



EE
1886

FITTINGS

GZ

2019

ODLEWNIA ZAWIERCIE S.A.



**PRODUCT
OF POLAND**



I come to a world of iron
to make a world of gold.

|
Cervantes

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Usage instruction of whiteheart malleable cast iron unions EE brand



DOWNLOAD FREE APP FROM RUNVIDO.COM
AND FOCUS YOUR CAMERA ON THIS PICTURE.

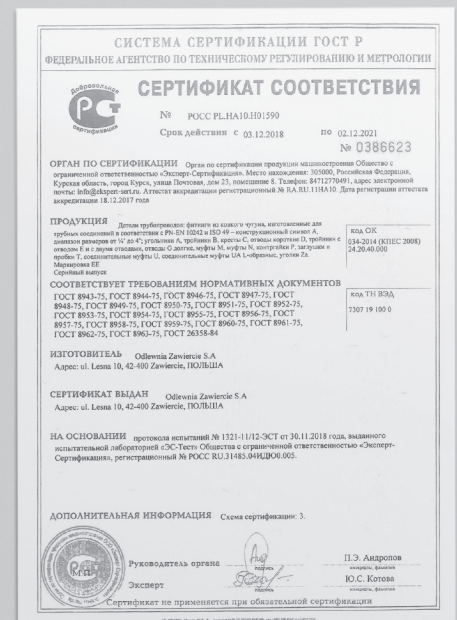
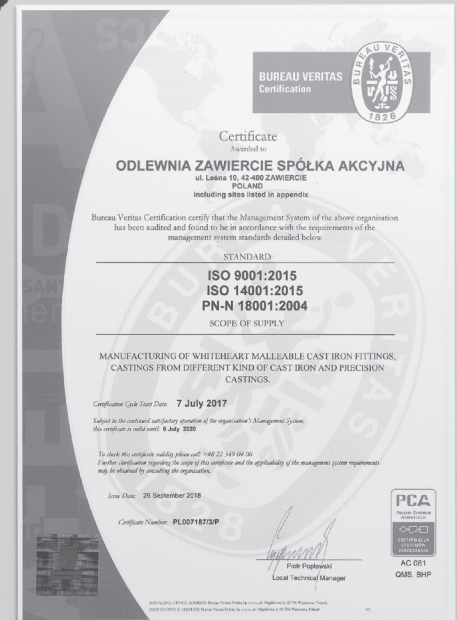
ABOUT US

ÜBER UNS
QUI SOMMES-NOUS
SU DI NOI
O HAC

Based on 130 years tradition, **Odlewnia Zawiercie Spółka Akcyjna** in Zawiercie has developed a rich experience in the production of whiteheart malleable cast iron fittings and castings. The plant, which has been and continues to be systematically developed and equipped, is constantly updated with the most modern machinery available.

Advanced technological and ecological processes and highly-skilled engineering staff ensure a worldwide appreciation for high quality products which comply with Polish and International Standards. For the over 130 years of its existence, EE brand has build and maintained an excellent reputation and trust with satisfied customers throughout the world.

CERTIFICATES



DIN-DVGW type examination certificate
DIN-DVGW-Baumusterprüfzertifikat

DIN
DVGW
CERT

NV-7641C.0044
Registered Product
Registration Number

Field of Application
Products for gas and water supply
Produkte für Gas- und Wasserversorgung

Owner of Certificate
Zertifizierer
ODLEWNA ZAWIERCIE SPÓŁKA AKCYJNA
Leszna 10, PL-42-400 Zawiercie

Distributor
ODLEWNA ZAWIERCIE SPÓŁKA AKCYJNA
Leszna 10, PL-42-400 Zawiercie

Product Category
Produktkategorie
metal pipe unions and joints - malleable cast iron fitting (7641)

Product Description
Produktbeschreibung
malleable cast iron fittings, design symbol "A"

Model
EE

Test Reports
Próby
laboratory control test: 120003543-14 from 03.07.2014 (MPM)
type testing: 120003360 from 08.02.2010 (MPM)

Test Basis
Próby podstawowe
DIN EN 10242 (01.03.1995)

Date of Expiry / File No.
Abstraktion / Abstraktionsnummer
08.02.2020 / 15-0383-WNU

25.09.2015 EX A-12
Date valid to: 25.09.2015
Date of issue: 25.09.2015
Date of expiry: 25.09.2015
Date of issue: 25.09.2015
Date of expiry: 25.09.2015

DAKKS
Dokumentation
Abstraktionsnummer
250-20000-01-01
www.dakks.com
info@dakks.com

INFORMACJE DLA ZAMÓWNIKI
Zawiercie
ul. Leszna 10, 42-400 Zawiercie
Tel. +48 22 61 88 008
Fax +48 22 61 88 003
www.odlewna.com
info@odlewna.com

INSTITUT NAFETY I GAZU - Państwowy Instytut Badawczy
UL. 11-501 Kraków, ul. Leszna 2/A
tel. +48 12 421 00 13
www.nig.pl, info@nig.pl

PCB
POLSKA CECHOWANA BUDOWA
AC 010

BIURO CERTYFIKACJI
tel. +48 12 421 08 04
email: cert@nig.pl

NATIONAL CERTIFICATE OF THE CONSTANCY OF PERFORMANCE
AC010 – UWB – 0006

In compliance with Regulation issued by Minister of Infrastructure and Construction of 17th November 2016 in the way of declaring the performance of construction products and method of making them with the construction mark (Polish Journal of Laws of 2016 item 1966) this certificate applies to the construction products:

Connection parts for gas meters designated for use in gas installations
Fitting AR1; Nut A/G1/4"
working pressure up to 10 kPa; within the temperature scope: -30°C-60°C

covered by national technical assessment:
AT/T014-03-10 wyd. IJ.2014

placed on the market under the name or trade mark of:
Odlewnia Zawiercie Spółka Akcyjna
42-400 Zawiercie ul. Leszna 10

and produced in the manufacturing plant:
Odlewnia Zawiercie Spółka Akcyjna
42-400 Zawiercie ul. Leszna 10

This certificate attests that all provisions resulting from national system 1 concerning the AVCP in relation to the performance of product covered in above national technical assessment are applied and that:

the manufacturer has implemented the system of factory production control in order to maintain the constancy of the performance

This certificate replaces the certificate of conformity No. 1514 and will remain valid until 20.07.2019 as long as neither the national technical assessment, the AVCP methods, construction product itself nor the manufacturing conditions are modified significantly, unless suspended or withdrawn by the accredited certification body.

Certification Office Manager
Magdalena Świął
Magdalena Świął

Director of the INIG-PIB
Marka Cichonowska
Marka Cichonowska

Kraków, 07-06-2018

The validity of this certificate can be confirmed via electronic means: www.nig.pl

AENOR

AENOR Product Certificate
Threaded pipe fitting in malleable cast iron

AENOR
Product Certificate

A02/000004

AENOR certifies that the organization:

ODLEWNA ZAWIERCIE SPÓŁKA AKCYJNA

registered office: ul. Leszna 10-Zawiercie 42-400 Polonia (Zawiercie - Polonia)

supplies: Threaded pipe fitting in malleable cast iron

In compliance with: UNE-EN 10242:2004 (EN 10242:1995/A2:2008)
UNE-EN 10242:1999 (EN 10242:1999)
UNE-EN 10242:1995 (EN 10242:1994)

References: Specified in Annex to the Certificate

Production site: ul. Leszna 10-Zawiercie 42-400 Polonia (Zawiercie - Polonia)

Certification scheme: In order to grant this Certificate, AENOR has tested the product and has verified the quality system implemented for its manufacture. AENOR performs these tests periodically unless the Certificate has not been cancelled, in accordance with specific rules (RF 00162).

This certificate supersedes A01700000, dated 2017-09-10

First issued on: 2017-09-10
Modified on: 2022-02-25
Validly date: 2022-09-10

Rafael Garcia Negro
Rafael Garcia Negro
Chief Executive Officer

AENOR INTERNACIONAL S.A.
Calle de Toledo, 63 - 28014 Madrid (Spain)
Tel: 34 91 430 40 00 - www.aenor.com

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AC 010

BIURO CERTYFIKACJI
tel. +48 12 421 08 04
email: cert@nig.pl

NATIONAL CERTIFICATE OF THE CONSTANCY OF PERFORMANCE
AC010 – UWB – 0005

In compliance with Regulation issued by Minister of Infrastructure and Construction of 17th November 2016 in the way of declaring the performance of construction products and method of making them with the construction mark (Polish Journal of Laws of 2016 item 1966) this certificate applies to the construction products:

Whiteheart threaded malleable cast iron pipe fittings according to EN-GJMW-400-5 for gas installations in buildings (gas-use fuels according to PN-C-04750:2011) models: "A" elbows, "B" and "C" tees, "C" crosses, "M" sockets, "N" tees, "O" and "Q" bends, "T" caps and plugs, "U" and "V" end outlet elbows, "U1" and "U2" union elbows, "L" and "L1" union elbows, "L" and "L1" union elbows

size coating: hot galv. 1. surface treatment of coating layer with 70µm surface film of polyethylene aromatic hydrocarbons

thread according to EN 10228:2006 (PN-EN 10228:2007) dimension: 1/2 + 2 (DN8 + DN50) ; MOPs : 12 (20°C + 60°C)

covered by Polish standard for products:
PN-EN 10242:1999 + A1:2002 + A2:2005
(EN 10242:1994 + A1:1999 + A2:2005)

placed on the market under the name or trade mark of:
Odlewnia Zawiercie Spółka Akcyjna
42-400 Zawiercie ul. Leszna 10

and produced in the manufacturing plant:
Odlewnia Zawiercie Spółka Akcyjna
42-400 Zawiercie ul. Leszna 10

This certificate attests that all provisions resulting from national system 1 concerning the AVCP in relation to the declared performance of product concerned with its intended use described in hereby certificate are applied and that:

the manufacturer has implemented the system of factory production control in order to maintain the constancy of the performance

This certificate replaces the certificate of conformity No. 2012 and will remain valid as long as neither the Polish standard used, the AVCP methods, construction product itself nor the manufacturing conditions are modified significantly, unless suspended or withdrawn by the accredited certification body.

Certification Office Manager
Magdalena Świął
Magdalena Świął

Director of the INIG-PIB
Marka Cichonowska
Marka Cichonowska

Kraków: 07-05-2018

The validity of this certificate can be confirmed via electronic means: www.nig.pl

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size coating: hot galv. 1. surface treatment of coating layer with 70µm surface film of polyethylene aromatic hydrocarbons

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PN-EN 10242:1999 + A1:2002 + A2:2005
(EN 10242:1994 + A1:1999 + A2:2005)

placed on the market under the name or trade mark of:
Odlewnia Zawiercie Spółka Akcyjna
42-400 Zawiercie ul. Leszna 10

and produced in the manufacturing plant:
Odlewnia Zawiercie Spółka Akcyjna
42-400 Zawiercie ul. Leszna 10

This certificate attests that all provisions resulting from national system 1 concerning the AVCP in relation to the declared performance of product concerned with its intended use described in hereby certificate are applied and that:

the manufacturer has implemented the system of factory production control in order to maintain the constancy of the performance

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GENERAL INFORMATION

USE EE brand cast iron fittings are used in threaded pipe joints, particularly in water supply, gas, steam, central heating, sprinkler system networks, etc., transporting non-corrosive liquids and gases.

RANGE OF DIMENSIONS 1/4 to 4

DN (MM)	8	10	15	20	25	32	40	50	65	80	100
THREAD	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4

MANUFACTURING According to EN 10242 and ISO 49, construction symbol „A“.

MATERIAL Fittings: whiteheart malleable EN-GJMW-400-5 cast iron, according to EN 1562, equivalent to W 40-05, according to ISO 5922.

THREADS Threads: acc. to EN 10226-1 (ISO 7/1) - R tapered external threads, internal cylindrical Rp threads and acc. to EN ISO 228-1 - G connecting threads.

SURFACE/ZINC PLATING EE brand fittings can be supplied in accordance to order: with black or galvanized surfaces. According to EN 10242, zinc coating weight relative to the surface exceeds 500 g/m², which corresponds to an average layer thickness of 70 µm. Both black and galvanized surfaces are protected against corrosion. Corrosion protection substance does not contain polycyclic aromatic hydrocarbons.



OPERATING PRESSURE 2.5 MPa / 25 bar / at the temp. from -20°C to 120°C
2.0 MPa / 20 bar / at the temp. of 300°C

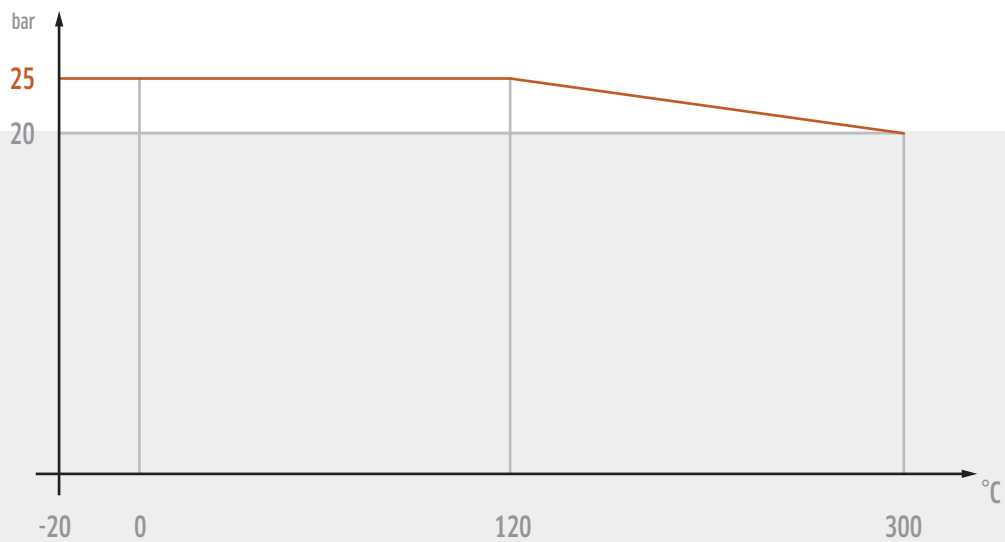


Diagram: pressure / temprature ratio

LEAK TEST According to EN 10242, each EE brand fitting is subjected to a leak test at air pressure of at least 0.5 MPa / 5 bar /, which is equivalent to a minimum hydrostatic pressure of 2.0 MPa / 20 bar /.

DESIGN Technical aspects, appearance, and other characteristics of fittings can be modified to match the technical advances and changes in accordance with the applicable standards.

ALLGEMEINE INFORMATIONEN

VERWENDUNGSZWEK Tempergussfittings der Marke EE werden bei den Rohrverbindungen mit Gewinden verwendet, vor allem bei der Wasser-, Gas-, Dampfleitungen, Heizungs-, Sprinkleranlagen usw. für Flüssigkeiten und nicht aggressiven Gasen.

DIMENSIONEN 1/4 bis 4

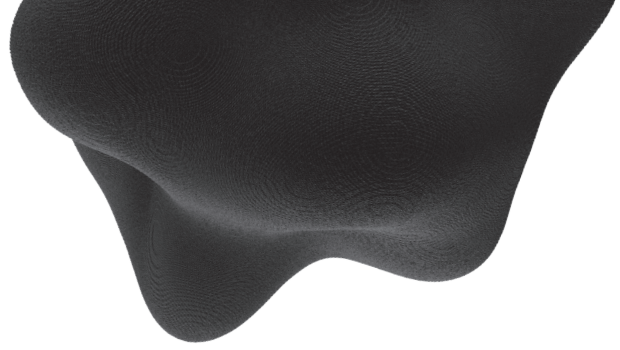
DN (MM)	8	10	15	20	25	32	40	50	65	80	100
GEWINDE	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4

AUSFÜHRUNG Gemäß En 10242 und ISO 49 - Designsymbol „A“

WERKSTOFF Tempergussfittings aus weißen Temperguss EN-GJMW-400-5 nach EN 1562 bzw. W 40-05 nach ISO 5922.

GEWINDE Gewinde: nach EN 10226-1 - kegeliges Außengewinde R, zylindrisches Innengewinde Rp und EN ISO 228-1 - Gewinde G.

OBERFLÄCHE / VERZINKUNG Die Fittings der Marke EE können gemäß der Bestellung mit einer schwarzen oder verzinkten Oberfläche geliefert werden. Die Schichtdicke der Verzinkung entspricht der EN 10242 und beträgt ca. 70 µm. Das Gewicht der verzinkten Ausführung ist um ca. 5% höher als das Gewicht der schwarzen Ausführung. Sowohl die schwarze als auch die verzinkte Oberfläche ist mit einem Antikorrosionsschutz versehen. Der Antikorrosionsschutz beinhaltet keine aromatischen Kohlenwasserstoffe.



- BETRIEBSDRUCK**
- Maximum 2,5 MPa / 25 bar / bei einer Temp. von -20°C bis 120°C
 - Maximum 2,0 MPa / 20 bar / bei einer Temp. 300°C

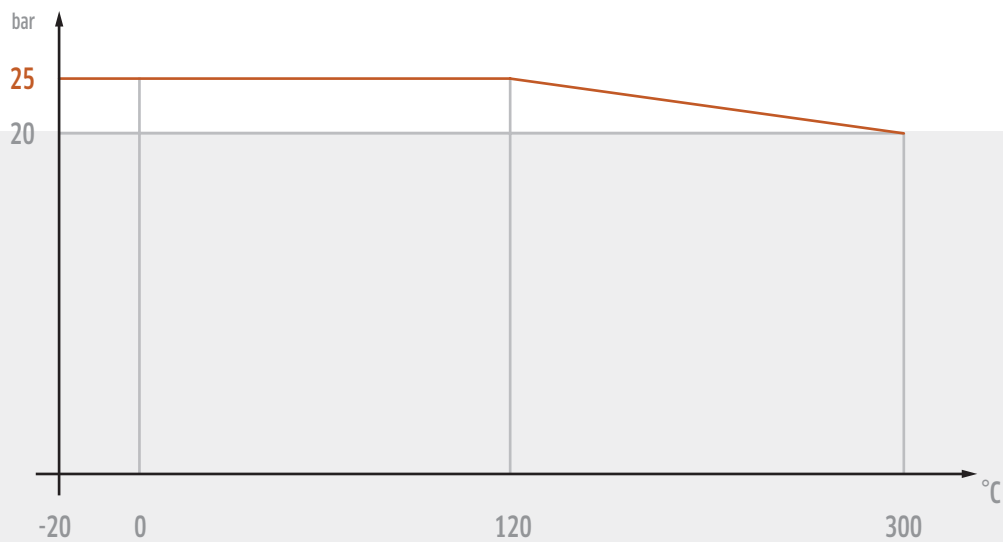


Diagramm: Druck/Temperatur

- DICHTHEITSPRÜFUNG**
- Gemäß der Norm En 10242 werden alle Tempergussfittings der Marke EE mit einem Prüfdruck von Minimum 0,5 MPa/5 bar auf Dichtheit geprüft. Was entspricht dem hydrostatischen Druck von Minimum 2,0 MPa/20 bar/.

- TECHNISCHE AUSFÜHRUNG**
- Die Gestaltung und Ausführung der Tempergussfittings kann entsprechend der technischen Entwicklung und gemäß den Normänderungen angepasst werden.

INFORMATIONS GÉNÉRALES

UTILISATION Les raccords en fonte de marque EE sont utilisés sur les assemblages des tuyaux filetés, et en particulier dans les réseaux de distribution d'eau, de gaz, de vapeur, de chauffage central, de systèmes d'arrosage, etc. pour le transfert de liquides et de gaz non corrosifs.

PLAGE DE DIMENSIONS De 1/4 à 4

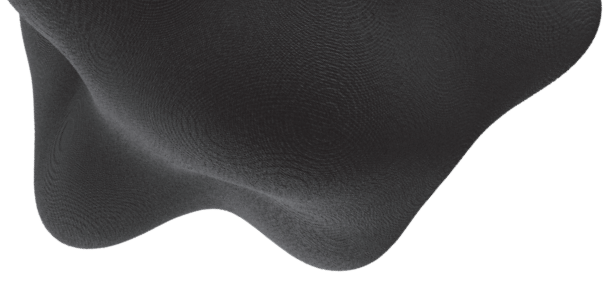
DN (MM)	8	10	15	20	25	32	40	50	65	80	100
FILETAGE	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4

RÉALISATION Selon la norme EN 10242 et ISO 49 - symbole de construction «A».

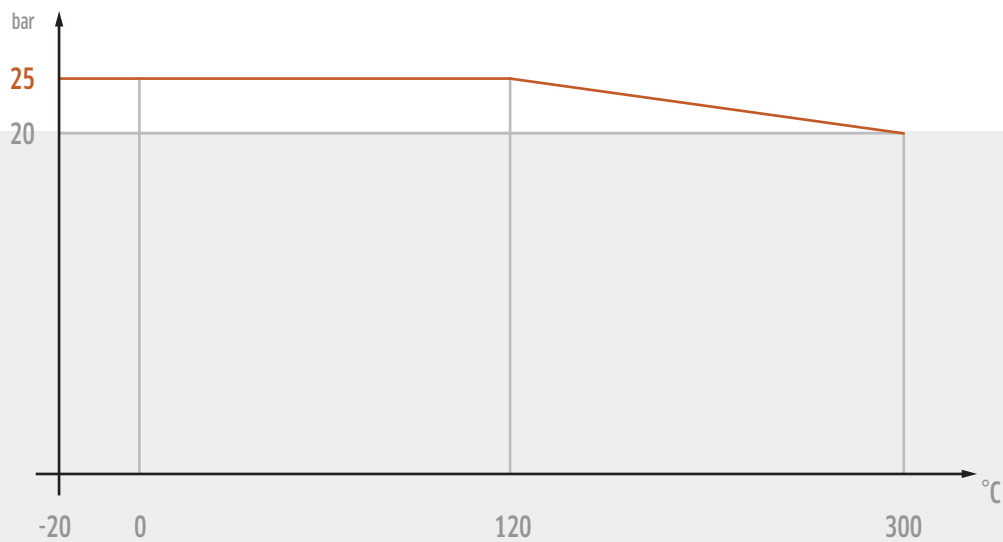
MATÉRIAU Raccords : fonte malléable blanche EN-GJMW-400-5 selon EN 1562 équiv. W 40-05 selon ISO 5922.

FILETAGES Filetages: selon EN 10226-1 - filetages externes coniques R, filetages internes cylindrique Rp et EN ISO 228-1 - filetages de fixation G.

SURFACE / GALVANISATION Les raccords de marque EE peuvent être fournis conformément à la commande avec une surface noire ou galvanisée. Selon la norme EN 10242, le poids du revêtement en zinc par rapport à la surface est supérieur à 500 g/m², ce qui correspond à une épaisseur de couche moyenne de 70 µm. La surface noire, et la surface galvanisée, sont protégées contre la corrosion. La protection anticorrosive ne contient pas d'hydrocarbure aromatique polycyclique.



PRESSION DE TRAVAIL - 2,5 MPa / 25 bar / à une temp. de -20°C à 120°C
- 2,0 MPa / 20 bar / à une temp. de 300°C



Graphique: relation pression / température

TEST D'ÉTANCHÉITÉ Selon la norme EN 10242 chaque raccord de marque EE est soumis à un test d'étanchéité sous la pression d'air comprimé d'au moins 0,5 MPa / 5 bar /, ce qui équivaut à une pression hydrostatique minimale de 2,0 MPa / 20 bar /.

CONSTRUCTION Les aspects techniques, l'apparence et les autres caractéristiques des raccords peuvent être modifiés avec le progrès technique et en conformité avec l'évolution des normes applicables.

GENERALITA'

CAMPO D'IMPIEGO

I raccordi in ghisa col marchio EE sono utilizzati nell'accoppiamento di tubi filettati ed in particolare, negli impianti di fornitura d'acqua impianti gas, e vapore, di impianti di riscaldamento centralizzato, e di irrigazione, ecc. per il trasporto dei liquidi e dei gas non aggressivi.

AMBITO DIMENSIONALE

Da 1/4 a 4

DN (MM)	8	10	15	20	25	32	40	50	65	80	100
FILETTO	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4

ESECUZIONE

Conformemente alla norma EN 10242 e ISO 49 - simbolo di costruzione ,A".

MATERIALE

Raccordi: ghisa a cuore bianco EN-GJMW-400-5 secondo la norma EN 1562 rif.W 40-05 sec. ISO 5922.

FILETIATURE

Secondo la norma EN 10226-1 - filettature esterne coniche R, filettature interne cilindriche Rp e EN ISO 228-1 - filettature di collegamento.

SUPERFICIE / ZINCATURA

I raccordi col marchio EE possono essere forniti, in funzione dell'ordine, con la superficie nera o zincata. Conformemente alla norma EN 10242 il peso del rivestimento in zinco riferito alla superficie è superiore a 500 g/m², il che corrisponde allo spessore medio dello strato di 70 µm. La superficie (sia nera che zincata) è protetta contro la corrosione. La protezione anticorrosiva non contiene idrocarburi policiclici aromatici.



PRESSIONE D'ESERCIZIO 2,5 MPa/ 25 bar/ a temp. da -20°C a 120°C
2,0 MPa/ 20 bar/ a temp. 300°C

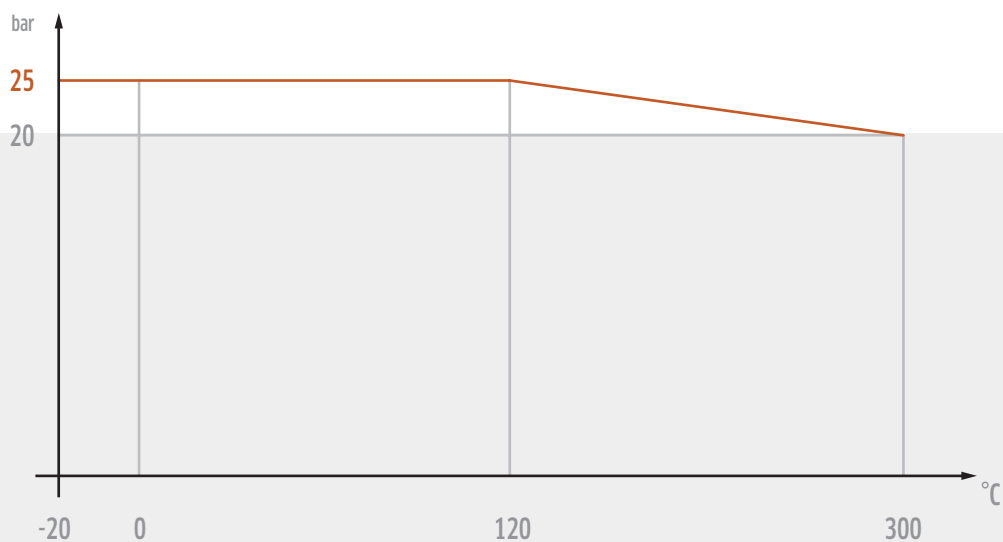


Diagramma: Rapporto pressione / temperature

PROVA DI TENUTA Conformemente alla norma EN 10242 ogni raccordo EE è sottoposto alla prova di tenuta sotto pressione dell'aria compressa al minimo di 0,5 MPa / 5 bar /, il che equivale alla pressione idrostatica minima di 2,0 MPa / 20 bar /.

COSTRUZIONE I concetti tecnici, aspetto esterno e altre caratteristiche dei raccordi sono soggette a modifiche dovute al progresso tecnico e a quelle inerenti le norme in vigore.

ОБЩИЕ ВВЕДЕНИЯ

ПРИМЕНЕНИЕ

Чугунные фитинги марки ЕЕ применяются в соединениях труб на резьбе, в частности в сетях водоснабжения, газоснабжения, подачи пара, центрального отопления, спринклерных установках и т. п. – для транспортировки неагрессивных жидкостей и газов.

ПРЕДЕЛЫ РАЗМЕРОВ

От ¼ до 4

DN (MM)	8	10	15	20	25	32	40	50	65	80	100
FILETTO	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4

ИСПОЛНЕНИЕ

В соответствии со стандартами EN 10242 и ISO 49 – конструкционный символ «А».

МАТЕРИАЛ

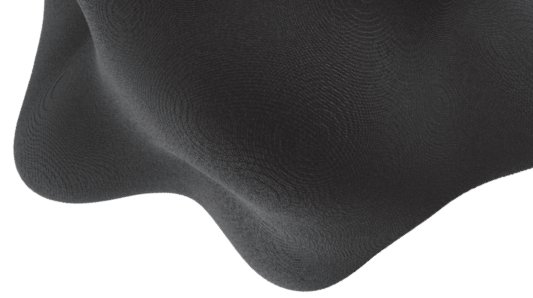
Фитинги: белый ковкий чугун EN-GJMW-400-5 согл. EN 1562, аналог W 40-05 согл. ISO 5922.

РЕЗЬБА

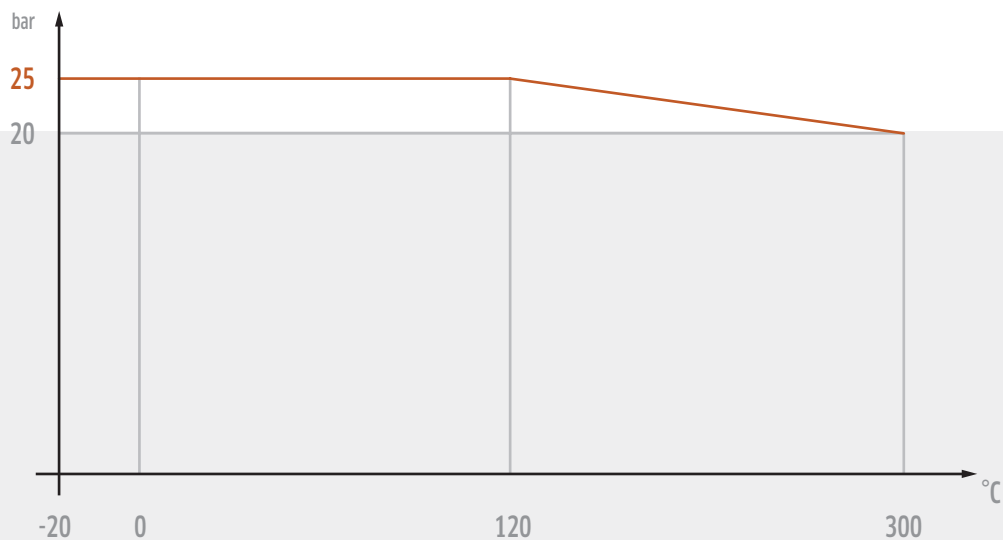
Резьба: согл. EN 10226-1 – коническая наружная резьба R, цилиндрическая внутренняя резьба Rp и EN ISO 228-1 – соединительная резьба G.

ПОВЕРХНОСТЬ / ЦИНКОВОЕ ПОКРЫТИЕ

Фитинги марки ЕЕ могут поставляться в соответствии с заказом – вариант исполнения с чёрной или оцинкованной поверхностью. В соответствии со стандартом EN 10242 масса цинкового покрытия относительно площади поверхности – не менее 500 г/м², что соответствует средней толщине слоя покрытия 70 мкм. Как чёрная, так и оцинкованная поверхность имеет антикоррозионную защиту. Антикоррозионная защита не содержит ароматических углеводородов.



ПРИМЕНЕНИЕ 2,5 МПа / 25 бар / при темп. от -20оС до 120оС
2,0 МПа / 20 бар / при темп. 300оС



*График: Зависимость
давление-температура*

ПРОВЕРКА ГЕРМЕТИЧНОСТИ В соответствии со стандартом EN 10242 для каждого фитинга марки ЕЕ выполняется проверка герметичности при давлении сжатого воздуха не менее 0,5 МПа / 5 бар /, что эквивалентно минимальному гидростатическому давлению 2,0 МПа / 20 бар /.

ПРОВЕРКА ГЕРМЕТИЧНОСТИ Технические аспекты, внешний вид и другие характерные свойства фитингов могут подвергаться изменению с учётом технического прогресса и в соответствии с изменениями в действующих стандартах.



1



1a



2



2a



3



40



41



85



90



92



94



95or



96



97or



98



120



130



131



135



165



180



220



221



240



241



245



246



270



271



280



281



290



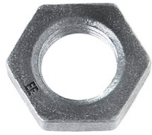
291



300



301



310



321



326



330or



331or



340



341



370



371or



372or



374



471



529a



623



624

● **Limit** - longer realization time

CARTONS

S [small] - 192 x 285 x 110 mm - weight: 0,170 Kg

M [medium] - 385 x 285 x 110 mm - weight: 0,400 Kg

L [large] - 385 x 285 x 220 mm - weight: 0,620 Kg



1	ISO/EN G4
	Long sweep bend 90° Bogen 90°, lang Courbe à grand rayon 90° Curva lunga 90° Отвод 90°

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
1/4	4,95	5907791600011	6,05	5907791600028	S	120	5,6	6,2	10
3/8	5,90	5907791600042	7,40	5907791600059	S	80	6,7	7,0	10
1/2	5,30	5907791600073	6,65	5907791600080	M	100	11,1	11,7	10
3/4	9,20	5907791600103	11,55	5907791600110	M	60	13,1	13,6	10
1	12,40	5907791600134	15,75	5907791600141	L	60	23,6	24,3	
1 1/4	21,85	5907791600165	27,10	5907791600172	L	35	22,4	23,4	
1 1/2	28,15	5907791600196	35,85	5907791600202	L	25	21,1	22,0	
2	46,65	5907791600226	57,80	5907791600233	L	15	20,6	21,6	
2 1/2	101,65	5907791600257	129,95	5907791600264	L	4	10,0	10,2	
3	131,65	5907791600288	166,70	5907791600295	L	3	10,8	11,1	
4	238,85	5907791600318	302,60	5907791600325	L	1	6,5	6,7	



1a	ISO/EN D4
	Short bend 90° Bogen 90°, kurz Courbe courte 90° Curva corta 90° Отвод 90°

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
3/8	5,55	5907791619150	6,90	5907791619167	S	80	5,8	6,0	10
1/2	4,85	5907791619181	6,05	5907791619198	S	50	6,2	6,4	10
3/4	7,55	5907791619211	9,30	5907791619228	S	30	5,1	5,3	10
1	10,05	5907791619242	12,50	5907791619259	S	20	6,8	7,1	
1 1/4	14,70	5907791619273	18,85	5907791619280	S	10	5,4	5,6	
1 1/2	21,45	5907791619303	27,10	5907791619310	S	8	5,7	5,8	
2	38,35	5907791619334	47,45	5907791619341	S	4	4,4	4,5	



2	ISO/EN G1
	Long sweep bend 90° Bogen 90°, lang Courbe à grand rayon 90° Curva lunga 90° Отвод 90°

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
1/4	5,35	5907791600349	6,45	5907791600356	S	100	6,3	6,6	10
3/8	5,70	5907791600370	7,40	5907791600387	S	60	5,8	6,0	10
1/2	6,05	5907791600400	7,50	5907791600417	M	80	11,8	12,1	10
3/4	9,45	5907791600431	11,60	5907791600448	M	60	14,5	15,1	10
1	12,40	5907791600462	15,75	5907791600479	L	50	22,3	22,6	
1 1/4	21,95	5907791600493	27,20	5907791600509	L	30	24,5	25,0	
1 1/2	27,05	5907791600523	33,45	5907791600530	L	23	22,1	23,0	
2	37,30	5907791600554	46,45	5907791600561	L	12	17,9	18,3	
2 1/2	103,35	5907791600585	130,65	5907791600592	L	4	11,0	11,2	
3	129,80	5907791600615	164,25	5907791600622	L	3	11,9	12,2	
4	245,90	5907791600646	311,40	5907791600653	L	1	6,9	7,0	



2a	ISO/EN D1
	Short bend 90° Bogen 90°, kurz Courbe courte 90° Curva corta 90° Отвод 90°

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
3/8	4,95	5907791619365	5,95	5907791619372	S	60	5,0	5,2	10
1/2	4,60	5907791619396	5,85	5907791619402	S	50	6,8	7,0	10
3/4	6,20	5907791619426	8,00	5907791619433	S	30	6,7	6,8	10
1	9,65	5907791619457	12,40	5907791619464	S	15	5,6	5,8	
1 1/4	14,40	5907791619488	18,55	5907791619495	S	10	5,8	6,0	
1 1/2	19,70	5907791619518	25,00	5907791619525	S	5	3,9	4,0	
2	30,95	5907791619549	40,05	5907791619556	S	3	3,6	3,7	



3	ISO/EN G8
	Long sweep bend 90° Bogen 90°, lang Courbe à grand rayon 90° Curva lunga 90° Отвод 90°

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
1/2	9,20	5907791600677	11,50	5907791600684	S	50	5,2	5,6	10
3/4	10,25	5907791621795	12,90	5907791621801	S	30	5,4	5,7	10
1	14,85	5907791621870	18,50	5907791621887	S	20	6,6	6,9	



40	ISO/EN G4/45°
	Long sweep bend 45° Bogen 45°, lang Courbe à grand rayon 45° Curva lunga 45° Отвод 45°

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
1/4	7,35	5907791600790	8,95	5907791600806	S	100	4,3	4,4	10
3/8	6,60	5907791600820	8,15	5907791600837	S	80	4,8	5,0	10
1/2	6,05	5907791600851	7,50	5907791600868	M	100	9,3	9,6	10
3/4	8,15	5907791600882	10,15	5907791600899	M	70	9,7	10,1	10
1	11,55	5907791600912	14,20	5907791600929	M	40	10,6	11,2	-
1 1/4	19,90	5907791600943	24,80	5907791600950	M	25	11,5	12,0	
1 1/2	23,90	5907791600974	29,50	5907791600981	M	15	8,1	8,5	
2	37,60	5907791601001	46,75	5907791601018	M	8	7,5	7,7	
2 1/2	82,05	5907791601032	103,80	5907791601049	M	4	6,0	6,2	
3	89,35	5907791601063	113,25	5907791601070	L	6	13,8	14,2	
4	201,80	5907791601094	255,35	5907791601100	L	2	7,8	8,0	



41	ISO/EN G1/45°
	Long sweep bend 45° Bogen 45°, lang Courbe à grand rayon 45° Curva lunga 45° Отвод 45°

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
1/4	7,02	5907791601124	8,56	5907791601131	S	100	5,0	5,2	10
3/8	7,60	5907791601155	9,40	5907791601162	S	60	4,6	4,9	10
1/2	7,35	5907791601186	8,95	5907791601193	M	100	12,5	13,0	10
3/4	9,05	5907791601216	11,35	5907791601223	M	60	13,0	13,4	10
1	11,70	5907791601247	14,50	5907791601254	M	30	10,2	10,7	-
1 1/4	20,70	5907791601278	26,00	5907791601285	M	20	11,5	11,8	
1 1/2	27,10	5907791601308	34,35	5907791601315	M	12	8,9	9,2	
2	38,35	5907791601339	48,20	5907791601346	M	6	6,4	6,5	
2 1/2	75,35	5907791601360	95,15	5907791601377	M	4	7,3	7,5	
3	95,90	5907791601391	121,30	5907791601407	L	6	15,5	16,1	



85	Crossover
	Überspringbogen Dos d'âne Scavalcatubo a curva Обход

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
1/2	7,65	5907791601452	9,60	5907791601469	M	80	16,5	17,0	-
3/4	11,70	5907791601483	14,50	5907791601490	M	40	14,6	15,7	



90	ISO/EN A1
	Elbow 90°, equal Winkel 90°, egal Coude 90°, égal Gomito 90°, uguale Угольник 90°

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT (PC) IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
1/4	3,30	5907791601513	3,90	5907791601520	M	250	11,7	12,0	10
3/8	2,70	5907791601544	3,45	5907791601551	M	200	12,3	12,9	10
1/2	1,75	5907791601605	2,35	5907791601612	M	150	14,0	14,4	10
3/4	2,80	5907791601698	3,70	5907791601704	M	80	12,5	12,9	10
1	4,30	5907791601810	5,45	5907791601827	L	100	22,9	24,0	10
1 1/4	8,50	5907791601933	10,50	5907791601940	L	60	23,5	24,0	-
1 1/2	13,65	5907791602053	16,85	5907791602060	L	50	24,9	25,5	-
2	15,75	5907791602206	19,85	5907791602213	L	25	17,5	18,1	-
2 1/2	46,00	5907791602381	58,15	5907791602398	L	15	17,3	18,0	-
3	64,05	5907791602534	79,70	5907791602541	L	10	15,1	15,5	-
4	112,85	5907791602657	142,70	5907791602664	L	4	11,1	11,4	-

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT (PC) IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
3/8 x 1/4	5,05	5907791601575	6,15	5907791601582	S	100	5,4	5,8	10
1/2 x 1/4	6,15	5907791601636	7,55	5907791601643	S	80	5,8	6,0	10
1/2 x 3/8	3,60	5907791601667	4,50	5907791601674	S	80	6,4	6,5	10
3/4 x 1/4	6,75	5907791601728	8,17	5907791601735	S	50	4,9	5,2	10
3/4 x 3/8	5,90	5907791601759	7,38	5907791601766	S	50	5,3	5,6	10
3/4 x 1/2	4,30	5907791601780	5,00	5907791601797	M	100	12,1	12,7	10
1 x 3/8	7,30	5907791601841	8,70	5907791601858	S	40	6,0	6,2	10
1 x 1/2	5,70	5907791601872	7,35	5907791601889	M	70	13,8	14,4	10
1 x 3/4	6,25	5907791601902	7,70	5907791601919	L	100	19,5	19,8	10
1 1/4 x 1/2	9,60	5907791601964	11,60	5907791601971	M	45	11,3	12,8	-
1 1/4 x 3/4	12,70	5907791601995	15,75	5907791602008	M	40	11,1	11,4	-
1 1/4 x 1	10,05	5907791602022	12,50	5907791602039	M	35	11,2	11,8	-
1 1/2 x 1/2	15,07	5907791602084	18,83	5907791602091	M	40	11,6	12,3	-
1 1/2 x 3/4	15,50	5907791602114	19,20	5907791602121	M	30	9,7	10,0	-
1 1/2 x 1	14,40	5907791602145	18,30	5907791602152	M	30	11,2	11,4	-
1 1/2 x 1/4	16,10	5907791602176	19,90	5907791602183	M	20	9,3	9,6	-
2 x 1/2	15,53	5907791602237	19,30	5907791602244	M	27	11,0	11,8	-
2 x 3/4	23,65	5907791602268	29,56	5907791602275	M	25	11,1	11,3	-
2 x 1	25,35	5907791602299	31,50	5907791602305	M	15	7,1	7,2	-
2 x 1 1/4	27,10	5907791602329	34,15	5907791602336	M	14	8,1	8,6	-
2 x 1 1/2	25,75	5907791602350	32,05	5907791602367	M	14	8,7	9,3	-
2 1/2 x 1/2	34,72	5907791602473	42,26	5907791602480	M	10	9,9	10,5	-
2 1/2 x 2	62,30	5907791602503	77,55	5907791602510	M	8	8,1	8,4	-
3 x 1 1/2	60,25	5907791602565	70,38	5907791602572	M	9	10,6	11,1	-
3 x 2	63,49	5907791602596	74,09	5907791602602	M	5	7,0	7,2	-
3 x 2 1/2	66,97	5907791602626	77,80	5907791602633	M	5	8,2	8,5	-



1

2

90	ISO/EN A1
	Elbow 90°, reducing Winkel 90°, reduziert Coude 90°, réduit Gomito 90°, ridotto Угольник 90°



92	ISO/EN A4
	Elbow 90°, equal Winkel 90°, egal Coude 90°, égal Gomito 90°, uguale Угольник 90°



1

2

92	ISO/EN A4
	Elbow 90°, reducing Winkel 90°, reduziert Coude 90°, réduit Gomito 90°, ridotto Угольник 90°



94	ISO/EN A4
	Elbow 90° Winkel 90° Coude 90° Gomito 90° Угольник 90°



95 ET

374

372or

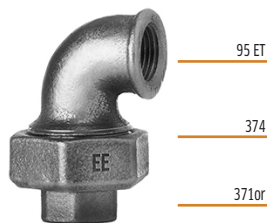
95or	ISO/EN UA1
	Union elbow, flat seat Winkelverschraubung, flach dichtend Coude union, à joint plat Gomito con bocchettone, a sede piana Разъем. соединение угловое

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
1/4	3,40	5907791602688	4,25	5907791602695	M	300	11,9	12,8	10
3/8	3,30	5907791602718	3,90	5907791602725	M	250	14,2	15,0	10
1/2	2,25	5907791602749	2,70	5907791602756	M	150	14,9	15,3	10
3/4	3,45	5907791602800	4,25	5907791602817	M	80	11,3	11,6	10
1	5,55	5907791602862	7,10	5907791602879	L	100	22,3	23,2	10
1 1/4	10,10	5907791602923	12,25	5907791602930	L	55	21,4	22,1	-
1 1/2	14,75	5907791602985	18,40	5907791602992	L	45	22,2	23,1	-
2	19,15	5907791603012	24,10	5907791603029	L	25	17,4	18,1	-
2 1/2	48,30	5907791603043	60,00	5907791603050	L	15	16,4	16,8	-
3	63,45	5907791603074	79,00	5907791603081	L	10	16,3	16,9	-
4	106,60	5907791603104	134,90	5907791603111	L	4	12,0	12,3	-

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
1/2 x 3/8	7,90	5907791602770	9,75	5907791602787	S	80	5,8	6,0	10
3/4 x 1/2	8,85	5907791602831	11,15	5907791602848	S	50	5,8	6,4	10
1 x 3/4	11,70	5907791602893	14,50	5907791602909	M	50	9,7	10,3	10

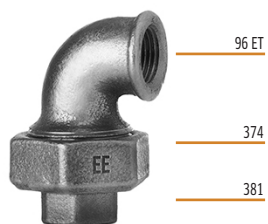
DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
1/2	8,00	5907791621900	10,15	5907791621917	S	60	5,1	5,3	10
3/4	8,85	5907791603135	11,35	5907791603142	S	40	4,8	5,0	10
1	14,05	5907791621931	17,35	5907791621948	M	30	6,5	6,7	10

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
3/8	16,45	5907791619723	20,55	5907791619730	S	40	6,4	6,7	-
1/2	12,85	5907791619754	16,00	5907791619761	S	30	8,6	9,0	-
3/4	14,15	5907791619785	17,50	5907791619792	S	20	7,0	7,3	-
1	17,45	5907791619815	21,85	5907791619822	M	20	9,4	9,7	-
1 1/4	30,25	5907791619846	38,00	5907791619853	M	10	8,5	8,8	-
1 1/2	42,10	5907791619877	53,20	5907791619884	M	8	8,1	8,3	-
2	62,95	5907791619907	79,25	5907791619914	M	6	8,9	9,1	-



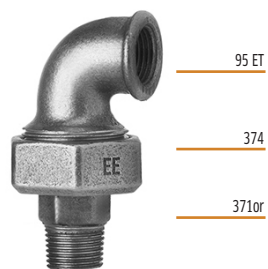
95orU with gaskets	ISO/EN UA1
	Union elbow, flat seat Winkelverschraubung, flach dichtend Coude union, à joint plat Gomito con bocchettone, a sede piana Разъем. соединение угловое

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
3/8	17,11	5907791629203	21,37	5907791629210	S	40	6,4	6,7	-
1/2	13,36	5907791629227	16,64	5907791629234	S	30	8,6	9,0	-
3/4	14,72	5907791629241	18,20	5907791629258	S	20	7,0	7,3	-
1	18,15	5907791629265	22,72	5907791629272	M	20	9,4	9,7	-
1 1/4	31,46	5907791629289	39,52	5907791629296	M	10	8,5	8,8	-
1 1/2	43,78	5907791629302	55,33	5907791629319	M	8	8,1	8,3	-
2	65,47	5907791629326	82,42	5907791629333	M	6	8,9	9,1	-



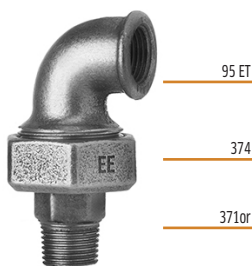
96	ISO/EN UA11
	Union elbow, taper seat Winkelverschraubung, kegelig dichtend Coude union, à joint conique Gomito con bocchettone, a sede conica Конусное соединение угловое

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
3/8	17,45	5907791603371	21,80	5907791603388	S	40	6,5	6,8	-
1/2	12,80	5907791603401	16,15	5907791603418	M	60	17,9	18,5	-
3/4	14,80	5907791603432	18,70	5907791603449	M	45	16,9	17,5	-
1	21,35	5907791603463	26,80	5907791603470	M	20	9,9	10,2	-
1 1/4	35,95	5907791603494	44,65	5907791603500	M	10	8,8	9,0	-
1 1/2	42,10	5907791603524	53,20	5907791603531	M	8	8,3	8,7	-
2	70,95	5907791603555	89,70	5907791603562	M	6	9,6	9,9	-



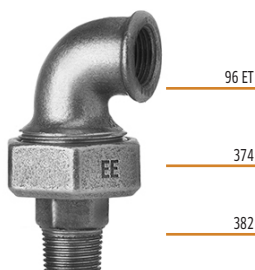
97or	ISO/EN UA2
	Union elbow, flat seat Winkelverschraubung, flach dichtend Coude union, à joint plat Gomito con bocchettone, a sede piana Разъем. соединение угловое

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
3/8	16,45	5907791619938	20,55	5907791619945	S	30	5,4	5,5	-
1/2	13,00	5907791619969	16,40	5907791619976	S	20	6,4	6,7	-
3/4	15,70	5907791619990	19,75	5907791620002	S	17	6,7	7,0	-
1	19,75	5907791620026	25,10	5907791620033	M	15	8,4	8,6	-
1 1/4	33,80	5907791620057	43,65	5907791620064	M	10	9,8	10,2	-
1 1/2	45,85	5907791620088	57,90	5907791620095	M	7	8,3	8,5	-
2	66,65	5907791620118	84,35	5907791620125	M	5	8,3	8,6	-



97oru with gaskets	ISO/EN UA2
	Union elbow, flat seat Winkelverschraubung, flach dichtend Coude union, à joint plat Gomito con bocchettone, a sede piana Разъем. соединение угловое

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
3/8	17,11	5907791629340	21,37	5907791629357	S	30	5,4	5,5	-
1/2	13,52	5907791629364	17,06	5907791629371	S	20	6,4	6,7	-
3/4	16,33	5907791629388	20,54	5907791629395	S	17	6,7	7,0	-
1	20,54	5907791629401	26,10	5907791629418	M	15	8,4	8,6	-
1 1/4	35,15	5907791629425	45,40	5907791629432	M	10	9,8	10,2	-
1 1/2	47,68	5907791629449	60,22	5907791629456	M	7	8,3	8,5	-
2	69,32	5907791629463	87,72	5907791629470	M	5	8,3	8,6	-



98	ISO/EN UA12
	Union elbow, taper seat Winkelverschraubung, kegelig dichtend Coude union, à joint conique Gomito con bocchettone, a sede conica Конусное соединение угловое

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
3/8	15,70	5907791603791	19,35	5907791603807	S	30	5,2	5,5	-
1/2	12,85	5907791603821	16,20	5907791603838	M	50	16,5	17,0	-
3/4	16,40	5907791603852	20,55	5907791603869	M	35	14,8	15,3	-
1	22,45	5907791603883	28,15	5907791603890	M	15	8,9	9,2	-
1 1/4	32,20	5907791603913	47,20	5907791603920	M	10	10,0	10,3	-
1 1/2	46,55	5907791603944	57,80	5907791603951	M	7	8,5	8,7	-
2	75,60	5907791603975	95,55	5907791603982	M	5	8,7	9,0	-



120	ISO/EN A1/45°
	Elbow 45° Winkel 45° Coude 45° Gomito 45° Угольник 45°

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
1/2	6,20	5907791604002	7,90	5907791604019	S	70	5,9	6,2	10
3/4	7,65	5907791604033	9,75	5907791604040	S	40	5,4	5,6	10
1	11,35	5907791604064	14,20	5907791604071	M	50	10,4	10,8	10



130	ISO/EN B1
	Tee, equal T-Stück, egal Tè, égal Ti, uguale Тройник прямой

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT (PC) IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK (KG)	GALV (KG)	
1/4	4,50	5907791604095	5,65	5907791604101	M	150	9,8	9,9	10
3/8	4,00	5907791604125	4,85	5907791604132	M	120	9,6	10,1	10
1/2	2,55	5907791604217	3,15	5907791604224	M	100	13,9	14,2	10
3/4	4,35	5907791604422	5,45	5907791604439	L	100	21,4	21,9	10
1	6,30	5907791604699	8,00	5907791604705	L	70	21,6	22,9	-
1 1/4	11,55	5907791605115	14,20	5907791605122	L	40	21,9	22,3	-
1 1/2	17,65	5907791605504	22,00	5907791605511	L	30	19,2	19,6	-
2	25,35	5907791605863	30,95	5907791605870	L	20	18,4	19,1	-
2 1/2	57,05	5907791606136	70,95	5907791606143	L	10	15,1	15,1	-
3	76,30	5907791606341	94,80	5907791606358	L	8	17,5	18,1	-
4	146,75	5907791606525	185,65	5907791606532	L	4	14,3	14,8	-

3



1

130	ISO/EN B1
	Tee, reducing on the branch T-Stück, Abzweig reduziert oder vergrößert Tè, réduit aux embranchements Ti, ridotta nella diramazione Тройник прямой

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT (PC) IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK (KG)	GALV (KG)	
3/8 x 1/4 x 3/8	8,05	5907791604156	10,15	5907791604163	S	80	5,2	5,4	10
1/2 x 1/4 x 1/2	6,30	5907791604248	8,05	5907791604255	S	50	4,9	5,3	10
1/2 x 3/8 x 1/2	5,20	5907791604309	6,25	5907791604316	S	50	5,3	5,6	10
3/4 x 1/4 x 3/4	8,70	5907791604453	10,80	5907791604460	S	30	4,3	4,5	10
3/4 x 3/8 x 3/4	6,20	5907791604545	7,65	5907791604552	S	30	4,6	5,1	10
3/4 x 1/2 x 3/4	4,65	5907791604606	5,85	5907791604613	L	120	21,5	22,2	10
1 x 3/8 x 1	10,35	5907791604750	13,10	5907791604767	M	50	11,4	11,7	-
1 x 1/2 x 1	6,15	5907791604842	7,60	5907791604859	L	100	26,4	27,4	-
1 x 3/4 x 1	6,70	5907791604934	8,20	5907791604941	L	80	23,7	24,4	-
1 1/4 x 3/8 x 1 1/4	15,00	5907791605146	18,80	5907791605153	M	20	6,9	7,1	-
1 1/4 x 1/2 x 1 1/4	10,15	5907791605207	12,75	5907791605214	L	60	21,6	22,5	-
1 1/4 x 3/4 x 1 1/4	11,05	5907791605290	13,50	5907791605306	L	50	18,1	19,0	-
1 1/4 x 1 x 1 1/4	12,10	5907791605351	15,05	5907791605368	L	50	21,3	22,4	-
1 1/2 x 1/2 x 1 1/2	13,65	5907791605566	17,15	5907791605573	L	40	17,0	17,4	-
1 1/2 x 3/4 x 1 1/2	14,70	5907791605597	18,55	5907791605603	L	40	17,7	18,4	-
1 1/2 x 1 x 1 1/2	16,00	5907791605719	20,05	5907791605726	L	30	14,3	14,7	-
1 1/2 x 1 1/4 x 1 1/2	21,55	5907791605771	27,20	5907791605788	L	30	16,5	17,0	-
2 x 1/2 x 2	19,95	5907791605894	25,30	5907791605900	L	30	16,7	17,6	-
2 x 3/4 x 2	25,95	5907791605924	32,85	5907791605931	L	30	17,5	18,2	-
2 x 1 x 2	20,45	5907791605955	25,50	5907791605962	L	20	13,5	13,8	-
2 x 1 1/4 x 2	25,95	5907791605986	32,85	5907791605993	L	20	14,9	15,2	-
2 x 1 1/2 x 2	30,45	5907791606044	37,85	5907791606051	L	20	16,0	16,4	-
2 1/2 x 3/4 x 2 1/2	43,70	5907791606167	54,35	5907791606174	M	9	8,2	8,6	-
2 1/2 x 1 x 2 1/2	41,15	5907791606198	52,10	5907791606204	M	9	8,6	8,9	-
2 1/2 x 1 1/4 x 2 1/2	56,40	5907791606228	71,50	5907791606235	M	6	6,8	6,9	-
2 1/2 x 1 1/2 x 2 1/2	49,25	5907791606259	62,25	5907791606266	M	6	7,2	7,4	-
2 1/2 x 2 x 2 1/2	55,40	5907791606310	70,00	5907791606327	L	15	19,1	19,6	-
3 x 1 x 3	70,70	5907791606372	85,35	5907791606389	M	6	8,1	8,5	-
3 x 1 1/4 x 3	81,30	5907791606402	98,15	5907791606419	M	6	9,0	9,3	-
3 x 1 1/2 x 3	81,50	5907791606433	98,35	5907791606440	M	4	5,5	5,8	-
3 x 2 x 3	75,70	5907791606464	91,40	5907791606471	L	8	13,3	13,8	-
3 x 2 1/2 x 3	85,30	5907791606495	108,15	5907791606501	L	8	15,4	15,7	-
4 x 1 1/4 x 4	55,54	5907791606556	73,72	5907791606563	L	4	9,0	9,2	-
4 x 1 1/2 x 4	113,20	5907791606587	140,50	5907791606594	L	4	9,2	9,5	-
4 x 2 x 4	133,25	5907791606617	161,00	5907791606624	L	4	10,2	10,5	-
4 x 2 1/2 x 4	165,25	5907791606648	205,65	5907791606655	L	4	11,3	11,5	-
4 x 3 x 4	128,45	5907791606679	171,15	5907791606686	L	4	11,6	11,9	-



1 = 3 < 2

130	ISO/EN B1
	Tee, increasing on the branch T-Stück, oder vergrößert, Durchgang reduziert Tè, agrandi aux embranchements Ti, ingrandita nella diramazione Тройник прямой

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
3/8 x 1/2 x 3/8	6,15	5907791604187	7,55	5907791604194	S	50	4,8	5,0	10
1/2 x 3/4 x 1/2	5,70	5907791604361	7,15	5907791604378	S	40	6,5	6,7	10
1/2 x 1 x 1/2	12,40	5907791604392	15,70	5907791604408	S	30	5,6	5,7	-
3/4 x 1 x 3/4	9,90	5907791604668	12,10	5907791604675	S	25	5,8	5,9	-
1 x 1 1/4 x 1	15,10	5907791605023	19,05	5907791605030	S	12	4,7	4,8	-
1 x 1 1/2 x 1	18,80	5907791605054	23,85	5907791605061	S	12	5,2	5,7	-
1 1/4 x 1 1/2 x 1 1/4	23,70	5907791605443	29,90	5907791605450	S	9	5,1	5,3	-
1 1/4 x 2 x 1 1/4	28,50	5907791605474	35,85	5907791605481	S	6	4,1	4,3	-
1 1/2 x 2 x 1 1/2	29,70	5907791605832	37,45	5907791605849	S	5	3,6	3,8	-
2 x 2 1/2 x 2	60,35	5907791606075	76,35	5907791606082	S	3	3,4	3,5	-
2 x 3 x 2	44,55	5907791606105	53,26	5907791606112	S	2	2,8	2,9	-



1 = 2 > 3

130	ISO/EN B1
	Tee, reducing on the run T-Stück, Durchgang reduziert Tè, ou réduit au niveau du passage Ti, ou ridotto al livello del passaggio Тройник прямой

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
1/2 x 1/2 x 3/8	5,70	5907791604330	7,35	5907791604347	S	50	5,7	5,9	10
3/4 x 3/4 x 1/2	5,90	5907791604637	7,45	5907791604644	M	50	9,1	9,7	10
1 x 1 x 1/2	8,05	5907791604965	10,05	5907791604972	M	40	10,1	10,6	-
1 x 1 x 3/4	8,75	5907791604996	11,05	5907791605009	M	35	9,8	10,3	-
1 1/4 x 1 1/4 x 3/4	18,30	5907791605382	22,80	5907791605399	S	10	4,5	4,7	-
1 1/4 x 1 1/4 x 1	15,10	5907791605412	19,20	5907791605429	S	10	4,7	4,8	-
1 1/2 x 1 1/2 x 1 1/4	26,35	5907791605801	33,05	5907791605818	S	6	3,9	4,0	-



1 > 2, 3

130	ISO/EN B1
	Tee, reducing on the branch, reducing on the run T-Stück, Abzweig reduziert oder vergrößert, Durchgang reduziert Tè, réduit aux embranchements, ou réduit au niveau du passage Ti, ridotta nella diramazione, ridotta nel passaggio Тройник прямой

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
1/2 x 3/8 x 3/8	5,90	5907791604279	7,35	5907791604286	S	50	4,8	4,9	10
3/4 x 3/8 x 1/2	6,60	5907791604514	8,35	5907791604521	S	30	4,0	4,1	10
3/4 x 1/2 x 1/2	5,10	5907791604576	6,25	5907791604583	S	30	4,5	4,6	10
1 x 1/2 x 1/2	10,70	5907791604781	13,20	5907791604798	S	30	5,8	5,9	-
1 x 1/2 x 3/4	7,50	5907791604811	9,40	5907791604828	S	30	6,4	6,6	-
1 x 3/4 x 1/2	9,65	5907791604873	11,95	5907791604880	S	25	5,2	5,4	-
1 x 3/4 x 3/4	7,60	5907791604903	9,55	5907791604910	M	40	9,2	9,5	-
1 1/4 x 1/2 x 1	11,95	5907791605177	14,85	5907791605184	M	30	9,1	9,3	-
1 1/4 x 3/4 x 3/4	15,30	5907791605238	19,15	5907791605245	M	30	9,6	9,9	-
1 1/4 x 3/4 x 1	13,95	5907791605269	17,35	5907791605276	M	30	10,5	10,7	-
1 1/4 x 1 x 1	13,65	5907791605320	16,90	5907791605337	M	25	10,8	11,0	-
1 1/2 x 1/2 x 3/4	10,51	5907791605535	12,96	5907791605542	M	17	5,6	5,6	-
1 1/2 x 1 x 3/4	11,92	5907791605627	14,79	5907791605634	M	15	6,3	6,8	-
1 1/2 x 1 x 1	18,40	5907791605658	23,05	5907791605665	M	20	8,3	9,0	-
1 1/2 x 1 x 1 1/4	18,05	5907791605689	22,70	5907791605696	M	20	9,8	9,9	-
1 1/2 x 1 1/4 x 1 1/4	22,05	5907791605740	28,10	5907791605757	M	15	9,1	9,5	-
2 x 1 1/2 x 1 1/2	31,50	5907791606013	39,65	5907791606020	M	10	7,6	7,9	-



131

ISO/EN E1

Pitcher tee, equal
Bogen-T-Stück, egal
Té cintré, égal
Ti a una curva, uguale
Тройник с отводом

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
1/2	10,05	5907791606709	12,80	5907791606716	S	30	5,7	5,7	-
3/4	12,70	5907791606730	16,15	5907791606747	S	20	5,9	6,0	-
1	19,10	5907791606761	24,40	5907791606778	S	10	4,9	5,0	-
1 1/4	25,80	5907791606792	33,05	5907791606808	S	8	6,5	6,5	-
1 1/2	38,35	5907791606822	48,30	5907791606839	S	3	3,2	3,3	-
2	54,25	5907791606853	69,60	5907791606860	S	2	3,0	3,0	-



135

Tee, equal
T-Stück, egal
Té, égal
Ti, uguale
Тройник прямой

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
1	21,70	5907791621962	27,20	5907791621979	S	20	6,3	6,6	-



165

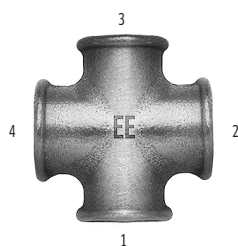
Tee 45°, equal
T-Stück 45°, egal
Té 45° égal
Ti 45°, uguale
Тройник 45° о прямой

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
1/2	15,40	5907791606884	19,20	5907791606891	S	30	6,0	6,1	-
3/4	17,65	5907791606914	22,10	5907791606921	S	15	4,9	5,1	-
1	26,35	5907791606945	33,10	5907791606952	S	10	5,3	5,6	-
1 1/4	32,40	5907791606976	41,00	5907791606983	S	6	5,1	5,3	-
1 1/2	44,05	5907791607003	55,05	5907791607010	S	3	3,4	3,5	-
2	64,95	5907791607034	82,00	5907791607041	S	2	3,2	3,4	-



180	ISO/EN C1
	Cross, equal Kreuz, egal Croix, égal Croce, uguale Крестовина

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
3/8	9,20	5907791607096	11,55	5907791607102	S	40	4,1	4,2	10
1/2	9,05	5907791607126	11,35	5907791607133	M	60	9,8	10,0	10
3/4	13,85	5907791607188	16,90	5907791607195	M	40	9,7	10,2	10
1	16,90	5907791607300	20,95	5907791607317	M	25	10,6	10,9	-
1 1/4	22,45	5907791607423	28,10	5907791607430	M	12	8,1	8,3	-
1 1/2	29,70	5907791607546	37,45	5907791607553	M	12	10,1	10,3	-
2	44,15	5907791607690	55,90	5907791607706	M	6	7,1	7,1	-
2 1/2	99,90	5907791607812	126,45	5907791607829	M	3	5,4	5,5	-
3	115,00	5907791607843	145,60	5907791607850	L	4	10,4	10,7	-
4	189,75	5907791607874	241,40	5907791607881	L	3	12,8	13,1	-



180	ISO/EN C1
	Cross, reducing Kreuz, reduziert Croix, réduit Croce, ridotto Крестовина

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
1/2 x 3/8 x 1/2 x 3/8	8,62	5907791607157	10,81	5907791607164	S	30	4,2	4,3	10
3/4 x 3/8 x 3/4 x 3/8	8,79	5907791607218	11,33	5907791607225	S	20	3,1	3,2	10
3/4 x 1/2 x 3/4 x 1/2	12,70	5907791607270	15,85	5907791607287	S	20	4,3	4,4	10
1 x 1/2 x 1 x 1/2	25,20	5907791607362	31,75	5907791607379	S	15	4,1	4,2	-
1 x 3/4 x 1 x 3/4	25,20	5907791607393	31,75	5907791607409	S	15	4,5	4,7	-
1 1/4 x 1/2 x 1 1/4 x 1/2	18,49	5907791607454	22,42	5907791607461	L	30	10,6	11,0	-
1 1/2 x 3/4 x 1 1/2 x 3/4	19,52	5907991607607	23,49	5907991607614	L	25	13,3	13,8	-
2 x 3/4 x 2 x 3/4	17,10	5907791607751	20,40	5907791607768	L	15	11,0	11,3	-



220	Y-piece Y-Verteiler Distributeur Y Distribuzione a Y Тройник вилкообразный
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DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
1/2	10,70	5907791621993	13,20	5907791622006	S	30	4,0	4,2	10
3/4	16,45	5907791622020	20,75	5907791622037	S	20	4,4	4,6	-
1	27,20	5907791622051	34,35vva	5907791622068	S	15	5,0	5,1	-



221	ISO/EN Za1
	Side outlet elbow Winkelverteiler Distributeur à coude Distribuzione a gomito Тройник трехосевой

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
3/8	11,15	5907791607904	14,05	5907791607911	S	50	4,3	4,5	10
1/2	8,70	5907791607935	10,65	5907791607942	M	80	9,7	10,1	10
3/4	10,80	5907791607966	16,90	5907791607973	M	50	9,8	10,8	10
1	18,00	5907791607997	22,40	5907791608000	M	30	9,3	9,7	-
1 1/4	31,50	5907791608024	39,65	5907791608031	M	15	8,5	8,7	-
1 1/2	44,70	5907791608055	56,30	5907791608062	M	10	6,7	6,8	-
2	68,00	5907791608086	86,05	5907791608093	M	7	7,2	7,3	-



DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT (PC) IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
3/8 x 1/4	3,65	5907791608116	4,70	5907791608123	S	150	6,2	6,6	10
1/2 x 1/4	3,90	5907791608147	4,90	5907791608154	S	100	6,6	6,8	10
1/2 x 3/8	3,45	5907791608178	4,10	5907791608185	S	100	6,6	7,0	10
3/4 x 3/8	4,50	5907791608239	5,70	5907791608246	S	60	5,1	5,5	10
3/4 x 1/2	3,70	5907791608260	4,80	5907791608277	M	100	10,5	10,7	10
1 x 1/4	8,29	5907791608291	9,66	5907791608307	S	40	5,4	5,5	10
1 x 3/8	6,25	5907791608321	7,90	5907791608338	S	40	5,1	5,2	10
1 x 1/2	4,85	5907791608352	6,05	5907791608369	L	180	25,5	26,7	10
1 x 3/4	4,35	5907791608383	5,50	5907791608390	L	150	24,0	24,5	10
1 1/4 x 3/8	11,15	5907791608413	14,05	5907791608420	S	25	5,7	5,8	-
1 1/4 x 1/2	8,85	5907791608444	11,50	5907791608451	M	50	11,7	12,0	-
1 1/4 x 3/4	8,00	5907791608475	10,15	5907791608482	L	100	23,4	24,4	-
1 1/4 x 1	7,90	5907791608505	9,85	5907791608512	L	100	23,3	24,0	-
1 1/2 x 1/2	14,15	5907791608536	17,75	5907791608543	M	40	11,5	11,5	-
1 1/2 x 3/4	12,40	5907791608567	15,75	5907791608574	M	40	11,5	12,0	-
1 1/2 x 1	9,60	5907791608598	11,95	5907791608604	L	80	24,0	25,0	-
1 1/2 x 1 1/4	10,40	5907791608628	13,20	5907791608635	L	75	22,0	23,9	-
2 x 1/2	19,65	5907791608659	24,55	5907791608666	M	20	8,5	8,6	-
2 x 3/4	20,40	5907791608680	25,50	5907791608697	M	20	7,8	8,1	-
2 x 1	18,45	5907791608710	23,50	5907791608727	L	50	22,3	22,8	-
2 x 1 1/4	16,55	5907791608741	20,75	5907791608758	L	50	22,2	22,9	-
2 x 1 1/2	15,70	5907791608772	19,70	5907791608789	L	40	18,5	18,7	-
2 1/2 x 1	37,00	5907791608802	46,70	5907791608819	M	15	10,1	10,9	-
2 1/2 x 1 1/4	41,50	5907791608833	51,87	5907791608840	M	15	10,0	10,5	-
2 1/2 x 1 1/2	49,35	5907791608864	62,55	5907791608871	M	15	10,8	11,2	-
2 1/2 x 2	42,75	5907791608895	53,05	5907791608901	M	12	8,9	9,4	-
3 x 1	44,02	5907791608925	56,26	5907791608932	M	12	10,6	11,2	-
3 x 1 1/4	41,67	5907791608956	52,67	5907791608963	M	12	11,3	11,7	-
3 x 1 1/2	45,30	5907791608987	57,30	5907791608994	M	12	11,5	11,6	-
3 x 2	66,20	5907791609014	83,65	5907791609021	M	12	11,6	12,0	-
3 x 2 1/2	75,40	5907791609045	95,20	5907791609052	M	8	8,8	9,0	-
4 x 1 1/2	98,60	5907791609076	117,44	5907791609083	M	5	7,1	7,7	-
4 x 2	114,25	5907791609106	144,70	5907791609113	M	6	9,2	9,5	-
4 x 2 1/2	119,60	5907791609137	151,20	5907791609144	M	6	10,2	10,6	-
4 x 3	122,50	5907791609168	155,15	5907791609175	M	6	9,4	9,9	-

240	ISO/EN M2
	Socket, reducing
	Muffe, reduziert
	Manchon, réduit
	Manicotto, ridotto
	Муфта переходная



241	ISO/EN N4
	Reducing bush Reduziernippel Mamelon, réduit Nipplo di riduzione Фугорка

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
3/8 x 1/4	2,40	5907791609199	3,10	5907791609205	S	200	3,8	4,0	10
1/2 x 1/4	1,95	5907791609229	2,40	5907791609236	S	150	6,5	6,8	10
1/2 x 3/8	1,80	5907791609250	2,40	5907791609267	M	300	9,2	9,8	10
3/4 x 1/4	3,55	5907791609281	4,40	5907791609298	S	100	7,0	7,2	10
3/4 x 3/8	2,75	5907791609311	3,35	5907791609328	S	100	5,9	6,1	10
3/4 x 1/2	1,90	5907791609342	2,55	5907791609359	M	200	10,7	11,1	10
1 x 3/8	4,50	5907791609403	5,55	5907791609410	S	60	6,3	6,5	10
1 x 1/2	2,80	5907791609434	3,55	5907791609441	L	220	22,9	23,3	10
1 x 3/4	2,55	5907791609465	3,35	5907791609472	L	250	21,4	22,1	10
1 1/4 x 3/8	8,00	5907791609496	10,15	5907791609502	S	40	8,4	8,6	10
1 1/4 x 1/2	5,20	5907791609526	6,15	5907791609533	L	100	19,9	20,4	10
1 1/4 x 3/4	4,45	5907791609557	5,50	5907791609564	L	120	21,6	22,4	10
1 1/4 x 1	3,35	5907791609588	4,10	5907791609595	L	150	22,4	22,5	10
1 1/2 x 1/2	6,35	5907791609618	8,15	5907791609625	L	90	22,9	23,4	-
1 1/2 x 3/4	7,35	5907791609649	9,00	5907791609656	L	90	22,8	23,1	-
1 1/2 x 1	4,85	5907791609670	6,05	5907791609687	L	100	22,0	22,4	-
1 1/2 x 1 1/4	4,95	5907791609700	6,15	5907791609717	L	150	22,2	23,1	-
2 x 1/2	12,90	5907791609731	16,35	5907791609748	L	60	22,2	23,1	-
2 x 3/4	12,80	5907791609762	16,15	5907791609779	L	55	20,9	21,0	-
2 x 1	10,55	5907791609793	13,25	5907791609809	L	55	21,2	21,4	-
2 x 1 1/4	10,05	5907791609823	12,65	5907791609830	L	60	21,6	22,1	-
2 x 1 1/2	9,00	5907791609854	11,35	5907791609861	L	80	23,3	23,8	-
2 1/2 x 1	20,90	5907791609946	26,00	5907791609953	M	20	12,0	12,3	-
2 1/2 x 1 1/4	24,00	5907791609977	30,10	5907791609984	M	20	12,1	12,3	-
2 1/2 x 1 1/2	22,85	5907791610003	28,40	5907791610010	L	36	20,5	21,2	-
2 1/2 x 2	17,25	5907791610034	21,75	5907791610041	L	45	21,5	21,8	-
3 x 1	32,25	5907791610065	40,75	5907791610072	M	12	10,9	11,2	-
3 x 1 1/4	32,25	5907791610096	40,75	5907791610102	M	12	11,0	11,3	-
3 x 1 1/2	30,15	5907791610126	37,80	5907791610133	M	12	10,9	11,0	-
3 x 2	22,60	5907791610157	28,05	5907791610164	L	26	22,1	22,6	-
3 x 2 1/2	25,50	5907791610188	31,75	5907791610195	L	30	19,0	19,2	-
4 x 1	33,40	5907791610218	41,43	5907791610225	L	15	23,3	23,7	-
4 x 1 1/4	33,90	5907791610249	42,06	5907791610256	L	15	24,9	25,1	-
4 x 1 1/2	33,90	5907791610270	42,06	5907791610287	L	15	21,0	21,7	-
4 x 2	64,45	5907791610300	81,55	5907791610317	M	10	16,4	16,6	-
4 x 2 1/2	47,85	5907791610331	60,70	5907791610348	M	10	16,0	16,5	-
4 x 3	45,95	5907791610362	58,25	5907791610379	L	15	21,0	21,2	-



245	ISO/EN N8
	Hexagon nipple, reducing Doppelnippel, reduziert Mamelon, réduit Nipplo doppio, ridotto Ниппель редукционный

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
3/8 x 1/4	3,70	5907791610393	4,90	5907791610409	S	150	5,4	5,9	10
1/2 x 1/4	5,20	5907791610423	6,15	5907791610430	S	100	5,3	5,5	10
1/2 x 3/8	4,50	5907791610454	5,70	5907791610461	S	100	6,2	6,5	10
3/4 x 3/8	8,10	5907791610485	10,10	5907791610492	S	70	6,0	6,3	10
3/4 x 1/2	4,10	5907791610515	4,95	5907791610522	M	150	13,5	14,0	10
1 x 3/8	8,59	5907791610546	9,95	5907791610553	M	90	11,7	12,0	10
1 x 1/2	7,90	5907791610577	10,00	5907791610584	L	150	21,8	22,2	10
1 x 3/4	4,50	5907791610607	5,70	5907791610614	L	180	24,8	25,7	10
1 1/4 x 1/2	12,15	5907791610638	15,30	5907791610645	M	50	10,9	11,4	10
1 1/4 x 3/4	10,55	5907791610669	13,00	5907791610676	L	100	21,0	22,1	10
1 1/4 x 1	7,40	5907791610690	9,00	5907791610706	L	100	22,8	23,5	10
1 1/2 x 1/2	6,22	5907791610720	7,37	5907791610737	M	40	9,8	10,2	-
1 1/2 x 3/4	10,55	5907791610751	13,20	5907791610768	M	40	10,5	10,9	-
1 1/2 x 1	16,55	5907791610782	20,95	5907791610799	L	80	23,1	23,8	-
1 1/2 x 1 1/4	8,90	5907791610812	11,35	5907791610829	L	60	18,0	18,7	-
2 x 1/2	14,41	5907791610843	16,33	5907791610850	M	25	10,1	10,7	-
2 x 3/4	11,86	5907791611024	13,58	5907791610881	M	25	10,4	10,8	-
2 x 1	15,00	5907791610904	18,85	5907791610911	M	25	11,1	11,3	-
2 x 1 1/4	18,80	5907791610935	23,50	5907791610942	L	45	20,3	21,0	-
2 x 1 1/2	17,05	5907791610966	21,45	5907791610973	L	45	19,1	19,6	-
2 1/2 x 1	19,30	5907791610997	22,38	5907791611000	M	17	12,0	12,4	-
2 1/2 x 1 1/4	15,24	5907791611024	18,36	5907791611031	M	11	8,3	8,5	-
2 1/2 x 1 1/2	24,60	5907791611055	30,95	5907791611062	M	16	12,1	12,4	-
2 1/2 x 2	41,30	5907791611086	51,40	5907791611093	M	16	10,5	10,9	-
3 x 2	50,10	5907791611116	63,30	5907791611123	M	9	9,4	9,4	-
3 x 2 1/2	65,65	5907791611147	83,05	5907791611154	M	9	9,0	9,0	-



246	ISO/EN M4
	Socket, reducing Muffe, reduziert Manchon, réduit Manicotto, ridotto Муфта редукционная

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
3/8 x 1/4	3,45	5907791611178	4,30	5907791611185	S	150	5,4	5,7	10
1/2 x 1/4	4,65	5907791611208	5,70	5907791611215	S	100	5,9	6,1	10
1/2 x 3/8	3,65	5907791611239	4,55	5907791611246	S	100	6,8	7,2	10
3/4 x 3/8	6,20	5907791611260	7,70	5907791611277	S	50	4,7	4,9	10
3/4 x 1/2	3,90	5907791611291	4,90	5907791611307	M	100	10,0	10,7	10
1 x 1/2	6,10	5907791611321	7,50	5907791611338	M	80	11,4	12,4	10
1 x 3/4	6,25	5907791611352	7,95	5907791611369	L	150	22,1	22,5	10
1 1/4 x 3/4	11,40	5907791611383	14,20	5907791611390	M	50	11,6	12,2	-
1 1/4 x 1	7,25	5907791611413	8,80	5907791611420	L	95	22,2	23,4	-
1 1/2 x 1	13,65	5907791611444	16,90	5907791611451	M	40	11,9	12,3	-
1 1/2 x 1 1/4	11,95	5907791611475	14,85	5907791611482	M	35	11,7	12,1	-
2 x 1 1/4	19,10	5907791611505	24,00	5907791611512	M	20	9,1	9,4	-
2 x 1 1/2	19,95	5907791611536	25,30	5907791611543	M	20	9,3	9,5	-



270	ISO/EN M2
	Socket, equal Muffe, egal Manchon, égal Manicotto, uguale Муфта

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
1/4	2,95	5907791611567	3,85	5907791611574	S	150	5,7	6,0	10
3/8	2,75	5907791611598	3,30	5907791611604	S	100	4,8	5,0	10
1/2	2,20	5907791611628	2,70	5907791611635	M	180	13,6	14,1	10
3/4	2,90	5907791611659	3,65	5907791611666	L	200	21,8	22,4	10
1	3,70	5907791611680	4,85	5907791611697	L	150	24,6	25,2	10
1 1/4	6,15	5907791611710	7,60	5907791611727	L	80	21,0	21,3	-
1 1/2	8,60	5907791611741	11,00	5907791611758	L	70	20,2	20,7	-
2	12,90	5907791611772	16,25	5907791611789	L	30	14,7	15,0	-
2 1/2	36,25	5907791611802	44,95	5907791611819	L	20	14,7	15,1	-
3	43,40	5907791611833	54,00	5907791611840	L	10	10,6	10,8	-
4	99,60	5907791611864	125,90	5907791611871	L	10	17,4	18,1	-



271	ISO/EN M2 R-L
	Socket, right and left hand thread Muffe, m. Rechts- u. Linksgewinde Manchon, filetage droite/gauche Manicotto, con filettatura destra/sinistra Муфта

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
3/8	3,70	5907791611925	4,70	5907791611932	S	100	4,2	4,3	10
1/2	3,40	5907791611956	4,25	5907791611963	S	80	5,6	5,7	10
3/4	4,40	5907791611987	5,65	5907791611994	S	50	5,4	5,6	10
1	5,85	5907791612014	7,30	5907791612021	S	40	6,1	6,4	10
1 1/4	11,15	5907791612045	13,95	5907791612052	S	20	5,3	5,4	-
1 1/2	12,15	5907791612076	15,30	5907791612083	S	12	3,8	4,0	-
2	21,70	5907791612106	27,20	5907791612113	S	8	3,7	3,7	-
2 1/2	27,54	5907791612137	36,59	5907791612144	S	5	3,9	4,0	-
3	24,33	5907791612168	31,48	5907791612175	S	3	3,1	3,2	-
4	47,63	5907791612199	60,22	5907791612205	S	2	3,3	3,5	-



280	ISO/EN N8
	Hexagon nipple Doppelnippel Mamelon Niplo doppio Ниппель шестигранный

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
1/4	3,35	5907791612229	4,00	5907791612236	S	200	6,0	6,2	10
3/8	3,65	5907791612250	4,55	5907791612267	S	150	6,6	6,8	10
1/2	1,90	5907791612281	2,40	5907791612298	M	160	11,8	12,5	10
3/4	2,55	5907791612311	3,10	5907791612328	M	140	12,8	13,3	10
1	3,50	5907791612342	4,50	5907791612359	L	130	22,1	23,4	10
1 1/4	6,15	5907791612373	7,60	5907791612380	L	80	22,9	23,8	-
1 1/2	7,30	5907791612403	8,80	5907791612410	L	75	21,5	22,7	-
2	12,70	5907791612434	15,85	5907791612441	L	40	20,6	20,8	-
2 1/2	22,85	5907791612465	28,40	5907791612472	L	25	20,1	20,6	-
3	27,70	5907791612496	34,20	5907791612502	L	20	23,2	23,9	-
4	99,60	5907791612526	125,90	5907791612533	L	8	15,4	15,7	-



281	ISO/EN N8 R-L
	Hexagon nipple, right and left hand thread Doppelnippel, m. Rechts- u. Linksgewinde Mamelon, filetage droite/gauche Niplo doppio, con filettatura destra/sinistra Ниппель шестигранный

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
1/4	10,05	5907791612557	12,52	5907791612564	S	170	5,1	5,3	10
3/8	7,39	5907791612588	9,25	5907791612595	S	150	6,6	7,4	10
1/2	3,65	5907791612618	4,50	5907791612625	S	100	7,2	7,5	10
3/4	4,40	5907791612649	5,55	5907791612656	S	70	6,6	6,8	10
1	7,60	5907791612670	9,40	5907791612687	S	40	7,0	7,3	10
1 1/4	10,65	5907791612700	13,35	5907791612717	S	20	5,6	5,9	-
1 1/2	12,70	5907791612731	15,85	5907791612748	S	20	6,2	6,5	-
2	23,50	5907791612762	29,30	5907791612779	S	8	4,4	4,6	-



290	ISO/EN T9
	Plug, beaded Stopfen, mit Rand Bouchon, avec collet Tappo, con bordo Пробка

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
1/4	1,75	5907791612885	2,30	5907791612892	S	300	7,1	8,3	10
3/8	1,60	5907791612915	1,85	5907791612922	S	250	8,7	8,9	10
1/2	1,55	5907791612946	1,85	5907791612953	M	350	19,0	19,4	10
3/4	2,10	5907791612977	2,55	5907791612984	M	200	15,5	16,1	10
1	2,35	5907791613004	2,80	5907791613011	L	150	18,6	19,4	10
1 1/4	4,25	5907791613035	5,30	5907791613042	L	100	19,5	19,7	-
1 1/2	5,35	5907791613066	6,45	5907791613073	L	80	17,7	18,1	-
2	9,45	5907791613097	11,55	5907791613103	L	55	23,5	24,2	-
2 1/2	19,90	5907791613127	25,20	5907791613134	L	30	21,8	22,5	-
3	25,75	5907791613158	32,45	5907791613165	L	20	17,3	17,6	-
4	45,30	5907791613189	57,30	5907791613196	L	10	19,4	20,1	-



291	ISO/EN T8
	Plug, plain Stopfen, ohne Rand Bouchon, sans collet Tappo, senza bordo Пробка

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
1/4	1,95	5907791613219	2,45	5907791613226	S	300	3,2	3,8	10
3/8	1,75	5907791613240	2,35	5907791613257	S	250	4,4	4,9	10
1/2	1,65	5907791613271	2,25	5907791613288	S	200	5,2	5,6	10
3/4	2,45	5907791613301	3,30	5907791613318	S	150	7,5	7,7	10
1	3,20	5907791613332	3,85	5907791613349	S	100	7,4	7,7	10
1 1/4	4,35	5907791613363	5,55	5907791613370	S	80	10,4	10,8	-
1 1/2	7,40	5907791613394	9,20	5907791613400	S	50	7,8	8,1	-
2	10,15	5907791613424	12,65	5907791613431	S	30	8,3	8,4	-
2 1/2	19,20	5907791613455	24,15	5907791613462	S	15	6,8	7,0	-
3	23,50	5907791613486	29,45	5907791613493	S	10	6,7	6,8	-
4	81,15	5907791613516	102,70	5907791613523	S	4	4,9	5,1	-



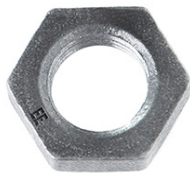
300	ISO/EN T1
	Cap Kappe Bouchon Calotta Заглушка

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
1/4	2,30	5907791613547	2,90	5907791613554	S	200	5,0	5,2	10
3/8	2,05	5907791613578	2,70	5907791613585	S	200	6,8	7,0	10
1/2	2,40	5907791613608	3,05	5907791613615	M	250	14,2	14,7	10
3/4	2,90	5907791613639	3,65	5907791613646	M	200	16,9	17,7	10
1	3,50	5907791613660	4,30	5907791613677	L	150	21,3	21,9	10
1 1/4	5,35	5907791613691	6,45	5907791613707	L	100	21,5	22,2	-
1 1/2	6,60	5907791613721	8,05	5907791613738	L	70	16,9	17,5	-
2	12,15	5907791613752	15,20	5907791613769	L	45	22,2	23,0	-
2 1/2	22,10	5907791613783	27,65	5907791613790	L	30	19,7	20,1	-
3	24,15	5907791613813	30,15	5907791613820	L	24	23,7	24,5	-
4	51,90	5907791613844	65,90	5907791613851	L	10	20,1	20,5	-



301	ISO/EN T1
	Cap Kappe Bouchon Calotta Заглушка

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
3/8	1,55	5907791613875	2,05	5907791613882	S	200	7,0	7,2	10
1/2	1,70	5907791613905	2,38	5907791613912	M	250	13,0	13,5	10
3/4	1,65	5907791613936	2,05	5907791613943	M	150	11,9	12,2	10
1	2,08	5907791613967	2,60	5907791613974	L	150	16,5	17,1	10
1 1/4	3,09	5907791613998	4,00	5907791614001	L	100	18,3	18,8	-
1 1/2	3,93	5907791614025	5,03	5907791614032	L	70	15,6	16,0	-
2	7,38	5907791614056	9,06	5907791614063	L	45	14,5	14,8	-



310	ISO/EN P4
	Backnut Gegenmutter Contre-écrou Controdado Контрайка

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
1/4	2,20	5907791614087	2,75	5907791614094	S	300	3,8	4,1	10
3/8	2,30	5907791614117	2,90	5907791614124	S	250	5,7	5,9	10
1/2	1,75	5907791614148	2,30	5907791614155	S	200	6,2	6,4	10
3/4	1,95	5907791614179	2,40	5907791614186	S	150	5,3	5,6	10
1	3,00	5907791614209	3,55	5907791614216	M	150	9,9	10,4	10
1 1/4	4,30	5907791614230	5,10	5907791614247	M	100	9,9	10,3	10
1 1/2	4,70	5907791614261	5,85	5907791614278	M	100	11,5	12,0	-
2	9,30	5907791614292	11,55	5907791614308	M	50	9,9	10,1	-
2 1/2	20,55	5907791614322	25,90	5907791614339	S	15	6,7	6,9	-
3	24,05	5907791614353	30,45	5907791614360	S	10	4,9	5,2	-
4	21,09	5907791614384	25,30	5907791614391	S	6	5,7	6,0	-



321	Flange without bolt holes Gewindeflansch, ungebohrt Bride sans trou de boulons Flangia senza fori per viti Фланец
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DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
3/8	11,02	5907791614414	13,48	5907791614421	S	50	9,0	9,2	-
1/2	11,05	5907791614445	13,70	5907791614452	S	40	8,3	8,5	-
3/4	13,40	5907791614476	16,85	5907791614483	S	30	8,3	8,5	-
1	15,50	5907791614506	19,50	5907791614513	S	20	7,4	7,7	-
1 1/4	20,55	5907791614537	25,90	5907791614544	S	15	7,9	8,1	-
1 1/2	25,10	5907791614568	31,50	5907791614575	S	10	7,1	7,3	-
2	30,35	5907791614599	38,05	5907791614605	S	10	9,3	9,4	-
2 1/2	37,84	5907791614629	45,12	5907791614636	M	7	9,2	9,3	-
3	45,51	5907791614650	54,30	5907791614667	M	5	10,3	10,6	-
4	80,71	5907791614681	93,49	5907791614698	M	4	10,1	10,4	-



326	Screwed flange, with 2 bolt holes Gewindeflansch, gebohrt, 2 Loch Bride avec 2 trous de boulons Flangia con 2 fori per viti Фланец с 2-мя отверстиями
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DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
3/4	22,05	5907791622143	27,90	5907791622150	S	30	9,6	9,7	-
1	22,45	5907791622167	28,00	5907791622174	S	20	8,2	8,4	-
1 1/4	28,15	5907791622235	35,45	5907791622242	S	15	9,1	9,2	-
1 1/2	30,75	5907791622259	38,85	5907791622266	S	10	7,9	8,2	-



330or	ISO/EN U1
	Union, flat seat Verschraubung, flach dichtend Manchon, union à joint plat Bocchettone, a sede piana Разъемное соединение под плоское уплотнение

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
3/8	11,80	5907791620149	14,45	5907791620156	S	60	7,7	8,0	-
1/2	8,10	5907791620170	9,75	5907791620187	M	80	18,5	19,1	-
3/4	9,20	5907791620200	11,35	5907791620217	M	60	16,9	17,6	-
1	10,20	5907791620262	12,85	5907791620279	L	65	22,2	23,0	-
1 1/4	17,65	5907791620323	22,10	5907791620330	L	35	22,6	23,2	-
1 1/2	22,70	5907791620385	28,55	5907791620392	L	25	18,7	19,1	-
2	37,30	5907791620415	47,35	5907791620422	L	20	21,4	21,9	-
2 1/2	85,80	5907791620446	108,45	5907791620453	L	10	19,0	19,5	-
3	125,85	5907791620477	159,15	5907791620484	L	8	21,4	22,0	-
4	294,15	5907791620507	358,30	5907791620514	L	4	19,3	19,7	-



330oru with gaskets	ISO/EN U1
	Union, flat seat Verschraubung, flach dichtend Manchon, union à joint plat Bocchettone, a sede piana Разъемное соединение под плоское уплотнение



331or	ISO/EN U2
	Union, flat seat Verschraubung, flach dichtend Manchon, union à joint plat Bocchettone, a sede piana Разъемное соединение под плоское уплотнение



331oru with gaskets	ISO/EN U2
	Union, flat seat Verschraubung, flach dichtend Manchon, union à joint plat Bocchettone, a sede piana Разъемное соединение под плоское уплотнение



340	ISO/EN U11
	Union, taper seat Verschraubung, kegelig dichtend Manchon, union à joint conique Bocchettone, a sede conica Конусное соединение

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
3/8	12,27	5907791622945	15,03	5907791622952	S	60	7,7	8,0	-
1/2	8,42	5907791622761	10,14	5907791622778	M	80	18,5	19,1	-
3/4	9,57	5907791622792	11,80	5907791622808	M	60	16,9	17,6	-
1	10,61	5907791622822	13,36	5907791622839	L	65	22,2	23,0	-
1 1/4	18,36	5907791622853	22,98	5907791622860	L	35	22,6	23,2	-
1 1/2	23,61	5907791622884	29,69	5907791622891	L	25	18,7	19,1	-
2	38,79	5907791622914	49,24	5907791622921	L	20	21,4	21,9	-
2 1/2	89,23	5907791622976	112,79	5907791622983	L	10	19,0	19,5	-
3	130,88	5907791623003	165,52	5907791623010	L	8	21,4	22,0	-
4	305,92	5907791623034	387,56	5907791623041	L	4	19,3	19,7	-

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
3/8	12,75	5907791620538	15,75	5907791620545	S	50	7,2	7,5	-
1/2	9,25	5907791620569	11,40	5907791620576	M	40	10,7	11,1	-
3/4	10,10	5907791620590	12,75	5907791620606	M	30	10,0	10,3	-
1	12,25	5907791620620	15,20	5907791620637	L	55	23,4	24,1	-
1 1/4	21,15	5907791620651	27,75	5907791620668	L	30	23,4	24,1	-
1 1/2	26,65	5907791620682	33,50	5907791620699	L	25	22,8	23,4	-
2	41,35	5907791620712	52,40	5907791620729	L	15	18,7	19,3	-
2 1/2	96,40	5907791620743	121,90	5907791620750	L	10	21,1	21,8	-
3	140,95	5907791620774	178,20	5907791620781	L	6	20,5	21,1	-

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
3/8	13,26	5907791626141	16,38	5907791626158	S	50	7,2	7,5	-
1/2	9,62	5907791625939	11,86	5907791625946	M	40	10,7	11,1	-
3/4	10,50	5907791626127	13,26	5907791626134	M	30	10,0	10,3	-
1	12,74	5907791625908	15,81	5907791625922	L	55	23,4	24,1	-
1 1/4	22,00	5907791625991	28,86	5907791626004	L	30	23,4	24,1	-
1 1/2	27,72	5907791625960	34,84	5907791625977	L	25	22,8	23,4	-
2	43,00	5907791626028	54,50	5907791626035	L	15	18,7	19,3	-
2 1/2	100,26	5907791626059	126,78	5907791626066	L	10	21,1	21,8	-
3	146,59	5907791626080	185,33	5907791626097	L	6	20,5	21,1	-

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
3/8	12,80	5907791615190	15,75	5907791615206	S	60	8,2	8,4	-
1/2	12,15	5907791615220	15,20	5907791615237	M	80	19,3	19,8	-
3/4	10,90	5907791615251	13,70	5907791615268	M	60	17,5	18,0	-
1	12,70	5907791615282	15,80	5907791615299	L	60	21,2	22,0	-
1 1/4	20,90	5907791615312	27,10	5907791615329	L	35	23,5	24,1	-
1 1/2	24,50	5907791615343	31,75	5907791615350	L	25	19,7	20,4	-
2	40,15	5907791615374	52,25	5907791615381	L	20	23,6	24,2	-
2 1/2	90,70	5907791615404	114,85	5907791615411	L	10	19,7	20,0	-
3	126,50	5907791615435	160,15	5907791615442	L	8	23,0	23,7	-
4	255,20	5907791615466	323,35	5907791615473	L	4	20,8	21,0	-



341	ISO/EN U12
	Union, taper seat Verschraubung, kegelig dichtend Manchon, union à joint conique Bocchettone, a sede conica Конусное соединение

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
3/8	11,25	5907791615497	14,15	5907791615503	S	50	7,3	7,7	-
1/2	9,50	5907791615527	11,80	5907791615534	M	40	11,1	11,3	-
3/4	11,45	5907791615558	14,20	5907791615565	M	30	10,3	10,6	-
1	14,15	5907791615589	16,75	5907791615596	L	50	22,4	23,1	-
1 1/4	22,40	5907791615619	28,00	5907791615626	L	30	24,0	24,6	-
1 1/2	28,55	5907791615640	35,85	5907791615657	L	25	23,7	24,3	-
2	45,65	5907791615671	57,20	5907791615688	L	15	19,6	20,2	-
2 1/2	99,15	5907791615701	125,30	5907791615718	L	10	22,4	22,9	-
3	154,80	5907791615732	195,95	5907791615749	L	6	22,0	22,5	-
4	283,55	5907791615763	359,25	5907791615770	L	2	12,4	12,5	-



370	Union bush, flat seat Einschraubteil, flach dichtend Pièce filetée, à joint plat Pezzo filettato, a sede piana Плоское соединение
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DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
1/2	3,40	5907791615824	4,05	5907791615831	S	100	7,2	7,3	-
3/4	3,90	5907791615855	4,85	5907791615862	S	100	9,6	10,0	-
1	4,60	5907791615886	5,85	5907791615893	M	100	12,2	12,8	-
1 1/4	6,60	5907791615916	8,15	5907791615923	M	50	11,6	11,9	-
1 1/2	8,60	5907791615947	10,40	5907791615954	M	40	10,5	10,6	-
2	15,05	5907791615978	18,70	5907791615985	M	20	7,9	8,1	-
2 1/2	29,80	5907791616005	37,70	5907791616012	M	15	10,8	11,0	-
3	43,70	5907791616036	55,25	5907791616043	M	10	9,3	9,5	-



371or	Union end, flat seat Einlegeteil, flach dichtend Pièce folle, à joint plat Pezzo folle, a sede piana Плоское соединение
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DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
1/2	5,35	5907791620835	6,65	5907791620842	S	100	9,2	9,6	-
3/4	5,05	5907791620866	6,15	5907791620873	S	80	9,6	10,0	-
1	6,05	5907791620897	7,55	5907791620903	M	60	11,2	11,4	-
1 1/4	10,55	5907791620927	13,00	5907791620934	M	40	12,1	12,5	-
1 1/2	12,05	5907791620958	15,05	5907791620965	M	25	10,1	10,4	-
2	17,05	5907791620989	21,20	5907791620996	M	15	8,1	8,3	-
2 1/2	35,20	5907791621016	44,50	5907791621023	M	8	6,9	7,1	-
3	62,25	5907791621047	78,65	5907791621054	M	6	8,8	8,9	-

**372or**

Union end, flat seat, equal
Einlegeteil, flach dichtend, egal
Pièce folle, à joint plat, égal
Pezzo folle, a sede piana, uguale
Плоское соединение д/насоса

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
1/2	3,50	5907791621108	4,65	5907791621115	M	250	15,0	16,0	-
3/4	3,55	5907791621139	4,85	5907791621146	M	250	19,2	20,5	-
1	3,60	5907791621160	5,20	5907791621177	L	200	20,0	20,4	-
1 1/4	5,65	5907791621191	7,15	5907791621207	L	100	16,5	16,9	-
1 1/2	7,60	5907791621221	9,60	5907791621238	M	40	9,3	9,5	-
2	12,20	5907791621252	15,10	5907791621269	M	20	7,2	7,4	-
2 1/2	26,50	5907791621283	33,40	5907791621290	M	15	9,2	9,6	-
3	48,00	5907791621313	60,70	5907791621320	M	10	7,1	7,2	-

**374**

Union nut
Überwurfmutter
Ecrou
Dado
Гайка д/насоса

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
3/8	2,95	5907791616579	3,55	5907791616586	S	150	7,4	7,7	-
1/2 x11/8	3,20	5907791616609	3,85	5907791616616	M	200	19,9	20,5	-
3/4	3,20	5907791616661	4,00	5907791616678	M	150	16,2	16,7	-
1	3,50	5907791616692	4,60	5907791616708	L	200	24,2	25,0	-
1 1/4	5,70	5907791616722	7,40	5907791616739	L	100	25,3	26,0	-
1 1/2	7,15	5907791616753	8,70	5907791616760	M	40	10,5	10,8	-
2	10,05	5907791616784	12,65	5907791616791	M	24	8,3	8,4	-
2 1/2	24,55	5907791616814	31,05	5907791616821	M	18	10,5	10,7	-
3	31,70	5907791616845	40,00	5907791616852	M	8	8,8	9,2	-

**471**

Bracket elbow
Deckenwinke
Applique à coude
Gomito per soffitto
Угольник установочный

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
1/2	12,08	5907791617804	15,05	5907791617811	S	30	5,6	5,7	-
3/4	23,25	5907791617835	28,95	5907791617842	S	20	5,6	5,8	-

**529a**

ISO/EN M4
Socket, with, internal and external thread
Muffe, mit, Innen- und Aussengewinde
Manchon, avec filetage femelle et mâle
Manicotto, con filettatura interno e esterno
Муфта

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
3/8	3,70	5907791619570	4,80	5907791619587	S	150	6,0	6,3	10
1/2	3,90	5907791619600	4,90	5907791619617	M	120	8,7	9,1	10
3/4	5,70	5907791619631	7,30	5907791619648	M	100	11,5	12,0	10
1	8,90	5907791619662	11,35	5907791619679	M	70	11,9	12,7	10
1 1/4	11,70	5907791619693	14,50	5907791619709	M	40	11,1	11,5	-



471

Bracket elbow
 Deckenwinke
 Applique à coude
 Gomito per soffitto
 Угольник установочный

DIMENSIONS [INCH]	INDEX BLACK	BLACK BAR CODE	INDEX GALV	GALV BAR CODE	CARTON S / M / L	QUANT [PC] IN CARTON	WEIGHT OF CARTON		BAGS 10 PC IN CARTON
							BLACK [KG]	GALV [KG]	
1/2	6,60	5907791622112	8,25	5907791622129	S	350	16,0		10
2	15,93	5907791622082	20,11	5907791622099	L	70	22,0		-

SPECIALIST FITTINGS

FITTINGS FOR GAS NO 600 & 601

Odlewnia Zawiercie SA offers also specialist fittings for gas installations : fittings A/R 1 (no 601) and nuts A/G 11/4 (no 600). They are used as couplings for bellows gas meters with connector pipe with external thread G 11/4 - according to EN ISO 228-1



600

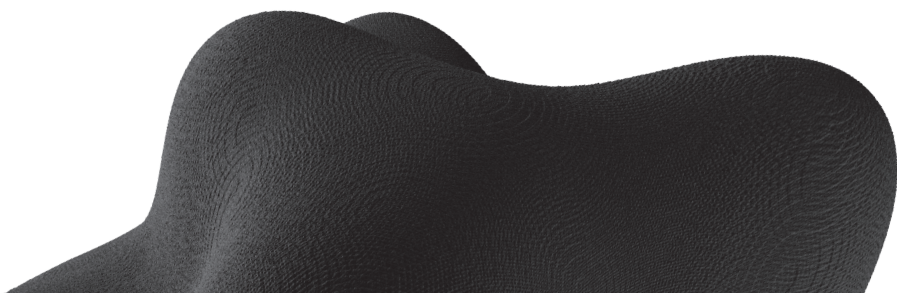
Nut A/G 11/4 with internal thread G11/4

601

Fitting A/R 1 with external thread R1

600 & 601

Fitting A/R 1 (no 601) and Nut A/G 11/4 (no 600) as set for gas



PUMP SET OF FITTINGS NO 623

1 SET CONSISTS OF:

- 2 nuts, ref. 374/52, threaded in accordance with EN ISO 228-1
- 2 union ends, ref. 372or/51or, threaded in accordance with EN 10266-1 (ISO 7/1)
- 2 synthetic fibre gaskets, no asbestos content, GAMBIT AF-153. thickness 2mm
 - max. working temperature, standard 155° - higher to be negotiated
 - max. steam working temperature, standard 130° - higher to be negotiated
- sets are made in black (not galvanized), unless otherwise specified
- each set is packed in shrink foil plus cardboard box and is labelled



MANUFACTURED DIMENSIONS

THREAD		DIMENSION [INCH]	WEIGHT OF CARTON [KG] BLACK	QUANTITY IN CARTON
372or	374			
Rp 3/4	G 1 1/4	3/4 x 1 1/4	13	35
Rp 1	G 1 1/2	1 x 1 1/2	9	20
Rp 1 1/4	G 2	1 1/4 x 2	13	15

PUMP SET OF FITTINGS NO 624

1 SET CONSISTS OF:

- 2 nuts, ref 52/374, threaded in accordance with EN ISO 228/1
- 2 union ends, ref 50or/371or, threaded in accordance
- 2 synthetic fibre gaskets, no asbestos content, GAMBIT AF-153. thickness 2mm
 - max. working temperature, standard 155° - higher to be negotiated
 - max. steam working temperature, standard 130° - higher to be negotiated
- sets are made in black (not galvanized), unless otherwise specified
- each set with gaskets is packed in a shrink foil plus a cardboard box and is labelled



MANUFACTURED DIMENSIONS

THREAD		DIMENSION [INCH]	WEIGHT OF CARTON [KG] BLACK	QUANTITY IN CARTON
371or/50or	374/52			
Rp 1	G 1 1/2	1 x 1 1/2	13	20

USAGE INSTRUCTION OF WHITEHEART MALLEABLE CAST IRON UNIONS EE BRAND

1. CONICAL UNIONS

Leak tightness of these connections is obtained by conical clip (metallic) that is attained by exact tightening moment. Assembling of the unions by using torque wrench.

DIMENSIONS IN INCHES	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
MIN. TIGHTENING MOMENT Nm	60	90	120	170	210	250	340	420	500	600

Newton-meter - unit of the moment of a force 1Nm = 0,1 kGm

Note: Conical unions and conical union details cannot be used again after disassembly because of surface deformation of the cone. It is recommended to use unions as a complete set due to the fact that union details manufactured by different producers or component parts of a different unions manufactured by the same producer does not have to be mutually interchangeable. The constructions of the cone are not normalized.

2. FLAT UNIONS

Leak tightness of these details is obtained by using the special gaskets:

DIMENSIONS OF UNIONS IN INCHES	GASKET SIZE [MM]		THREAD DIMENSION OF UNION NUTS
	INNER DIAMETER [MM]	OUTER DIAMETER [MM]	
3/8	19	27	G 7/8
1/2	24	34	G 1 1/8
3/4	27	38	G 1 1/4
1	32	44	G 1 1/2
1 1/4	42	55	G2
1 1/2	46	62	G 2 1/4
2	60	78	G 2 3/4
2 1/2	75	97	G 3 1/2
3	88	110	G4
4	120	148	G 5 1/2

Material used for gaskets depends on the usage (the transmitted factor, temperature). Gaskets of our unions are made from synthetic fibers which does not contain asbestos.

- Max working temperature standard 155°C
- Max steam temperature standard 130°C

Higher parameters to be agreed upon orders.

The gaskets and other seals measures for the threads used by the customers shall comply with the requirements and standards appropriate to the type of installation.

USAGE INSTRUCTION OF WHITEHEART MALLEABLE CAST IRON FITTINGS EE BRAND

WHITEHEART MALLEABLE CAST IRON FITTINGS EE BRAND

THE OFFERED RANGE Dimension $\frac{1}{4}$ ÷ 4
Assortment in accordance with EN 10242 and ISO 49 catalogues of Odlewnia Żeliwa Spółka Akcyjna in Zawiercie.

GRADE OF MATERIAL Whiteheart malleable cast iron EN-GJMW - 400 - 05 according to EN 1562 equivalent of W 40-05 according to ISO 5922.

APPROPRIATION: For water, central heating, gaseous, steam-driven, fire-proof and other installations, for transmitting liquids and non-aggressive gases - to perform at the highest admissible working pressure and temperature ranges quoted in the table:

TEMPERATURE °C	-20 to 120	140	160	180	200	220	240	260	280	300
MAX. PRESSURE	25	24,45	23,9	23,3	22,8	22,2	21,7	21,1	20,5	20

1 bar = 0,1 Mpa

Cast Iron fittings EE brand are characterized by high quality standard it means proper surface finish, dimensional stability, stability of the cast iron structure by keeping hardness, plasticity and strength. They fulfill the requirements of A constructional symbol it means:

- threads are according to EN 10226-1: external - taper R and internal - cylindrical (Rp).

Threads of backnuts, union nuts and threads working with them - according to EN ISO 228-1

- range from $\frac{1}{4}$ " - $5\frac{1}{2}$ " - of the symbol G

Combinations of the threads connections:

To obtain tight connection it is needed to use the following combination: internal thread Rp - external thread R. Connection of the external cylindrical thread G with internal cylindrical thread Rp is risky as it may finish with leaky installation. The leaky installations may be the results of the following combinations:

- connection of the external thread G with internal thread G
- connection of the external thread R with internal thread G

EE
1886

PN-EN 10242



USAGE OF **FITTINGS** EE BRAND



WATER



GAS



INDUSTRY



FIRE PROTECTION



SOLAR



HEATING

ODLEWNIA ZAWIERCIE S.A.

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GZ



EE
1886

GZ

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