0	24	160	8	8 x 18	4,18
100	104,0	235	110,0	26	190	8	8 x 22	5,95
100	114,3	235	120,0	26	190	8	8 x 22	5,87
125	130,0	270	135,0	28	220	8	8 x 26	8,10
125	139,7	270	145,0	28	220	8	8 x 26	7,95
150	156,0	300	162,0	30	250	8	8 x 26	10,20
150	168,3	300	174,0	30	250	8	8 x 26	10,10
200	208,0	375	214,0	36	320	8	12 x 30	17,80
200	219,1	375	226,0	36	320	8	12 x 30	17,50
250	260,0	450	268,0	42	385	8	12 x 33	28,50
250	273,1	450	281,0	45	385	8	12 x 33	28,40
300	310,0	515	320,0	52	450	8	16 x 33	43,70
300	323,8	515	333,0	52	450	8	16 x 33	43,60
350	355,6	580	365,0	58	510	8	16 x 36	64,90
400	406,4	660	416,0	65	585	8	16 x 39	95,10

Flanges com colarinho, forma C, EN 1092-1 Type 11, PN10 P245GH (C22.8 DIN 2632)
Welding neck flanges



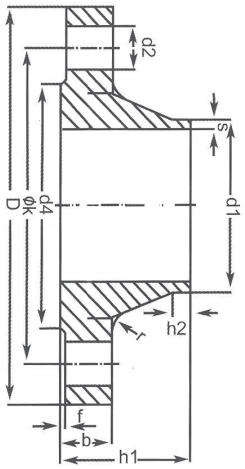
DN	Ø Tubo d1	s	D	b	k	h1	h2	d4	f	d2 Furos x Ø	Kg Weight
DN10 a DN40 ver PN40 DN50 a DN150 ver PN16											
200	219,10	6,3	340	24	295	62	16	268	3	8 x 22	11,30
250	273,00	6,3	395	26	350	68	16	320	3	12 x 22	14,70
300	323,90	7,1	445	26	400	68	16	370	4	12 x 22	17,40
350	355,60	7,1	505	26	460	68	16	430	4	16 x 22	23,60
400	406,40	7,1	565	26	515	72	16	482	4	16 x 26	28,60
450	457,00	7,1	615	28	565	72	16	532	4	20 x 26	34,00
500	508,00	7,1	670	28	620	75	16	585	4	20 x 26	38,10
600	610,00	8,0	780	30	725	82	18	685	5	20 x 30	44,60
700	711,00	8,8	895	35	840	85	18	800	5	24 x 30	62,40
800	813,00	8,8	1015	38	950	96	18	905	5	24 x 33	84,10
900	914,00	12,5	1115	38	1050	99	20	1005	5	28 x 33	98,50
1000	1016,00	12,5	1230	44	1160	105	20	1110	5	28 x 36	121,00

Flanges com colarinho, EN 1092-1 Type 11, forma C, PN16 P245GH (C22.8 DIN 2633)
Welding neck flanges



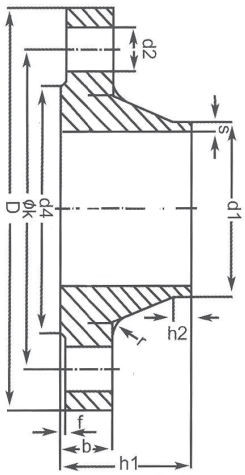
DN	Ø Tubo d1	s	D	b	k	h1	h2	d4	f	d2 Furos x Ø	Kg Weight
DN10 a DN40 ver PN40											
50	60,30	2,9	165	18	125	45	8	102	3	4 x 18	2,53
65	76,10	2,9	185	18	145	45	10	122	3	* 8 x 18	3,06
80	88,90	3,2	200	20	160	50	10	138	3	8 x 18	3,70
100	108,00	3,6	220	20	180	52	12	158	3	8 x 18	4,62
100	114,30	3,6	220	20	180	52	12	158	3	8 x 18	4,61
125	139,70	4,0	250	22	210	55	12	188	3	8 x 18	6,25
150	168,30	4,5	285	22	240	55	12	212	3	8 x 22	7,75
200	219,10	6,3	340	24	295	62	16	268	3	12 x 26	11,00
250	273,00	6,3	405	26	355	70	16	320	3	12 x 26	15,60
300	323,90	7,1	460	28	410	78	16	378	4	12 x 26	22,00
350	355,60	8,0	520	30	470	82	16	438	4	16 x 26	32,20
400	406,40	8,0	580	32	525	85	16	490	4	16 x 30	39,30
450	457,00	8,0	640	34	585	83	16	550	4	20 x 30	46,10
500	508,00	8,0	715	36	650	84	16	610	4	20 x 33	61,00
600	610,00	10,0	840	40	770	88	18	725	5	20 x 36	75,40
700	711,00	10,0	910	40	840	104	18	795	5	24 x 36	87,40
800	813,00	12,5	1025	41	950	108	20	900	5	24 x 39	109,00
900	914,00	12,5	1125	48	1050	118	20	1000	5	28 x 39	129,00
1000	1016,00	12,5	1255	59	1170	137	22	1115	5	28 x 42	175,00

Flanges com colarinho, forma C, EN 1092-1 Tipo 11 PN25, P245GH (C 22.8 DIN 2634)
Welding neck flanges



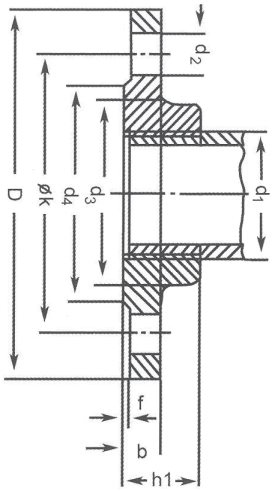
DN	Ø Tubo d1	s	D	b	k	h1	h2	d4	f	d2 Furos x	Kg Weight
DN10 a DN150 ver PN40											
200	219,1	6,3	360	30	310	80	16	278	3	12 x 26	17,0
250	273,0	7,1	425	32	370	88	18	335	3	12 x 30	24,4
300	323,9	8,0	485	34	430	92	18	395	4	16 x 30	31,2
350	355,6	8,0	555	38	490	100	20	450	4	16 x 33	47,2
400	406,4	8,8	620	40	550	110	20	505	4	16 x 36	61,7
450	457,0	8,8	670	46	600	110	20	555	4	20 x 36	76,0
500	508,0	10,0	730	48	660	125	20	615	4	20 x 36	97,0
600	610,0	11,0	845	48	770	125	20	720	4	20 x 39	121,0
700	711,0	14,2	960	50	875	129	20	820	5	24 x 42	155,0
800	813,0	16,0	1085	53	990	138	22	930	5	24 x 48	205,0
900	914,0	17,5	1185	57	1090	148	24	1030	5	24 x 48	249,0
1000	1016,0	20,0	1320	63	1210	160	24	1140	5	24 x 56	338,0

Flanges com colarinho, forma C, EN 1092-1 Tipo 11 PN40, P245GH (C 22.8 DIN 2635)
Welding neck flanges



DN	Ø Tubo d1	s	D	b	k	h1	h2	d4	f	d2 Furos x	Kg Weight
15	21,30	2,0	95	16	65	38	6	45	2	4 x 14	0,75
20	26,90	2,3	105	16	75	40	6	58	2	4 x 14	1,06
25	33,70	2,6	115	18	85	40	6	68	2	4 x 14	1,29
32	42,40	2,6	140	18	100	42	6	78	2	4 x 18	1,88
40	48,30	2,6	150	18	110	45	7	88	2	4 x 18	2,33
50	60,30	2,9	165	20	125	48	8	102	3	4 x 18	2,88
65	76,10	2,9	185	22	145	52	10	122	3	8 x 18	3,74
80	88,90	3,2	200	24	160	58	12	138	3	8 x 18	4,75
100	114,30	3,6	235	24	190	65	12	138	3	8 x 22	6,52
125	139,70	4,0	270	26	220	68	12	162	3	8 x 26	9,07
150	168,30	4,5	300	28	250	75	12	218	3	8 x 26	11,80
200	219,10	6,3	375	34	320	88	16	285	4	12 x 30	21,50
250	273,00	7,1	450	38	385	105	18	345	4	12 x 33	34,90
300	323,90	8,0	515	42	450	115	18	410	4	16 x 36	49,70
350	355,60	8,8	580	46	510	125	20	465	4	16 x 36	68,10
400	406,40	11,0	660	50	585	135	20	535	4	16 x 39	96,50
450	457,00	12,5	685	57	610	135	20	560	4	20 x 39	105,00
500	508,00	14,2	755	57	670	140	20	615	4	20 x 42	130,00
600	610,00	16,0	890	72	795	150	20	735	4	20 x 48	209,00

Flanges galvanizadas, roscadas EN 1092-1 Tipo 13 (PN10/16 - 40), P245GH (C 22.8 DIN 2566)
Threaded flanges zinc plated

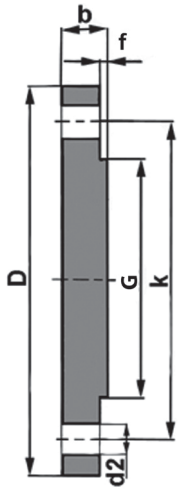


DN	PN	Rosca	D	b	k	h1	d4	f	d2 Furos x Ø	Kg Weight
15	10/40	R 1/2"	95	14	65	20	45	2	4 x 14	0,77
20	10/40	R 3/4"	105	16	75	24	58	2	4 x 14	1,09
25	10/40	R 1"	115	16	85	24	68	2	4 x 14	1,30
32	10/40	R 1 1/4"	140	16	100	26	78	2	4 x 18	1,91
40	10/40	R 1 1/2"	150	16	110	26	88	2	4 x 18	2,15
50	10/16	R 2"	165	18	125	28	102	3	4 x 18	2,55
65	10/16	R 2 1/2"	185	18	145	32	122	3	*8 (4) x 18	3,08
80	10/16	R 3"	200	20	160	34	138	3	8 x 18	4,12
100	10/16	R 4"	220	20	180	38	158	3	8 x 18	4,47
125	10/16	R 5"	250	22	210	40	188	3	8 x 18	6,13
150	10/16	R 6"	285	22	240	44	212	3	8 x 22	7,01

*

Flanges cegas EN 1092 - 1 Tipo 05/A, PN10, P245GH (C 22.8 DIN 2527 PN10)
Blind flanges

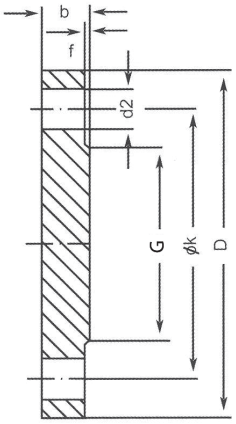
DN	D	b	k	G max	f	d2 Furos x Ø	Kg Weight
DN10 a DN40 ver PN40 DN50 a DN150 ver PN16							
200	340	24	295	268	3	8 x 22	16,90
250	395	26	350	320	3	12 x 22	24,70
300	445	26	400	370	4	12 x 22	32,90
350	505	26	460	430	4	16 x 22	41,60
400	565	26	515	482	4	16 x 26	51,20
450	615	28	565	532	4	20 x 26	63,00
500	670	28	620	585	4	20 x 26	77,80
600	780	34	725	685	4	20 x 30	113,28
700	895	38	840	800	5	24 x 30	159,31
800	1015	48	950	905	5	24 x 33	230,18
900	1115	50	1050	1005	5	28 x 33	308,20
1000	1230	54	1160	1110	5	28 x 36	512,00



Flanges cegas EN 1092-1 Type 05/A, PN16 P245GH (DIN 2527 PN16)
Blind flanges

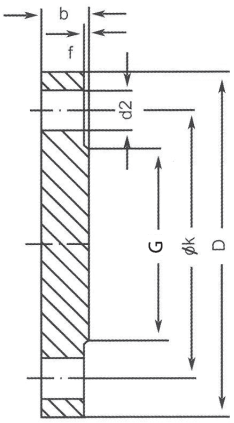
DN	D	b	k	G max	f	d2 Furos x Ø	Kg Weight
DN10 a DN40 ver PN40							
50	165	18	125	102	3	4 x 18	2,88
65	185	18	145	122	3	*8(4) x 18	3,66
80	200	20	160	138	3	8 x 18	4,77
100	220	20	180	158	3	8 x 18	5,65
125	250	22	210	188	3	8 x 18	8,42
150	285	22	240	212	3	8 x 22	10,4
200	340	24	295	268	4	12 x 22	16,5
250	405	26	355	320	4	12 x 26	25,6
300	460	28	410	378	4	12 x 26	36,1
350	520	30	470	438	4	16 x 26	49,1
400	580	32	525	490	4	16 x 30	65,3
450	640	40	585	550	4	20 x 30	96,6
500	715	44	650	610	4	20 x 33	133,0
600	840	54	770	725	4	20 x 36	226,0
700	910	58	840	795	5	24 x 36	285,0
800	1025	62	950	900	5	24 x 39	388,0
900	1125	64	1050	1000	5	28 x 39	483,0
1000	1255	68	1170	1115	5	28 x 42	640,0

Flanges cegas EN 1092 - 1 Tipo 05/A PN25, P245GH (C 22.8 DIN 2527 PN25)
Blind flanges



DN	D	b mm	k	G max	f	d2 Nº Furos x Ø	Kg Weight
DN10 a DN150 ver PN40							
200	360	30	310	190	3	12 x 26	22,70
250	425	32	370	235	3	12 x 30	34,20
300	485	34	430	285	4	16 x 30	47,30
350	555	38	490	332	4	16 x 33	69,30
400	620	40	550	382	4	16 x 36	91,50
450	670	50	600	425	4	20 x 36	141,00
500	730	51	660	475	4	20 x 36	165,00
600	845	66	770	575	5	20 x 39	282,00
700	960	a)	875	670	5	24 X 42	b)
800	1085	a)	990	770	5	24 X 48	b)

Flanges cegas EN 1092-1 Tipo 05 PN40, P245GH (C 22.8 DIN 2527 PN40)
Blind flanges



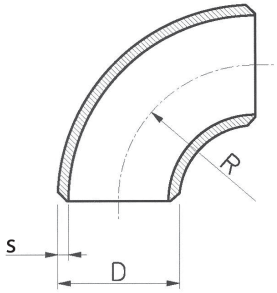
DN	D	b mm	k	G max	f	d2 Nº furos x Ø	Kg Weight
15	95	16	65	-	2	4 x 14	0,81
20	105	18	75	-	2	4 x 14	1,24
25	115	18	85	-	2	4 x 14	1,38
32	140	18	100	-	2	4 x 18	2,03
40	150	18	110	-	2	4 x 18	2,35
50	165	20	125	-	3	4 x 18	3,20
65	185	22	145	55	3	8 x 18	4,29
80	200	24	160	70	3	8 x 18	5,88
100	235	24	190	90	3	8 x 22	7,54
125	270	26	220	115	3	8 x 26	10,80
150	300	28	250	140	3	8 x 26	14,50
200	375	36	320	190	4	12 x 30	28,80
250	450	38	385	235	4	12 x 33	44,50
300	515	42	450	285	4	16 x 33	64,30
350	580	46	510	330	4	16 x 36	90.80
400	660	50	585	380	4	16 x 39	129,00
450	685	57	610	425	4	20 x 39	154,00
500	755	57	670	475	4	20 x 42	190,00
600	890	72	795	575	4	20 x 48	335,00

Tubo de caldeira e permutores EN 10.216 - 2/02 P235GH - TC1 (St 35.8/I DIN 2448/17.175/ I)

Seamless boiler & heat exchanger tubes EN 10.216 - 2/02 P235GH - TC1 (St 35.8/ I (DIN 2448/ 17.175/I)

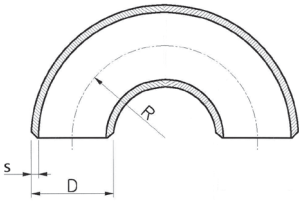
	OD mm	Espessura Thickness	Kg/m Weight
C) 1) 2)	19,05	2,35	0,96
C)	21,30	2,30	1,09
C)	25,00	2,90	1,58
C)	26,90	2,30	1,41
L)	31,80	3,60	2,52
C) 1) 2)	31,80	3,75	2,63
C)	33,70	2,60	2,01
L)	38,00	2,90	2,53
L)	38,00	3,60	3,08
C)	42,40	2,60	2,57
L)	44,50	2,90	2,70
L)	44,50	3,60	3,65
C)	48,30	2,60	2,95
L)	51,00	2,90	3,46
L)	51,00	3,20	3,79
L)	51,00	3,60	4,23
C)	60,30	2,90	4,14
C)	60,30	3,60	5,07
L)	63,50	3,20	4,79
L)	63,50	3,60	5,36
C)	76,10	2,90	5,28
L)	76,10	3,20	5,89
L)	76,10	3,60	6,49
C)	88,90	3,20	6,81
L)	88,90	4,00	8,43
L) 1)	101,60	3,60	8,76
C)	114,30	3,60	9,90
C)	139,70	4,00	13,50
C)	168,30	4,50	18,10
C)	219,10	6,30	32,83
C)	273,00	6,30	41,60
C)	323,90	7,10	55,60
C)	355,60	8,00	68,30

Curvas 90º EN 10253/2 DIN 2605, P235GH-TC1 (St35.8/I)
Elbows 90º for high temperature service



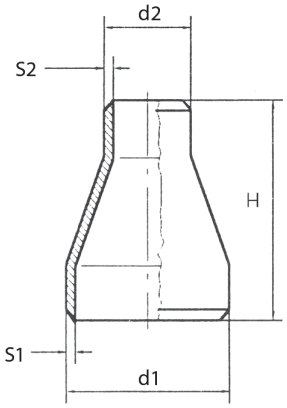
D mm	s mm	R	Kg/Pc Weight
21,30	2,30	27,5	0,05
26,90	2,30	29,0	0,06
33,70	2,60	38,0	0,12
42,40	2,60	48,0	0,19
48,30	2,60	57,0	0,27
48,30	3,20	57,0	0,37
60,30	2,90	76,0	0,57
60,30	3,60	76,0	0,65
76,10	2,90	95,0	0,79
76,10	3,60	95,0	0,98
88,90	3,20	114,0	1,22
88,90	4,00	114,0	1,50
114,30	3,60	152,0	2,37
114,30	4,50	152,0	2,92
139,70	4,00	190,5	4,04
168,30	4,50	228,5	6,50
219,10	6,30	305,0	15,80
273,00	6,30	381,0	25,00
323,90	7,10	427,0	39,80
355,60	8,00	533,5	56,00
406,40	8,80	609,5	82,60
508,00	11,00	686,0	162,00

Curvas 180º EN 10253/2 DIN 2605, P235 GH-TC1 (St35.8/I)
Elbows 180º for high temperature service



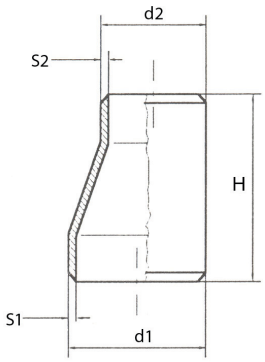
D mm	s mm	R	Kg/Pc Weight
21,30	2,30	27,5	0,10
26,90	2,30	29,0	0,12
33,70	2,60	38,0	0,24
42,40	2,60	48,0	0,38
48,30	2,60	57,0	0,54
48,30	3,20	57,0	0,74
60,30	2,90	76,0	0,98
60,30	3,60	76,0	1,25
76,10	2,90	95,0	1,58
76,10	3,60	95,0	1,96
88,90	3,20	114,0	2,44
88,90	4,00	114,0	3,00
101,60	3,60	133,5	3,60
114,30	3,60	152,0	4,74
114,30	4,50	152,0	5,84
139,70	4,00	190,0	8,08
168,30	4,50	228,5	13,00

Reduções Concentricas DIN 2616 - 2, P235GH-TC1 (St35.8/I)
BW concentric Reducers for higth temperature service



d1 x S1 mm	d2 x S2 mm	H	Kg Weight
26,9 x 2,3	21,3 x 2,3	38,0	0,070
33,7 x 2,6	26,9 x 2,3	50,0	0,090
33,7 x 2,6	21,3 x 2,3	50,0	0,090
42,4 x 2,6	33,7 x 2,6	50,0	0,100
42,4 x 2,6	26,9 x 2,3	50,0	0,130
48,3 x 2,6	42,4 x 2,6	64,0	0,110
48,3 x 2,6	33,7 x 2,6	64,0	0,160
48,3 x 2,6	26,9 x 2,3	64,0	0,120
60,3 x 2,9	48,3 x 2,6	76,0	0,250
60,3 x 2,9	42,4 x 2,6	76,0	0,260
60,3 x 2,9	33,7 x 2,6	76,0	0,330
76,1 x 2,9	60,3 x 2,9	90,0	0,340
76,1 x 2,9	48,3 x 2,6	90,0	0,450
76,1 x 2,9	42,4 x 2,6	90,0	0,500
88,9 x 3,2	76,1 x 2,9	90,0	0,390
88,9 x 3,2	60,3 x 2,9	90,0	0,590
88,9 x 3,2	48,3 x 2,6	90,0	0,750
*101,6 x 3,6	60,3 x 2,9	100,0	0,990
114,3 x 3,6	88,9 x 3,2	100,0	0,920
114,3 x 3,6	76,1 x 2,9	100,0	1,170
114,3 x 3,6	60,3 x 2,9	100,0	1,460
139,7 x 4,0	114,3 x 3,6	127,0	1,490
139,7 x 4,0	88,9 x 3,2	127,0	2,10
139,7 x 4,0	76,1 x 2,9	127,0	2,39
168,3 x 4,5	133,0 x 4,0	140,0	2,75
168,3 x 4,5	139,7 x 4,0	140,0	1,78
168,3 x 4,5	114,3 x 3,6	140,0	2,63
168,3 x 4,5	88,9 x 3,2	140,0	3,59
219,1 x 6,3	168,3 x 4,5	152,0	4,10
219,1 x 6,3	139,7 x 4,0	152,0	5,32
219,1 x 6,3	114,3 x 3,6	152,0	6,62
273,0 x 6,3	219,1 x 6,3	178,0	5,39
273,0 x 6,3	168,3 x 6,3	178,0	9,11
273,0 x 6,3	139,7 x 6,3	178,0	10,25
323,9 x 7,1	273,0 x 6,3	203,0	7,12
323,9 x 7,1	219,1 x 6,3	203,0	11,77
323,9 x 7,1	168,3 x 4,5	203,0	15,92
355,6 x 8,0	273,0 x 6,3	330,0	12,00
355,6 x 8,0	219,1 x 6,3	330,0	17,48
406,4 x 8,8	323,9 x 7,1	356,0	17,00
406,4 x 8,8	273,0 x 6,3	356,0	20,00
406,4 x 8,8	219,1 x 6,3	356,0	28,52

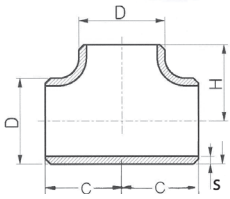
Reduções Excentricas DIN 2616-1, P235GH-TC1 (St35.8/I)
Excentric Reducers for higth temperature service



d1 x S1 mm	d2 x S2 mm	H	Kg Weight
33,7 x 2,6	26,9 x 2,3	50,0	0,09
42,4 x 2,6	33,7 x 2,6	50,0	0,12
42,4 x 2,6	26,9 x 2,3	50,0	0,14
48,3 x 2,6	42,4 x 2,6	64,0	0,18
48,3 x 2,6	33,7 x 2,6	64,0	0,18
60,3 x 2,9	48,3 x 2,6	76,0	0,32
60,3 x 2,9	42,4 x 2,6	76,0	0,32
60,3 x 2,9	33,7 x 2,6	76,0	0,35
76,1 x 2,9	60,3 x 2,9	90,0	0,42
76,1 x 2,9	48,3 x 2,6	90,0	0,48
88,9 X 3,2	76,1 X 2,9	90,0	0,55
88,9 X 3,2	60,3 X 2,9	90,0	0,60
114,3 X 3,6	88,9 X 3,2	100,0	0,97
114,3 X 3,6	76,1 X 2,9	100,0	1,20
114,3 X 3,6	60,3 X 2,9	100,0	1,10
139,7 X 4,0	114,3 X 3,6	127,0	1,72
168,3 X 4,5	114,3 X 3,6	140,0	2,80
168,3 x 4,5	88,9 x 3,2	140,0	3,70
219,1 X 6,3	168,3 X 4,5	152,0	5,03
273,0 X 6,3	219,1 X 6,3	178,0	7,40
323,9 X 7,1 3	273,0 X 6,3	203,0	11,10
323,9 X 7,1	219,1 X 6,3	203,0	12,00
406,4 X 8,8	323,9 X 7,1	356,0	18,00

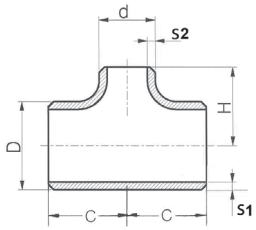
Acessórios DIN para soldar a topo para alta temperatura
Butt weld fittings for high temperature according to DIN

Tês DIN 2615, P235GH-TC1 (St35.8/I)
Equal Tee, DIN 2615 P235GH-TC1 (St35.8/I)



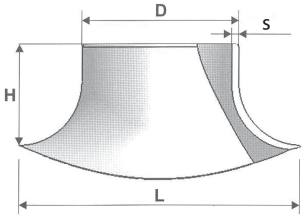
D	s	C	H	Kg/Pc Weight
33,70	2,60	38,0	38,0	0,26
42,40	2,60	48,0	48,0	0,42
48,30	2,60	57,0	57,0	0,59
60,30	2,90	64,0	64,0	0,83
76,10	2,90	76,0	76,0	1,25
88,90	3,20	86,0	86,0	1,85
114,30	3,60	105,0	105,0	3,10
139,70	4,00	124,0	124,0	4,80
168,30	4,50	143,0	143,0	7,00
219,10	6,30	178,0	178,0	14,90
273,00	6,30	216,0	216,0	22,00
323,90	7,10	254,0	254,0	35,00
355,60	8,00	280,0	280,0	63,00
406,40	8,80	305,0	305,0	82,00

Tês Redução DIN 2615, P235GH-TC1 (St35.8/I)
Reduced Tee DIN 2615, P235GH-TC1 (St35.8/I)



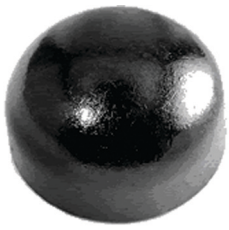
D x s1	d x s2	C	H	Kg/Pc Weight
33,70 x 2,60	21,30 x 2,30	38,0	38,0	0,26
48,30 x 2,60	33,70 x 2,60	57,0	57,0	0,58
48,30 x 2,60	26,90 x 2,60	57,0	57,0	0,65
60,30 x 2,90	48,30 x 2,60	64,0	64,0	1,07
60,30 x 2,90	33,70 x 2,60	64,0	64,0	1,07
76,10 x 2,90	60,00 x 2,90	76,0	76,0	1,25
76,10 x 2,90	48,30 x 2,60	76,0	76,0	1,25
88,90 x 3,20	60,30 x 2,90	86,0	86,0	1,80
88,90 x 3,20	48,30 x 2,60	86,0	86,0	1,80
114,30 x 3,60	88,90 x 3,20	105,0	105,0	3,10
114,30 x 3,60	76,00 x 2,90	105,0	105,0	3,10
114,30 x 3,60	60,30 x 2,90	105,0	105,0	3,10
139,70 x 4,00	114,30 x 3,60	124,0	124,0	5,10
139,70 x 4,00	88,90 x 3,20	124,0	124,0	5,10
168,30 x 4,50	114,30 x 3,60	143,0	143,0	8,00
168,30 x 4,50	88,90 x 3,20	143,0	143,0	9,00
219,10 x 6,30	168,30 x 4,50	178,0	178,0	16,30
273,00 x 6,30	168,30 x 4,50	216,0	216,0	26,70

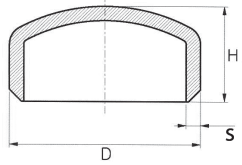
Derivações Rectas DIN 2618, P235GH-TC1 (St35.8/I)
Sadles DIN 2618, P235GH-TC1 (St35.8/I)



D	s	L	H	Kg/Pc Weight
48,30	2,60	80	40	0,18
60,30	2,90	100	43	0,27
76,10	2,90	125	50	0,45
88,90	3,20	150	60	0,68
114,30	3,60	185	65	1,11
139,70	4,00	225	85	1,89
168,30	4,50	265	100	2,86
219,10	6,30	345	140	6,50

Tampos DIN 2617, P265GH (St35.8/I)
Caps according to DIN 2617, P265GH (St35.8/I)





D	s	H	Kg/Pc Weight
33,70	2,60	38,0	0,05
42,40	2,60	38,0	0,07
48,30	2,60	38,0	0,10
60,30	2,90	38,0	0,13
76,10	2,90	38,0	0,20
88,90	3,20	50,0	0,43
114,30	3,60	64,0	0,66
139,70	4,00	76,0	0,96
168,30	4,50	90,0	1,70
219,10	6,30	100,0	3,30
273,00	6,30	127,0	5,60
323,90	7,10	178,0	9,00
355,60	8,00	191,0	9,80
406,4	8,80	203,0	14,50
508,0	11,00	254,0	31,00

Tubos para circuitos hidáulicos e pneumáticos estirados e frio St 37,4 segundo DIN1630

Precision carbon steel Pipes FIN GRAIN E 235 according to EN 10305-4

Ø ext. OD mm	Espess Thickness mm	Ø int. mm	Pres. serviço DIN21413 III work. pres. kg/cm2	Pressão rebentamento Burst pres. kg/cm2	Raio de curv. mínimo Bend. Radius mm	Kg Weight 100m
6	1	4	324	1680	10	12,3
6	1,5	3	528	3050	10	16,5
8	1	6	289	1190	14	17,3
8	1,5	5	414	1860	14	24,5
10	1	8	241	870	18	22,2
•10	1,5	7	358	1380	18	31,2
10	2	6	460	2100	18	39,0
•12	1,5	9	305	1150	20	39,5
•12	2	8	393	1580	20	50,1
14	2	10	343	1340	25	58,5
•15	1,5	12	249	980	28	50,0
•16	2	12	305	1170	30	63,2
16	2,5	11	372	1470	30	82,7
•16	3	10	435	1920	30	95,9
18	1,5	15	210	780	36	61,0
•18	2	14	274	1040	36	78,0
•20	2	16	249	920	36	89,0
•20	2,5	15	305	1220	36	106,9
•20	3	14	358	1450	36	128,1
•20	4	12	460	2080	36	158,0
•22	1,5	19	174	580	38	75,8
•22	2	18	228	850	38	98,3
•25	2	21	202	670	44	115,6
•25	3	19	294	1050	44	165,7
•25	4	17	379	1520	44	211,0
•25	5	16	460	2120	44	251,2
•28	2	24	182	620	48	128,2
•30	3	24	249	920	50	203,4
•30	4	22	323	1250	50	261,2
•35	3	29	216	720	60	236,7
•35	4	27	281	960	60	305,8
•38	4	30	261	970	65	333,0
•42	3	36	182	580	80	286,0

As pressões de cálculo foram efectuadas segundo DIN 2413 Parte I tendo em atenção o esforço estático predominante.

$$P = \frac{20.\ K\ S.C}{S.d_a}\ \text{(bar)}$$

Limite elástico do material, K=235 N/mm² e DIN2413 Parte III para o esforço dinâmico

$$P = \frac{20.\ K.\ S.C}{S.\ (da + s\ .\ c)}\ \text{(bar)}$$

K (Limite elástico do material)=226 N/mm²
(resistência à fadiga permanente)

S (Factor de segurança) = 1,5 para o esforço estático e dinâmico.

C (Factor para análise da diferença de espessura) em relação ao esforço estático e dinâmico = 0,8 para tubo OD 4 e 5 mm.

0,85 para tubo OD 6 a 8 mm e 0,90 para tubo OD 9mm ou superior.

Temperatura de serviço - 40º até 120º C sem redução de pressão.

Protecção da superfície:
Tubos com ID 1,5 - 5 mm: Superficie interior e exterior oleados.

Tubos desde 6mm ID: Superficie interior e exterior fosfatados e oleados ou galvanizados Chrom (VI) Free.

Calculation pressures given are according to DIN 2413 Part I for predominant static stress.

$$P = \frac{20.\ K\ S.C}{S.d_a}\ \text{(bar)}$$

Material characteristic value K=235 N/mm² and DIN2413 Part III for dynamic stress

$$P = \frac{20.\ K.\ S.C}{S.\ (da + s\ .\ c)}\ \text{(bar)}$$

Material characteristic value K =226 N/mm²
(permanent fatigue strength)

Safety correction value S = 1,5 for static and dynamic stress.

Factor Cfor consideration of wall thickness divergence for static and dynamic stress = 0,8 for tube OD 4 and 5 mm.

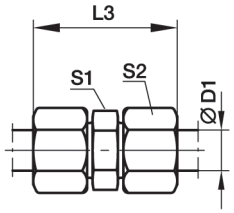
0,85 for tube OD 6 and 8 mm; 0,90 for larger tube OD.

Temperature range - 40º up to 120º C without pressure reductions.

Surface finish:
Tubes with ID 1,5 - 5 mm: outside and inside oiled.

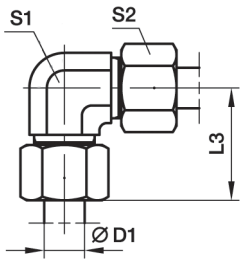
Tubes from 6mm ID: outside and inside for externally zincplated tubing(depth 8-12µm), inside oiled.

"G" União, tubo/tubo (DIN 2353 - cone 24º)
"G" Union



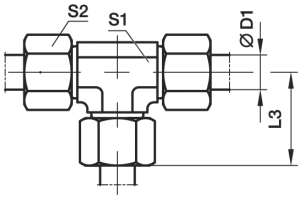
D1	L3	S1	S2	Weight g/ pc	Ermeto Art. Nº	Pressão BAR
06	39	12	14	12	G06L	500
08	40	14	17	16	G08L	500
10	42	17	19	23	G10L	500
12	43	19	22	28	G12L	400
15	46	24	27	51	G15L	400
18	48	27	32	69	G18L	400
22	52	32	36	90	G22L	250
28	54	41	41	137	G28L	250
35	63	46	50	214	G35L	250
42	66	55	60	296	G42L	250
06	45	14	17	26	G06S	800
08	47	17	19	37	G08S	800
10	49	19	22	44	G10S	800
12	51	22	24	60	G12S	630
14	57	24	27	77	G14S	630
16	57	27	30	90	G16S	630
20	66	32	36	143	G20S	420
25	74	41	46	251	G25S	420
30	80	46	50	330	G30S	420
38	90	55	60	545	G38S	420

"W" Joelho (DIN 2353 - cone 24º)
"W" Union elbow



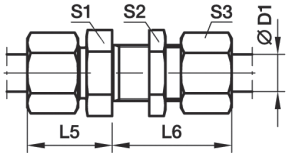
D1	D3	L3	S1	S2	Weight g/ pc	Ermeto Art. Nº	Pressão BAR
06	4,0	27	12	14	29	W06L	500
08	6,0	29	12	17	43	W08L	500
10	8,0	30	14	19	54	W10L	500
12	10,0	32	19	22	80	W12L	400
15	12,0	36	19	27	81	W15L	400
18	15,0	40	24	32	140	W18L	400
22	19,0	44	27	36	178	W22L	250
28	24,0	47	36	41	340	W28L	250
35	30,0	56	41	50	458	W35L	250
42	36,0	63	50	60	776	W42L	250
06	4,0	31	12	17	52	W06S	800
08	5,0	32	14	19	74	W08S	800
10	7,0	34	19	22	97	W10S	800
12	8,0	38	17	24	137	W12S	630
14	10,0	40	19	27	145	W14S	630
16	12,0	43	24	30	162	W16S	630
20	16,0	48	27	36	221	W20S	630
25	20,0	54	36	46	424	W25S	420
30	25,0	62	41	50	603	W30S	420
38	32,0	72	50	60	1010	W38S	420

"T" Tê (DIN 2353 - cone 24º)
"T" Union tee



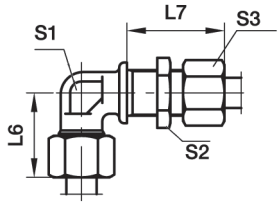
D1	D3	L3	S1	S2	Weight g/ pc	Ermeto Art. Nº	Pressão BAR
06	4,0	27	12	14	37	T06L	500
08	6,0	29	12	17	53	T08L	500
10	8,0	30	14	19	48	T10L	500
12	10,0	32	17	22	65	T12L	400
15	12,0	36	19	27	106	T15L	400
18	15,0	40	24	32	179	T18L	400
22	19,0	44	27	36	225	T22L	250
28	24,0	47	36	41	396	T28L	250
35	30,0	56	41	50	567	T35L	250
42	36,0	63	50	60	905	T42L	250
06	4,0	31	12	17	68	T06S	800
08	5,0	32	14	19	70	T08S	800
10	7,0	34	17	22	91	T10S	800
12	8,0	38	17	24	117	T12S	630
14	10,0	40	19	27	136	T14S	630
16	12,0	43	24	30	202	T16S	630
20	16,0	48	27	36	289	T20S	420
25	20,0	54	36	46	545	T25S	420
30	25,0	62	41	50	758	T30S	420
38	32,0	72	50	60	1264	T38S	420

"SV" União passagem de antepara (DIN 2353 - cone 24º)
"SV" Bulkhead Union



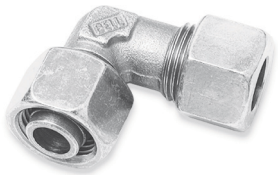
D1	D3	L5	L6	S1	S2	S3	Weight g/ pc	Ermeto Art. Nº	Pressão BAR
06	4	22	42	17	17	14	39	SV06L	500
08	6	23	42	19	19	17	50	SV08L	500
10	8	25	43	22	22	19	67	SV10L	500
12	10	25	44	24	24	22	78	SV12L	400
15	12	27	46	27	30	27	128	SV15L	400
18	15	30	49	32	36	32	198	SV18L	400
22	19	33	51	36	41	36	254	SV22L	250
28	24	35	52	41	46	41	335	SV28L	250
35	30	40	58	50	55	50	546	SV35L	250
42	36	42	59	60	65	60	758	SV42L	250
06	4	27	44	19	19	17	65	SV06S	800
08	5	28	44	22	22	19	87	SV08S	800
10	7	31	46	24	24	22	112	SV10S	800
12	8	31	47	27	27	24	141	SV12S	630
14	10	35	50	30	30	27	180	SV14S	630
16	12	35	50	32	32	30	201	SV16S	630
20	16	39	55	41	41	36	462	SV20S	420
25	20	44	59	46	46	46	492	SV25S	420
30	25	48	64	50	50	50	631	SV30S	420
38	32	53	68	65	65	60	1083	SV38S	420

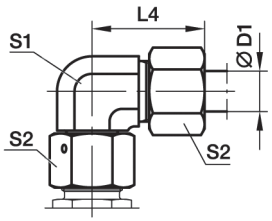
"WSV" Joelho passagem de antepara (DIN 2353 - cone 24º)
"WSV" Bulkhead Elbow



D1	D3	D4	L6	L7	S1	S2	S3	Weight g/ pc	Ermeto Art. Nº	Pressão BAR
06	4	17	27	42	12	17	14	51	WSV06L	315
08	6	19	29	42	12	19	17	61	WSV08L	315
10	8	22	30	43	14	22	19	78	WSV10L	315
12	10	24	32	44	17	24	22	85	WSV12L	315
15	12	27	36	46	19	30	27	150	WSV15L	315
18	15	32	40	49	24	36	32	238	WSV18L	315
22	19	36	44	51	27	41	36	327	WSV22L	160
28	24	42	47	52	36	46	41	482	WSV28L	160
35	30	50	56	58	41	55	50	729	WSV35L	160
42	36	60	63	59	50	65	60	1091	WSV42L	160
06	4	19	31	44	12	19	17	72	WSV06S	630
08	5	22	32	44	14	22	19	99	WSV08S	630
10	7	24	34	46	17	24	22	128	WSV10S	630
12	8	27	38	47	17	27	24	168	WSV12S	630
14	10	27	40	50	19	30	27	194	WSV14S	630
16	12	30	43	50	24	32	30	249	WSV16S	400
20	16	36	48	55	27	41	36	390	WSV20S	400
25	20	42	54	59	36	46	46	618	WSV25S	400
30	25	50	62	64	41	50	50	889	WSV30S	400
38	32	60	72	68	50	65	60	1337	WSV38S	315

"EW" Joelho com porca louca (DIN 2353 - cone 24º)
"EW" Swivel Nut Elbow





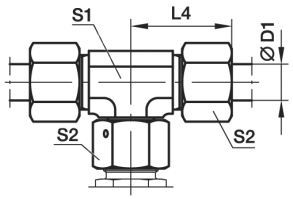
D1	L4	S1	S2	Weight g/ pc	Ermeto Art. Nº	Pressão BAR
06	27	12	14	34	EW06L	500
08	29	12	17	43	EW08L	500
10	30	14	19	58	EW10L	500
12	32	17	22	81	EW12L	400
15	36	19	27	128	EW15L	400
18	40	24	32	197	EW18L	400
22	44	27	36	258	EW22L	250
28	47	36	41	370	EW28L	250
35	56	41	50	593	EW35L	250
42	63	50	60	993	EW42L	250
06	31	12	17	48	EW06S	800
08	32	14	19	65	EW08S	800
10	34	17	22	92	EW10S	800
12	38	17	24	107	EW12S	630
14	40	19	27	146	EW14S	630
16	43	24	30	212	EW16S	630
20	48	27	36	309	EW20S	420
25	54	36	46	547	EW25S	420
30	62	41	50	744	EW30S	420
38	72	50	60	1222	EW38S	420

Acessórios "Parker-Ermeto" para tubo hidráulico ISO 8434

DIN fittings ISO 8434 (DIN 2353/ carbon steel zinc plated CR(VI) - Free

"ET" tê, com porca louca central (DIN 2353 - cone 24º)

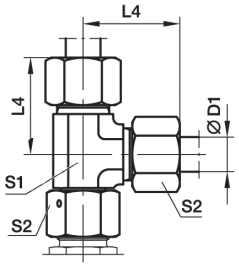
"ET" Swivel Nut Branch Tee



D1	L4	S1	S2	Weight g/ pc	Ermeto Art. Nº	Pressão BAR
06	27	12	14	42	ET06L	500
08	29	12	17	53	ET08L	500
10	30	14	19	71	ET10L	500
12	32	17	22	97	ET12L	400
15	36	19	27	159	ET15L	400
18	40	24	32	239	ET18L	400
22	44	27	36	308	ET22L	250
28	47	36	41	449	ET28L	250
35	56	41	50	679	ET35L	250
42	63	50	60	1131	ET42L	250
06	31	12	17	63	ET06S	800
08	32	14	19	79	ET08S	800
10	34	17	22	113	ET10S	800
12	38	17	24	136	ET12S	630
14	40	19	27	173	ET14S	630
16	43	24	30	239	ET16S	630
20	48	27	36	388	ET20S	420
25	54	36	46	652	ET25S	420
30	62	41	50	905	ET30S	420
38	72	50	60	1462	ET38S	420

"EL" Tê, com porca louca lateral (DIN 2353 - cone 24º)

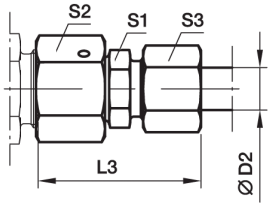
"EL" Swivel Nut Run Tee



D1	L4	S1	S2	Weight g/ pc	Ermeto Art. Nº	Pressão BAR
06	27	12	14	44	EL06L	500
08	29	12	17	53	EL08L	500
10	30	14	19	68	EL10L	500
12	32	17	22	95	EL12L	400
15	36	19	27	151	EL15L	400
18	40	24	32	233	EL18L	400
22	44	27	36	309	EL22L	250
28	47	36	41	436	EL28L	250
35	56	41	50	666	EL35L	250
42	63	50	60	1163	EL42L	250
06	31	12	17	65	EL06S	800
08	32	14	19	84	EL08S	800
10	34	17	22	118	EL10S	800
12	38	17	24	136	EL12S	630
14	40	19	27	173	EL14S	630
16	43	24	30	260	EL16S	630
20	48	27	36	375	EL20S	420
25	54	36	46	655	EL25S	420
30	62	41	50	906	EL30S	420
38	72	50	60	1472	EL38S	420

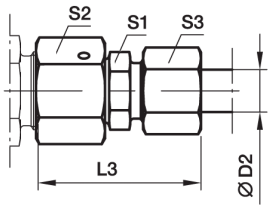
"RED" Redução (DIN 2353 - cone 24º)

Tube end Reducer, 24º cone



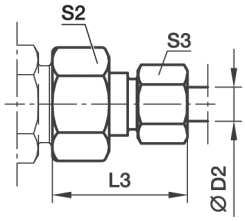
D1	D2	L3	S1	S2	S3	Weight g/ pc	Ermeto Art. Nº	Pressão BAR
06	04	34,0	9	14	10	17	RED06L/04LL	100
08	06	38,0	12	17	14	29	RED08/06L	500
10	06	40,0	14	19	14	36	RED10/06L	500
10	08	40,0	14	19	17	38	RED10/08L	500
12	06	40,0	17	22	14	49	RED12/06L	400
12	08	40,0	17	22	17	49	RED12/08L	400
12	10	41,0	17	22	19	51	RED12/10L	400
15	06	43,0	19	27	14	81	RED15/06L	400
15	08	43,0	19	27	17	85	RED15/08L	400
15	10	44,0	19	27	19	83	RED15/10L	400
15	12	44,0	19	27	22	83	RED15/12L	400
15	06	43,0	24	32	14	109	RED18/06L	400
						111	RED18/08L	400
18	08	43,0	24	32	17			
18	10	44,0	24	32	19	110	RED18/10L	400
18	12	44,0	24	32	22	110	RED18/12L	400
18	15	45,0	24	32	27	115	RED18/15L	400
18	16	49,5	27	32	30	138	RED18L/16S	400
22	06	47,0	27	36	14	158	RED22/06L	250
22	08	47,0	27	36	17	158	RED22/08L	250
22	10	48,0	27	36	19	159	RED22/10L	250
22	12	48,0	27	36	22	157	RED22/12L	250
22	15	49,0	27	36	27	164	RED22/15L	250
22	16	52,5	27	36	30	173	RED22L/16S	250
22	18	50,0	27	36	32	167	RED22/18L	250
22	20	56,0	32	36	36	203	RED22L/20S	250
28	06	49,0	32	41	14	219	RED28/06L	250
28	08	49,0	32	41	17	221	RED28/08L	250
28	10	50,0	32	41	19	213	RED28/10L	250
28	12	50,0	32	41	22	213	RED28/12L	250
28	15	51,0	32	41	27	218	RED28/15L	250
28	16	54,5	32	41	30	227	RED28L/16S	250
28	18	52,0	32	41	32	220	RED28/18L	250
28	22	54,0	32	41	36	222	RED28/22L	250
28	25	62,0	41	41	46	300	RED28L/25S	250
28	06	52,0	41	50	14	318	RED35/06L	250
35	08	52,0	41	50	17	318	RED35/08L	250
35	10	53,0	41	50	19	318	RED35/10L	250
35	12	53,0	41	50	22	324	RED35/12L	250
35	15	54,0	41	50	27	328	RED35/15L	250
35	18	55,0	41	50	32	328	RED35/18L	250
35	22	57,0	41	50	36	331	RED35/22L	250
35	25	64,0	41	50	46	366	RED35L/25S	250
35	28	57,0	41	50	41	327	RED35/28L	250
35	30	68,0	46	50	50	435	RED35L/30S	250
42	10	56,0	50	60	19	537	RED42/10L	250
42	12	56,0	50	60	22	538	RED42/12L	250
42	15	58,0	50	60	27	534	RED42/15L	250
42	18	58,0	50	60	32	544	RED42/18L	250
42	22	60,0	50	60	36	543	RED42/22L	250
42	28	61,0	50	60	41	539	RED42/28L	250
42	30	70,5	50	60	50	588	RED42L/30S	250
42	35	65,0	50	60	50	541	RED42/35L	250
42	38	76,0	55	60	60	701	RED42L/38S	250

"RED" Redução (DIN 2353 - cone 24º)
Tube end Reducer, 24º cone



D1	D2	L3	S1	S2	S3	Weight g/ pc	Ermeto Art. Nº	Pressão BAR
08	06	42	14	19	17	42	RED08/06S	800
10	06	42	17	22	17	55	RED10/06S	800
10	08	42	17	22	19	58	RED10/08S	800
12	06	44	17	24	17	66	RED12/06S	630
12	08	44	17	24	19	68	RED12/08S	630
12	10	46	19	24	22	75	RED12/10S	630
14	06	46	19	27	17	88	RED14/06S	630
14	08	46	19	27	19	90	RED14/08S	630
14	10	47	19	27	22	91	RED14/10S	630
14	12	47	22	27	24	100	RED14/12S	630
16	06	47	22	30	17	112	RED16/06S	630
16	08	47	22	30	19	114	RED16/08S	630
16	10	48	22	30	22	115	RED16/10S	630
16	12	48	22	30	24	118	RED16/12S	630
16	14	51	24	30	27	128	RED16/14S	630
16	15	47	24	30	27	120	RED16S/15L	400
20	06	51	27	36	17	172	RED20/06S	420
20	08	51	27	36	19	174	RED20/08S	420
20	10	52	27	36	22	174	RED20/10S	420
20	12	52	27	36	24	177	RED20/12S	420
20	14	55	27	36	27	182	RED20/14S	420
20	15	51	27	36	27	173	RED20S/15L	400
20	16	55	27	36	30	182	RED20/16S	420
20	18	51	27	36	32	178	RED20S/18L	400
25	06	53	32	46	17	294	RED25/06S	420
25	08	53	32	46	19	295	RED25/08S	420
25	10	54	32	46	22	296	RED25/10S	420
25	12	54	32	46	24	299	RED25/12S	420
25	14	57	32	46	27	303	RED25/14S	420
25	16	57	32	46	30	304	RED25/16S	420
25	18	54	32	46	32	299	RED25S/18L	400
25	20	61	32	46	36	315	RED25/20S	420
25	22	56	32	46	36	304	RED25S/22L	250
30	06	59	41	50	17	412	RED30/06S	420
30	08	59	41	50	19	404	RED30/08S	420
30	10	60	41	50	22	405	RED30/10S	420
30	12	60	41	50	24	405	RED30/12S	420
30	14	63	41	50	27	408	RED30/14S	420
30	16	63	41	50	30	412	RED30/16S	420
30	20	66	41	50	36	421	RED30/20S	420
30	22	61	41	50	36	406	RED30S/22L	250
30	25	69	41	50	46	439	RED30/25S	420
30	28	62	41	50	41	406	RED30S/28L	250
38	06	62	50	60	17	556	RED38/06S	420
38	08	62	50	60	19	581	RED38/08S	420
38	10	63	50	60	22	579	RED38/10S	420
38	12	63	50	60	24	577	RED38/12S	420
38	14	66	50	60	27	579	RED38/14S	420
38	16	66	50	60	30	580	RED38/16S	420
38	20	70	50	60	36	601	RED38/20S	420
38	25	73	50	60	46	615	RED38/25S	420
38	28	65	50	60	41	573	RED38S/28L	250
38	30	76	50	60	50	625	RED38/30S	420
38	35	69	50	60	50	588	RED38S/35L	250

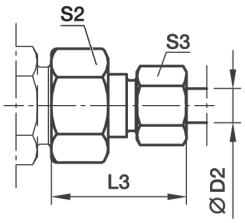
"KOR" Redução "L" (DIN 2353 - cone 24º)
Tube end Reducer "L"



D1	D2	L3	S2	S3	Weight g/ pc	Ermeto Art. Nº	Pressão BAR
08	06	38	17	14	27	KOR08/06L	100
10	06	38	19	14	34	KOR10/06L	100
10	08	38	19	17	35	KOR10/08L	100
12	06	38	22	14	45	KOR12/06L	100
12	08	38	22	17	45	KOR12/08L	100
12	10	39	22	19	46	KOR12/10L	315
15	06	38	27	14	68	KOR15/06L	100
15	08	38	27	17	69	KOR15/08L	315
15	10	39	27	19	70	KOR15/10L	315
15	12	39	27	22	70	KOR15/12L	100
18	06	39	32	14	100	KOR18/06L	315
18	08	39	32	17	102	KOR18/08L	315
18	10	40	32	19	102	KOR18/10L	315
18	12	40	32	22	101	KOR18/12L	315
18	15	42	32	27	106	KOR18/15L	315
22	06	40	36	14	137	KOR22/06L	315
22	08	40	36	17	136	KOR22/08L	315
22	10	41	36	19	138	KOR22/10L	315
22	12	41	36	22	138	KOR22/12L	315
22	15	43	36	27	143	KOR22/15L	315
22	18	43	36	32	143	KOR22/18L	315
28	06	41	41	14	177	KOR28/06L	315
28	08	41	41	17	179	KOR28/08L	160
28	10	42	41	19	180	KOR28/10L	160
28	12	42	41	22	180	KOR28/12L	160
28	15	44	41	27	185	KOR28/15L	160
28	18	44	41	32	184	KOR28/18L	160
28	22	46	41	36	188	KOR28/22L	160
35	06	46	50	14	302	KOR35/06L	160
35	08	46	50	17	306	KOR35/08L	160
35	10	47	50	19	305	KOR35/10L	160
35	12	47	50	22	304	KOR35/12L	160
35	15	49	50	27	308	KOR35/15L	160
35	18	49	50	32	316	KOR35/18L	160
35	22	51	50	36	310	KOR35/22L	160
35	28	52	50	41	305	KOR35/28L	160
42	10	48	60	19	455	KOR42/10L	160
42	12	48	60	22	438	KOR42/12L	160
42	15	50	60	27	438	KOR42/15L	160
42	18	50	60	32	449	KOR42/18L	160
42	22	52	60	36	461	KOR42/22L	160
42	28	53	60	41	443	KOR42/28L	160
42	35	57	60	50	444	KOR42/35L	160

"KOR" Redução "S" (DIN 2353 - cone 24º)

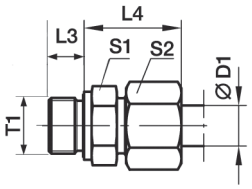
Tube end Reducer, "S"



D1	D2	L3	S2	S3	Weight g/ pc	Ermeto Art. Nº	Pressão BAR
08	06	40	19	17	37	KOR08/06S	630
10	06	41	22	17	53	KOR10/06S	630
10	08	41	22	19	55	KOR10/08S	630
12	06	42	24	17	61	KOR12/06S	630
12	08	42	24	19	63	KOR12/08S	630
12	10	43	24	22	64	KOR12/10S	630
14	06	44	27	17	88	KOR14/06S	630
14	08	44	27	19	89	KOR14/08S	630
14	10	45	27	22	91	KOR14/10S	630
14	12	45	27	24	92	KOR14/12S	630
16	06	44	30	17	106	KOR16/06S	400
16	08	44	30	19	108	KOR16/08S	400
16	10	45	30	22	114	KOR16/10S	400
16	12	45	30	24	115	KOR16/12S	400
16	14	48	30	27	116	KOR16/14S	400
20	06	49	36	17	175	KOR20/06S	400
20	08	49	36	19	177	KOR20/08S	400
20	10	50	36	22	178	KOR20/10S	400
20	12	50	36	24	180	KOR20/12S	400
20	14	51	36	27	180	KOR20/14S	400
20	16	53	36	30	182	KOR20/16S	400
25	06	52	46	17	306	KOR25/06S	400
25	08	52	46	19	311	KOR25/08S	400
25	10	53	46	22	313	KOR25/10S	400
25	12	53	46	24	317	KOR25/12S	400
25	14	55	46	27	312	KOR25/14S	400
25	16	55	46	30	315	KOR25/16S	400
25	20	59	46	36	328	KOR25/20S	400
30	06	54	50	17	373	KOR30/06S	400
30	08	54	50	19	376	KOR30/08S	400
30	10	55	50	22	376	KOR30/10S	400
30	12	55	50	24	377	KOR30/12S	400
30	14	58	50	27	379	KOR30/14S	400
30	16	58	50	30	381	KOR30/16S	400
30	20	61	50	36	386	KOR30/20S	400
30	25	64	50	46	406	KOR30/25S	400
38	06	58	60	17	571	KOR38/06S	315
38	08	58	60	19	567	KOR38/08S	315
38	10	59	60	22	571	KOR38/10S	315
38	12	59	60	24	571	KOR38/12S	315

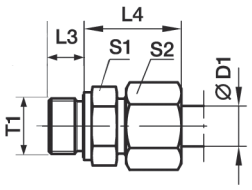
"GE-R-ED" Ligador rosca/tubo com anilha vedação ED (DIN 2353 - cone 24º)

Male BSPP thread - ED - Seal (ISO 1179) coupling



D1	T1	L3	L4	S1	S2	Weight g/ pc	Ermeto Art. Nº	Pressão BAR
06	G1/8A	8,0	23	14	14	13	GE06LRED	500
06	G1/4A	12,0	25	19	14	28	GE06LR1/4ED	500
06	G3/8A	12,0	26	22	14	44	GE06LR3/8ED	420
06	G1/2A	14,0	27	27	14	61	GE06LR1/2ED	400
08	G1/4A	12,0	25	19	17	27	GE08LRED	500
08	G1/8A	8,0	24	14	17	16	GE08LR1/8ED	500
08	G3/8A	12,0	26	22	17	45	GE08LR3/8ED	420
08	G1/2A	14,0	27	27	17	74	GE08LR1/2ED	400
10	G1/4A	12,0	26	19	19	29	GE10LRED	500
10	G1/8A	8,0	25	17	19	21	GE10LR1/8ED	500
10	G3/8A	12,0	27	22	19	43	GE10LR3/8ED	420
10	G1/2A	14,0	28	27	19	71	GE10LR1/2ED	400
12	G3/8A	12,0	27	22	22	41	GE12LRED	420
12	G1/8A	8,0	26	19	22	26	GE12LR1/8ED	420
12	G1/4A	12,0	27	19	22	31	GE12LR1/4ED	400
12	G1/2A	14,0	28	27	22	67	GE12LR1/2ED	400
12	G3/4A	16,0	29	32	22	118	GE12LR3/4ED	250
15	G1/2A	14,0	29	27	27	72	GE15LRED	400
15	G3/8A	12,0	29	24	27	54	GE15LR3/8ED	400
15	G3/4A	16,0	30	32	27	116	GE15LR3/4ED	250
18	G1/2A	14,0	31	27	32	71	GE18LRED	400
18	G3/8A	12,0	30	27	32	66	GE18LR3/8ED	400
18	G3/4A	16,0	31	32	32	110	GE18LR3/4ED	250
22	G3/4A	16,0	33	32	36	102	GE22LRED	250
22	G1/2A	14,0	33	32	36	91	GE22LR1/2ED	250
22	G1A	18,0	34	41	36	189	GE22LR1ED	250
28	G1A	18,0	34	41	41	170	GE28LRED	250
28	G3/4A	16,0	34	41	41	159	GE28LR3/4ED	250
28	G11/4A	20,0	35	50	41	316	GE28LR11/4ED	250
35	G11/4A	20,0	39	50	50	272	GE35LRED	250
35	G1A	18,0	39	46	50	226	GE35LR1ED	250
35	G11/2A	22,0	41	55	50	423	GE35LR11/2ED	250
42	G11/2A	22,0	42	55	60	343	GE42LRED	250
42	G1A	18,0	42	55	60	324	GE42LR1ED	250
42	G11/4A	20,0	42	55	60	348	GE42LR11/4ED	250

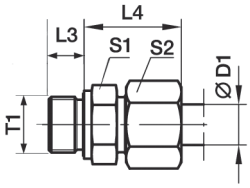
"GE-R-ED" Ligador rosca/tubo com anilha vedação ED (DIN 2353 - cone 24º)
Male BSPP thread - ED - seal (ISO 1179) coupling



D1	T1	L3	L4	S1	S2	Weight g/ pc	Ermeto Art. Nº	Pressão BAR
06	G1/4A	12	28	19	17	35	GE06SRED	800
06	G1/8A	8	27	14	17	21	GE06SR1/8ED	500
06	G3/8A	12	30	22	17	52	GE06SR3/8ED	630
06	G1/2A	14	33	27	17	83	GE06SR1/2ED	630
08	G1/4A	12	30	19	19	41	GE08SRED	800
08	G3/8A	12	30	22	19	57	GE08SR3/8ED	800
08	G1/2A	14	33	27	19	89	GE08SR1/2ED	630
10	G3/8A	12	31	22	22	55	GE10SRED	800
10	G1/4A	12	31	19	22	42	GE10SR1/4ED	800
10	G1/2A	14	34	27	22	97	GE10SR1/2ED	630
12	G3/8A	12	33	22	24	62	GE12SRED	630
12	G1/4A	12	33	22	24	61	GE12SR1/4ED	630
12	G1/2A	14	34	27	24	99	GE12SR1/2ED	630
14	G1/2A	14	37	27	27	96	GE14SRED	630
14	G3/8A	12	36	24	27	74	GE14SR3/8ED	630
14	G3/4A	16	39	32	27	138	GE14SR3/4ED	420
16	G1/2A	14	37	27	30	91	GE16SRED	630
16	G3/8A	12	36	27	30	83	GE16SR3/8ED	630
16	G3/4A	16	39	32	30	152	GE16SR3/4ED	420
20	G3/4A	16	42	32	36	149	GE20SRED	420
20	G1/2A	14	42	32	36	142	GE20SR1/2ED	420
20	G1A	18	44	41	36	265	GE20SR1ED	420
20	G11/4A	20	44	50	36	404	GE20SR11/4ED	420
25	G1A	18	47	41	46	266	GE25SRED	420
25	G1/2A	14	47	41	46	228	GE25SR1/2ED	420
25	G3/4A	16	47	41	46	255	GE25SR3/4ED	420
25	G11/4A	20	47	50	46	411	GE25SR11/4ED	420
25	G11/2A	22	50	55	46	549	GE25SR11/2ED	315
30	G11/4A	20	50	50	50	418	GE30SRED	420
30	G1A	18	50	46	50	344	GE30SR1ED	420
30	G11/2A	22	53	55	50	530	GE30SR11/2ED	315
38	G11/2A	22	57	55	60	563	GE38SRED	420
38	G11/4A	20	57	55	60	575	GE38SR11/4ED	420

"GE-R" Ligador rosca/tubo (DIN 2353 - cone 24º)

Male BSPP thread - coupling metal sealing edge (ISO 1179)



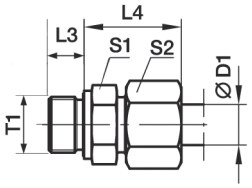
D1	T	D3	D4	L3	L4	S1	S2	Weight g/ pc	Ermeto Art. Nº	Pressão BAR
06	G1/8A	4	14	8	23,0	14	14	14	GE06LR	315
06	G1/4A	4	18	12	25,0	19	14	60	GE06LR1/4	315
06	G3/8A	4	22	12	26,0	22	14	45	GE06LR3/8	315
06	G1/2A	4	26	14	27,0	27	14	60	GE06LR1/2	315
08	G1/4A	6	18	12	25,0	19	17	26	GE08LR	315
08	G1/8A	4	14	8	23,0	14	17	16	GE08LR1/8	315
08	G3/8A	6	22	12	26,0	22	17	44	GE08LR3/8	315
08	G1/2A	6	26	14	27,0	27	17	74	GE08LR1/2	315
10	G1/4A	6	18	12	26,0	19	19	31	GE10LR	315
10	G1/8A	4	14	8	25,0	17	19	21	GE10LR1/8	315
10	G3/8A	8	22	12	27,0	22	19	44	GE10LR3/8	315
10	G1/2A	8	26	14	28,0	27	19	72	GE10LR1/2	315
12	G3/8A	9	22	12	27,0	22	22	43	GE12LR	315
12	G1/8A	4	14	8	26,0	19	22	27	GE12LR1/8	315
12	G1/4A	6	18	12	27,0	19	22	32	GE12LR1/4	315
12	G1/2A	10	26	14	28,0	27	22	67	GE12LR1/2	315
12	G3/4A	10	32	16	29,0	32	22	120	GE12LR3/4	315
15	G1/2A	11	26	14	29,0	27	27	72	GE15LR	250
15	G3/8A	9	22	12	29,0	24	27	56	GE15LR3/8	250
15	G3/4A	12	32	16	30,0	32	27	118	GE15LR3/4	250
18	G1/2A	14	26	14	31,0	27	32	72	GE18LR	250
18	G3/8A	9	22	12	29,5	27	32	69	GE18LR3/8	250
18	G3/4A	15	32	16	30,0	32	32	112	GE18LR3/4	250
22	G3/4A	18	32	16	33,0	32	36	103	GE22LR	160
22	G1/2A	14	26	14	33,0	32	36	91	GE22LR1/2	160
22	G1A	19	39	18	33,5	41	36	184	GE22LR1	160
28	G1A	23	39	18	34,0	41	41	168	GE28LR	160
28	G1/2A	14	26	14	34,0	41	41	141	GE28LR1/2	160
28	G3/4A	18	32	16	34,0	41	41	156	GE28LR3/4	160
28	G11/4A	24	50	20	35,0	50	41	314	GE28LR11/4	160
35	G11/4A	30	49	20	39,0	50	50	276	GE35LR	160
35	G1/2A	14	26	14	39,0	46	50	194	GE35LR1/2	160
35	G3/4A	18	32	16	39,0	46	50	202	GE35LR3/4	160
35	G1A	23	39	18	39,0	46	50	234	GE35LR1	160
35	G11/2A	30	55	22	41,0	55	50	355	GE35LR11/2	160
42	G11/2A	36	55	22	42,0	55	60	349	GE42LR	160
42	G1A	23	39	18	42,0	55	60	327	GE42LR1	160
42	G11/4A	30	49	20	42,0	55	60	336	GE42LR11/4	160

Acessórios "Parker-Ermeto" para tubo hidráulico ISO 8434

DIN fittings ISO 8434 (DIN 2353/ carbon steel zinc plated CR(VI) - Free

"GE-R" Ligador rosca/tubo com vedação metalica (DIN 2353 - cone 24º)

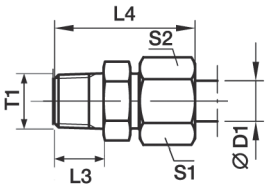
Male BSPP thread - coupling metal sealing edge (ISO 1179)



D1	T	L3	L4	S1	S2	Weight g/ pc	Ermeto Art. Nº	Pressão BAR
06	G1/4A	12	28	19	17	35	GE06SR	400
06	G1/8A	8	27	14	17	22	GE06SR1/8	400
06	G3/8A	12	30	22	17	57	GE06SR3/8	400
06	G1/2A	14	33	27	17	83	GE06SR1/2	400
08	G1/4A	12	30	19	19	41	GE08SR	400
08	G3/8A	12	30	22	19	59	GE08SR3/8	400
08	G1/2A	14	33	27	19	100	GE08SR1/2	400
10	G3/8A	12	31	22	22	56	GE10SR	400
10	G1/4A	12	31	19	22	43	GE10SR1/4	400
10	G1/2A	14	34	27	22	97	GE10SR1/2	400
12	G3/8A	12	33	22	24	62	GE12SR	400
12	G1/4A	12	33	22	24	57	GE12SR1/4	400
12	G1/2A	14	34	27	24	57	GE12SR1/2	400
14	G1/2A	14	37	27	27	96	GE14SR	400
14	G3/8A	12	36	24	27	74	GE14SR3/8	400
16	G1/2A	14	37	27	30	92	GE16SR	400
16	G3/8A	12	36	27	30	83	GE16SR3/8	400
16	G3/4A	16	39	32	30	157	GE16SR3/4	400
20	G3/4A	16	42	32	36	151	GE20SR	400
20	G1/2A	14	42	32	36	142	GE20SR1/2	400
20	G1A	18	44	41	36	273	GE20SR1	250
20	G11/4A	20	44	50	36	387	GE20SR11/4	160
25	G1A	18	47	41	46	267	GE25SR	250
25	G3/4A	16	47	41	46	245	GE25SR3/4	250
25	G11/4A	20	47	50	46	422	GE25SR11/4	160
30	G11/4A	20	50	50	50	422	GE30SR	160
30	G1A	18	50	46	50	337	GE30SR1	160
38	G11/2A	22	57	55	60	560	GE38SR	160
38	G11/4A	20	57	55	60	578	GE38SR11/4	160

"GE-NPT" Ligador rosca/tubo com anilha vedação ED (DIN 2353 - cone 24º)

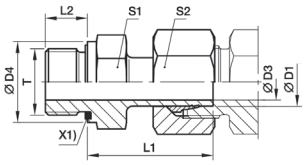
Male NPT thread (SAE J476) coupling



D1	T1	L3	L4	S1	S2	Weight g/ pc	Ermeto Art. Nº	Pressão BAR
04	1/8-27 NPT	10,0	28	11	10	9	GE04LL1/8NPT	100
08	1/8-27 NPT	10,0	30	12	14	11	GE08LL1/8NPT	100
06	1/8-27 NPT	10,0	32	12	14	12	GE06L1/8NPT	315
06	1/4-18 NPT	14,5	38	17	14	27	GE06L1/4NPT	315
06	3/8-18 NPT	14,5	38	19	14	32	GE06L3/8NPT	315
06	1/2-14 NPT	19,5	44	22	14	53	GE06L1/2NPT	315
08	1/8-27 NPT	10,0	33	14	17	16	GE08L1/8NPT	315
08	1/4-18 NPT	14,5	38	17	17	25	GE08L1/4NPT	315
08	3/8-18 NPT	14,5	38	19	17	34	GE08L3/8NPT	315
08	1/2-14 NPT	19,5	44	22	17	54	GE08L1/2NPT	315
10	1/8-27 NPT	10,0	33	17	19	19	GE10L1/8NPT	315
10	1/4-18 NPT	14,5	39	17	19	25	GE10L1/4NPT	315
10	3/8-18 NPT	14,5	40	19	19	40	GE10L3/8NPT	315
10	1/2-14 NPT	19,5	45	22	19	54	GE10L1/2NPT	315
10	3/4-14 NPT	19,5	46	30	19	93	GE10L3/4NPT	315
12	1/8-27 NPT	10,0	34	19	22	52	GE12L1/8NPT	315
12	1/4-18 NPT	14,5	40	19	22	31	GE12L1/4NPT	315
12	3/8-18 NPT	14,5	40	19	22	37	GE12L3/8NPT	315
12	1/2-14 NPT	19,5	45	22	22	62	GE12L1/2NPT	315
15	3/8-18 NPT	14,5	41	24	27	53	GE15L3/8NPT	315
15	1/2-14 NPT	19,5	46	24	27	63	GE15L1/2NPT	315
15	3/4-14 NPT	19,5	47	30	27	112	GE15L3/4NPT	315
15	1-11 1/2NPT	24,5	53	36	27	158	GE15L1NPT	315
18	3/8-18 NPT	14,5	43	27	32	69	GE18L3/8NPT	315
18	1/2-14 NPT	19,5	48	27	32	79	GE18L1/2NPT	315
18	3/4-14 NPT	19,5	48	30	32	104	GE18L3/4NPT	315
18	1-11 1/2NPT	24,5	54	36	32	159	GE18L1NPT	315
22	3/8-18 NPT	14,5	45	32	36	91	GE22L3/8NPT	160
22	1/2-14 NPT	19,5	50	32	36	96	GE22L1/2NPT	160
22	3/4-14 NPT	19,5	50	32	36	108	GE22L3/4NPT	160
22	1-11 1/2NPT	24,5	56	36	36	174	GE22L1NPT	160
28	3/4-14 NPT	19,5	51	41	41	157	GE28L3/4NPT	160
28	1-11 1/2NPT	24,5	56	41	41	197	GE28L1NPT	160
28	11/4-11 1/2NPT	25,0	58	46	41	266	GE28L11/4NPT	160
35	1-11 1/2NPT	24,5	61	46	50	280	GE35L1NPT	160
35	11/4-11 1/2NPT	25,0	62	46	50	285	GE35L11/4NPT	160
42	11/4-11 1/2NPT	25,0	65	55	60	382	GE42L11/4NPT	160
42	11/2-11 1/2NPT	26,0	65	55	60	377	GE42L11/2NPT	160

"EVGE-R-ED" orientável (DIN 2353 - cone 24º)

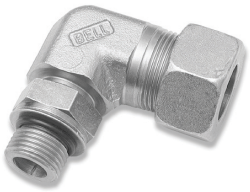
Male BSPP thread - ED-seal (ISO 1179) standpipe ajustable - coupling

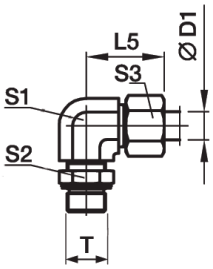


D1	T	D3	D4	L1	L2	S1	S2	Weight g/ pc	Ermeto Art. Nº	Pressão BAR
06	G1/8A	3,5	14	24,5	8	14	14	24	EVGE06LRED	315
08	G1/4A	4,5	19	29,5	12	19	17	52	EVGE08LRED	315
10	G1/4A	7,0	19	27,5	12	19	19	47	EVGE10LRED	315
12	G3/8A	7,5	22	34,0	12	22	22	87	EVGE12LRED	315
12	G1/4A	7,0	19	28,5	12	19	22	61	EVGE12LR1/4ED	315
12	G1/2A	7,5	27	34,5	14	27	22	121	EVGE12LR1/2ED	315
15	G1/2A	11,0	27	31,0	14	27	27	114	EVGE15LRED	315
18	G1/2A	14,0	27	31,5	14	27	32	132	EVGE18LRED	315
22	G3/4A	18,0	32	32,5	16	32	36	183	EVGE22LRED	160
28	G1A	23,0	40	35,0	18	41	41	262	EVGE28LRED	160
35	G11/4A	29,5	50	42,5	20	50	50	436	EVGE35LRED	160
42	G11/2A	35,5	55	46,5	22	55	60	615	EVGE42LRED	160
06	G1/4A	3,5	19	27,0	12	19	17	48	EVGE06SRED	630
08	G1/4A	4,5	19	29,5	12	19	19	57	EVGE08SRED	630
10	G3/8A	6,5	22	32,0	12	22	22	84	EVGE10SRED	630
12	G3/8A	7,5	22	34,0	12	22	24	95	EVGE12SRED	630
12	G1/2A	7,5	27	34,5	14	27	24	130	EVGE12SR1/2ED	630
14	G1/2A	9,5	27	36,5	14	27	27	149	EVGE14SRED	630
16	G1/2A	11,5	27	37,0	14	27	30	158	EVGE16SRED	400
16	G3/4A	11,5	32	39,0	16	32	30	222	EVGE16SR3/4ED	400
20	G3/4A	15,5	32	43,0	16	32	36	254	EVGE20SRED	400
25	G1A	18,0	40	48,0	18	41	46	485	EVGE25SRED	400
30	G11/4A	23,5	50	51,0	20	50	50	661	EVGE30SRED	400
38	G11/2A	29,0	55	60,0	22	55	60	962	EVGE38SRED	315

"WEE-R" Joelho ajustável com porca de aperto (DIN 2353 - cone 24º)

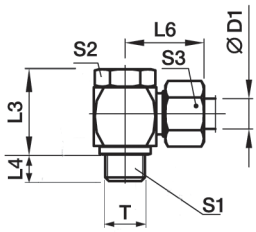
Elbow WEE-R adjustable locknut elbow, BSPP thread - Oring + retaming ring





D1	T	L4	L5	S1	S2	S3	Weight g/ pc	Ermeto Art. Nº	Pressão BAR
04	G1/8A	7,1	21	11	14	10	27	WEE04LLR	250
06	G1/8A	7,1	21	11	14	12	27	WEE06LLR	250
06	G1/8A	7,0	29	14	14	14	40	WEE06LR	315
08	G1/4A	9,0	31	14	19	17	59	WEE08LR	315
10	G1/4A	9,0	32	19	19	19	82	WEE10LR	315
12	G3/8A	9,0	34	19	22	22	96	WEE12LR	250
15	G1/2A	13,0	36	22	27	27	149	WEE15LR	250
18	G1/2A	13,0	40	27	27	32	221	WEE18LR	250
22	G3/4A	13,0	44	30	36	36	310	WEE22LR	160
28	G1A	15,0	47	36	41	41	455	WEE28LR	160
35	G11/4A	15,0	59	50	50	50	1043	WEE35LR	160
42	G11/2A	15,0	61	50	55	60	994	WEE42LR	160
06	G1/4A	9,0	30	14	19	17	56	WEE06SR	315
08	G1/4A	9,0	32	19	19	19	88	WEE08SR	315
10	G3/8A	9,0	34	19	22	22	98	WEE10SR	250
12	G3/8A	9,0	38	22	22	24	128	WEE12SR	250
16	G1/2A	13,0	43	27	27	30	234	WEE16SR	250
20	G3/4A	12,0	49	30	36	36	344	WEE20SR	250
25	G1A	14,0	54	36	41	46	533	WEE25SR	250
30	G11/4A	15,0	62	50	50	50	1085	WEE30SR	160
38	G11/2A	15,0	65	50	55	60	1116	WEE38SR	160

"WH-R" Joelho, alta pressão (DIN 2353 - cone 24º)
"WH-R High pressure banjo elbow, male BSPP 1/1 thread with metal seal



D1	T	L4	L5	L6	S1	S2	S3	Weight g/ pc	Ermeto Art. Nº	Pressão BAR
06	G1/8A	8	24	27	17	17	14	53	WH06LR	250
08	G1/4A	12	30	29	22	19	17	101	WH08LR	250
10	G1/4A	12	30	30	22	19	19	102	WH10LR	250
12	G3/8A	12	36	33	27	24	22	181	WH12LR	250
15	G1/2A	14	45	37	32	30	27	311	WH15LR	250
18	G1/2A	14	45	37	32	30	32	319	WH18LR	250
22	G3/4A	16	53	44	41	36	36	577	WH22LR	160
28	G1A	18	66	49	50	46	41	1034	WH28LR	160
35	G11/4A	20	76	58	60	55	50	1500	WH35LR	160
42	G11/2A	22	87	63	70	60	60	2195	WH42LR	160
06	G1/4A	12	30	31	22	19	17	107	WH06SR	315
08	G1/4A	12	30	31	22	19	19	107	WH08SR	315
10	G3/8A	12	36	35	27	24	22	188	WH10SR	315
12	G3/8A	12	36	35	27	24	24	190	WH12SR	315
14	G1/2A	14	45	40	32	30	27	320	WH14SR	315
16	G1/2A	14	45	40	32	30	30	317	WH16SR	315
20	G3/4A	16	53	48	41	36	36	587	WH20SR	160
25	G1A	18	66	56	50	46	46	1072	WH25SR	160
30	G11/4A	20	76	64	60	55	50	1560	WH30SR	160
38	G11/2A	22	87	72	70	60	60	2295	WH38SR	160

Tubo mecânico EN10294-1 E470 MECA PLUS 470
Hollow bars

Dimensões do fornecimento			Dimensões garantidas após maquinação ▲				
			Aperto exterior			Aperto interior	
Ø ext. mm	Espessura mm	Peso médio kg/m	Ø ext. mm	Ø int. mm	Espessura mm	Ø ext. mm	Ø int. mm
31,8	9,8	5,33	30,0	15,0	7,5	29,5	14,2
	7,1	4,33	30,0	20,0	5,0	29,8	19,4
36,5	9,7	6,40	35,0	20,0	7,5	34,2	19,2
	7,0	5,07	35,0	25,0	5,0	34,5	24,4
41,3	12,3	8,79	40,0	20,0	10,0	38,8	19,0
	9,6	7,49	40,0	25,0	7,5	39,0	24,2
	6,9	5,82	40,0	30,0	5,0	39,3	29,4
46,3	9,6	8,67	45,0	30,0	7,5	44,0	29,2
	6,9	6,70	45,0	35,0	5,0	44,3	34,4
51,3	12,3	11,82	50,0	30,0	10,0	48,8	29,0
	9,6	9,85	50,0	35,0	7,5	49,0	34,2
57,1	15,5	15,93	55,0	30,0	12,5	54,2	28,6
	12,7	13,92	55,0	35,0	10,0	54,5	34,0
	10,0	11,62	55,0	40,0	7,5	54,8	39,2
61,3	15,1	17,21	60,0	35,0	12,5	58,5	33,6
	12,3	14,85	60,0	40,0	10,0	58,8	39,0
	9,6	12,21	60,0	45,0	7,5	59,0	44,2
66,5	17,8	21,40	65,0	35,0	15,0	63,4	33,6
	15,1	19,15	65,0	40,0	12,5	63,7	38,8
	12,4	16,54	65,0	45,0	10,0	63,9	44,0
	9,7	13,56	65,0	50,0	7,5	64,2	49,2
71,3	17,8	23,51	70,0	40,0	15,0	68,2	38,4
	15,1	20,94	70,0	45,0	12,5	68,5	43,6
	12,3	17,88	70,0	50,0	10,0	68,8	49,0
	9,6	14,57	70,0	55,0	7,5	69,0	54,2
76,3	17,8	25,71	75,0	45,0	15,0	73,2	43,4
	15,1	22,80	75,0	50,0	12,5	73,5	48,6
	9,6	15,75	75,0	60,0	7,5	74,0	59,2
81,5	22,3	32,52	80,0	40,0	20,0	77,8	40,1
	19,6	29,95	80,0	45,0	17,5	78,0	45,1
	17,2	27,25	80,0	50,0	15,0	78,3	49,8
	14,5	23,98	80,0	55,0	12,5	78,5	54,9
	11,9	20,37	80,0	60,0	10,0	78,8	60,0
*85,0	12,0	22,9	84,5	63,8	10,3	82,7	62,9
86,5	22,3	35,27	85,0	45,0	20,0	82,8	45,1
	19,6	32,37	85,0	50,0	17,5	83,0	50,1
	17,2	29,37	85,0	55,0	15,0	83,3	54,8
	14,5	25,78	85,0	60,0	12,5	83,5	59,9
91,5	27,5	43,43	90,0	40,0	25,0	87,2	39,9
	24,9	40,89	90,0	45,0	22,5	87,5	45,0
	22,3	38,01	90,0	50,0	20,0	87,8	50,1
	19,8	35,06	90,0	55,0	17,5	88,0	54,7
	17,2	31,49	90,0	60,0	15,0	88,3	59,8
	14,5	27,57	90,0	65,0	12,5	88,5	64,9
	11,9	23,29	90,0	70,0	10,0	88,8	70,0
	9,4	19,03	90,0	74,0	7,5	89,1	74,8
*95,0	19,5	37,9	94,3	59,0	17,65	92,0	58,0
96,5	27,5	46,82	95,0	45,0	25,0	92,2	44,9
	24,9	43,96	95,0	50,0	22,5	92,5	50,0
	22,3	40,76	95,0	55,0	20,0	22,8	55,1
	19,6	37,21	95,0	60,0	17,5	93,0	60,1
	17,2	33,61	95,0	65,0	15,0	93,3	64,8
	14,5	29,36	95,0	70,0	12,5	93,5	69,9
	11,9	24,76	95,0	75,0	10,0	93,8	75,0
*100	14,5	33,3	99,9	73,7	13,1	96,8	72,7
101,6	30,2	53,12	100,0	45,0	27,5	97,0	44,9
	27,6	50,28	100,0	50,0	25,0	97,2	50,0
	24,9	47,1	100,0	55,0	22,5	97,5	55,1
	22,3	43,57	100,0	60,0	20,0	97,7	60,1
	19,7	39,70	100,0	65,0	17,5	98,0	65,2
	14,5	31,21	100,0	75,0	12,5	98,5	75,0
	11,9	26,29	100,0	80,0	10,0	98,8	80,1
*106,0	25,0	51,7	105,0	60,0	22,7	103,0	58,3
106,6	30,2	56,84	105,0	50,0	27,5	102,0	49,9
	27,6	53,67	105,0	55,0	25,0	102,2	55,0
	24,9	50,17	105,0	60,0	22,5	102,5	60,1
	22,3	46,31	105,0	65,0	20,0	102,7	65,1
	19,7	42,12	105,0	70,0	17,5	103,0	70,2
	14,5	33,01	105,0	80,0	12,5	103,5	80,0
	11,9	27,75	105,0	85,0	10,0	103,8	85,1

Tubo mecânico EN10294-1 E470 MECA PLUS 470 (continuação)
Hollow bars

Dimensões do fornecimento			Dimensões garantidas após maquinação ▲				
			Aperto exterior			Aperto interior	
Ø ext. mm	Espessura mm	Peso médio kg/m	Ø ext. mm	Ø int. mm	Espessura mm	Ø ext. mm	Ø int. mm
111,6	27,6	57,14	110,0	60,0	25,0	107,2	60,0
	22,3	49,13	110,0	70,0	20,0	107,7	70,2
	17,2	40,10	110,0	80,0	15,0	108,3	79,9
	11,9	29,29	110,0	90,0	10,0	108,8	90,1
116,6	27,6	60,54	115,0	65,0	25,0	112,2	65,0
	22,3	51,89	115,0	75,0	20,0	112,7	75,2
	19,9	47,44	115,0	80,0	17,5	113,0	79,8
	17,2	42,23	115,0	85,0	15,0	113,3	84,9
	14,6	36,67	115,0	90,0	12,5	113,5	90,0
	11,9	30,73	115,0	95,0	10,0	113,8	95,1
121,7	27,6	64,02	120,0	70,0	25,0	117,2	70,1
	25,0	59,54	120,0	75,0	22,5	117,5	75,2
	22,3	54,71	120,0	80,0	20,0	117,7	80,2
	17,3	44,43	120,0	90,0	15,0	118,3	90,0
	14,6	38,54	120,0	95,0	12,5	118,5	95,1
*125	15,0	43,8	124,3	97,9	13,2	122,3	96,9
	17,5	49,4	124,3	92,9	15,7	122,3	91,9
126,7	30,2	71,89	125,0	70,0	27,5	121,9	70,0
	27,6	67,42	125,0	75,0	25,0	122,2	75,1
	25,0	62,62	125,0	80,0	22,5	122,5	80,2
	19,7	51,98	125,0	90,0	17,5	123,0	90,3
	14,6	40,34	125,0	100,0	12,5	123,5	100,1
131,7	30,3	75,70	130,0	75,0	27,5	126,9	75,1
	27,6	70,91	130,0	80,0	25,0	127,2	80,1
	19,9	54,97	130,0	95,0	17,5	128,0	94,9
	17,3	48,77	130,0	100,0	15,0	128,3	100,0
	12,0	35,34	130,0	110,0	10,0	128,8	110,2
141,8	35,6	93,11	140,0	75,0	32,5	136,4	75,0
	30,3	83,25	140,0	85,0	27,5	136,9	85,1
	27,7	77,82	140,0	90,0	25,0	137,2	90,2
	19,8	59,45	140,0	105,0	17,5	138,0	105,4
	14,7	45,93	140,0	115,0	12,5	138,5	115,2
151,8	35,6	101,97	150,0	85,0	32,5	146,4	85,1
	30,3	90,82	150,0	95,0	27,5	146,9	95,2
	27,7	84,73	150,0	100,0	25,0	147,2	100,2
	22,4	71,53	150,0	110,0	20,0	147,7	110,4
	19,8	64,42	150,0	115,0	17,5	148,0	115,4
	14,7	49,64	150,0	125,0	12,5	148,5	125,2
161,9	40,9	122,04	160,0	85,0	37,5	155,9	85,0
	35,6	110,85	160,0	95,0	32,5	156,4	95,1
	33,0	104,9	160,0	100,0	30,0	156,7	100,2
	30,3	98,40	160,0	105,0	27,5	156,9	105,2
	25,1	84,59	160,0	115,0	22,5	157,5	115,3
	19,8	69,41	160,0	125,0	17,5	158,0	125,5
	14,7	53,37	160,0	135,0	12,5	158,5	135,3
171,9	48,8	148,12	170,0	80,0	45,0	165,1	79,9
	35,6	119,74	170,0	105,0	32,5	166,4	105,2
	33,0	113,03	170,0	110,0	30,0	166,7	110,2
	25,1	90,88	170,0	125,0	22,5	167,5	125,4
	19,8	74,04	170,0	135,0	17,5	168,0	135,5
	17,4	66,27	170,0	140,0	15,0	168,2	140,2
181,9	51,4	165,45	180,0	85,0	47,5	174,8	84,9
	48,8	160,15	180,0	90,0	45,0	175,1	89,9
	40,9	121,17	180,0	120,0	30,0	176,7	120,2
	33,0	142,5	180,0	105,0	37,5	175,9	105,1
	27,7	105,45	180,0	130,0	25,0	177,2	130,3
	22,5	88,35	180,0	140,0	20,0	177,7	140,5
	19,8	79,30	180,0	145,0	17,5	178,0	145,5
	17,4	70,56	180,0	150,0	15,0	178,2	150,2
192,4	■ 49,1	173,46	190,0	100,0	45,0	185,0	100,4
	■ 46,4	167,17	190,0	105,0	42,5	185,3	105,5
	43,8	160,54	190,0	110,0	40,0	185,5	110,5
	41,2	153,56	190,0	115,0	37,5	185,8	115,6
	38,5	146,25	190,0	120,0	35,0	186,1	120,7
	30,6	122,26	190,0	135,0	27,5	186,9	135,8
	28,0	113,52	190,0	140,0	25,0	187,2	140,9
	22,8	95,19	190,0	150,0	20,0	187,7	151,0
	17,7	76,16	190,0	160,0	15,0	188,2	160,7
202,5	56,1	202,63	200,0	100,0	50,0	194,3	97,0
	43,8	171,53	200,0	120,0	40,0	195,6	120,6
	41,2	163,91	200,0	125,0	37,5	195,8	125,7

Tubo mecânico EN10294-1 E470 MECA PLUS 470 (continuação)
Hollow bars

Dimensões do fornecimento			Dimensões garantidas após maquinação ▲				
			Aperto exterior			Aperto interior	
Ø ext. mm	Espessura mm	Peso médio kg/m	Ø ext. mm	Ø int. mm	Espessura mm	Ø ext. mm	Ø int. mm
202,5	28,1	120,68	200	150	25,0	197,2	150,9
	20,2	90,64	200	165	17,5	198,0	166,1
	17,7	80,66	200	170	15,0	198,2	170,8
214,1	48,2	197,05	210	130	40,0	204,6	122,3
	42,6	180,15	210	140	35,0	205,4	133,2
	37,0	161,73	210	150	30,0	206,2	144,1
	31,5	141,79	210	160	25,0	207,0	155,0
	25,9	120,32	210	170	20,0	207,8	165,9
222,7	55,8	229,52	220	125	47,5	212,1	116,1
	53,0	221,71	220	130	45,0	212,5	121,5
	50,2	213,88	220	135	42,5	212,8	127,0
	41,8	186,53	220	150	35,0	214,0	143,3
	39,1	176,82	220	155	32,5	214,4	148,8
	30,7	145,41	220	170	25,0	215,6	165,1
	25,2	122,56	220	180	20,0	216,4	176,0
234,9	62,5	265,75	230	125	52,5	223,2	115,0
	51,4	232,63	230	145	42,5	224,8	136,8
	48,7	223,62	230	150	40,0	225,2	142,2
	43,1	203,79	230	160	35,0	226,0	153,1
	37,5	213,93	230	170	30,0	226,8	164,0
	32,0	160,01	230	180	25,0	227,6	174,9
	26,4	135,84	230	190	20,0	228,4	185,8
252,9	64,3	299,03	250	140	55,0	240,8	129,7
	58,8	281,24	250	150	50,0	241,6	140,6
	53,2	261,94	250	160	45,0	242,4	151,5
	47,6	241,11	250	170	40,0	243,2	162,4
	36,5	194,88	250	190	30,0	244,8	184,2
	31,0	169,48	250	200	25,0	245,6	195,0

Tubo mecânico DIN2448 20Mn V6
Hollow bars

Dimensões do fornecimento			Peso médio	Após maquinação ▲ Com aperto exterior	
Ø ext. mm	Espessura mm	Ø int. mm	kg/m	Ø ext. mm	Ø int. mm
*232,0	32	166,0	156,00	225,00	178,5
273,0	25	223,0	152,90	268,0	233,5
	32	209,0	190,19	268,0	219,6
	40	193,0	229,84	268,0	205,2
	60	153,0	315,17	268,0	163,2
298,5	25	248,5	168,62	294,0	259,2
	36	226,5	237,00	294,0	238,2
	50	198,5	306,79	294,0	210,5
	80	138,5	431,07	294,0	122,5
323,9	25	273,9	184,34	319,2	284,9
	36	251,9	260,00	319,2	256,6
	50	223,9	337,70	319,2	236,1
	80	163,9	481,35	319,2	176,6
355,6	25	305,6	203,76	350,5	316,9
	36	283,6	289,00	350,5	295,9
	50	255,6	374,30	350,5	270,7
	80	195,6	543,72	350,5	208,7
406,4	30	346,4	278,47	400,8	359,5
	45	316,4	401,06	400,8	331,0
	60	286,4	512,50	400,8	304,0
	100	206,4	755,53	400,8	222,0
457,0	36	385,0	381,00	450,9	400,1
	45	363,0	454,23	450,9	384,3
	60	337,0	587,36	450,9	355,1
	100	257,0	880,31	450,9	278,1
508,0	36	472,0	427,00	501,4	451,6
	45	418,0	519,31	501,4	435,8
	60	388,0	662,82	501,4	406,6
	100	308,0	1006,07	501,4	329,6
559,0	36	487,0	473,00	553,0	478,0
	50	459,0	640,00	553,0	447,0
*600,0	35	530,0	497,00	593,0	519,0
610,0	36	537,6	519,00	603,9	529,0
	50	509,6	703,00	603,9	500,0
660,0	50	560,0	752,00	658,5	550,0

Tubo em aço carbono sem costura
Seamless carbon steel pipe

Tubo sem costura EN10.216 - 1/02 P335 - (DIN 2448/ 1629, St 52) comprimento 5 a 7,5m
Seamless line pipe lenght 5 to 7,5m

OD mm	Espessura Thickness	Kg/ m Weight
25	5,0	2,47
30	5,0	3,08
51	7,1	7,69
63,5	7,1	9,90
76,1	6,3	10,90
76,1	7,1	12,10
76,1	8,0	13,40
85,0	12,0	23,00
88,9	10,0	19,50
*95,0	19,5	37,93
*100,0	14,5	25,90
*106,0	25,0	51,80
114,3	8,0	21,00
114,3	10,0	25,70
121,0	8,0	22,70
121,0	10,0	27,80
121,0	12,5	34,10
*125,0	12,5	37,80
*125,0	17,5	49,40
127,0	8,0	23,50
127,0	10,0	28,90
127,0	12,5	35,30
133,0	8,0	24,70
133,0	10,0	30,30
139,7	8,0	26,00
139,7	10,0	32,00