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Katalog techniczny

Conex | Bänninger

Series 4000 5000

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Series 3000

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Series 8000 M



Spis treści

str.

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Series 4000 5000

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Series 4000 5000

Katalog Techniczny >B< Seria 4000 5000

Łączniki z miedzi i brązu do lutowania kapilarnego.



Series 4000 5000

1. Informacje ogólne.

Łączniki miedziane serii 5000 do lutowania kapilarnego są produkowane z miedzi odtlenionej fosforem, o symbolu Cu – DHP (CW024A materiał wg. normy PN-EN 12449), zawierającej: miedź Cu 99,90% ,fosfor 0,015% <math>P < 0,040\%</math> ,srebro Ag oraz śladowe ilości innych pierwiastków.

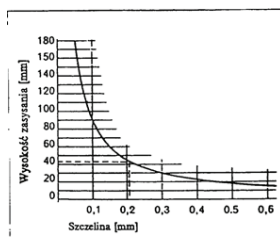
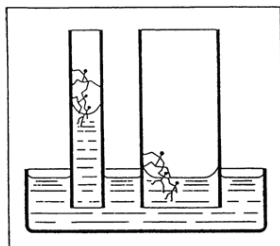
Łączniki z brązu serii 4000 do lutowania kapilarnego są produkowane z brązu o symbolu CC499-DW (CuSn5Zn5Pb2-C – norma materiału PN EN 1982). Materiał ten cechuje się obniżoną zawartością niklu i ołowiu w związku z czym może być stosowany bez ograniczeń do wody pitnej. Stop ten charakteryzuje się także maksymalną odpornością na różne typy korozji oraz odcynkowanie w wyższych temperaturach i można go lutować na twardo bez ograniczeń.

Łączniki z miedzi i brązu produkowane są zgodnie z normą PN-EN 1254-1

Norma zawiera wszystkie wymagania materiałowe, wymiarowe, metody badań oraz oznakowanie wszystkich typów łączników o wymiarach od 6 mm do 108 mm. Łączniki z miedzi i brązu można łączyć z rurami miedzianymi wykonanymi według normy PN-EN 1057 za pomocą lutowania kapilarnego na miękko lub twardo. W połączeniach lutowanych wykorzystuje się efekt zasysania kapilarnego (włoskowatości). Wysokość zasysania lutu jest uzależniona od szerokości szczeliny powstałej między kielichem łącznika i rurą miedzianą.

Tablica 1.

Wysokość zasysania lutu w zależności od szerokości szczeliny



Tablica 2.

Dopuszczalne odchyłki średnic nominalnych łączników

| Zewnętrzny przekrój rury mm | Odchyłki od średnicy nominalnej | | Szerokość szczeliny | | Długość lutu | Dopuszczalne odchylenie długości lutu |
|-----------------------------|-------------------------------------|-------------------------------|---------------------|------|----------------------|---------------------------------------|
| | Końcówki bosej średnicy zewnętrznej | Kielicha średnicy wewnętrznej | Max | Min | | |
| 6 8 | | | | | 7 8 | ± 1,2 |
| 10 12 15 18 | d + 0,04 d + 0,05 | d + 0,15 d - 0,06 | 0,20 | 0,02 | 9 10 12 14 | ± 1,4 |
| 22 28 | d + 0,05 d + 0,06 | d + 0,18 d - 0,07 | 0,24 | 0,02 | 17 20 | ± 1,6 |
| 35 42 54 64 | d + 0,06 d + 0,07 | d + 0,23 d - 0,09 | 0,30 | 0,03 | 25 29 34 35 | ± 2,0 |
| 76,1 88,9 108 | d + 0,07 d + 0,08 | d + 0,33 d - 0,10 | 0,41 | 0,03 | 36 40 50 | ± 2,5 |

Tablica 3.

Minimalna grubość ścianki łączników

| Średnica nominalna mm | Łączniki z rur miedzianych | Łączniki z brązu – obróbka plastyczna | Łączniki z brązu – odlewanie |
|-----------------------|----------------------------|---------------------------------------|------------------------------|
| 6 | 0.6 | 1.0 | 1.0 |
| 8 | 0.6 | 1.0 | 1.0 |
| 10 | 0.6 | 1.0 | 1.0 |
| 12 | 0.6 | 1.1 | 1.1 |
| 15 | 0.7 | 1.2 | 1.2 |
| 18 | 0.8 | 1.4 | 1.4 |
| 22 | 0.9 | 1.4 | 1.5 |
| 28 | 0.9 | 1.5 | 1.8 |
| 35 | 1.0 | 1.6 | 1.8 |
| 42 | 1.1 | 1.8 | 2.0 |
| 54 | 1.2 | 1.9 | 2.3 |
| 64 | 1.4 | 2.0 | 2.4 |
| 76.1 | 1.6 | 2.6 | 2.8 |
| 88.9 | 1.8 | 2.9 | 3.1 |
| 108 | 2.1 | 3.3 | 3.5 |

Tablica 4.

Maksymalne temperatury i ciśnienia w zależności od rodzaju lutowania

| Rodzaj lutowania | Przykłady typowych lutów miękkich i twardych | Maksymalna temperatura °C | Maksymalne ciśnienie dla średnic nominalnych w barach | | |
|------------------|-------------------------------------------------------------|---------------------------|-------------------------------------------------------|------------|-------------|
| | | | 6 - 34 mm | 34 - 54 mm | 54 - 108 mm |
| Miękkie | I. ołów/cyna Pb 50% Sn 50% lub Pb 60% Sn 40% | 30 | 16 | 16 | 10 |
| | | 65 | 10 | 10 | 6 |
| | | 110 | 6 | 6 | 4 |
| | II. Cyna/srebro 95/5% III. Cyna/miedź Sn 97% Cu 3% | 30 | 25 | 25 | 16 |
| | | 65 | 25 | 16 | 16 |
| | | 110 | 16 | 10 | 10 |
| Twarde | IV. Srebro bez dodatku kadmu Od 40 – 55% Ag | 30 | 25 | 25 | 16 |
| | | 65 | 25 | 16 | 16 |
| | VI. Miedź/fosfor 94/6% lub miedź/fosfor z 2% Ag 92/6/6 % | 110 | 16 | 10 | 10 |

2. Zakres zastosowania i rodzaj lutowania.

Tablica 5.

Obszary zastosowań.

| Zastosowanie | Medium | Miękkie | Twarde |
|---------------------------------|---------------------------------------------------------------|---------|-------------|
| Instalacje sanitarne | Woda | X | X d > 28 mm |
| Instalacje grzewcze | Woda | X | X |
| Instalacje chłodnicze | Woda, woda/glikol 50/50 % | | X |
| Instalacje solarne | Woda, woda/glikol 50/50 % | X | X |
| Instalacje gazowe | Gaz | | X |
| Instalacje gazowe | Gaz LPG | | X |
| Instalacje gazów medycznych | Gazy medyczne, tlen | | X |
| Instalacje olejowe | Paliwa / oleje | | X |
| Instalacje sprężonego powietrza | Sprężone powietrze wszystkich klas zgodnie z normą ISO 8573-1 | | X |
| Instalacje przemysłowe | Woda oczyszczona, zmiękczona, odsolona | X | X d > 28 mm |

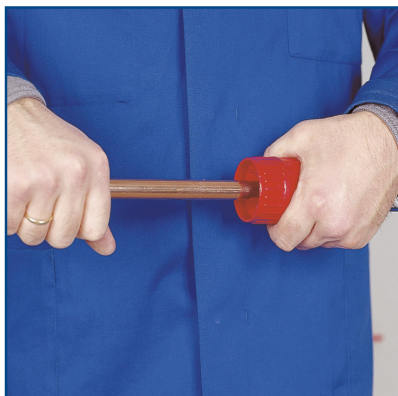
3. Instrukcja montażu.

3.1 Cięcie



Obciąć rurę pod kątem prostym przy pomocy obcinaka do rur. Nie należy używać innych narzędzi.

3.2 Gratowanie i kalibracja



Oczyszczyć zewnętrzne i wewnętrzne krawędzie rury przyrządem do gratowania. Rurę miękką należy dodatkowo kalibrować.

3.3 Czyszczenie



Zewnętrzną powierzchnię rury oczyścić czyścikiem. Wewnętrzną powierzchnię kielicha łącznika oczyścić szczotką.

3.4 Nałożenie pasty i topnika



Nanieść topnik i cienką warstwę pasty lutowniczej na końcówkę rury.

3.5 Lutowanie



Podgrzać połączenie, a następnie lutować dodając lut.

3.6 Czyszczenie połączenia



Oczyszczyć połączenie wilgotną szmatką.

4. Parametry pracy łączników do lutowania.

Temperatury i ciśnienia pracy dla łączników miedzianych według normy PN – EN 1254-1.

| Rodzaj lutowania | Temperatura | Ciśnienie w barach | | |
|-------------------|-------------|--------------------|----------|-----------|
| | max °C | 6-28 mm | 35-54 mm | 64-108 mm |
| miękkie twarde | 30 | 25 | 25 | 16 |
| | 65 | 25 | 6 | 16 |
| | 110 | 16 | 10 | 10 |

5. Materiały do lutowania.

Podstawowymi materiałami do lutowania kapilarnego są:

- luty miękkie o temp. topnienia 220 – 250 °C
- luty twarde o temp. topnienia 630 – 890 °C
- topniki, których zadaniem jest redukcja warstw tlenkowych na oczyszczonych mechanicznie powierzchniach poddawanych działaniu stopionego spoiwa
- pasty lutownicze (tylko lutowanie miękkie) stanowiące mieszaninę topnika z lutem miękkim

Luty, topniki i pasty ze względu na stosowanie w instalacjach wody pitnej muszą posiadać atest higieniczny. W instalacjach wody pitnej nie wolno stosować lutów zawierających kadm i ołów.

6. Zastosowania i wymogi łączników miedzianych.

6.1 Instalacje wody pitnej.

Woda dostarczana przez zakłady wodociągowe może być stosowana bez żadnych ograniczeń w instalacjach miedzianych. Zgodnie z obowiązującym w Polsce Rozporządzeniem Ministra Zdrowia w sprawie wymagań dotyczących jakości wody przeznaczonej do spożycia przez ludzi, woda do picia z instalacji miedzianych nie powinna zawierać więcej niż 2 mg/l jonów miedzi. Wartość odczynu wody pH musi być większa od 7,0.

6.2 Łączenie miedzi z innymi materiałami.

Prawidłowo wykonana i eksploatowana instalacja miedziana przewyższa trwałością i jakością instalacje z innych materiałów. Najlepszym rozwiązaniem jest wykonanie całej instalacji z takich samych materiałów. W przypadku konieczności użycia w jednej instalacji różnych materiałów bardzo istotne dla trwałości instalacji jest prawidłowe ich połączenie. Nie należy stosować rur i urządzeń ze stali ocynkowanej za przewodami miedzianymi idąc w kierunku przepływu wody - reguła przepływu. Woda zawierająca jony miedzi powoduje przyspieszoną korozję wżerową stali ocynkowanej. W miejscu bezpośredniego styku miedzi ze stalą należy zastosować łącznik przejściowy z brązu lub mosiądzu. Nie ma żadnych przeciwwskazań przy łączeniu miedzi z rurami ze stali nierdzewnej i tworzyw sztucznych.

6.3 Klimatyzacja i chłodnictwo.

Łączniki serii 5000 mogą być stosowane do klimatyzacji i chłodnictwa. Spełniają wymagania europejskiej dyrektywy PED97/23/EC w sprawie urządzeń ciśnieniowych. Parametry pracy: ciśnienie 40 bar, temperatura 120 °C. Przeznaczone są do łączenia rur wykonanych zgodnie z normą PN-EN 12735-1 i PN-EN 1057 metodą lutowania na twardo lutami z zawartością min 2% srebra. Mogą być stosowane w instalacjach klimatyzacyjnych i chłodniczych z takimi czynnikami takimi jak: HFC, HFO i HC.

6.4 Gazy medyczne.

Łączniki serii 5000 i 4000 mogą być stosowane do gazów medycznych po dodatkowym oczyszczeniu i odtłuszczeniu w myjce ultradźwiękowej w płynie Vertrel CMS. Są one pojedynczo pakowane i znakowane na opakowaniu oraz przygotowywane pod konkretne zamówienie klienta. Zawartość węglowodorów musi być mniejsza niż 0,2 mg/dm² i jest okresowo kontrolowana przez odpowiednią jednostkę certyfikującą. Łączniki przeznaczone są do łączenia rur wykonanych zgodnie z normą PN-EN 1057 i PN-EN 13348 metodą lutowania na twardo lutami z zawartością min 2% srebra. Mogą być stosowane do gazów medycznych tj: azot, NO, CO₂, hel, tlen, ksenon, powietrze do oddychania oraz systemów próżniowych.

6.5 Ochrona antykorozyjna.

Odstłonięte przewody wewnętrzne z miedzi nie wymagają w normalnych warunkach eksploatacyjnych żadnej zewnętrznej ochrony antykorozyjnej.

W przypadku ułożenia przewodów w agresywnej atmosferze względnie w przypadku kontaktu z materiałami budowlanymi zawierającymi amoniak, siarczki lub azotany należy zastosować zewnętrzną ochronę antykorozyjną.

Podczas układania instalacji we wnękach budowlanych, pod tynkiem przewody miedziane muszą być chronione przed korozją zewnętrzną przy pomocy otuliny z tworzywa sztucznego.

Grubość izolacji powinna umożliwiać swobodną pracę termiczną instalacji.

7. Gwarancja.

Łączniki serii 5000 i 4000 posiadają atest PZH oraz objęte są 25 letnią gwarancją.

Oświadczenie o niewiążącym charakterze informacji.












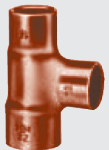

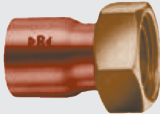
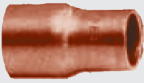
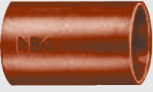


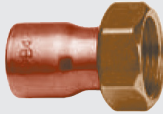

Proszę zwrócić uwagę, że wszystkie ilustracje, rysunki, dane o wymiarach oraz informacje zawarte w tym katalogu mają charakter niewiążący.

Zastrzegamy sobie prawo do dokonywania wszelkiego rodzaju zmian, także bez wcześniejszego specjalnego powiadomienia o tych zmianach.




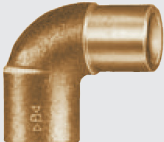





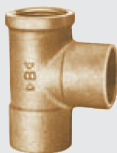
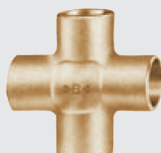


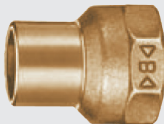
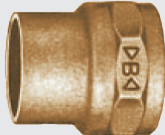
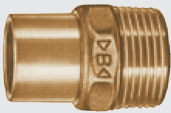

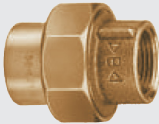

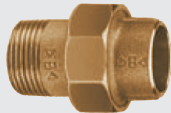





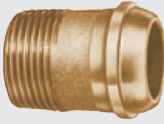


Series 4000 5000

8. Asortyment łączników.

8.1 Asortyment łączników serii 5000.

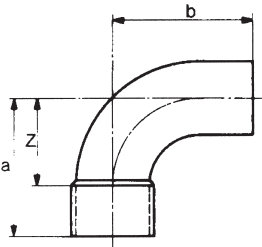
| | | | |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| 5001A | 5002A | 5040 | 5041 |
|  |  |  |  |
| 5060 | 5085 | 5086 | 5090 |
|  |  |  |  |
| 5090R | 5092 | 5130 | 5130R |
|  |  |  |  |
| 5240 | 5240G | 5243 | 5270 |
|  |  |  |  |
| 5270S | 5301 | 5359G | 5870 |
|  |  |  |  |

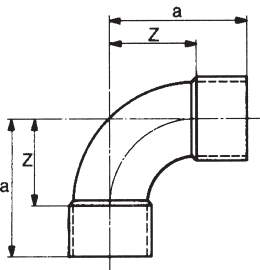
8.2 Asortyment łączników serii 4000.

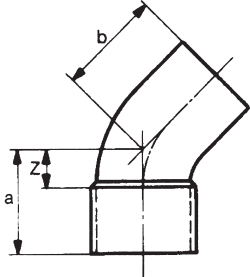
| | | | |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 4090 | 4090D | 4090G | 4092 |
|  |  |  |  |
| 4092G | 4096 | 4096G | 4098G |
|  |  |  |  |
| 4130G | 4134G | 4180 | 4221 |
|  |  |  |  |
| 4243G | 4246G | 4270G | 4280G |
|  |  |  |  |
| 4290 | 4330 | 4330G | 4331G |
|  |  |  |  |
| 4350 | 4359G | 4370 / 4380 | 4370G / 4380G |
|  |  |  |  |
| 4381 | 4382G | 4471G | 4472G |
|  |  |  |  |

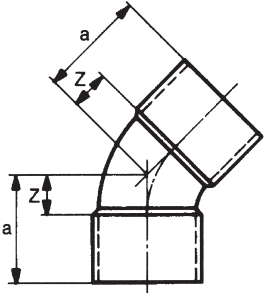
Series 4000 5000

9. Wymiary łączników serii 5000 i 4000.

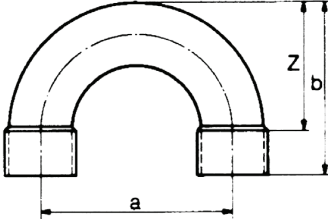
| 5001A | | Łuk 90° jednokielichowy | | | | | | | |
|-----------------------------------------------------------------------------------|---------|-------------------------|-----|-----------|-----------|-----------|--|--|--|
|  | Wymiary | a | b | Z | Kod | | | | |
| | 6 | 15 | 17 | 9 | 5001A | 006000000 | | | |
| | 8 | 17 | 19 | 10 | 008000000 | | | | |
| | 10 | 20 | 21 | 12 | 010000000 | | | | |
| | 12 | 23 | 23 | 15 | 012000000 | | | | |
| | 14 | 28 | 28 | 17 | 014000000 | | | | |
| | 15 | 28 | 28 | 17 | 015000000 | | | | |
| | 16 | 28 | 28 | 17 | 016000000 | | | | |
| | 18 | 33 | 33 | 20 | 018000000 | | | | |
| | 22 | 40 | 40 | 24 | 022000000 | | | | |
| | 28 | 51 | 51 | 33 | 028000000 | | | | |
| | 35 | 64 | 64 | 41 | 035000000 | | | | |
| | 42 | 77 | 77 | 50 | 042000000 | | | | |
| | 54 | 100 | 100 | 68 | 054000000 | | | | |
| | 64 | 118 | 118 | 85 | 064000000 | | | | |
| | 67 | 118 | 118 | 84 | 067000000 | | | | |
| | 76,1 | 138 | 138 | 104 | 076000000 | | | | |
| 88,9 | 159 | 156 | 118 | 089000000 | | | | | |
| 108 | 185 | 185 | 137 | 108000000 | | | | | |
| 133 | 255 | 255 | 207 | 133000000 | | | | | |
| 159 | 300 | 300 | 252 | 159000000 | | | | | |

| 5002A | | Łuk 90° dwukielichowy | | | | | | | |
|-------------------------------------------------------------------------------------|---------|-----------------------|-----------|-----------|-----------|--|--|--|--|
|  | Wymiary | a | Z | Kod | | | | | |
| | 6 | 15 | 9 | 5002A | 006000000 | | | | |
| | 8 | 17 | 10 | 008000000 | | | | | |
| | 10 | 20 | 12 | 010000000 | | | | | |
| | 12 | 23 | 14 | 012000000 | | | | | |
| | 14 | 28 | 17 | 014000000 | | | | | |
| | 15 | 29 | 18 | 015000000 | | | | | |
| | 16 | 27 | 16 | 016000000 | | | | | |
| | 18 | 32 | 19 | 018000000 | | | | | |
| | 22 | 40 | 24 | 022000000 | | | | | |
| | 28 | 52 | 34 | 028000000 | | | | | |
| | 35 | 63 | 40 | 035000000 | | | | | |
| | 42 | 77 | 50 | 042000000 | | | | | |
| | 54 | 97 | 65 | 054000000 | | | | | |
| | 64 | 118 | 86 | 064000000 | | | | | |
| | 67 | 118 | 85 | 067000000 | | | | | |
| | 76 | 138 | 105 | 076000000 | | | | | |
| 88,9 | 158 | 121 | 089000000 | | | | | | |
| 108 | 185 | 138 | 108000000 | | | | | | |
| 133 | 255 | 208 | 133000000 | | | | | | |
| 159 | 300 | 253 | 159000000 | | | | | | |

| 5040 | | Łuk 45° jednokielichowy | | | | | | | |
|-----------------------------------------------------------------------------------|---------|-------------------------|----|-----------|-----------|-----------|--|--|--|
|  | Wymiary | a | b | Z | Kod | | | | |
| | 8 | 12 | 12 | 5 | 5040 | 008000000 | | | |
| | 10 | 12 | 14 | 4 | 010000000 | | | | |
| | 12 | 15 | 17 | 6 | 012000000 | | | | |
| | 14 | 16 | 19 | 5 | 014000000 | | | | |
| | 15 | 17 | 19 | 6 | 015000000 | | | | |
| | 16 | 18 | 18 | 7 | 016000000 | | | | |
| | 18 | 20 | 20 | 7 | 018000000 | | | | |
| | 22 | 25 | 25 | 9 | 022000000 | | | | |
| | 28 | 29 | 31 | 10 | 028000000 | | | | |
| | 35 | 37 | 37 | 14 | 035000000 | | | | |
| | 42 | 42 | 42 | 15 | 042000000 | | | | |
| | 54 | 52 | 54 | 20 | 054000000 | | | | |
| | 64 | 70 | 70 | 38 | 064000000 | | | | |
| | 67 | 70 | 70 | 37 | 067000000 | | | | |
| | 76,1 | 90 | 90 | 57 | 076000000 | | | | |
| | 88,9 | 90 | 90 | 53 | 089000000 | | | | |
| 108 | 112 | 112 | 65 | 108000000 | | | | | |
| 133 | 130 | 130 | 83 | 133000000 | | | | | |

| 5041 | | Łuk 45° dwukielichowy | | | | | | | |
|-------------------------------------------------------------------------------------|---------|-----------------------|-----------|-----------|-----------|--|--|--|--|
|  | Wymiary | a | Z | Kod | | | | | |
| | 6 | 10 | 4 | 5041 | 006000000 | | | | |
| | 8 | 11 | 4 | 008000000 | | | | | |
| | 10 | 12 | 4 | 010000000 | | | | | |
| | 12 | 14 | 5 | 012000000 | | | | | |
| | 14 | 15 | 5 | 014000000 | | | | | |
| | 15 | 17 | 6 | 015000000 | | | | | |
| | 16 | 17 | 5 | 016000000 | | | | | |
| | 18 | 20 | 7 | 018000000 | | | | | |
| | 22 | 25 | 9 | 022000000 | | | | | |
| | 28 | 29 | 10 | 028000000 | | | | | |
| | 35 | 37 | 14 | 035000000 | | | | | |
| | 42 | 42 | 15 | 042000000 | | | | | |
| | 54 | 52 | 20 | 054000000 | | | | | |
| | 64 | 70 | 38 | 064000000 | | | | | |
| | 67 | 70 | 37 | 067000000 | | | | | |
| | 76,1 | 90 | 57 | 076000000 | | | | | |
| 88,9 | 90 | 53 | 089000000 | | | | | | |
| 108 | 112 | 65 | 108000000 | | | | | | |
| 133 | 130 | 83 | 133000000 | | | | | | |
| 159 | 155 | 108 | 159000000 | | | | | | |

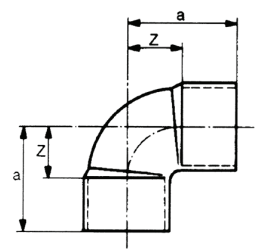
Series 4000 5000

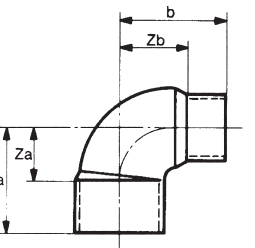
| 5060 | | Łuk 180° dwukielichowy | | | | | | | |
|-----------------------------------------------------------------------------------|---------|------------------------|-----|-----|------|----------|----------|----------|----------|
|  | Wymiary | a | b | Z | Kod | | | | |
| | 10 | 30 | 28 | 20 | 5060 | 01000000 | 01200000 | 01500000 | 01600000 |
| | 12 | 33 | 31 | 22 | | | | | |
| | 15 | 45 | 41 | 30 | | | | | |
| | 16 | 48 | 43 | 32 | | | | | |
| | 18 | 52 | 48 | 35 | | | | | |
| | 22 | 64 | 59 | 43 | | | | | |
| | 28 | 84 | 73 | 54 | | | | | |
| | 35 | 95 | 92 | 69 | | | | | |
| | 42 | 168 | 133 | 106 | | | | | |
| | 54 | 216 | 167 | 135 | | | | | |

| 5085 | | Łącznik obejściowy dwukielichowy | | | | | | | |
|------------------------------------------------------------------------------------|---------|----------------------------------|----|-----|------|----------|----------|----------|----------|
|  | Wymiary | a | c | Z | Kod | | | | |
| | 12 | 100 | 40 | 80 | 5085 | 01200000 | 01400000 | 01500000 | 01600000 |
| | 14 | 115 | 40 | 90 | | | | | |
| | 15 | 116 | 40 | 92 | | | | | |
| | 16 | 113 | 40 | 90 | | | | | |
| | 18 | 129 | 40 | 102 | | | | | |
| | 22 | 146 | 40 | 115 | | | | | |

| 5086 | | Łącznik obejściowy jednokielichowy | | | | | | | | |
|-------------------------------------------------------------------------------------|---------|------------------------------------|----|----|-----|------|----------|----------|----------|----------|
|  | Wymiary | a | b | c | Z | Kod | | | | |
| | 12 | 73 | 38 | 40 | 73 | 5086 | 01200000 | 01400000 | 01500000 | 01600000 |
| | 14 | 82 | 46 | 40 | 82 | | | | | |
| | 15 | 82 | 42 | 40 | 82 | | | | | |
| | 16 | 82 | 46 | 40 | 82 | | | | | |
| | 18 | 90 | 45 | 40 | 90 | | | | | |
| | 22 | 102 | 54 | 40 | 102 | | | | | |

| 5090 | | Kolano 90° dwukielichowe | | | | | | |
|-------------------------------------------------------------------------------------|---------|--------------------------|----|------|----------|----------|----------|----------|
|  | Wymiary | a | Z | Kod | | | | |
| | 6 | 15 | 9 | 5090 | 00600000 | 00800000 | 01000000 | 01200000 |
| | 8 | 17 | 10 | | | | | |
| | 10 | 20 | 12 | | | | | |
| | 12 | 18 | 9 | | | | | |
| | 14 | 20 | 9 | | | | | |
| | 15 | 20 | 10 | | | | | |
| | 16 | 23 | 12 | | | | | |
| | 18 | 25 | 12 | | | | | |
| | 22 | 30 | 14 | | | | | |
| | 28 | 35 | 16 | | | | | |

| 5090 | | Kolano 90° dwukielichowe | | | | | | |
|-----------------------------------------------------------------------------------|---------|--------------------------|----|--|--|--|--|----------------|
|  | Wymiary | a | Z | | | | | Kod |
| | 35 | 44 | 21 | | | | | 5090 035000000 |
| | 42 | 55 | 28 | | | | | 042000000 |
| | 54 | 71 | 39 | | | | | 054000000 |
| | 64 | 85 | 53 | | | | | 064000000 |
| | 67 | 85 | 52 | | | | | 067000000 |
| | 76,1 | 85 | 52 | | | | | 076000000 |
| | 108 | 140 | 92 | | | | | 108000000 |

| 5090R | | Kolano 90° redukcyjne dwukielichowe | | | | | | |
|-----------------------------------------------------------------------------------|---------|-------------------------------------|----|----|----|--|--|----------------|
|  | Wymiary | a | b | Za | Zb | | | Kod |
| | 15 x 12 | 23 | 25 | 12 | 16 | | | 5090 015012000 |
| | 18 x 15 | 26 | 26 | 13 | 15 | | | 018015000 |
| | 22 x 15 | 30 | 28 | 14 | 17 | | | 022015000 |
| | 22 x 16 | 30 | 28 | 14 | 17 | | | 022016000 |
| | 22 x 18 | 30 | 30 | 14 | 17 | | | 022018000 |
| | 28 x 22 | 37 | 37 | 18 | 21 | | | 028022000 |

| 5092 | | Kolano 90° jednokielichowe | | | | | | |
|-------------------------------------------------------------------------------------|---------|----------------------------|----|----|--|--|--|----------------|
|  | Wymiary | a | b | Z | | | | Kod |
| | 6 | 15 | 17 | 9 | | | | 5092 006000000 |
| | 8 | 17 | 19 | 10 | | | | 008000000 |
| | 10 | 18 | 19 | 10 | | | | 010000000 |
| | 12 | 20 | 21 | 11 | | | | 012000000 |
| | 14 | 21 | 23 | 10 | | | | 014000000 |
| | 15 | 22 | 24 | 11 | | | | 015000000 |
| | 16 | 23 | 25 | 12 | | | | 016000000 |
| | 18 | 25 | 26 | 12 | | | | 018000000 |
| | 22 | 30 | 32 | 14 | | | | 022000000 |
| | 28 | 35 | 36 | 17 | | | | 028000000 |
| | 35 | 46 | 48 | 23 | | | | 035000000 |
| | 42 | 57 | 57 | 30 | | | | 042000000 |
| | 54 | 72 | 74 | 40 | | | | 054000000 |

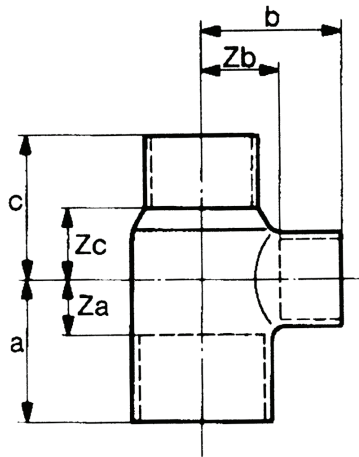
Series 4000 5000

| 5130 | | Trójnik równoprzelotowy | | | | | | | Kod | |
|------|------|-------------------------|-----|-----|----|----|--|-----------|-----------|--|
| | | Wymiary | a | b | Z | Zb | | | | |
| | 6 | 11 | 11 | 5 | 5 | | | 5130 | 006006006 | |
| | 8 | 12 | 12 | 5 | 5 | | | | 008008008 | |
| | 10 | 15 | 15 | 7 | 7 | | | | 010010010 | |
| | 12 | 16 | 16 | 7 | 7 | | | | 012012012 | |
| | 14 | 19 | 19 | 8 | 8 | | | | 014014014 | |
| | 15 | 19 | 19 | 8 | 8 | | | | 015015015 | |
| | 16 | 20 | 20 | 9 | 9 | | | | 016016016 | |
| | 18 | 23 | 23 | 10 | 10 | | | | 018018018 | |
| | 22 | 28 | 28 | 12 | 12 | | | | 022022022 | |
| | 28 | 34 | 34 | 15 | 15 | | | | 028028028 | |
| | 35 | 44 | 44 | 21 | 21 | | | | 035035035 | |
| | 42 | 52 | 52 | 24 | 24 | | | | 042042042 | |
| | 54 | 62 | 62 | 30 | 30 | | | | 054054054 | |
| | 64 | 68 | 70 | 36 | 37 | | | | 064064064 | |
| | 67 | 72 | 72 | 38 | 38 | | | | 067067067 | |
| | 76,1 | 75 | 77 | 41 | 43 | | | | 076076076 | |
| | 88,9 | 89 | 85 | 51 | 47 | | | | 089089089 | |
| | 108 | 107 | 107 | 60 | 60 | | | | 108108108 | |
| | 133 | 150 | 150 | 100 | 83 | | | | 133133133 | |
| 159 | 150 | 160 | 103 | 80 | | | | 159159159 | | |

| 5130R | | Trójnik redukcyjny | | | | | | Kod | | |
|-------|--------------|--------------------|------|------|----|----|----|------|-----------|--|
| | | Wymiary | a | b | c | Za | Zb | Zc | | |
| | 6 x 8 x 6 | 14 | 14 | 14 | 8 | 7 | 8 | 5130 | 006008006 | |
| | 6 x 10 x 6 | 17 | 15 | 17 | 11 | 7 | 11 | | 006010006 | |
| | 8 x 6 x 6 | 12 | 11 | 12 | 5 | 5 | 6 | | 008006006 | |
| | 8 x 6 x 8 | 12 | 11 | 12 | 5 | 5 | 5 | | 008006008 | |
| | 8 x 10 x 8 | 15 | 16 | 15 | 8 | 8 | 8 | | 008010008 | |
| | 10 x 6 x 10 | 14 | 12 | 14 | 6 | 6 | 6 | | 010006010 | |
| | 10 x 8 x 8 | 15 | 15 | 15 | 7 | 8 | 8 | | 010008008 | |
| | 10 x 8 x 10 | 15 | 15 | 15 | 7 | 8 | 7 | | 010008010 | |
| | 10 x 10 x 8 | 15 | 15 | 15 | 7 | 7 | 8 | | 010010008 | |
| | 10 x 12 x 10 | 16 | 17 | 16 | 8 | 8 | 8 | | 010012010 | |
| | 10 x 15 x 10 | 23,5 | 23,5 | 23,5 | 16 | 13 | 16 | | 010015010 | |
| | 12 x 6 x 12 | 16 | 18 | 16 | 7 | 12 | 7 | | 012006012 | |
| | 12 x 8 x 10 | 16 | 18 | 17 | 7 | 11 | 9 | | 012008010 | |
| | 12 x 8 x 12 | 16 | 18 | 16 | 7 | 11 | 7 | | 012008012 | |
| | 12 x 10 x 10 | 16 | 16 | 16 | 7 | 8 | 8 | | 012010010 | |
| | 12 x 10 x 12 | 16 | 16 | 16 | 7 | 8 | 7 | | 012010012 | |
| | 12 x 12 x 10 | 15 | 16 | 16 | 6 | 7 | 6 | | 012012010 | |
| | 12 x 14 x 12 | 21 | 19 | 21 | 12 | 8 | 12 | | 012014012 | |
| | 12 x 15 x 12 | 21 | 19 | 21 | 12 | 8 | 12 | | 012015012 | |
| | 12 x 16 x 12 | 20 | 22 | 20 | 10 | 12 | 10 | | 012016012 | |

5130R

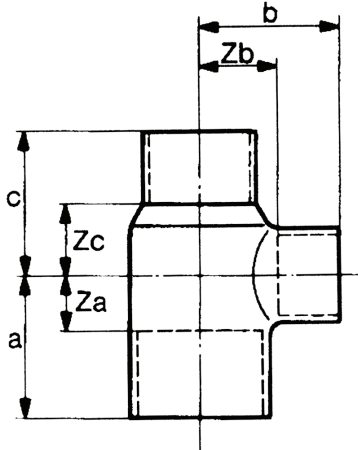
Trójnik redukcyjny



| Wymiary | a | b | c | Za | Zb | Zc | Kod | |
|--------------|------|------|------|------|------|------|------|-----------|
| 12 x 18 x 12 | 20 | 23 | 20 | 11 | 10 | 11 | 5130 | 012018012 |
| 14 x 10 x 12 | 18 | 16,5 | 19 | 7,5 | 9 | 9,5 | | 014010012 |
| 14 x 10 x 14 | 18 | 18 | 18 | 7 | 10 | 7 | | 014010014 |
| 14 x 12 x 10 | 20,5 | 16,5 | 19,5 | 10 | 16,5 | 12 | | 014012010 |
| 14 x 12 x 12 | 18 | 18 | 19 | 7 | 9 | 1 | | 014012012 |
| 14 x 12 x 14 | 18 | 17 | 18 | 7 | 8 | 7 | | 014012014 |
| 14 x 14 x 10 | 21,5 | 18,5 | 20,5 | 11 | 8 | 13 | | 014014010 |
| 14 x 14 x 12 | 19 | 19 | 18 | 8 | 8 | 9 | | 014014012 |
| 14 x 16 x 12 | 23 | 23 | 23 | 12 | 12 | 14 | | 014016012 |
| 14 x 16 x 14 | 22 | 23 | 22 | 11 | 12 | 11 | | 014016014 |
| 14 x 18 x 12 | 23 | 23 | 23 | 12 | 10 | 14 | | 014018012 |
| 14 x 18 x 14 | 26 | 26 | 26 | 15 | 13 | 15 | | 014018014 |
| 15 x 8 x 15 | 19 | 18 | 19 | 8 | 9 | 8 | | 015008015 |
| 15 x 10 x 10 | 19 | 18 | 19 | 8 | 9 | 8 | | 015010010 |
| 15 x 10 x 12 | 18 | 18 | 21 | 7 | 10 | 12 | | 015010012 |
| 15 x 10 x 15 | 19 | 19 | 19 | 8 | 11 | 8 | | 015010015 |
| 15 x 12 x 10 | 19 | 18 | 19 | 8 | 9 | 11 | | 015012010 |
| 15 x 12 x 12 | 20 | 19 | 20 | 9 | 10 | 11 | | 015012012 |
| 15 x 12 x 15 | 19 | 19 | 19 | 8 | 10 | 8 | | 015012015 |
| 15 x 15 x 10 | 22 | 20 | 20 | 11 | 9 | 12 | | 015015010 |
| 15 x 15 x 12 | 20 | 19 | 21 | 9 | 8 | 11 | | 015015012 |
| 15 x 18 x 12 | 23 | 23 | 23 | 12 | 10 | 14 | | 015018012 |
| 15 x 18 x 15 | 23 | 23 | 23 | 11 | 10 | 11 | | 015018015 |
| 15 x 22 x 15 | 27 | 27 | 27 | 16 | 11 | 16 | | 015022015 |
| 16 x 10 x 16 | 17,5 | 19 | 17,5 | 7 | 11 | 7 | | 016010016 |
| 16 x 12 x 12 | 20 | 18 | 20 | 9 | 8 | 10 | | 016012012 |
| 16 x 12 x 14 | 18 | 19 | 18 | 7 | 10 | 7 | | 016012014 |
| 16 x 12 x 16 | 19 | 19 | 19 | 8 | 10 | 8 | | 016012016 |
| 16 x 14 x 12 | 20 | 19 | 20 | 8 | 11 | 11 | | 016014012 |
| 16 x 14 x 14 | 19 | 19 | 19 | 8 | 9 | 8 | | 016014014 |
| 16 x 16 x 12 | 22 | 22 | 23,5 | 11,5 | 11 | 15 | | 016016012 |
| 16 x 16 x 14 | 21 | 20 | 20 | 10 | 9 | 9 | | 016016014 |
| 16 x 18 x 14 | 23 | 25 | 23 | 12 | 12 | 12 | | 016018014 |
| 16 x 18 x 16 | 22 | 23 | 22 | 11 | 10 | 11 | | 016018016 |
| 16 x 22 x 16 | 28 | 28 | 28 | 17 | 12 | 17 | | 016022016 |
| 18 x 10 x 18 | 21 | 21 | 21 | 8 | 13 | 8 | | 018010018 |
| 18 x 12 x 12 | 21 | 20 | 22 | 8 | 11 | 13 | | 018012012 |
| 18 x 12 x 14 | 22,5 | 22 | 21 | 10 | 13,5 | 10,5 | | 018012014 |
| 18 x 12 x 15 | 22,5 | 22 | 21 | 10 | 13,5 | 10,5 | | 018012015 |
| 18 x 12 x 18 | 21 | 19 | 21 | 8 | 11 | 8 | | 018012018 |
| 18 x 14 x 14 | 23 | 21,5 | 21,5 | 10,5 | 11 | 11 | | 018014014 |
| 18 x 14 x 16 | 24 | 21 | 20 | 11,5 | 11 | 9 | | 018014016 |
| 18 x 14 x 18 | 21 | 22 | 21 | 8 | 11 | 8 | | 018014018 |

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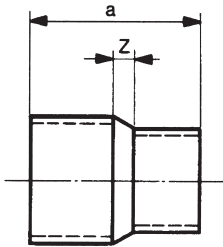
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|--------------|--------------|--------------------|------|------|------|------|------|-----------|-----------|
| Wymiary | | a | b | c | Za | Zb | Zc | | |
| | 18 x 15 x 12 | 23 | 24 | 22 | 11 | 12 | 13 | 5130 | 018015012 |
| | 18 x 15 x 15 | 23 | 22 | 22 | 10 | 11 | 11 | | 018015015 |
| | 18 x 15 x 18 | 22 | 22 | 22 | 9 | 11 | 9 | | 018015018 |
| | 18 x 16 x 14 | 24 | 21 | 23 | 11,5 | 10,5 | 12,5 | | 018016014 |
| | 18 x 16 x 16 | 24 | 20,5 | 22,5 | 11,5 | 10 | 12 | | 018016016 |
| | 18 x 16 x 18 | 22 | 22 | 22 | 9 | 11 | 9 | | 018016018 |
| | 18 x 18 x 12 | 24 | 24 | 22 | 11 | 11 | 13 | | 018018012 |
| | 18 x 18 x 14 | 24 | 24 | 24 | 11 | 11 | 13 | | 018018014 |
| | 18 x 18 x 15 | 24 | 24 | 24 | 11 | 11 | 13 | | 018018015 |
| | 18 x 18 x 16 | 24,5 | 23,5 | 22 | 12 | 11 | 11,5 | | 018018016 |
| | 18 x 22 x 15 | 28 | 28 | 28 | 15 | 12 | 17 | | 018022015 |
| | 18 x 22 x 18 | 27 | 28 | 27 | 14 | 12 | 14 | | 018022018 |
| | 18 x 28 x 18 | 34 | 34 | 34 | 21 | 15 | 21 | | 018028018 |
| | 22 x 10 x 22 | 24 | 22 | 24 | 8 | 14 | 8 | | 022010022 |
| | 22 x 12 x 12 | 24 | 23 | 23 | 15,5 | 14,5 | 14,5 | | 022012012 |
| | 22 x 12 x 14 | 25,5 | 25,5 | 27 | 10 | 17 | 16,5 | | 022012014 |
| | 22 x 12 x 15 | 24,5 | 22,5 | 24,5 | 9 | 14 | 14 | | 022012015 |
| | 22 x 12 x 18 | 26 | 21 | 28 | 10,5 | 12,5 | 15,5 | | 022012018 |
| | 22 x 12 x 22 | 23 | 21 | 23 | 7 | 12 | 7 | | 022012022 |
| | 22 x 14 x 14 | 25,5 | 25,5 | 27 | 10 | 15 | 16,5 | | 022014014 |
| | 22 x 14 x 18 | 25,5 | 24 | 26 | 10 | 13,5 | 13,5 | | 022014018 |
| | 22 x 14 x 22 | 25 | 25 | 25 | 9 | 13 | 9 | | 022014022 |
| | 22 x 15 x 12 | 25,5 | 23 | 25,5 | 10 | 12,5 | 17 | | 022015012 |
| | 22 x 15 x 15 | 25 | 25 | 26 | 9 | 14 | 15 | | 022015015 |
| | 22 x 15 x 18 | 27 | 26 | 27 | 11 | 13 | 16 | | 022015018 |
| | 22 x 15 x 22 | 25 | 24 | 25 | 9 | 13 | 9 | | 022015022 |
| | 22 x 16 x 14 | 25,5 | 23,5 | 25,5 | 10 | 13 | 15 | | 022016014 |
| | 22 x 16 x 16 | 25,5 | 25 | 25,5 | 10 | 14,5 | 15 | | 022016016 |
| | 22 x 16 x 18 | 26 | 23 | 25,5 | 10,5 | 12,5 | 13 | | 022016018 |
| | 22 x 16 x 22 | 25 | 24 | 25 | 9 | 13 | 9 | | 022016022 |
| | 22 x 18 x 14 | 28 | 25 | 29 | 12,5 | 12,5 | 18,5 | | 022018014 |
| | 22 x 18 x 15 | 26 | 26 | 26 | 10 | 13 | 15 | | 022018015 |
| 22 x 18 x 16 | 27 | 25 | 28 | 11,5 | 12,5 | 17,5 | | 022018016 | |
| 22 x 18 x 18 | 27 | 25 | 32 | 11,5 | 12,5 | 19,5 | | 022018018 | |
| 22 x 18 x 22 | 27 | 26 | 27 | 11 | 13 | 11 | | 022018022 | |
| 22 x 22 x 12 | 30 | 27,5 | 21 | 15 | 12 | 21 | | 022022012 | |
| 22 x 22 x 14 | 30 | 28,5 | 32 | 15 | 15,5 | 22 | | 022022014 | |
| 22 x 22 x 15 | 29 | 28 | 31 | 13,6 | 12 | 20,4 | | 022022015 | |
| 22 x 22 x 16 | 29 | 28 | 31 | 13,6 | 12 | 20,4 | | 022022016 | |
| 22 x 22 x 18 | 28 | 28 | 27 | 12 | 12 | 14 | | 022022018 | |
| 22 x 28 x 22 | 32 | 32 | 32 | 16 | 13 | 16 | | 022028022 | |
| 28 x 12 x 28 | 28 | 25 | 28 | 9 | 16 | 9 | | 028012028 | |
| 28 x 14 x 28 | 29 | 28 | 29 | 10 | 17 | 10 | | 028014028 | |

| 5130R | | Trójnik redukcyjny | | | | | | Kod | |
|-----------------------------------------------------------------------------------|--------------|--------------------|----|----|------|------|------|-----------|-----------|
| Wymiary | | a | b | c | Za | Zb | Zc | | |
|  | 28 x 15 x 15 | 30 | 29 | 29 | 11 | 18 | 18 | 5130 | 028015015 |
| | 28 x 15 x 22 | 29 | 28 | 28 | 10 | 18 | 13 | | 028015022 |
| | 28 x 15 x 28 | 29 | 28 | 29 | 10 | 17 | 10 | | 028015028 |
| | 28 x 16 x 22 | 29 | 28 | 30 | 11 | 17 | 15 | | 028016022 |
| | 28 x 16 x 28 | 29 | 28 | 29 | 10 | 17 | 10 | | 028016028 |
| | 28 x 18 x 15 | 30 | 28 | 30 | 12 | 15,5 | 19,5 | | 028018015 |
| | 28 x 18 x 18 | 32 | 30 | 30 | 13 | 17 | 17 | | 028018018 |
| | 28 x 18 x 22 | 33 | 31 | 36 | 14 | 15 | 23 | | 028018022 |
| | 28 x 18 x 28 | 30 | 29 | 29 | 11 | 16 | 11 | | 028018028 |
| | 28 x 22 x 15 | 29 | 29 | 30 | 10 | 18 | 14 | | 028022015 |
| | 28 x 22 x 16 | 32 | 33 | 33 | 13,5 | 17,5 | 22,5 | | 028022016 |
| | 28 x 22 x 18 | 31 | 31 | 30 | 12 | 18 | 14 | | 028022018 |
| | 28 x 22 x 22 | 33 | 31 | 36 | 14 | 15 | 20 | | 028022022 |
| | 28 x 22 x 28 | 32 | 33 | 32 | 14 | 16 | 14 | | 028022028 |
| | 28 x 28 x 14 | 35 | 34 | 38 | 16,5 | 15,5 | 27,5 | | 028028014 |
| | 28 x 28 x 15 | 36 | 34 | 34 | 17 | 15 | 23 | | 028028015 |
| | 28 x 28 x 16 | 36 | 34 | 34 | 17 | 15 | 23 | | 028028016 |
| | 28 x 28 x 18 | 34 | 34 | 37 | 15 | 15 | 24 | | 028028018 |
| | 28 x 28 x 22 | 35 | 35 | 35 | 16 | 16 | 19 | | 028028022 |
| | 28 x 35 x 28 | 40 | 40 | 40 | 21 | 17 | 21 | | 028035028 |
| | 35 x 15 x 28 | 42 | 39 | 38 | 19 | 20 | 27 | | 035015028 |
| | 35 x 15 x 35 | 36 | 31 | 31 | 13 | 20 | 13 | | 035015035 |
| | 35 x 18 x 35 | 36 | 33 | 33 | 13 | 20 | 13 | | 035018035 |
| | 35 x 22 x 22 | 38 | 37 | 39 | 13 | 21 | 23 | | 035022022 |
| | 35 x 22 x 28 | 42 | 40 | 41 | 19 | 21 | 22 | | 035022028 |
| | 35 x 22 x 35 | 37 | 37 | 37 | 13 | 21 | 13 | | 035022035 |
| | 35 x 28 x 22 | 38 | 34 | 40 | 15 | 18 | 19 | | 035028022 |
| | 35 x 28 x 28 | 42 | 40 | 41 | 19 | 21 | 22 | | 035028028 |
| | 35 x 28 x 35 | 40 | 41 | 40 | 17 | 22 | 17 | | 035028035 |
| | 35 x 35 x 22 | 47 | 45 | 45 | 24 | 21 | 29 | | 035035022 |
| | 35 x 35 x 28 | 45 | 43 | 47 | 22 | 19 | 28 | | 035035028 |
| | 42 x 15 x 42 | 37 | 33 | 37 | 10 | 22 | 10 | | 042015042 |
| | 42 x 18 x 42 | 38 | 35 | 38 | 11 | 22 | 11 | | 042018042 |
| 42 x 22 x 42 | 43 | 38 | 43 | 16 | 22,5 | 16 | | 042022042 | |
| 42 x 28 x 35 | 45 | 42 | 47 | 18 | 23,5 | 24 | | 042028035 | |
| 42 x 28 x 42 | 45 | 42 | 45 | 18 | 23 | 18 | | 042028042 | |
| 42 x 35 x 35 | 49 | 50 | 50 | 20 | 27 | 27 | | 042035035 | |
| 42 x 35 x 42 | 48 | 49 | 48 | 21 | 26 | 21 | | 042035042 | |
| 42 x 42 x 28 | 55 | 55 | 55 | 27 | 27 | 36 | | 042042028 | |
| 42 x 42 x 35 | 55 | 55 | 55 | 27 | 27 | 32 | | 042042035 | |
| 42 x 54 x 42 | 65 | 62 | 65 | 38 | 30 | 38 | | 042054042 | |
| 54 x 15 x 54 | 49 | 44 | 49 | 17 | 33 | 17 | | 054015054 | |
| 54 x 22 x 54 | 50 | 48 | 50 | 18 | 32 | 18 | | 054022054 | |

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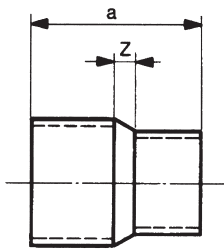
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|-----------------|--------------|--------------------|------|-----|-----|-----|----|-----------|-----------|--|
| Wymiary | | a | b | c | Za | Zb | Zc | | | |
| | 54 x 28 x 54 | 52 | 51 | 52 | 20 | 32 | 20 | 5130 | 054028054 | |
| | 54 x 35 x 54 | 53 | 53 | 53 | 21 | 30 | 21 | | 054035054 | |
| | 54 x 42 x 42 | 56 | 62 | 61 | 24 | 35 | 34 | | 054042042 | |
| | 54 x 42 x 54 | 54 | 57 | 54 | 22 | 30 | 22 | | 054042054 | |
| | 54 x 54 x 42 | 65 | 65 | 65 | 33 | 36 | 38 | | 054054042 | |
| | 64 x 35 x 64 | 54 | 59 | 54 | 21 | 36 | 21 | | 064035064 | |
| | 64 x 42 x 64 | 57 | 64 | 57 | 24 | 37 | 24 | | 064042064 | |
| | 64 x 54 x 64 | 64 | 69 | 64 | 31 | 37 | 31 | | 064054064 | |
| | 67 x 22 x 67 | 52 | 60 | 52 | 19 | 44 | 19 | | 067022067 | |
| | 67 x 28 x 67 | 53 | 57 | 53 | 19 | 38 | 19 | | 067028067 | |
| | 67 x 35 x 67 | 55 | 61 | 55 | 19 | 38 | 21 | | 067035067 | |
| | 67 x 42 x 67 | 58 | 65 | 58 | 24 | 38 | 24 | | 067042067 | |
| | 67 x 54 x 67 | 64 | 70 | 64 | 30 | 38 | 30 | | 067054067 | |
| | 76 x 22 x 76 | 52 | 65 | 52 | 19 | 49 | 19 | | 076022076 | |
| | 76 x 35 x 76 | 54 | 66 | 54 | 21 | 43 | 21 | | 076035076 | |
| | 76 x 42 x 76 | 59 | 70 | 59 | 25 | 43 | 25 | | 076042076 | |
| | 76 x 54 x 76 | 64 | 74 | 64 | 30 | 42 | 30 | | 076054076 | |
| | 76 x 64 x 76 | 69 | 76 | 69 | 35 | 43 | 35 | | 076064076 | |
| | 89 x 54 x 89 | 71 | 79 | 71 | 33 | 47 | 33 | | 089054089 | |
| | 89 x 64 x 89 | 76 | 81 | 76 | 38 | 48 | 38 | | 089064089 | |
| 89 x 76 x 89 | 81 | 83 | 81 | 44 | 49 | 44 | | 089076089 | | |
| 108 x 54 x 108 | 81 | 90 | 81 | 33 | 58 | 33 | | 108054108 | | |
| 108 x 64 x 108 | 87 | 93 | 87 | 40 | 60 | 40 | | 108064108 | | |
| 108 x 67 x 108 | 89,5 | 103 | 89,5 | 40 | 67 | 40 | | 108067108 | | |
| 108 x 89 x 108 | 97 | 104 | 97 | 49 | 56 | 49 | | 108089108 | | |
| 159 x 108 x 159 | 150 | 160 | 150 | 103 | 128 | 103 | | 159108159 | | |

| 5240 | | Łącznik redukcyjny mufowy | | | | | | | Kod | |
|---------|---------|---------------------------|---|--|--|--|--|------|-----------|--|
| Wymiary | | a | Z | | | | | | | |
| | 8 x 6 | 18 | 5 | | | | | 5240 | 008006000 | |
| | 10 x 6 | 20 | 6 | | | | | | 010006000 | |
| | 10 x 8 | 20 | 5 | | | | | | 010008000 | |
| | 12 x 8 | 22 | 6 | | | | | | 012008000 | |
| | 12 x 10 | 22 | 5 | | | | | | 012010000 | |
| | 14 x 10 | 25 | 6 | | | | | | 014010000 | |
| | 14 x 12 | 24 | 4 | | | | | | 014012000 | |
| | 15 x 8 | 26 | 8 | | | | | | 015008000 | |
| | 15 x 10 | 26 | 7 | | | | | | 015010000 | |
| | 15 x 12 | 26 | 6 | | | | | | 015012000 | |

| 5240 | | Łącznik redukcyjny mufowy | | | | | | |
|-----------------------------------------------------------------------------------|---------|---------------------------|------|---|--|--|--|-----------|
|  | Wymiary | a | Z | | | | | Kod |
| | | 15 x 14 | 25 | 3 | | | | |
| | 16 x 10 | 27 | 8 | | | | | 016010000 |
| | 16 x 12 | 27 | 7 | | | | | 016012000 |
| | 16 x 14 | 27 | 5 | | | | | 016014000 |
| | 16 x 15 | 27 | 5 | | | | | 016015000 |
| | 18 x 10 | 29 | 8 | | | | | 018010000 |
| | 18 x 12 | 30 | 8 | | | | | 018012000 |
| | 18 x 14 | 30 | 6 | | | | | 018014000 |
| | 18 x 15 | 29 | 5 | | | | | 018015000 |
| | 18 x 16 | 29 | 5 | | | | | 018016000 |
| | 22 x 12 | 37 | 12 | | | | | 022012000 |
| | 22 x 14 | 36 | 9 | | | | | 022014000 |
| | 22 x 15 | 35 | 8 | | | | | 022015000 |
| | 22 x 16 | 35 | 8 | | | | | 022016000 |
| | 22 x 18 | 36 | 7 | | | | | 022018000 |
| | 28 x 12 | 45 | 16 | | | | | 028012000 |
| | 28 x 14 | 45 | 14 | | | | | 028014000 |
| | 28 x 15 | 45 | 14 | | | | | 028015000 |
| | 28 x 16 | 44 | 13 | | | | | 028016000 |
| | 28 x 18 | 43 | 11 | | | | | 028018000 |
| | 28 x 22 | 42 | 8 | | | | | 028022000 |
| | 35 x 15 | 55 | 21 | | | | | 035015000 |
| | 35 x 18 | 54 | 18 | | | | | 035015000 |
| | 35 x 22 | 54 | 15 | | | | | 035022000 |
| | 35 x 28 | 54 | 11 | | | | | 035028000 |
| | 42 x 22 | 66 | 23 | | | | | 042022000 |
| | 42 x 28 | 61 | 15 | | | | | 042028000 |
| | 42 x 35 | 61 | 11 | | | | | 042035000 |
| | 54 x 15 | 72 | 15 | | | | | 054015000 |
| | 54 x 22 | 69 | 21 | | | | | 054022000 |
| | 54 x 28 | 69 | 18 | | | | | 054028000 |
| | 54 x 35 | 70 | 15 | | | | | 054035000 |
| | 54 x 42 | 77 | 18 | | | | | 054042000 |
| | 64 x 35 | 67 | 12 | | | | | 064035000 |
| | 64 x 42 | 69 | 10 | | | | | 064042000 |
| | 64 x 54 | 75 | 10,5 | | | | | 064054000 |
| | 67 x 28 | 78 | 26 | | | | | 067028000 |
| | 67 x 42 | 71 | 10,5 | | | | | 067042000 |
| | 67 x 54 | 77 | 12 | | | | | 067054000 |
| | 76 x 28 | 82 | 30 | | | | | 076028000 |
| | 76 x 35 | 84 | 27,5 | | | | | 076035000 |
| | 76 x 42 | 73 | 12,5 | | | | | 076042000 |
| | 76 x 54 | 83 | 18 | | | | | 076054000 |

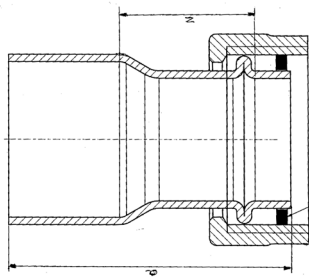
Series 4000 5000

5240 Łącznik redukcyjny mufowy



| Wymiary | a | Z | Kod | |
|----------|-----|------|------|-----------|
| 76 x 64 | 78 | 12 | 5240 | 076064000 |
| 76 x 67 | 77 | 10 | | 076067000 |
| 89 x 76 | 84 | 13 | | 089076000 |
| 108 x 54 | 114 | 34,5 | | 108054000 |
| 108 x 64 | 110 | 30 | | 108076000 |
| 108 x 76 | 105 | 24 | | 108076000 |
| 108 x 89 | 102 | 17 | | 108089000 |

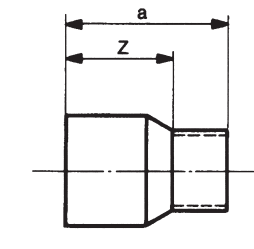
5240G Łącznik bateryjny z kołnierzem i z uszczelką



| Wymiary | a | z | Kod | |
|----------|----|----|-------|-----------|
| 15 - 1/2 | 28 | 12 | 5240G | 015004000 |
| 15 - 3/4 | 35 | 20 | | 015006000 |
| 22 - 3/4 | 40 | 20 | | 022006000 |

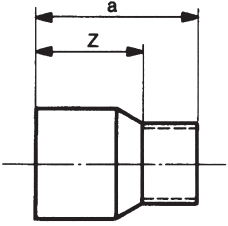
5243

Łącznik redukcyjny nypłowy

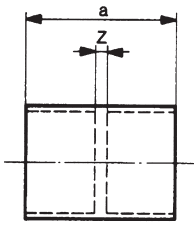


| Wymiary | a | Z | | | | | | Kod |
|---------|------|------|--|--|--|--|--|----------------|
| 8 x 6 | 17 | 11 | | | | | | 5243 008006000 |
| 10 x 6 | 17,5 | 11,5 | | | | | | 010006000 |
| 10 x 8 | 16,5 | 9,5 | | | | | | 010008000 |
| 12 x 6 | 21 | 15 | | | | | | 012006000 |
| 12 x 8 | 21 | 14 | | | | | | 012008000 |
| 12 x 10 | 19 | 11 | | | | | | 012010000 |
| 14 x 10 | 23 | 15 | | | | | | 014010000 |
| 14 x 12 | 23 | 14 | | | | | | 014012000 |
| 15 x 8 | 25 | 18 | | | | | | 015008000 |
| 15 x 10 | 25 | 17 | | | | | | 015010000 |
| 15 x 12 | 24 | 15 | | | | | | 015012000 |
| 15 x 14 | 22 | 11 | | | | | | 015014000 |
| 16 x 10 | 26 | 18 | | | | | | 016010000 |
| 16 x 12 | 27 | 18 | | | | | | 016012000 |
| 16 x 14 | 28 | 17 | | | | | | 016014000 |
| 18 x 10 | 27 | 19 | | | | | | 018010000 |
| 18 x 12 | 29 | 20 | | | | | | 018012000 |
| 18 x 14 | 29 | 17 | | | | | | 018014000 |
| 18 x 15 | 30 | 19 | | | | | | 018015000 |
| 18 x 16 | 26 | 15 | | | | | | 018016000 |
| 22 x 10 | 32 | 24 | | | | | | 022010000 |
| 22 x 12 | 32 | 23 | | | | | | 022012000 |
| 22 x 14 | 33 | 21 | | | | | | 022014000 |
| 22 x 15 | 33 | 22 | | | | | | 022015000 |
| 22 x 16 | 30 | 19 | | | | | | 022016000 |
| 22 x 18 | 34 | 21 | | | | | | 022018000 |
| 28 x 10 | 42 | 32 | | | | | | 028010000 |
| 28 x 12 | 42 | 31 | | | | | | 028012000 |
| 28 x 14 | 42 | 29 | | | | | | 028014000 |
| 28 x 15 | 42 | 29 | | | | | | 028015000 |
| 28 x 16 | 42 | 31 | | | | | | 028016000 |
| 28 x 18 | 42 | 27 | | | | | | 028018000 |
| 28 x 22 | 42 | 24 | | | | | | 028022000 |

Series 4000 5000

| 5243 | | Łącznik redukcyjny nypłowy | | | |
|-----------------------------------------------------------------------------------|----------|----------------------------|----|-----------|-----------|
|  | Wymiary | a | Z | Kod | |
| | 35 x 15 | 50 | 39 | 5243 | 035015000 |
| | 35 x 18 | 51 | 41 | | 035018000 |
| | 35 x 22 | 52 | 36 | | 035022000 |
| | 35 x 28 | 49 | 30 | | 035028000 |
| | 42 x 15 | 57 | 43 | | 042015000 |
| | 42 x 18 | 63 | 50 | | 042018000 |
| | 42 x 22 | 60 | 44 | | 042022000 |
| | 42 x 28 | 58 | 39 | | 042028000 |
| | 54 x 15 | 66 | 55 | | 054015000 |
| | 54 x 22 | 67 | 51 | | 054022000 |
| | 54 x 28 | 70 | 51 | | 054028000 |
| | 54 x 35 | 72 | 49 | | 054035000 |
| | 54 x 42 | 70 | 43 | | 054042000 |
| | 64 x 35 | 73 | 50 | | 064035000 |
| | 64 x 42 | 74 | 47 | | 064042000 |
| | 64 x 54 | 73 | 41 | | 064054000 |
| | 67 x 28 | 76 | 57 | | 067028000 |
| | 67 x 35 | 76 | 53 | | 067035000 |
| | 67 x 42 | 77 | 50 | | 067042000 |
| | 67 x 54 | 75 | 43 | | 067054000 |
| | 70 x 54 | 77 | 45 | | 070054000 |
| | 70 x 64 | 71 | 39 | | 070064000 |
| | 76 x 35 | 81 | 58 | | 076035000 |
| | 76 x 42 | 82 | 55 | | 076042000 |
| | 76 x 54 | 81 | 49 | | 076054000 |
| | 76 x 64 | 76 | 44 | | 076064000 |
| | 76 x 67 | 75 | 42 | | 076067000 |
| | 80 x 54 | 85 | 53 | | 080054000 |
| | 80 x 64 | 80 | 47 | | 080064000 |
| | 89 x 54 | 93 | 61 | | 089054000 |
| | 89 x 64 | 87 | 55 | | 089064000 |
| | 89 x 76 | 82 | 49 | | 089076000 |
| | 108 x 54 | 114 | 82 | | 108054000 |
| 108 x 64 | 110 | 78 | | 108064000 | |
| 108 x 67 | 110 | 77 | | 108067000 | |
| 108 x 76 | 105 | 72 | | 108076000 | |
| 108 x 89 | 102 | 65 | | 108089000 | |
| 133 x 76 | 114 | 80 | | 133076000 | |
| 133 x 108 | 117 | 65 | | 133108000 | |
| 159 x 76 | 127 | 94 | | 159076000 | |
| 159 x 108 | 125 | 77 | | 159108000 | |
| 159 x 133 | 112 | 64 | | 159133000 | |

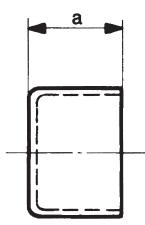
Series 4000 5000

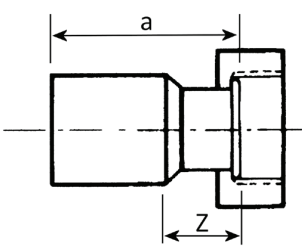
| 5270 | | Mufa | | | | | |
|-----------------------------------------------------------------------------------|---------|------|---|--|--|-----------|----------------|
|  | Wymiary | a | Z | | | | Kod |
| | 6 | 15 | 2 | | | | 5270 006000000 |
| | 8 | 16 | 2 | | | | 008000000 |
| | 10 | 17 | 2 | | | | 010000000 |
| | 12 | 19 | 2 | | | | 012000000 |
| | 14 | 23 | 2 | | | | 014000000 |
| | 15 | 23 | 2 | | | | 015000000 |
| | 16 | 23 | 2 | | | | 016000000 |
| | 18 | 27 | 2 | | | | 018000000 |
| | 22 | 33 | 2 | | | | 022000000 |
| | 28 | 38 | 2 | | | | 028000000 |
| | 35 | 48 | 2 | | | | 035000000 |
| | 42 | 56 | 2 | | | | 042000000 |
| | 54 | 66 | 2 | | | | 054000000 |
| | 64 | 69 | 4 | | | | 064000000 |
| | 67 | 71 | 4 | | | | 067000000 |
| | 76 | 71 | 4 | | | | 076000000 |
| | 89 | 79 | 4 | | | | 089000000 |
| | 108 | 100 | 5 | | | | 108000000 |
| | 133 | 99 | 5 | | | | 133000000 |
| 159 | 99 | 4 | | | | 159000000 | |

| 5270S | | Mufa przesuwna | | | | | |
|-------------------------------------------------------------------------------------|---------|----------------|--|--|--|--|-----------------|
|  | Wymiary | a | | | | | Kod |
| | 12 | 19 | | | | | 5270S 012000000 |
| | 14 | 23 | | | | | 014000000 |
| | 15 | 23 | | | | | 015000000 |
| | 18 | 27 | | | | | 018000000 |
| | 22 | 33 | | | | | 022000000 |
| | 28 | 38 | | | | | 028000000 |
| | 35 | 48 | | | | | 035000000 |
| | 42 | 56 | | | | | 042000000 |
| | 54 | 66 | | | | | 054000000 |

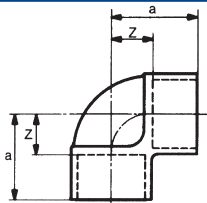
| 5301 | | Kapa | | | | | |
|-------------------------------------------------------------------------------------|---------|------|--|--|--|--|----------------|
|  | Wymiary | a | | | | | Kod |
| | 6 | 8 | | | | | 5301 006000000 |
| | 8 | 9 | | | | | 008000000 |
| | 10 | 9 | | | | | 010000000 |
| | 12 | 11 | | | | | 012000000 |
| | 14 | 13 | | | | | 014000000 |
| | 15 | 13 | | | | | 015000000 |
| | 16 | 13 | | | | | 016000000 |

Series 4000 5000

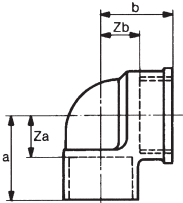
| 5301 | | Kapa | | | | | | | |
|-----------------------------------------------------------------------------------|---------|------|--|--|--|--|--|------|-----------|
|  | Wymiary | a | | | | | | Kod | |
| | 18 | 16 | | | | | | 5301 | 018000000 |
| | 22 | 18 | | | | | | | 022000000 |
| | 28 | 21 | | | | | | | 028000000 |
| | 35 | 26 | | | | | | | 035000000 |
| | 42 | 31 | | | | | | | 042000000 |
| | 54 | 36 | | | | | | | 054000000 |
| | 64 | 34 | | | | | | | 064000000 |
| | 67 | 38 | | | | | | | 067000000 |
| | 76 | 38 | | | | | | | 076000000 |
| | 89 | 39 | | | | | | | 089000000 |
| | 108 | 52 | | | | | | | 108000000 |

| 5359G | | Łącznik bateryjny z uszczelką | | | | | | | |
|------------------------------------------------------------------------------------|-------------|-------------------------------|------|--|--|--|--|-------|-----------|
|  | Wymiary | a | Z | | | | | Kod | |
| | 10 x G 3/8" | 25 | 15,5 | | | | | 5359G | 010003000 |
| | 12 x G 3/8" | 25 | 14,5 | | | | | | 012003000 |
| | 12 x G 1/2" | 27 | 15 | | | | | | 012004000 |
| | 14 x G 1/2" | 24 | 15 | | | | | | 014004000 |
| | 15 x G 1/2" | 28 | 17 | | | | | | 015004000 |
| | 16 x G 1/2" | 26,5 | 16 | | | | | | 016004000 |
| | 16 x G 3/4" | 31 | 20 | | | | | | 016006000 |
| | 18 x G 1/2" | 29 | 16 | | | | | | 018004000 |
| | 18 x G 3/4" | 32 | 19 | | | | | | 018006000 |
| | 22 x G 3/4" | 35,5 | 20 | | | | | | 022006000 |
| | 22 x G 1" | 32 | 17 | | | | | | 022008000 |

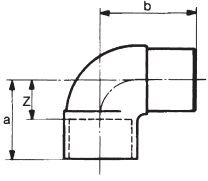
| 5870 | | Łącznik kompensacyjny | | | | | | | |
|-------------------------------------------------------------------------------------|---------|-----------------------|-----|-----|--|--|--|------|-----------|
|  | Wymiary | a | b | z | | | | Kod | |
| | 15 | 238 | 109 | 216 | | | | 5870 | 015000000 |
| | 18 | 304 | 139 | 278 | | | | | 018000000 |
| | 22 | 347 | 171 | 316 | | | | | 022000000 |
| | 28 | 455 | 218 | 418 | | | | | 028000000 |
| | 35 | 564 | 272 | 518 | | | | | 035000000 |
| | 42 | 673 | 372 | 619 | | | | | 042000000 |

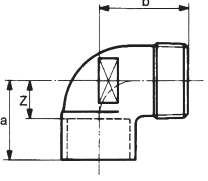
| 4090 | | Kolano 90° dwukielichowe | | | | | |
|-----------------------------------------------------------------------------------|---------|--------------------------|----|--|--|--|----------------|
|  | Wymiary | a | Z | | | | Kod |
| | 15 | 21 | 10 | | | | 4090 015000000 |
| | 18 | 25 | 12 | | | | 018000000 |
| | 22 | 29 | 14 | | | | 022000000 |

| 4090D | | Kolano 90° dwukielichowe z odpowietrzeniem | | | | | |
|-----------------------------------------------------------------------------------|---------|--------------------------------------------|----|----|--|--|-----------------|
|  | Wymiary | a | b | Z | | | Kod |
| | 22 | 31 | 25 | 15 | | | 4090D 022000000 |
| | 28 | 38 | 28 | 19 | | | 028000000 |

| 4090G | | Kolano 90° GW | | | | | |
|-------------------------------------------------------------------------------------|-----------|---------------|----|----|----|-----------|-----------------|
|  | Wymiary | a | b | Za | Zb | | Kod |
| | 10 x 1/4" | 16 | 15 | 8 | 7 | | 4090G 010002000 |
| | 10 x 3/8" | 18 | 16 | 10 | 7 | | 010003000 |
| | 10 x 1/2" | 22 | 18 | 14 | 7 | | 010004000 |
| | 12 x 3/8" | 18 | 18 | 10 | 9 | | 012003000 |
| | 12 x 1/2" | 20 | 20 | 11 | 8 | | 012004000 |
| | 14 x 3/8" | 20 | 17 | 10 | 8 | | 014003000 |
| | 14 x 1/2" | 22 | 21 | 11 | 9 | | 012004000 |
| | 14 x 3/4" | 26 | 23 | 15 | 9 | | 014006000 |
| | 15 x 3/8" | 20 | 19 | 10 | 10 | | 015003000 |
| | 15 x 1/2" | 21 | 20 | 10 | 11 | | 015004000 |
| | 15 x 3/4" | 26 | 23 | 15 | 9 | | 015006000 |
| | 16 x 3/8" | 21 | 19 | 10 | 10 | | 016003000 |
| | 16 x 1/2" | 23 | 22 | 12 | 10 | | 016004000 |
| | 16 x 3/4" | 26 | 23 | 15 | 9 | | 016006000 |
| | 18 x 1/2" | 23 | 21 | 10 | 12 | | 018004000 |
| | 18 x 3/4" | 28 | 24 | 15 | 9 | | 018006000 |
| | 22 x 1/2" | 27 | 25 | 12 | 12 | | 022004000 |
| | 22 x 3/4" | 29 | 23 | 14 | 11 | | 022006000 |
| | 22 x 1" | 34 | 28 | 19 | 14 | | 022008000 |
| 28 x 3/4" | 33 | 30 | 15 | 15 | | 028006000 | |
| 28 x 1" | 37 | 32 | 19 | 15 | | 028008000 | |
| 35 x 1" | 42 | 37 | 19 | 20 | | 035008000 | |
| 35 x 1 1/4" | 48 | 37 | 25 | 18 | | 035010000 | |
| 42 x 1 1/2" | 54 | 45 | 27 | 26 | | 042012000 | |
| 54 x 2" | 64 | 52 | 32 | 31 | | 054016000 | |

Series 4000 5000

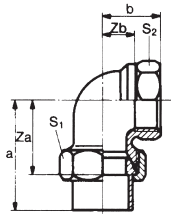
| 4092 | | Kolano 90° nypłowe | | | | | | |
|-----------------------------------------------------------------------------------|---------|--------------------|----|----|--|--|--|----------------|
|  | Wymiary | a | b | Z | | | | Kod |
| | 12 | 17 | 22 | 8 | | | | 4090 012000000 |
| | 15 | 21 | 26 | 10 | | | | 015000000 |

| 4092G | | Kolano 90° nypłowe GZ | | | | | | |
|-----------------------------------------------------------------------------------|-------------|-----------------------|----|----|--|--|-----------|-----------------|
|  | Wymiary | a | b | Z | | | | Kod |
| | 10 x 1/4" | 14 | 21 | 6 | | | | 4092G 010002000 |
| | 10 x 3/8" | 14 | 22 | 6 | | | | 010003000 |
| | 12 x 3/8" | 16 | 22 | 8 | | | | 012003000 |
| | 12 x 1/2" | 16 | 26 | 8 | | | | 012004000 |
| | 14 x 3/8" | 18 | 24 | 8 | | | | 014003000 |
| | 14 x 1/2" | 20 | 29 | 9 | | | | 014004000 |
| | 15 x 3/8" | 19 | 25 | 8 | | | | 015003000 |
| | 15 x 1/2" | 18 | 29 | 8 | | | | 015004000 |
| | 15 x 3/4" | 23 | 29 | 12 | | | | 015006000 |
| | 16 x 1/2" | 20 | 27 | 9 | | | | 016004000 |
| | 16 x 3/4" | 22 | 29 | 12 | | | | 016006000 |
| | 18 x 1/2" | 22 | 28 | 9 | | | | 018004000 |
| | 18 x 3/4" | 25 | 30 | 12 | | | | 018006000 |
| | 22 x 1/2" | 25 | 33 | 10 | | | | 022004000 |
| | 22 x 3/4" | 27 | 34 | 12 | | | | 022006000 |
| | 22 x 1" | 30 | 35 | 15 | | | | 022008000 |
| | 28 x 3/4" | 32 | 39 | 13 | | | | 028006000 |
| | 28 x 1" | 34 | 39 | 15 | | | | 028008000 |
| | 35 x 1 1/4" | 44 | 51 | 21 | | | | 035010000 |
| 42 x 1 1/2" | 51 | 55 | 24 | | | | 042012000 | |
| 54 x 2" | 59 | 65 | 27 | | | | 054016000 | |

| 4096 | | Śrubunek kątowy 90° ze stożkiem | | | | | | |
|-------------------------------------------------------------------------------------|---------|---------------------------------|----|----|----|----|--|-----------------|
|  | Wymiary | a | b | S | Za | Zb | | Kod |
| | 10 | 32 | 14 | 24 | 24 | 6 | | 4096 010000000 |
| | 12 | 36 | 17 | 26 | 27 | 8 | | 012000000 |
| | 15 | 39 | 19 | 30 | 28 | 8 | | 015000000 |
| | 16 | 45 | 19 | 30 | 34 | 8 | | 016000000 |
| | 18 | 43 | 23 | 30 | 30 | 10 | | 018000000 |
| | 22 | 50 | 27 | 37 | 35 | 12 | | 022000000 |
| | 28 | 59 | 33 | 46 | 40 | 15 | | 028000000 |
| | 35 | 69 | 43 | 52 | 46 | 20 | | 035000000 |
| | 42 | 79 | 52 | 65 | 52 | 25 | | 4096R 042000000 |
| | 54 | 90 | 60 | 82 | 58 | 28 | | 4096R 054000000 |

4096G

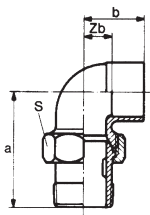
Śrubunek kątowy GW 90° ze stożkiem



| Wymiary | a | b | S1 | S2 | Za | Zb | Kod | |
|-------------|----|----|----|----|----|----|-------|-----------|
| 10 x 1/4" | 35 | 21 | 24 | 19 | 27 | 13 | 4096G | 010002000 |
| 10 x 3/8" | 37 | 23 | 24 | 22 | 29 | 14 | | 010003000 |
| 12 x 3/8" | 39 | 25 | 26 | 23 | 30 | 16 | | 012003000 |
| 12 x 1/2" | 40 | 26 | 26 | 27 | 31 | 15 | | 012004000 |
| 14 x 1/2" | 47 | 22 | 30 | 26 | 35 | 11 | | 014004000 |
| 15 x 3/8" | 40 | 25 | 30 | 22 | 29 | 16 | | 015003000 |
| 15 x 1/2" | 41 | 22 | 30 | 26 | 30 | 11 | | 015004000 |
| 16 x 1/2" | 47 | 22 | 30 | 26 | 31 | 11 | | 016004000 |
| 18 x 1/2" | 44 | 22 | 30 | 26 | 31 | 11 | | 018004000 |
| 18 x 3/4" | 52 | 27 | 37 | 32 | 39 | 13 | | 018006000 |
| 22 x 3/4" | 53 | 27 | 37 | 32 | 38 | 13 | | 022006000 |
| 22 x 1" | 57 | 37 | 37 | 40 | 42 | 22 | | 022008000 |
| 28 x 1" | 63 | 32 | 46 | 39 | 44 | 18 | | 028008000 |
| 35 x 1 1/4" | 73 | 38 | 52 | 48 | 50 | 21 | | 035010000 |
| 42 x 1 1/2" | 83 | 41 | 65 | 54 | 56 | 24 | | 042012000 |
| 54 x 2" | 97 | 51 | 82 | 66 | 65 | 30 | | 054016000 |

4098G

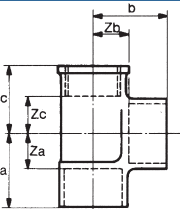
Śrubunek kątowy GZ 90° ze stożkiem

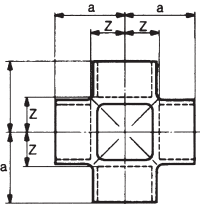


| Wymiary | a | b | S | Zb | | | Kod | |
|-------------|-----|----|----|----|--|--|-------|-----------|
| 10 x 1/4" | 43 | 14 | 24 | 7 | | | 4098G | 010002000 |
| 10 x 3/8" | 45 | 15 | 26 | 7 | | | | 010003000 |
| 12 x 3/8" | 47 | 17 | 26 | 8 | | | | 012003000 |
| 12 x 1/2" | 52 | 17 | 30 | 8 | | | | 012004000 |
| 14 x 1/2" | 54 | 19 | 30 | 8 | | | | 014004000 |
| 15 x 3/8" | 47 | 19 | 26 | 8 | | | | 015003000 |
| 15 x 1/2" | 54 | 19 | 30 | 8 | | | | 015004000 |
| 15 x 3/4" | 54 | 23 | 37 | 12 | | | | 015006000 |
| 16 x 1/2" | 54 | 19 | 30 | 8 | | | | 016004000 |
| 18 x 1/2" | 54 | 23 | 30 | 10 | | | | 018004000 |
| 18 x 3/4" | 56 | 25 | 37 | 12 | | | | 018006000 |
| 22 x 3/4" | 58 | 27 | 37 | 12 | | | | 022006000 |
| 22 x 1" | 64 | 30 | 46 | 15 | | | | 022008000 |
| 28 x 1" | 67 | 33 | 46 | 15 | | | | 028008000 |
| 35 x 1 1/4" | 80 | 43 | 52 | 20 | | | | 035010000 |
| 42 x 1 1/2" | 88 | 52 | 65 | 24 | | | | 042012000 |
| 54 x 2" | 109 | 60 | 82 | 28 | | | | 054016000 |

Series 4000 5000

| 4130G | | Trójnik GW | | | | | | Kod | |
|-------|------------------|------------------|------|----|----|----|-----------|-----------|--|
| | | Wymiary | a | b | Za | Zb | | | |
| | | 10 x 3/8" x 10 | 18 | 16 | 10 | 7 | 4130G | 010003010 | |
| | | 10 x 1/2" x 10 | 20 | 19 | 12 | 7 | | 010004010 | |
| | | 12 x 3/8" x 12 | 19 | 17 | 10 | 8 | | 012003012 | |
| | | 12 x 1/2" x 12 | 21 | 19 | 12 | 8 | | 012004012 | |
| | | 14 x 3/8" x 14 | 22 | 19 | 11 | 7 | | 014003014 | |
| | | 14 x 1/2" x 14 | 22 | 22 | 11 | 7 | | 014004014 | |
| | | 15 x 3/8" x 15 | 21 | 19 | 10 | 10 | | 015003015 | |
| | | 15 x 1/2" x 15 | 21 | 20 | 10 | 11 | | 015004015 | |
| | | 15 x 3/4" x 15 | 26 | 23 | 15 | 10 | | 015006015 | |
| | | 16 x 1/2" x 16 | 23 | 22 | 12 | 7 | | 016004016 | |
| | | 16 x 3/4" x 16 | 25,5 | 23 | 15 | 10 | | 016006016 | |
| | | 18 x 3/8" x 18 | 23 | 20 | 10 | 11 | | 018003018 | |
| | | 18 x 1/2" x 18 | 24 | 22 | 11 | 13 | | 018004018 | |
| | | 18 x 3/4" x 18 | 28 | 24 | 15 | 11 | | 018006018 | |
| | | 22 x 3/8" x 22 | 26 | 22 | 10 | 13 | | 022003022 | |
| | | 22 x 1/2" x 22 | 26 | 24 | 10 | 9 | | 022004022 | |
| | | 22 x 3/4" x 22 | 30 | 26 | 14 | 13 | | 022006022 | |
| | | 28 x 1/2" x 28 | 29 | 27 | 11 | 18 | | 028004028 | |
| | | 28 x 3/4" x 28 | 33 | 30 | 15 | 13 | | 028006028 | |
| | | 28 x 1" x 28 | 37 | 32 | 19 | 13 | | 028008028 | |
| | | 35 x 1/2" x 35 | 35 | 31 | 12 | 16 | | 035004035 | |
| | | 35 x 3/4" x 35 | 38 | 33 | 15 | 16 | | 035006035 | |
| | | 35 x 1" x 35 | 42 | 39 | 19 | 20 | | 035008035 | |
| | | 35 x 1 1/4" x 35 | 46 | 38 | 23 | 19 | | 035010035 | |
| | | 42 x 1/2" x 42 | 39 | 35 | 12 | 20 | | 042004042 | |
| | | 42 x 3/4" x 42 | 42 | 40 | 15 | 23 | | 042006042 | |
| | | 42 x 1 1/2" x 42 | 53 | 45 | 26 | 25 | | 042012042 | |
| | | 54 x 1/2" x 54 | 44 | 44 | 12 | 29 | | 054004054 | |
| | 54 x 1 1/2" x 54 | 58 | 52 | 26 | 32 | | 054012054 | | |
| | 54 x 2" x 54 | 64 | 52 | 32 | 31 | | 054016054 | | |

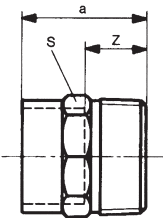
| 4134G | | Trójkąt GW | | | | | | | Kod | |
|-----------------------------------------------------------------------------------|----------------|------------|----|----|----|----|----|-------|-----------|--|
|  | Wymiary | a | b | c | Za | Zb | Zc | | | |
| | 15 x 15 x 1/2" | 19 | 23 | 22 | 8 | 12 | 7 | 4134G | 015015004 | |
| | 22 x 22 x 1/2" | 27 | 27 | 25 | 12 | 12 | 10 | | 022022004 | |

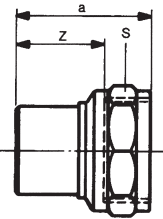
| 4180 | | Czwórnik | | | | | | | Kod | |
|-----------------------------------------------------------------------------------|---------|----------|----|--|--|--|--|------|-----------|--|
|  | Wymiary | a | Z | | | | | | | |
| | 15 | 21 | 10 | | | | | 4180 | 015000000 | |
| | 16 | 21 | 11 | | | | | | 016000000 | |
| | 18 | 25 | 12 | | | | | | 018000000 | |
| | 22 | 29 | 14 | | | | | | 022000000 | |

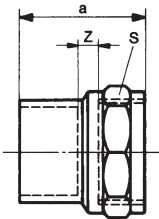
| 4221 | | Trójkąt narożnikowy | | | | | | | Kod | |
|------------------------------------------------------------------------------------|---------|---------------------|----|--|--|--|--|------|-----------|--|
|  | Wymiary | a | Z | | | | | | | |
| | 12 | 17 | 8 | | | | | 4221 | 012000000 | |
| | 15 | 21 | 10 | | | | | | 015000000 | |
| | 18 | 25 | 12 | | | | | | 018000000 | |
| | 22 | 29 | 14 | | | | | | 022000000 | |
| | 28 | 35 | 17 | | | | | | 028000000 | |

| 4243G | | Łącznik GZ | | | | | | | Kod | |
|-------------------------------------------------------------------------------------|-----------|------------|----|----|--|--|--|-----------|-----------|--|
|  | Wymiary | a | S | Z | | | | | | |
| | 8 x 1/4" | 20 | 12 | 12 | | | | 4243G | 008002000 | |
| | 8 x 3/8" | 20 | 12 | 13 | | | | | 008003000 | |
| | 10 x 1/4" | 22 | 14 | 12 | | | | | 010002000 | |
| | 10 x 3/8" | 22 | 14 | 14 | | | | | 010003000 | |
| | 10 x 1/2" | 22 | 14 | 14 | | | | | 010004000 | |
| | 12 x 1/4" | 25 | 16 | 16 | | | | | 012002000 | |
| | 12 x 3/8" | 21 | 16 | 12 | | | | | 012003000 | |
| | 12 x 1/2" | 24 | 16 | 15 | | | | | 012004000 | |
| | 14 x 3/8" | 25 | 18 | 14 | | | | | 014003000 | |
| | 14 x 1/2" | 23 | 18 | 12 | | | | | 014004000 | |
| | 14 x 3/4" | 27 | 18 | 16 | | | | | 014006000 | |
| | 15 x 1/4" | 25 | 19 | 12 | | | | | 015002000 | |
| | 15 x 3/8" | 25 | 19 | 14 | | | | | 015003000 | |
| | 15 x 1/2" | 25 | 19 | 14 | | | | | 015004000 | |
| | 15 x 3/4" | 26 | 19 | 15 | | | | | 015006000 | |
| 16 x 3/8" | 25 | 19 | 14 | | | | | 016003000 | | |
| 16 x 1/2" | 25 | 20 | 14 | | | | | 016004000 | | |

Series 4000 5000

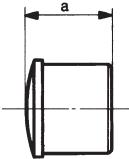
| 4243G | | Łącznik GZ | | | | | Kod | |
|-----------------------------------------------------------------------------------|-------------|------------|----|----|--|-----------|-----------------|--|
| Wymiary | | a | S | Z | | | | |
|  | 16 x 3/4" | 26 | 19 | 15 | | | 4243G 016006000 | |
| | 18 x 1/2" | 27 | 22 | 14 | | | 018004000 | |
| | 18 x 3/4" | 26 | 22 | 13 | | | 018006000 | |
| | 22 x 1/2" | 34 | 26 | 19 | | | 022004000 | |
| | 22 x 3/4" | 31 | 26 | 16 | | | 022006000 | |
| | 22 x 1" | 30 | 26 | 15 | | | 022008000 | |
| | 28 x 1/2" | 42 | 33 | 24 | | | 028004000 | |
| | 28 x 3/4" | 37 | 34 | 19 | | | 028006000 | |
| | 28 x 1" | 36 | 33 | 18 | | | 028008000 | |
| | 28 x 1 1/4" | 37 | 33 | 19 | | | 028010000 | |
| | 35 x 1" | 47 | 40 | 24 | | | 035008000 | |
| | 35 x 1 1/4" | 43 | 40 | 20 | | | 035010000 | |
| | 35 x 1 1/2" | 40 | 40 | 17 | | | 035012000 | |
| | 42 x 1 1/4" | 54 | 48 | 27 | | | 042010000 | |
| | 42 x 1 1/2" | 49 | 48 | 22 | | | 042012000 | |
| | 42 x 2" | 51 | 48 | 24 | | | 042016000 | |
| | 54 x 1 1/2" | 61 | 61 | 29 | | | 054012000 | |
| | 54 x 2" | 58 | 60 | 26 | | | 054016000 | |
| | 64 x 2 1/2" | 75 | 75 | 43 | | | 064020000 | |
| | 67 x 2 1/2" | 70 | 77 | 37 | | | 067020000 | |
| 76 x 2 1/2" | 72 | 85 | 38 | | | 076020000 | | |
| 76 x 3" | 75 | 86 | 42 | | | 076024000 | | |
| 89 x 3" | 81 | 98 | 44 | | | 089024000 | | |
| 108 x 4" | 96 | 117 | 49 | | | 108032000 | | |

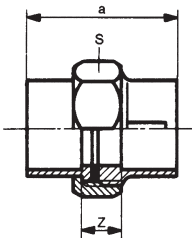
| 4246G | | Łącznik GW nypłowy | | | | | Kod | |
|-------------------------------------------------------------------------------------|-------------|--------------------|----|----|--|--|-----------------|--|
| Wymiary | | a | S | Z | | | | |
|  | 12 x 3/8" | 28 | 21 | 18 | | | 4246G 012003000 | |
| | 12 x 1/2" | 32 | 26 | 21 | | | 012004000 | |
| | 15 x 3/8" | 30 | 21 | 20 | | | 015003000 | |
| | 15 x 1/2" | 31 | 25 | 20 | | | 015004000 | |
| | 18 x 1/2" | 32 | 25 | 19 | | | 018004000 | |
| | 18 x 3/4" | 37 | 31 | 22 | | | 018006000 | |
| | 22 x 1/2" | 34 | 25 | 19 | | | 022004000 | |
| | 22 x 3/4" | 37 | 31 | 23 | | | 022006000 | |
| | 28 x 3/4" | 41 | 31 | 26 | | | 028006000 | |
| | 28 x 1" | 47 | 39 | 32 | | | 028008000 | |
| | 35 x 1" | 47 | 40 | 30 | | | 035008000 | |
| | 35 x 1 1/4" | 59 | 53 | 40 | | | 035010000 | |
| | 42 x 1 1/2" | 62 | 58 | 41 | | | 042012000 | |
| | 54 x 2" | 68 | 71 | 47 | | | 054016000 | |

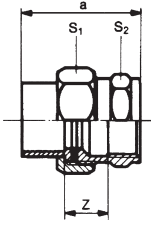
| 4270G | | Łącznik GW | | | | | |
|-----------------------------------------------------------------------------------|----------|------------|---|--|--|--|-----------|
|  | Wymiary | a | Z | | | | Kod |
| | 8 x 1/4" | 24 | 9 | | | | 4270G |
| 10 x 1/4" | 22 | 6 | | | | | 010002000 |
| 10 x 3/8" | 23 | 4 | | | | | 010003000 |
| 10 x 1/2" | 29 | 9 | | | | | 010004000 |
| 12 x 3/8" | 21 | 2 | | | | | 012003000 |
| 12 x 1/2" | 25 | 6 | | | | | 012004000 |
| 14 x 3/8" | 23 | 4 | | | | | 014003000 |
| 14 x 1/2" | 28 | 7 | | | | | 014004000 |
| 14 x 3/4" | 31 | 8 | | | | | 014006000 |
| 15 x 3/8" | 23 | 4 | | | | | 015003000 |
| 15 x 1/2" | 28 | 3 | | | | | 015004000 |
| 15 x 3/4" | 31 | 8 | | | | | 015006000 |
| 16 x 3/8" | 23 | 4 | | | | | 016003000 |
| 16 x 1/2" | 27 | 5 | | | | | 016004000 |
| 16 x 3/4" | 34 | 9 | | | | | 016006000 |
| 18 x 1/2" | 30 | 6 | | | | | 018004000 |
| 18 x 3/4" | 31 | 6 | | | | | 018006000 |
| 22 x 1/2" | 31 | 0 | | | | | 022004000 |
| 22 x 3/4" | 34 | 8 | | | | | 022006000 |
| 22 x 1" | 38 | 4 | | | | | 022008000 |
| 28 x 1/2" | 34 | 5 | | | | | 028004000 |
| 28 x 3/4" | 35 | 6 | | | | | 028006000 |
| 28 x 1" | 40 | 1 | | | | | 028008000 |
| 28 x 1 1/4" | 50 | 14 | | | | | 028010000 |
| 35 x 3/4" | 46 | 10 | | | | | 035006000 |
| 35 x 1" | 42 | 4 | | | | | 035008000 |
| 35 x 1 1/4" | 50 | 8 | | | | | 035010000 |
| 42 x 1" | 48 | 6 | | | | | 042008000 |
| 42 x 1 1/4" | 48 | 0 | | | | | 042010000 |
| 42 x 1 1/2" | 54 | 10 | | | | | 042012000 |
| 54 x 1 1/2" | 53 | 4 | | | | | 054012000 |
| 54 x 2" | 65 | 9 | | | | | 054016000 |
| 64 x 2 1/2" | 68 | 12 | | | | | 064020000 |
| 67 x 2 1/2" | 70 | 13 | | | | | 067020000 |

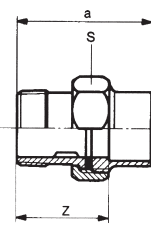
Series 4000 5000

| 4280G | | Łącznik nypłowy GZ | | | | | |
|-----------------------------------------------------------------------------------|-------------|--------------------|----|--|--|--|-----------------|
|  | Wymiary | a | S | | | | Kod |
| | 12 x 3/8" | 32 | 13 | | | | 4280G 012003000 |
| | 12 x 1/2" | 34 | 13 | | | | 012004000 |
| | 15 x 1/2" | 36 | 17 | | | | 015004000 |
| | 16 x 1/2" | 38 | 17 | | | | 016004000 |
| | 18 x 1/2" | 38 | 19 | | | | 018004000 |
| | 22 x 1/2" | 44 | 24 | | | | 022004000 |
| | 22 x 3/4" | 44 | 24 | | | | 022006000 |
| | 28 x 1" | 49 | 33 | | | | 028008000 |
| | 35 x 1 1/4" | 59 | 42 | | | | 035010000 |
| | 42 x 1 1/2" | 62 | 48 | | | | 042012000 |
| | 54 x 2" | 73 | 60 | | | | 054016000 |

| 4290 | | Korek | | | | | |
|------------------------------------------------------------------------------------|---------|-------|--|--|--|--|----------------|
|  | Wymiary | a | | | | | Kod |
| | 15 | 18 | | | | | 4290 015000000 |
| | 18 | 19 | | | | | 018000000 |
| | 22 | 23 | | | | | 022000000 |
| | 28 | 25 | | | | | 028000000 |

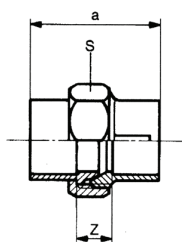
| 4330 | | Śrubunek prosty z uszczelką | | | | | |
|-------------------------------------------------------------------------------------|---------|-----------------------------|----|----|--|--|-----------------|
|  | Wymiary | a | S | Z | | | Kod |
| | 8 | 30 | 19 | 16 | | | 4330 008000000 |
| | 10 | 29 | 24 | 13 | | | 010000000 |
| | 12 | 33 | 26 | 15 | | | 012000000 |
| | 15 | 35 | 30 | 14 | | | 015000000 |
| | 16 | 40 | 30 | 19 | | | 016000000 |
| | 18 | 40 | 30 | 14 | | | 018000000 |
| | 22 | 45 | 37 | 14 | | | 022000000 |
| | 28 | 51 | 46 | 13 | | | 028000000 |
| | 35 | 62 | 52 | 16 | | | 035000000 |
| | 42 | 77 | 65 | 23 | | | 4330R 042000000 |
| | 54 | 84 | 82 | 20 | | | 4330R 054000000 |

| 4330G | | Śrubunek prosty GW z uszczelką | | | | | | Kod | |
|-----------------------------------------------------------------------------------|-------------|--------------------------------|----|----|----|--|--|-------|-----------|
| Wymiary | | a | S1 | S2 | Z | | | | |
|  | 10 x 1/4" | 34 | 24 | 18 | 17 | | | 4330G | 010002000 |
| | 12 x 3/8" | 37 | 26 | 21 | 20 | | | | 012003000 |
| | 15 x 1/2" | 42 | 30 | 26 | 18 | | | | 015004000 |
| | 16 x 1/2" | 42 | 30 | 26 | 18 | | | | 016004000 |
| | 18 x 1/2" | 45 | 30 | 26 | 19 | | | | 018004000 |
| | 18 x 3/4" | 50 | 37 | 32 | 25 | | | | 018006000 |
| | 22 x 3/4" | 50 | 37 | 32 | 22 | | | | 022006000 |
| | 28 x 1" | 53 | 46 | 39 | 20 | | | | 028008000 |
| | 35 x 1 1/4" | 63 | 52 | 48 | 23 | | | | 035010000 |
| | 42 x 1 1/2" | 73 | 65 | 54 | 29 | | | | 042012000 |
| | 54 x 2" | 80 | 82 | 66 | 27 | | | | 054016000 |

| 4331G | | Śrubunek prosty GZ z uszczelką | | | | Kod | | | |
|------------------------------------------------------------------------------------|-------------|--------------------------------|----|----|--|-----|--|-----------|-----------|
| Wymiary | | a | S | Z | | | | | |
|  | 10 x 1/4" | 38 | 24 | 30 | | | | 4331G | 010002000 |
| | 12 x 3/8" | 41 | 26 | 32 | | | | | 012003000 |
| | 14 x 1/2" | 46 | 30 | 35 | | | | | 014004000 |
| | 15 x 1/2" | 47 | 30 | 36 | | | | | 015004000 |
| | 16 x 1/2" | 46 | 30 | 35 | | | | | 016004000 |
| | 16 x 3/4" | 49 | 37 | 38 | | | | | 016006000 |
| | 18 x 1/2" | 49 | 30 | 36 | | | | | 018004000 |
| | 22 x 3/4" | 51 | 37 | 36 | | | | | 022006000 |
| | 28 x 1" | 58 | 46 | 39 | | | | | 028008000 |
| | 35 x 1 1/4" | 72 | 52 | 49 | | | | | 035010000 |
| | 42 x 1 1/2" | 82 | 65 | 53 | | | | | 042012000 |
| | 54 x 2" | 92 | 82 | 60 | | | | | 054016000 |
| | 64 x 2 1/2" | 99 | 95 | 67 | | | | | 064020000 |
| 76 x 2 1/2" | 97 | 95 | 64 | | | | | 076020000 | |

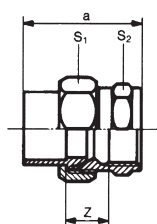
Series 4000 5000

4340 Śrubunek prosty ze stożkiem

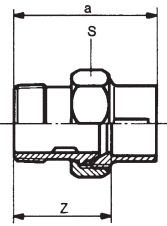


| Wymiary | a | S | Z | Kod | |
|---------|----|----|----|-------|-----------|
| 8 | 27 | 19 | 13 | 4340 | 008000000 |
| 10 | 33 | 24 | 17 | | 010000000 |
| 12 | 36 | 26 | 19 | | 012000000 |
| 14 | 44 | 30 | 23 | | 014000000 |
| 15 | 39 | 30 | 17 | | 015000000 |
| 16 | 44 | 30 | 23 | | 016000000 |
| 18 | 43 | 30 | 18 | | 018000000 |
| 22 | 49 | 37 | 18 | | 022000000 |
| 28 | 56 | 46 | 18 | | 028000000 |
| 35 | 67 | 46 | 21 | | 035000000 |
| 42 | 76 | 65 | 24 | 4340R | 042000000 |
| 54 | 90 | 82 | 26 | | 054000000 |

4340G Śrubunek prosty GW ze stożkiem

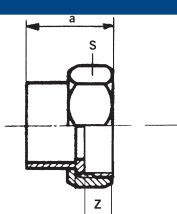


| Wymiary | a | S1 | S2 | Z | Kod | |
|-------------|----|----|----|----|-------|-----------|
| 10 x 1/4" | 34 | 24 | 18 | 18 | 4340G | 010002000 |
| 10 x 3/8" | 36 | 24 | 22 | 19 | | 010003000 |
| 12 x 3/8" | 37 | 26 | 21 | 20 | | 012003000 |
| 12 x 1/2" | 46 | 26 | 26 | 22 | | 012004000 |
| 14 x 1/2" | 50 | 26 | 26 | 26 | | 014004000 |
| 15 x 3/8" | 37 | 30 | 21 | 16 | | 015003000 |
| 15 x 1/2" | 43 | 30 | 26 | 18 | | 015004000 |
| 15 x 3/4" | 46 | 30 | 32 | 20 | | 015006000 |
| 16 x 1/2" | 49 | 30 | 26 | 25 | | 016004000 |
| 16 x 3/4" | 51 | 30 | 32 | 26 | | 016006000 |
| 18 x 1/2" | 46 | 30 | 26 | 20 | | 018004000 |
| 18 x 3/4" | 48 | 30 | 32 | 21 | | 018006000 |
| 22 x 3/4" | 52 | 37 | 32 | 22 | | 022006000 |
| 22 x 1" | 57 | 37 | 39 | 25 | | 022008000 |
| 28 x 3/4" | 49 | 46 | | 16 | | 028006000 |
| 28 x 1" | 53 | 46 | 39 | 19 | | 028008000 |
| 35 x 1 1/4" | 63 | 52 | 48 | 23 | | 035010000 |
| 42 x 1 1/2" | 68 | 65 | 54 | 24 | 4340R | 042012000 |
| 54 x 2" | 80 | 82 | 66 | 27 | | 054016000 |

| 4341G | | Śrubunek prosty GZ ze stożkiem | | | | | |
|-----------------------------------------------------------------------------------|-------------|--------------------------------|----|----|--|--|-----------------|
|  | Wymiary | a | S | Z | | | Kod |
| | 8 x 1/8" | 37 | 19 | 30 | | | 4341G 008001000 |
| | 10 x 1/4" | 40 | 24 | 32 | | | 010002000 |
| | 10 x 3/8" | 43 | 26 | 35 | | | 010003000 |
| | 12 x 3/8" | 44 | 26 | 35 | | | 012003000 |
| | 12 x 1/2" | 48 | 30 | 39 | | | 012004000 |
| | 14 x 1/2" | 49 | 30 | 38 | | | 014004000 |
| | 14 x 3/4" | 52 | 37 | 41 | | | 014006000 |
| | 15 x 3/8" | 45 | 26 | 34 | | | 015003000 |
| | 15 x 1/2" | 50 | 30 | 39 | | | 015004000 |
| | 15 x 3/4" | 52 | 37 | 41 | | | 015006000 |
| | 16 x 1/2" | 49 | 30 | 38 | | | 016004000 |
| | 16 x 3/4" | 51 | 37 | 40 | | | 016006000 |
| | 18 x 1/2" | 51 | 30 | 38 | | | 018004000 |
| | 18 x 3/4" | 53 | 37 | 40 | | | 018006000 |
| | 22 x 1/2" | 55 | 30 | 40 | | | 022004000 |
| | 22 x 3/4" | 53 | 37 | 37 | | | 022006000 |
| | 22 x 1" | 62 | 46 | 46 | | | 022008000 |
| | 28 x 1" | 59 | 46 | 40 | | | 028008000 |
| | 35 x 1 1/4" | 74 | 52 | 51 | | | 035010000 |
| | 42 x 1 1/2" | 82 | 65 | 55 | | | 4341R 042012000 |
| | 54 x 2" | 94 | 82 | 62 | | | 054016000 |
| | 64 x 2 1/2" | 103 | 95 | 70 | | | 064020000 |
| | 76 x 2 1/2" | 100 | 95 | 67 | | | 076020000 |

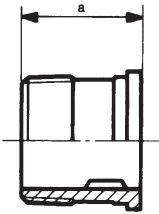
| 4350 | | Łącznik do zbiornika GZ | | | | | |
|-------------------------------------------------------------------------------------|-----------|-------------------------|----|----|----|--|----------------|
|  | Wymiary | a | b | Z | S | | Kod |
| | 15 x 1/2" | 33 | 19 | 23 | 32 | | 4350 015004000 |
| | 22 x 3/4" | 39 | 21 | 24 | 36 | | 022006000 |

Series 4000 5000

| 4359G | | Łącznik śrubunkowy GW na uszczelkę | | | | | |
|-----------------------------------------------------------------------------------|---------------|------------------------------------|----|---|-------|-----------|--|
|  | Wymiary | a | S | Z | Kod | | |
| | 12 x G 1/2" | 20 | 24 | 7 | 4359G | 012004000 | |
| | 18 x G 3/4" | 26 | 30 | 4 | | 018006000 | |
| | 22 x G 1" | 30 | 37 | 4 | | 022008000 | |
| | 28 x G 1 1/4" | 34 | 47 | 7 | | 028010000 | |
| | 28 x G 1 1/2" | 41 | 54 | 5 | | 028012000 | |

| 4370 | | Łącznik śrubunkowy GZ na uszczelkę | | | | | |
|-----------------------------------------------------------------------------------|---------------|------------------------------------|--|--|--|-----------|----------------|
|  | Wymiary | a | | | | | Kod |
| | 8 x G 3/8" | 14 | | | | | 4370 008003000 |
| | 10 x G 1/2" | 16 | | | | | 010004000 |
| | 12 x G 5/8" | 18 | | | | | 012005000 |
| | 14 x G 3/4" | 19 | | | | | 014006000 |
| | 15 x G 3/4" | 20 | | | | | 015006000 |
| | 16 x G 3/4" | 19 | | | | | 016006000 |
| | 16 x G 1" | 22 | | | | | 016008000 |
| | 18 x G 3/4" | 22 | | | | | 018006000 |
| | 22 x G 1" | 24 | | | | | 022008000 |
| | 28 x G 1 1/4" | 28 | | | | | 028010000 |
| | 35 x G 1 1/2" | 33 | | | | | 035012000 |
| | 42 x G 2" | 39 | | | | | 042016000 |
| | 54 x G 2 1/2" | 45 | | | | | 054020000 |
| 64 x G 3" | 48 | | | | | 064024000 | |
| 76 x G 3" | 46 | | | | | 076024000 | |

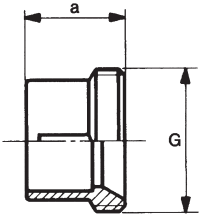
| 4370G | | Łącznik śrubunkowy GW GZ na uszczelkę | | | | | |
|-------------------------------------------------------------------------------------|-------------------|---------------------------------------|----|--|--|--|-----------------|
|  | Wymiary | a | S | | | | Kod |
| | 1/4" x G 1/2" | 20 | 18 | | | | 4370G 002004000 |
| | 3/8" x G 5/8" | 23 | 21 | | | | 003005000 |
| | 1/2" x G 3/4" | 27 | 26 | | | | 004006000 |
| | 3/4" x G 1" | 29 | 32 | | | | 006008000 |
| | 1" x G 1 1/4" | 30 | 39 | | | | 008010000 |
| | 1 1/4" x G 1 1/2" | 34 | 48 | | | | 010012000 |
| | 1 1/2" x G 2" | 35 | 54 | | | | 012016000 |
| | 2" x G 2 1/2" | 41 | 66 | | | | 016020000 |
| | 2 1/2" x G 3" | 45 | 83 | | | | 020024000 |

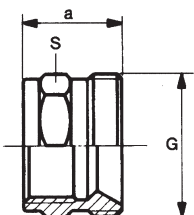
| 4371G | | Łącznik śrubunkowy GZ na uszczelkę | | | | | |
|-----------------------------------------------------------------------------------|-------------------|------------------------------------|--|--|--|--|-----------------|
|  | Wymiary | a | | | | | Kod |
| | 1/4" x G 1/2" | 22 | | | | | 4371G 002004000 |
| | 3/8" x G 5/8" | 23 | | | | | 003005000 |
| | 1/2" x G 3/4" | 27 | | | | | 004006000 |
| | 3/4" x G 1" | 27 | | | | | 006008000 |
| | 1" x G 1 1/4" | 30 | | | | | 008010000 |
| | 1 1/4" x G 1 1/2" | 39 | | | | | 010012000 |
| | 1 1/2" x G 2" | 41 | | | | | 012016000 |
| | 2" x G 2 1/2" | 47 | | | | | 016020000 |
| | 2 1/2" x G 3" | 51 | | | | | 020024000 |
| | 3" x G 3 1/2" | 56 | | | | | 024028000 |

| 4372 | | Łącznik śrubunkowy na uszczelkę | | | | | |
|------------------------------------------------------------------------------------|---------------|---------------------------------|--|--|--|--|----------------|
|  | Wymiary | a | | | | | Kod |
| | 8 x G 3/8" | 14 | | | | | 4372 008003000 |
| | 10 x G 1/2" | 15 | | | | | 010004000 |
| | 12 x G 1/2" | 13 | | | | | 012004000 |
| | 12 x G 5/8" | 16 | | | | | 012005000 |
| | 15 x G 3/4" | 13 | | | | | 015006000 |
| | 16 x G 3/4" | 19 | | | | | 016006000 |
| | 18 x G 3/4" | 17 | | | | | 018006000 |
| | 18 x G 1" | 19 | | | | | 018008000 |
| | 22 x G 1" | 19 | | | | | 022008000 |
| | 28 x G 1 1/4" | 21 | | | | | 028010000 |
| | 28 x G 1 1/2" | 21 | | | | | 028012000 |
| | 35 x G 1 1/2" | 27 | | | | | 035012000 |
| | 42 x G 2" | 36 | | | | | 042016000 |
| | 54 x G 2 1/2" | 37 | | | | | 054020000 |

| 4374 | | Nakrętka śrubunkowa | | | | | |
|-------------------------------------------------------------------------------------|----------|---------------------|----|----|--|-----------|----------------|
|  | Wymiary | a | d | S | | | Kod |
| | G 3/8" | 11 | 13 | 19 | | | 4374 003000000 |
| | G 1/2" | 12 | 16 | 24 | | | 004000000 |
| | G 5/8" | 14 | 19 | 26 | | | 005000000 |
| | G 3/4" | 14 | 22 | 30 | | | 006000000 |
| | G 1" | 17 | 28 | 37 | | | 008000000 |
| | G 1 1/4" | 18 | 36 | 46 | | | 010000000 |
| | G 1 1/2" | 20 | 42 | 52 | | | 012000000 |
| | G 2" | 23 | 53 | 65 | | | 016000000 |
| G 2 1/2" | 25 | 68 | 82 | | | 020000000 | |

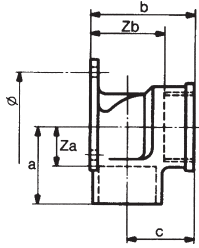
Series 4000 5000

| 4380 | | Łącznik śrubunkowy prosty GZ ze stożkiem | | | | | |
|-----------------------------------------------------------------------------------|---------------|------------------------------------------|----|--|--|--|-----------|
|  | Wymiary | a | | | | | Kod |
| | | 8 x G 3/8" | 14 | | | | |
| | 10 x G 1/2" | 16 | | | | | 010004000 |
| | 10 x G 5/8" | 17 | | | | | 010005000 |
| | 12 x G 5/8" | 18 | | | | | 012004000 |
| | 12 x G 3/4" | 19 | | | | | 012005000 |
| | 14 x G 3/4" | 19 | | | | | 014006000 |
| | 14 x G 1" | 23 | | | | | 014008000 |
| | 15 x G 5/8" | 19 | | | | | 015005000 |
| | 15 x G 3/4" | 20 | | | | | 015006000 |
| | 15 x G 1" | 23 | | | | | 015008000 |
| | 16 x G 3/4" | 19 | | | | | 016006000 |
| | 16 x G 1" | 24 | | | | | 016008000 |
| | 18 x G 3/4" | 22 | | | | | 018006000 |
| | 18 x G 1" | 24 | | | | | 018008000 |
| | 22 x G 3/4" | 26 | | | | | 022006000 |
| | 22 x G 1" | 24 | | | | | 022008000 |
| | 22 x G 1 1/4" | 30 | | | | | 022010000 |
| | 28 x G 1 1/4" | 28 | | | | | 028010000 |
| | 35 x G 1 1/2" | 33 | | | | | 035012000 |
| | 42 x G 2" | 39 | | | | | 042016000 |
| | 54 x G 2 1/2" | 45 | | | | | 054020000 |
| | 64 x G 3" | 48 | | | | | 064024000 |
| | 67 x G 3" | 48 | | | | | 067024000 |
| | 76 x G 3" | 46 | | | | | 076024000 |

| 4380G | | Łącznik śrubunkowy GW GZ ze stożkiem | | | | | |
|-------------------------------------------------------------------------------------|-------------------|--------------------------------------|----|----|--|--|-----------|
|  | Wymiary | a | S | | | | Kod |
| | | 1/4" x G 1/2" | 20 | 18 | | | |
| | 3/8" x G 1/2" | 22 | 22 | | | | 003004000 |
| | 3/8" x G 5/8" | 23 | 21 | | | | 003005000 |
| | 3/8" x G 3/4" | 22 | 21 | | | | 003006000 |
| | 1/2" x G 5/8" | 27 | 26 | | | | 004005000 |
| | 1/2" x G 3/4" | 28 | 26 | | | | 004006000 |
| | 3/4" x G 3/4" | 31 | 32 | | | | 006006000 |
| | 3/4" x G 1" | 31 | 32 | | | | 006008000 |
| | 1" x G 1" | 37 | 39 | | | | 008008000 |
| | 1" x G 1 1/4" | 30 | 39 | | | | 008010000 |
| | 1 1/4" x G 1 1/2" | 34 | 48 | | | | 010012000 |
| | 1 1/2" x G 2" | 35 | 54 | | | | 012016000 |
| | 2" x G 2 1/2" | 41 | 66 | | | | 016020000 |
| | 2 1/2" x G 3" | 45 | 83 | | | | 020024000 |

| 4381 | | Łącznik śrubunkowy ze stożkiem | | | | | | Kod | |
|-----------------------------------------------------------------------------------|---------------|--------------------------------|--|--|--|--|-----------|-----------|--|
|  | Wymiary | a | | | | | | | |
| | 8 x G 3/8" | 16 | | | | | 4381 | 008003000 | |
| | 10 x G 1/2" | 20 | | | | | | 010004000 | |
| | 12 x G 5/8" | 22 | | | | | | 012005000 | |
| | 14 x G 3/4" | 19 | | | | | | 014006000 | |
| | 15 x G 3/4" | 19 | | | | | | 015006000 | |
| | 16 x G 3/4" | 25 | | | | | | 016006000 | |
| | 18 x G 3/4" | 22 | | | | | | 018006000 | |
| | 18 x G 1" | 24 | | | | | | 018008000 | |
| | 22 x G 1" | 25 | | | | | | 022008000 | |
| | 28 x G 1 1/4" | 28 | | | | | | 028010000 | |
| | 35 x G 1 1/2" | 34 | | | | | | 035012000 | |
| | 42 x G 2" | 39 | | | | | | 042016000 | |
| | 54 x G 2 1/2" | 45 | | | | | | 054020000 | |
| 67 x G 3" | 50 | | | | | | 067024000 | | |

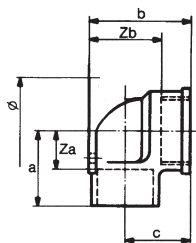
| 4382G | | Łącznik śrubunkowy GZ ze stożkiem | | | | | | Kod | |
|------------------------------------------------------------------------------------|-------------------|-----------------------------------|--|--|--|--|-------|-----------|--|
|  | Wymiary | a | | | | | | | |
| | 1/8" x G 3/8" | 25 | | | | | 4382G | 001003000 | |
| | 1/4" x G 1/2" | 28 | | | | | | 002004000 | |
| | 3/8" x G 5/8" | 29 | | | | | | 003005000 | |
| | 1/2" x G 3/4" | 33 | | | | | | 004006000 | |
| | 3/4" x G 1" | 33 | | | | | | 006008000 | |
| | 1" x G 1 1/4" | 37 | | | | | | 008010000 | |
| | 1 1/4" x G 1 1/2" | 46 | | | | | | 010012000 | |
| | 1 1/2" x G 2" | 49 | | | | | | 012016000 | |
| | 2" x G 2 1/2" | 56 | | | | | | 016020000 | |
| | 2 1/2" x G 3" | 61 | | | | | | 020024000 | |
| | 3" x G 3 1/2" | 67 | | | | | | 024028000 | |

| 4471G | | Kołano 90° GW z łapami mocowanie 3 otwory | | | | | | Kod | |
|-------------------------------------------------------------------------------------|-----------|-------------------------------------------|----|----|----|----|-----------|-----------|--|
|  | Wymiary | a | b | c | Za | Zb | | | |
| | 10 x 3/8" | 18 | 23 | 16 | 10 | 14 | 4471G | 010003000 | |
| | 10 x 1/2" | 22 | 25 | 18 | 14 | 14 | | 010004000 | |
| | 12 x 3/8" | 19 | 26 | 17 | 10 | 14 | | 012003000 | |
| | 12 x 1/2" | 21 | 28 | 20 | 12 | 17 | | 012004000 | |
| | 14 x 1/2" | 23 | 32 | 22 | 12 | 19 | | 014004000 | |
| | 15 x 3/8" | 21 | 27 | 17 | 10 | 16 | | 015003000 | |
| | 15 x 1/2" | 22 | 30 | 20 | 12 | 21 | | 015004000 | |
| | 16 x 1/2" | 23 | 32 | 21 | 12 | 21 | | 016004000 | |
| | 18 x 1/2" | 25 | 34 | 23 | 12 | 21 | | 018004000 | |
| | 18 x 3/4" | 28 | 36 | 25 | 15 | 21 | | 018006000 | |
| | 22 x 1/2" | 28 | 40 | 26 | 12 | 27 | | 022004000 | |
| | 22 x 3/4" | 30 | 40 | 26 | 14 | 25 | | 022006000 | |
| 28 x 3/4" | 33 | 47 | 30 | 15 | 32 | | 028006000 | | |
| 28 x 1" | 36 | 49 | 32 | 18 | 34 | | 028008000 | | |

Series 4000 5000

4472G

Kolano 90° GW z łapami mocowanie 2 otwory



| Wymiary | a | b | c | Za | Zb | Kod | |
|-----------|----|----|----|----|----|-------|-----------|
| 12 x 3/8" | 19 | 26 | 17 | 10 | 15 | 4472G | 012003000 |
| 12 x 1/2" | 20 | 29 | 21 | 11 | 16 | | 012004000 |
| 14 x 3/8" | 20 | 29 | 19 | 9 | 19 | | 014003000 |
| 14 x 1/2" | 22 | 30 | 21 | 11 | 17 | | 014004000 |
| 15 x 3/8" | 20 | 29 | 19 | 10 | 19 | | 015003000 |
| 15 x 1/2" | 22 | 29 | 20 | 11 | 20 | | 015004000 |
| 15 x 3/4" | 26 | 33 | 23 | 15 | 19 | | 015006000 |
| 16 x 1/2" | 23 | 32 | 22 | 12 | 19 | | 016004000 |
| 18 x 1/2" | 25 | 34 | 23 | 12 | 21 | | 018004000 |
| 22 x 3/4" | 30 | 39 | 25 | 15 | 24 | | 022006000 |

Conex | Bänninger

Series 3000

Katalog Techniczny >B< Seria 3000

Łączniki gwintowane z brązu.



1. Informacje ogólne.

Złączki gwintowane serii 3000 firmy Conex Bänninger, wykonane z brązu mogą być stosowane w różnego rodzaju instalacjach takich jak:

- instalacje zimnej i ciepłej wody pitnej
- instalacje grzewcze i chłodnicze łącznie z systemami ogrzewania podłogowego, ściennego i sufitowego
- instalacje gazowe
- instalacje solarne
- instalacje przeciwpożarowe
- instalacje sprężonego powietrza
- instalacje gazów technicznych i medycznych
- instalacje wody deszczowej
- instalacje przemysłowe (w układach hydraulicznych i pneumatycznych)
- instalacje ściekowe i kanalizacyjne

Złączki Conex Bänninger sprawdziły się również w instalacjach okrętowych oraz w konstrukcjach maszyn, oraz w instalacjach i urządzeniach hydraulicznych i pneumatycznych.

Złączki gwintowane wykonane z brązu są produkowane zgodnie z wymogami normy PN - EN 1254-4. Znajdują zastosowanie do łączenia rur miedzianych wykonanych zgodnie z normą PN – EN 1057.

W corocznych audytach i badaniach kontrolnych, wymagane parametry są regularnie potwierdzane przez niezależne instytucje certyfikujące i badawcze.

Łączniki spełniają również wymogi takich jednostek certyfikacyjnych, jak np. niemieckiej DVGW, holenderskiej KIWA, brytyjskiej BSI , WRAS, British Gas, francuskiej CSTB, NF, szwajcarskiej SVGW , hiszpańskiej AENOR i innych.

1.1 Materiał i gwinty.

Złączki gwintowane serii 3000 są wykonane z brązu (stop CuSn5Zn5Pb2-C) numer materiałowy CC499K-DW zgodnie z normą PN - EN 1982.

Zastosowany przez nas w tym przypadku materiał ma zredukowaną zawartość ołowiu i niklu i tym samym może być stosowany bez ograniczeń do wszystkich rodzajów wód pitnych. (Atest PZH).

Materiał ten cechuje się wysoką odpornością na różne rodzaje korozji, a zwłaszcza odporny jest na odcynkowanie w wyższych temperaturach.

Wszystkie gwinty przyłączeniowe odpowiadają wymogom normy PN - EN 10226-1 (ISO 7-1), połączenie ze szczelnością uzyskiwaną na gwincie - gwinty: stożkowy gwint zewnętrzny i walcowy gwint wewnętrzny R/Rp.

Gwinty w połączeniach śrubunkowych odpowiadają wymogom normy PN - EN ISO 228-1, połączenie ze szczelnością nie uzyskiwaną na gwincie – gwinty walcowe zewnętrzne i wewnętrzne G/G.

1.2 Charakterystyka korozji.

Brąz posiada dobrą odporność na korozję wskutek oddziaływania czynników atmosferycznych (również w warunkach atmosfery przemysłowej) i pokrywa się przy tym trwałą warstwą ochronną.

Possiada także odporność na działanie korozyjne wody kondensacyjnej (skropliny), pary wodnej, nieoksydujących kwasów, obojętnych roztworów soli i przede wszystkim na wodę morską co ma szczególne znaczenie dla różnych obszarów zastosowań. Jest materiałem odpornym na odcynkowanie i jest praktycznie niewrażliwy na korozję naprężeniową.

Brąz jest nieodporny na związki chloru, siarki, wapnia, na oksydujące kwasy, roztwory amoniakalne oraz na gazy zawierające fluorowce i acetylen.

1.3 Wymiary konstrukcyjne.

Złączki gwintowane firmy Conex Bänninger, wykonane z brązu, charakteryzują się dużą dokładnością wymiarową. Zakres wymiarów od ¼' do 4'.

Dopuszczalne odchyłki wymiarów w zakresie długości konstrukcyjnych złązek według poniższej tabeli obowiązują dla wszystkich zawartych w katalogu złązek i odnoszą się w przypadku prostych części (mufy, łączniki proste z gwintami itd.) do długości łącznej, zaś w przypadku kolanek, łuków, trójkątów i innych, do długości ramion.

| Długość konstrukcyjna | Dopuszczalna odchyłka |
|-----------------------|-----------------------|
| mm | mm |
| -15 | ± 1,0 |
| 15-30 | ± 1,5 |
| 30-50 | ± 2,0 |
| 50-75 | ± 2,5 |
| 75-100 | ± 3,0 |
| 100-150 | ± 3,5 |
| > 150 | ± 4,0 |

2. Obszary zastosowań złązek gwintowanych z brązu seria 3000.

| Zastosowanie | Przepływające medium |
|---------------------------------|---------------------------------------------------------------|
| Instalacje wody pitnej | Wszystkie rodzaje wód pitnych |
| Instalacje gazu ziemnego | Gazy palne zgodne z normą PN-C-04750 |
| Instalacje gazu ciekłego | Gazy palne zgodne z normą PN-C-04750 |
| Instalacje oleju opałowego | Olej opałowy lekki klasy EL |
| Instalacje grzewcze | Woda |
| Instalacje solarne | Woda, woda/glikol 50/50 % |
| Instalacje chłodnicze | Woda, woda/glikol 50/50 % |
| Instalacje sprężonego powietrza | Sprężone powietrze wszystkich klas zgodnie z normą ISO 8573-1 |
| Instalacje gazów technicznych | Gazy (bez acetyleny!) |
| Instalacje przemysłowe | Woda oczyszczona, zmiękczona, odsolona |

2.1 Dopuszczalne temperatury i ciśnienia robocze.

| Wymiary | Ciężnienie w barach | |
|-------------|---------------------|---------------|
| | Temp do 120°C | Temp do 225°C |
| 1/4" - 3/4" | 25 | 16 |
| 1" - 2" | 16 | 10 |
| 2 1/2" - 4" | 10 | 6 |

3. Gwarancja.


Łączniki gwintowane z brązu serii 3000 posiadają atest PZH oraz objęte są 25 letnią gwarancją.

Oświadczenie o niewiążącym charakterze informacji.

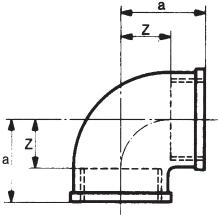
Proszę zwrócić uwagę, że wszystkie ilustracje, rysunki, dane o wymiarach oraz informacje zawarte w tym katalogu mają charakter niewiążący.

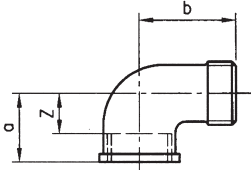
Zastrzegamy sobie prawo do dokonywania wszelkiego rodzaju zmian, także bez wcześniejszego specjalnego powiadomienia o tych zmianach.

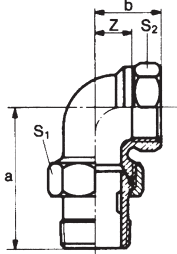
4. Asortyment łączników.

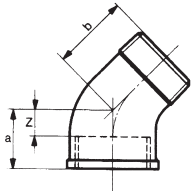
| | | | |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 3090 | 3092 | 3098 | 3121 |
|  |  |  |  |
| 3130 | 3180 | 3240 | 3241 |
|  |  |  |  |
| 3245 | 3270 | 3280 | 3290 |
|  |  |  |  |
| 3291 | 3301 | 3310 | 3330 |
|  |  |  |  |
| 3331 | 3340 | 3341 | 3526 |
|  |  |  |  |
| 3530R | 3531 | 3540 | 3587 |
|  |  |  |  |
| 3588 | 3595 | 3599 | 3599C |
|  |  |  |  |

5. Wymiary łączników.

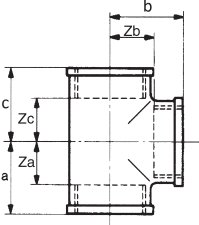
| 3090 | | Kolano 90° GW | | | | | | Kod | |
|-----------------------------------------------------------------------------------|-------------|---------------|----|----|----|----|------|-----------|--|
| Wymiary | | a | b | Z | Za | Zb | | | |
|  | 1/4" | 21 | | 11 | | | 3090 | 002000000 | |
| | 3/8" | 22 | | 11 | | | | 003000000 | |
| | 1/2" | 26 | | 11 | | | | 004000000 | |
| | 3/4" | 29 | | 14 | | | | 006000000 | |
| | 1" | 37 | | 25 | | | | 008000000 | |
| | 1 1/4" | 44 | | 25 | | | | 010000000 | |
| | 1 1/2" | 46 | | 27 | | | | 012000000 | |
| | 2" | 57 | | 33 | | | | 016000000 | |
| | 2 1/2" | 68 | | 44 | | | | 020000000 | |
| | 3" | 78 | | 51 | | | | 024000000 | |
| | 4" | 95 | | 63 | | | | 032000000 | |
| | 1/2" x 3/8" | 25 | 25 | | 12 | 15 | | 004003000 | |
| | 3/4" x 1/2" | 29 | 30 | | 14 | 17 | | 006004000 | |
| | 1 x 3/4" | 34 | 35 | | 17 | 21 | | 008006000 | |

| 3092 | | Kolano 90° GW GZ | | | | | | Kod | |
|-------------------------------------------------------------------------------------|--------|------------------|----|----|--|--|------|-----------|--|
| Wymiary | | a | b | Z | | | | | |
|  | 1/4" | 21 | 28 | 11 | | | 3092 | 002000000 | |
| | 3/8" | 25 | 32 | 15 | | | | 003000000 | |
| | 1/2" | 24 | 33 | 15 | | | | 004000000 | |
| | 3/4" | 30 | 38 | 14 | | | | 006000000 | |
| | 1" | 35 | 44 | 16 | | | | 008000000 | |
| | 1 1/4" | 45 | 60 | 26 | | | | 010000000 | |
| | 1 1/2" | 50 | 65 | 31 | | | | 012000000 | |
| | 2" | 57 | 73 | 34 | | | | 016000000 | |

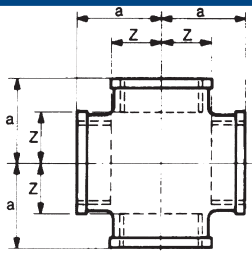
| 3098 | | Śrubunek kątowy 90° GW GZ ze stożkiem | | | | | | Kod | |
|-------------------------------------------------------------------------------------|--------|---------------------------------------|----|----|----|--|-------|-----------|--|
| Wymiary | | Mutterngewinde | a | b | Z | | | | |
|  | 1/4" | G 1/2" | 44 | 21 | 13 | | 3098 | 002000000 | |
| | 3/8" | G 5/8" | 50 | 25 | 16 | | | 003000000 | |
| | 1/2" | G 3/4" | 55 | 22 | 11 | | | 004000000 | |
| | 3/4" | G 1" | 60 | 27 | 13 | | | 006000000 | |
| | 1" | G 1 1/4" | 68 | 32 | 18 | | | 008000000 | |
| | 1 1/4" | G 1 1/2" | 83 | 38 | 21 | | | 010000000 | |
| | 1 1/2" | G 2" | 90 | 41 | 24 | | 3098R | 012000000 | |
| | 2" | G 2 1/2" | 99 | 51 | 30 | | 3098R | 016000000 | |

| 3121 | | Kolano 45° GW GZ | | | | | | |
|-----------------------------------------------------------------------------------|---------|------------------|----|----|--|--|--|----------------|
|  | Wymiary | a | b | Z | | | | Kod |
| | 3/8" | 20 | 29 | 10 | | | | 3121 003000000 |
| | 1/2" | 22 | 31 | 8 | | | | 004000000 |
| | 3/4" | 22 | 31 | 7 | | | | 006000000 |
| | 1" | 28 | 38 | 11 | | | | 008000000 |
| | 1 1/4" | 34 | 44 | 15 | | | | 010000000 |
| | 1 1/2" | 36 | 47 | 17 | | | | 012000000 |

| 3130 | | Trójnik GW | | | | | | |
|-----------------------------------------------------------------------------------|---------|------------|----|--|--|--|-----------|----------------|
|  | Wymiary | a | Z | | | | | Kod |
| | 1/4" | 21 | 11 | | | | | 3130 002002002 |
| | 3/8" | 25 | 15 | | | | | 003003003 |
| | 1/2" | 24 | 15 | | | | | 004004004 |
| | 3/4" | 29 | 17 | | | | | 006006006 |
| | 1" | 36 | 25 | | | | | 008008008 |
| | 1 1/4" | 44 | 25 | | | | | 010010010 |
| | 1 1/2" | 47 | 28 | | | | | 012012012 |
| | 2" | 57 | 33 | | | | | 016016016 |
| | 2 1/2" | 68 | 44 | | | | | 020020020 |
| | 3" | 78 | 51 | | | | | 024024024 |
| 4" | 95 | 63 | | | | | 032032032 | |

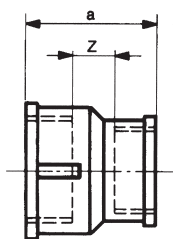
| 3130 | | Trójnik GW redukcyjny | | | | | | |
|-------------------------------------------------------------------------------------|--------------------|-----------------------|----|----|----|----|-----------|----------------|
|  | Wymiary | a | b | c | Za | Zb | Zc | Kod |
| | 1/2" x 3/8" x 1/2" | 25 | 25 | 25 | 12 | 15 | 12 | 3130 004003004 |
| | 1/2" x 3/4" x 1/2" | 29 | 27 | 29 | 16 | 13 | 16 | 004006004 |
| | 3/4" x 1/2" x 1/2" | 29 | 30 | 26 | 14 | 16 | 13 | 006004004 |
| | 3/4" x 1/2" x 3/4" | 25 | 29 | 25 | 15 | 20 | 15 | 006004006 |
| | 3/4" x 3/4" x 1/2" | 30 | 30 | 29 | 16 | 16 | 17 | 006006004 |
| | 1" x 1/2" x 1" | 28 | 32 | 28 | 16 | 23 | 16 | 008004008 |
| | 1" x 3/4" x 1" | 31 | 34 | 31 | 19 | 24 | 19 | 008006008 |
| | 1" x 1" x 1/2" | 38 | 38 | 34 | 21 | 21 | 21 | 008008004 |
| | 1 1/4" x 1" x 1/4" | 40 | 42 | 40 | 21 | 25 | 21 | 010008010 |
| 2" x 1" x 2" | 43 | 51 | 43 | 19 | 34 | 19 | 016008016 | |

3180 Czwórnik GW



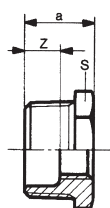
| Wymiary | a | Z | Kod | |
|---------|----|----|------|-----------|
| 3/8" | 25 | 15 | 3180 | 003000000 |
| 1/2" | 27 | 14 | | 004000000 |
| 3/4" | 32 | 17 | | 006000000 |

3240 Łącznik redukcyjny GW GW

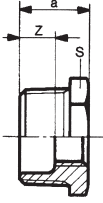


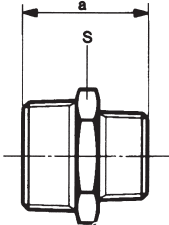
| Wymiary | a | Z | Kod | |
|-----------------|----|----|------|-----------|
| 3/8" x 1/4" | 30 | 10 | 3240 | 003002000 |
| 1/2" x 1/4" | 36 | 13 | | 004002000 |
| 1/2" x 3/8" | 36 | 13 | | 004003000 |
| 3/4" x 3/8" | 36 | 11 | | 006003000 |
| 3/4" x 1/2" | 39 | 11 | | 006004000 |
| 1" x 1/2" | 45 | 15 | | 008004000 |
| 1" x 3/4" | 36 | 1 | | 008006000 |
| 1 1/4" x 3/4" | 47 | 13 | | 010006000 |
| 1 1/4" x 1" | 49 | 13 | | 010008000 |
| 1 1/2" x 3/4" | 54 | 20 | | 012006000 |
| 1 1/2" x 1" | 53 | 17 | | 012008000 |
| 1 1/2" x 1 1/4" | 53 | 15 | | 012010000 |
| 2" x 1 1/4" | 54 | 9 | | 016010000 |
| 2" x 1 1/2" | 54 | 12 | | 016012000 |

3241 Łącznik redukcyjny GZ GW



| Wymiary | a | S | Z | Form | Kod | |
|---------------|----|----|------|------|------|-----------|
| 3/8" x 1/4" | 16 | 18 | 0 | I | 3241 | 003002000 |
| 1/2" x 1/4" | 20 | 22 | 11 | II | | 004002000 |
| 1/2" x 3/8" | 18 | 22 | 8 | I | | 004003000 |
| 3/4" x 1/4" | 25 | 27 | 14 | II | | 006002000 |
| 3/4" x 3/8" | 25 | 28 | 13 | II | | 006003000 |
| 3/4" x 1/2" | 24 | 28 | 10 | I | | 006004000 |
| 1" x 3/8" | 25 | 36 | 14 | II | | 008003000 |
| 1" x 1/2" | 25 | 34 | 11,5 | II | | 008004000 |
| 1" x 3/4" | 24 | 34 | 8 | I | | 008006000 |
| 1 1/4" x 1/2" | 29 | 45 | 18 | II | | 010004000 |
| 1 1/4" x 3/4" | 30 | 43 | 16 | II | | 010006000 |
| 1 1/4" x 1" | 30 | 43 | 16 | I | | 010008000 |
| 1 1/2" x 1/2" | 29 | 50 | 18 | II | | 012004000 |
| 1 1/2" x 3/4" | 29 | 50 | 18 | II | | 012006000 |

| 3241 | | Łącznik redukcyjny GZ GW | | | | | | Kod | |
|-----------------------------------------------------------------------------------|----|--------------------------|----|----|----|------|-----------|------|-----------|
|  | | Wymiary | a | S | Z | Form | | | |
| | | 1 1/2" x 1" | 29 | 50 | 15 | II | | 3241 | 012008000 |
| 1 1/2" x 1 1/4" | 29 | 50 | 12 | I | | | 012010000 | | |
| 2" x 1/2" | 33 | 62 | 22 | II | | | 016004000 | | |
| 2" x 3/4" | 33 | 62 | 20 | II | | | 016006000 | | |
| 2" x 1" | 33 | 62 | 18 | II | | | 016008000 | | |
| 2" x 1 1/4" | 33 | 62 | 16 | II | | | 016010000 | | |
| 2" x 1 1/2" | 33 | 62 | 16 | II | | | 016012000 | | |
| 2 1/2" x 1" | 39 | 77 | 26 | II | | | 020008000 | | |
| 2 1/2" x 1 1/4" | 39 | 77 | 24 | II | | | 020010000 | | |
| 2 1/2" x 1 1/2" | 39 | 77 | 24 | II | | | 020012000 | | |
| 2 1/2" x 2" | 39 | 77 | 21 | II | | | 020016000 | | |
| 3" x 1 1/2" | 44 | 89 | 29 | II | | | 024012000 | | |
| 3" x 2" | 44 | 89 | 26 | II | | | 024016000 | | |
| 3" x 2 1/2" | 44 | 89 | 22 | II | | | 024020000 | | |
| 4" x 2" | 53 | 114 | 35 | II | | | 032016000 | | |
| 4" x 2 1/2" | 53 | 114 | 33 | II | | | 032020000 | | |
| 4" x 3" | 53 | 114 | 31 | II | | | 032024000 | | |

| 3245 | | Łącznik redukcyjny GZ GZ | | | | | | Kod | |
|-------------------------------------------------------------------------------------|----|--------------------------|----|----|--|--|--|-----------|------|
|  | | Wymiary | a | S | | | | | |
| | | 1/2" x 3/8" | 31 | 22 | | | | | 3245 |
| 3/4" x 1/2" | 36 | 27 | | | | | | 006004000 | |
| 1" x 3/4" | 41 | 34 | | | | | | 008006000 | |
| 1 1/4" x 3/4" | 45 | 43 | | | | | | 010006000 | |
| 1 1/4" x 1" | 47 | 45 | | | | | | 010008000 | |
| 1 1/2" x 1" | 48 | 50 | | | | | | 012008000 | |
| 2" x 1 1/4" | 53 | 61 | | | | | | 016010000 | |
| 2" x 1 1/2" | 54 | 62 | | | | | | 016012000 | |

| 3270 | | Mufa GW | | | | | | | Kod | |
|-----------------------------------------------------------------------------------|--------|---------|----|---|--|--|--|------|-----------|--|
| | | Wymiary | a | Z | | | | | | |
|  | 1/4" | 22 | 2 | | | | | 3270 | 002000000 | |
| | 3/8" | 23 | 2 | | | | | | 003000000 | |
| | 1/2" | 30 | 4 | | | | | | 004000000 | |
| | 3/4" | 33 | 3 | | | | | | 006000000 | |
| | 1" | 34 | 10 | | | | | | 008000000 | |
| | 1 1/4" | 44 | 6 | | | | | | 010000000 | |
| | 1 1/2" | 48 | 10 | | | | | | 012000000 | |
| | 2" | 59 | 11 | | | | | | 016000000 | |
| | 2 1/2" | 62 | 2 | | | | | | 020000000 | |
| | 3" | 68 | 4 | | | | | | 024000000 | |
| | 4" | 80 | 4 | | | | | | 032000000 | |

| 3280 | | Łącznik GZ | | | | | | | Kod | |
|------------------------------------------------------------------------------------|--------|------------|-----|---|--|--|--|------|-----------|--|
| | | Wymiary | a | S | | | | | | |
|  | 1/4" | 26 | 17 | | | | | 3280 | 002000000 | |
| | 3/8" | 28 | 19 | | | | | | 003000000 | |
| | 1/2" | 33 | 22 | | | | | | 004000000 | |
| | 3/4" | 38 | 28 | | | | | | 006000000 | |
| | 1" | 44 | 34 | | | | | | 008000000 | |
| | 1 1/4" | 49 | 43 | | | | | | 010000000 | |
| | 1 1/2" | 49 | 49 | | | | | | 012000000 | |
| | 2" | 59 | 62 | | | | | | 016000000 | |
| | 2 1/2" | 68 | 77 | | | | | | 020000000 | |
| | 3" | 77 | 89 | | | | | | 024000000 | |
| | 4" | 91 | 114 | | | | | | 032000000 | |

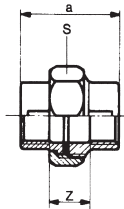
| 3290 | | Korek z kołnierzem GZ | | | | | | | Kod | |
|-------------------------------------------------------------------------------------|--------|-----------------------|----|---|--|--|--|------|-----------|--|
| | | Wymiary | a | S | | | | | | |
|  | 1/4" | 21 | 9 | | | | | 3290 | 002000000 | |
| | 3/8" | 22 | 10 | | | | | | 003000000 | |
| | 1/2" | 22 | 11 | | | | | | 004000000 | |
| | 3/4" | 32 | 17 | | | | | | 006000000 | |
| | 1" | 34 | 19 | | | | | | 008000000 | |
| | 1 1/4" | 40 | 22 | | | | | | 010000000 | |
| | 1 1/2" | 39 | 22 | | | | | | 012000000 | |
| | 2" | 48 | 27 | | | | | | 016000000 | |

| 3291 | | Korek bez kołnierza GZ | | | | | | |
|-----------------------------------------------------------------------------------|---------|------------------------|----|--|--|--|--|----------------|
|  | Wymiary | a | S | | | | | Kod |
| | 1/4" | 20 | 9 | | | | | 3291 002000000 |
| | 3/8" | 22 | 11 | | | | | 003000000 |
| | 1/2" | 22 | 11 | | | | | 004000000 |
| | 3/4" | 25 | 14 | | | | | 006000000 |
| | 1" | 28 | 18 | | | | | 008000000 |
| | 1 1/4" | 29 | 32 | | | | | 010000000 |
| | 1 1/2" | 30 | 36 | | | | | 012000000 |
| | 2" | 35 | 46 | | | | | 016000000 |
| | 2 1/2" | 39 | 60 | | | | | 020000000 |

| 3301 | | Kapa GW | | | | | | |
|------------------------------------------------------------------------------------|---------|---------|--|--|--|-----------|----------------|--|
|  | Wymiary | a | | | | | Kod | |
| | 1/4" | 13 | | | | | 3301 002000000 | |
| | 3/8" | 14 | | | | | 003000000 | |
| | 1/2" | 18 | | | | | 004000000 | |
| | 3/4" | 20 | | | | | 006000000 | |
| | 1" | 23 | | | | | 008000000 | |
| | 1 1/4" | 27 | | | | | 010000000 | |
| | 1 1/2" | 28 | | | | | 012000000 | |
| 2" | 32 | | | | | 016000000 | | |

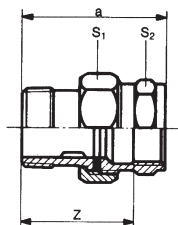
| 3310 | | Nakrętka zabezpieczająca | | | | | | |
|-------------------------------------------------------------------------------------|----------|--------------------------|----|--|--|-----------|----------------|--|
|  | Wymiary | a | S | | | | Kod | |
| | G 1/4" | 6 | 22 | | | | 3310 002000000 | |
| | G 3/8" | 7 | 27 | | | | 003000000 | |
| | G 1/2" | 8 | 32 | | | | 004000000 | |
| | G 3/4" | 9 | 36 | | | | 006000000 | |
| | G 1" | 10 | 46 | | | | 008000000 | |
| | G 1 1/4" | 11 | 55 | | | | 010000000 | |
| | G 1 1/2" | 12 | 60 | | | | 012000000 | |
| G 2" | 13 | 75 | | | | 016000000 | | |

3330 Śrubunek prosty GW GW z uszczelką



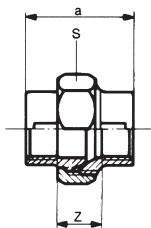
| Wymiary | Nakrętaka | a | Z | Kod | |
|---------|-----------|----|----|-------|-----------|
| 3/8" | G 3/4" | 45 | 24 | 3330 | 003000000 |
| 1/2" | G 1" | 43 | 17 | | 004000000 |
| 3/4" | G 1 1/4" | 50 | 21 | | 006000000 |
| 1" | G 1 1/2" | 56 | 22 | | 008000000 |
| 1 1/4" | G 2" | 65 | 27 | 3330R | 010000000 |
| 1 1/2" | G 2 1/4" | 68 | 30 | 3330R | 012000000 |
| 2" | G 2 3/4" | 78 | 31 | 3330R | 016000000 |

3331 Śrubunek prosty GW GZ z uszczelką

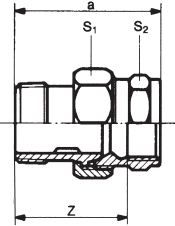


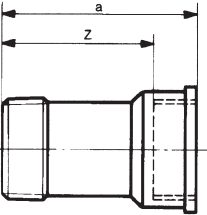
| Wymiary | Nakrętaka | a | Z | Kod | |
|---------|-----------|-----|----|-------|-----------|
| 1/4" | G 1/2" | 44 | 36 | 3331 | 002000000 |
| 3/8" | G 5/8" | 48 | 39 | | 003000000 |
| 1/2" | G 3/4" | 56 | 43 | | 004000000 |
| 3/4" | G 1" | 63 | 49 | | 006000000 |
| 1" | G 1 1/4" | 62 | 47 | | 008000000 |
| 1 1/4" | G 1 1/2" | 75 | 58 | | 010000000 |
| 1 1/2" | G 2" | 78 | 61 | 3331R | 012000000 |
| 2" | G 2 1/2" | 91 | 69 | 3331R | 016000000 |
| 2 1/2" | G 3" | 104 | 80 | 3331R | 020000000 |

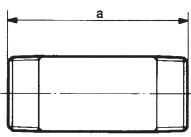
3340 Śrubunek prosty GW GW ze stożkiem



| Wymiary | Nakrętaka | a | Z | Kod | |
|---------|-----------|----|----|-------|-----------|
| 1/4" | G 5/8" | 42 | 23 | 3340 | 002000000 |
| 3/8" | G 3/4" | 45 | 24 | | 003000000 |
| 1/2" | G 1" | 46 | 20 | | 004000000 |
| 3/4" | G 1 1/4" | 50 | 21 | | 006000000 |
| 1" | G 1 1/2" | 57 | 23 | | 008000000 |
| 1 1/4" | G 2" | 64 | 25 | 3340R | 010000000 |
| 1 1/2" | G 2 1/4" | 67 | 29 | 3340R | 012000000 |
| 2" | G 2 3/4" | 77 | 30 | 3340R | 016000000 |

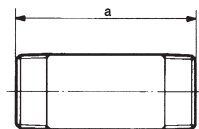
| 3341 | | Śrubunek prosty GW GZ ze stożkiem | | | | | Kod | |
|-----------------------------------------------------------------------------------|---------|-----------------------------------|----|----|--|-----------------|-----------------|--|
|  | Wymiary | Nakrętka | a | Z | | | | |
| | 1/4" | G 1/2" | 44 | 38 | | | 3341 002000000 | |
| | 3/8" | G 5/8" | 48 | 38 | | | 003000000 | |
| | 1/2" | G 3/4" | 58 | 45 | | | 004000000 | |
| | 3/4" | G 1" | 59 | 42 | | | 006000000 | |
| | 1" | G 1 1/4" | 62 | 48 | | | 008000000 | |
| | 1 1/4" | G 1 1/2" | 76 | 59 | | | 010000000 | |
| | 1 1/2" | G 2" | 79 | 62 | | | 3341R 012000000 | |
| | 2" | G 2 1/2" | 90 | 69 | | | 3341R 016000000 | |
| 2 1/2" | G 3" | 99 | 76 | | | 3341R 020000000 | | |

| 3526 | | Przedłużka GW GZ | | | | | Kod | |
|------------------------------------------------------------------------------------|-----------|------------------|----|--|--|-----------|----------------|--|
|  | Wymiary | a | Z | | | | | |
| | 3/8" x 30 | 30 | 20 | | | | 3526 003030000 | |
| | 3/8" x 40 | 40 | 30 | | | | 003040000 | |
| | 3/8" x 50 | 50 | 40 | | | | 003050000 | |
| | 1/2" x 30 | 30 | 19 | | | | 004030000 | |
| | 1/2" x 40 | 40 | 27 | | | | 004040000 | |
| | 1/2" x 50 | 50 | 37 | | | | 004050000 | |
| | 1/2" x 60 | 60 | 47 | | | | 004060000 | |
| | 1/2" x 80 | 80 | 67 | | | | 004080000 | |
| | 3/4" x 40 | 40 | 24 | | | | 006040000 | |
| | 3/4" x 60 | 60 | 46 | | | | 006060000 | |
| | 3/4" x 80 | 80 | 66 | | | | 006080000 | |
| 1" x 60 | 60 | 43 | | | | 008060000 | | |

| 3530R | | Przedłużka GZ GZ | | | | | Kod | |
|-------------------------------------------------------------------------------------|-----------|------------------|--|--|--|-----------|-----------------|--|
|  | Wymiary | a | | | | | | |
| | 3/8" x 40 | 40 | | | | | 3530R 003040000 | |
| | 3/8" x 60 | 60 | | | | | 003060000 | |
| | 3/8" x 80 | 80 | | | | | 003080000 | |
| 3/8" x 100 | 100 | | | | | 008100000 | | |

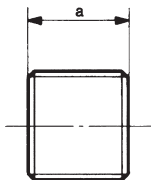
3530R

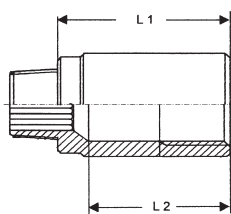
Przedłużka GZ GZ

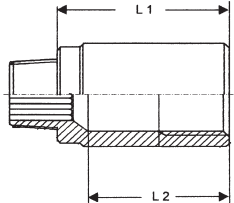


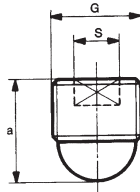
| Wymiary | a | Kod | |
|--------------|-----|-------|-----------|
| 1/2" x 30 | 30 | 3530R | 004030000 |
| 1/2" x 40 | 40 | | 004040000 |
| 1/2" x 50 | 50 | | 004050000 |
| 1/2" x 60 | 60 | | 004060000 |
| 1/2" x 70 | 70 | | 004070000 |
| 1/2" x 80 | 80 | | 004080000 |
| 1/2" x 100 | 100 | | 004100000 |
| 1/2" x 120 | 120 | | 004120000 |
| 1/2" x 140 | 140 | | 004140000 |
| 1/2" x 150 | 150 | | 004150000 |
| 1/2" x 160 | 160 | | 004160000 |
| 1/2" x 180 | 180 | | 004180000 |
| 1/2" x 200 | 200 | | 004200000 |
| 3/4" x 40 | 40 | | 006040000 |
| 3/4" x 50 | 50 | | 006050000 |
| 3/4" x 60 | 60 | | 006060000 |
| 3/4" x 80 | 80 | | 006080000 |
| 3/4" x 90 | 90 | | 006090000 |
| 3/4" x 100 | 100 | | 006100000 |
| 3/4" x 110 | 110 | | 006110000 |
| 3/4" x 120 | 120 | | 006120000 |
| 3/4" x 140 | 140 | | 006140000 |
| 3/4" x 150 | 150 | | 006150000 |
| 3/4" x 160 | 160 | | 006160000 |
| 3/4" x 180 | 180 | | 006180000 |
| 3/4" x 200 | 200 | | 006200000 |
| 1" x 40 | 40 | | 008040000 |
| 1" x 50 | 50 | | 008050000 |
| 1" x 60 | 60 | | 008060000 |
| 1" x 80 | 80 | | 008080000 |
| 1" x 100 | 100 | | 008100000 |
| 1" x 120 | 120 | | 008120000 |
| 1" x 150 | 150 | | 008150000 |
| 1" x 200 | 200 | | 008200000 |
| 1 1/4" x 50 | 50 | | 010050000 |
| 1 1/4" x 60 | 60 | | 010060000 |
| 1 1/4" x 80 | 80 | | 010080000 |
| 1 1/4" x 100 | 100 | | 010100000 |
| 1 1/4" x 120 | 120 | | 010120000 |
| 1 1/4" x 150 | 150 | | 010150000 |
| 1 1/4" x 200 | 200 | | 010200000 |

| 3530R | | Przedłużka GZ GZ | | | | | |
|-----------------------------------------------------------------------------------|--------------|------------------|--|--|--|--|-----------------|
|  | Wymiary | a | | | | | Kod |
| | 1 1/2" x 60 | 60 | | | | | 3530R 012060000 |
| | 1 1/2" x 80 | 80 | | | | | 012080000 |
| | 1 1/2" x 100 | 100 | | | | | 012100000 |
| | 1 1/2" x 120 | 120 | | | | | 012120000 |
| | 1 1/2" x 150 | 150 | | | | | 012150000 |
| | 1 1/2" x 200 | 200 | | | | | 012200000 |
| | 2" x 60 | 60 | | | | | 016060000 |
| | 2" x 80 | 80 | | | | | 016080000 |
| | 2" x 100 | 100 | | | | | 016100000 |
| | 2" x 120 | 120 | | | | | 016120000 |
| | 2" x 150 | 150 | | | | | 016150000 |
| | 2" x 200 | 200 | | | | | 016200000 |

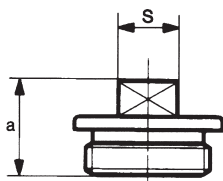
| 3531 | | Łącznik GZ | | | | | |
|------------------------------------------------------------------------------------|---------|------------|--|--|--|--|----------------|
|  | Wymiary | a | | | | | Kod |
| | 3/8" | 22 | | | | | 3531 003000000 |
| | 1/2" | 25 | | | | | 004000000 |
| | 3/4" | 30 | | | | | 006000000 |
| | 1" | 35 | | | | | 008000000 |
| | 1 1/4" | 38 | | | | | 010000000 |

| 3540 | | Przedłużka GW GZ | | | | | |
|-------------------------------------------------------------------------------------|-------------|------------------|----|--|--|--|----------------|
|  | Wymiary | L1 | L2 | | | | Kod |
| | 3/8" x 15 | 15 | 12 | | | | 3540 003015000 |
| | 3/8" x 20 | 20 | 16 | | | | 003020000 |
| | 3/8" x 25 | 25 | 19 | | | | 003025000 |
| | 3/8" x 30 | 30 | 24 | | | | 003030000 |
| | 3/8" x 40 | 40 | 34 | | | | 003040000 |
| | 3/8" x 50 | 50 | 44 | | | | 003050000 |
| | 1/2" x 12,5 | 12,5 | 10 | | | | 004012000 |
| | 1/2" x 17,5 | 17,5 | 15 | | | | 004017000 |
| | 1/2" x 20 | 20 | 17 | | | | 004020000 |
| | 1/2" x 25 | 25 | 22 | | | | 004025000 |
| | 1/2" x 30 | 30 | 26 | | | | 004030000 |
| | 1/2" x 40 | 40 | 36 | | | | 004040000 |
| | 1/2" x 50 | 50 | 46 | | | | 004050000 |
| | 1/2" x 65 | 65 | 59 | | | | 004065000 |
| | 1/2" x 80 | 80 | 74 | | | | 004080000 |
| | 1/2" x 100 | 100 | 94 | | | | 004100000 |

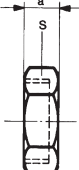
| 3540 | | Przedłużka GW GZ | | | | | | | |
|-----------------------------------------------------------------------------------|-------------|------------------|-----|--|--|--|--|-----------|-----------|
|  | Wymiary | L1 | L2 | | | | | Kod | |
| | 1/2" x 120 | 120 | 112 | | | | | 3540 | 004120000 |
| | 1/2" x 150 | 150 | 140 | | | | | | 004150000 |
| | 3/4" x 10 | 10 | 7 | | | | | | 006010000 |
| | 3/4" x 15 | 15 | 12 | | | | | | 006015000 |
| | 3/4" x 20 | 20 | 17 | | | | | | 006020000 |
| | 3/4" x 25 | 25 | 19 | | | | | | 006025000 |
| | 3/4" x 30 | 30 | 24 | | | | | | 006030000 |
| | 3/4" x 40 | 40 | 34 | | | | | | 006040000 |
| | 3/4" x 50 | 50 | 44 | | | | | | 006050000 |
| | 3/4" x 65 | 65 | 59 | | | | | | 006065000 |
| | 3/4" x 80 | 80 | 74 | | | | | | 006080000 |
| | 3/4" x 100 | 100 | 94 | | | | | | 006100000 |
| | 1" x 25 | 25 | 22 | | | | | | 008025000 |
| | 1" x 30 | 30 | 26 | | | | | | 008030000 |
| | 1" x 40 | 40 | 34 | | | | | | 008040000 |
| | 1" x 50 | 50 | 44 | | | | | | 008050000 |
| | 1" x 65 | 65 | 59 | | | | | | 008065000 |
| | 1" x 80 | 80 | 74 | | | | | | 008080000 |
| | 1 1/4" x 20 | 20 | 18 | | | | | | 010020000 |
| 1 1/4" x 25 | 25 | 19 | | | | | | 010025000 | |
| 1 1/4" x 30 | 30 | 24 | | | | | | 010030000 | |
| 1 1/4" x 50 | 50 | 44 | | | | | | 010050000 | |

| 3587 | | Łącznik regulacyjny GZ | | | | | | | |
|-------------------------------------------------------------------------------------|---------|------------------------|----|--|--|--|--|------|-----------|
|  | Wymiary | a | S | | | | | Kod | |
| | G 3/8" | 25 | 8 | | | | | 3587 | 003000000 |
| | G 1/2" | 30 | 10 | | | | | | 004000000 |

| 3588 | | Korek GZ na imbus | | | | | | | |
|-------------------------------------------------------------------------------------|---------|-------------------|-----|----|--|--|--|------|-----------|
|  | Wymiary | a | b | S | | | | Kod | |
| | G 1/4" | 12 | 2,5 | 6 | | | | 3588 | 002000000 |
| | G 3/8" | 14 | 3,5 | 8 | | | | | 003000000 |
| | G 1/2" | 14 | 4 | 10 | | | | | 004000000 |
| | G 3/4" | 16 | 4 | 12 | | | | | 006000000 |
| | G 1" | 17 | 5 | 18 | | | | | 008000000 |

| 3595 | | Korek GZ | | | | | |
|-----------------------------------------------------------------------------------|---------|----------|----|--|--|--|----------------|
|  | Wymiary | a | S | | | | Kod |
| | G 3/8" | 16 | 12 | | | | 3595 003000000 |
| | G 1/2" | 19 | 12 | | | | 004000000 |

| 3599 | | Łącznik regulacyjny | | | | | |
|-----------------------------------------------------------------------------------|---------|---------------------|------|----|--|--|-----------------|
|  | Wymiary | b | Z | | | | Kod |
| | 1/2" | 46 | 34 | 20 | | | 3599 004000000 |
| | | | 3/8" | | | | 3587 003000000 |
| | | | 5/8" | | | | 3599C 005000000 |

| 3599C | | Kapa GW | | | | | |
|------------------------------------------------------------------------------------|---------|---------|--|--|--|--|-----------------|
|  | Wymiary | a | | | | | Kod |
| | G 1/2" | 9,5 | | | | | 3599C 004000000 |
| | G 5/8" | 11 | | | | | 005000000 |
| | G 3/4" | 11,5 | | | | | 006000000 |
| | G 1" | 12,5 | | | | | 008000000 |

Conex | Bänninger

Series 8000 M

Katalog Techniczny Seria 8000M
Łączniki gwintowane z mosiądzu.



1. Informacje ogólne.

Złączki gwintowane serii 8000M (o lekkiej konstrukcji) firmy Conex Bänninger, wykonane z mosiądzu, są przeznaczone do stosowania w różnorodnych instalacjach zaopatrzenia budynków w media np: wodnych, grzewczych, solarnych oraz chłodniczych, jak również we wszystkich zastosowaniach przemysłowych (np. w instalacjach zaopatrzenia w ciepło, w systemach chłodniczych oraz w innych systemach wodnych, hydraulicznych, pneumatycznych, gazów technicznych).

Możliwości zastosowań mosiężnych złączy gwintowanych należy określać w oparciu o techniczne wymagania każdego wdrażanego systemu instalacji.

Mosiężne złączki skręcane Conex Bänninger są produkowane zgodnie z wymogami normy PN - EN 1254-4. Produkcja łączników o prostej konstrukcji (mufy, nypły) odbywa się za pomocą obróbki skrawaniem.

Pozostałe łączniki (kolana, łuki, trójniki) produkowane są w procesie kucia na gorąco.

Złączki gwintowane firmy Conex Bänninger charakteryzują się dużą dokładnością wymiarową. Zakres średnic od 1/4" do 4".

1.1 Materiał i gwinty.

Złączki gwintowane serii 8000M są produkowane z mosiądzu (stopu miedzi z cynkiem) o symbolu CuZn40Pb2, zgodnie z wymaganiami normy PN - EN 12165 (numer materiału CW617N).

Znajdują zastosowanie w instalacjach wykonanych z rur miedzianych, zgodnie z normą PN – EN 1057.

Wszystkie gwinty przyłączeniowe odpowiadają wymogom normy PN - EN 10226-1 (ISO 7-1), połączenie ze szczelnością uzyskiwaną na gwincie - gwinty: stożkowy gwint zewnętrzny i walcowy gwint wewnętrzny R/Rp.

Gwinty w połączeniach śrubunkowych odpowiadają wymogom normy PN - EN ISO 228-1, połączenie ze szczelnością nie uzyskiwaną na gwincie – gwinty walcowe zewnętrzne i wewnętrzne G/G.

1.2 Charakterystyka korozji.

Stop CuZn40Pb2 nie osiąga przy kontakcie z wodą, roztworami soli oraz z organicznymi cieczami tak wysokiej odporności jak brąz.

Ponadto, w przypadku zastosowania złączy serii 8000M, w określonych warunkach (wody o wysokiej zawartości chlorków i niskiej twardości węglanowej) może występować korozja selektywna w postaci odcynkowania.

Materiał ten po obróbce plastycznej na zimno, przy zewnętrznych i/lub wewnętrznych naprężeniach rozciągających oraz przy jednoczesnym działaniu środków korozyjnych (amoniaku, amin, soli amonowych), ma skłonność do korozji naprężeniowej.

Naprężenia rozciągające mogą również powstać podczas montażu, względnie podczas dalszej obróbki, dlatego też należy przestrzegać wymienionych w dalszej części katalogu instrukcji montażowych.

1.3 Zalecenia montażowe.

Podczas stosowania złączek gwintowanych Conex Bänninger należy najpierw przestrzegać parametrów eksploatacyjnych wymienionych w rozdziale 2.

Śrubunki serii 8000 M z gwintami zgodnymi z wymogami normy PN -EN ISO 228 (walcowe gwinty zewnętrzne i wewnętrzne G/G) należy uszczelniać poprzez wciśnięcie uszczelki płaskiej pomiędzy powierzchnię czołową mufy i kołnierz przy gwincie zewnętrznym względnie pomiędzy dwie powierzchnie czołowe.

Do uszczelnienia należy stosować odpowiednie materiały uszczelniające takie jak taśma teflonowa lub nić teflonowa. Należy dokładnie nałożyć i użyć odpowiedniej ilości materiału uszczelniającego.

Do uszczelnienia nie wolno stosować konopi przemysłowej (pakuły).

Materiały uszczelniające nie mogą zawierać żadnych składników amoniakalnych oraz silikonów na bazie octanów.

Stosując środki uszczelniające do gwintów należy przestrzegać instrukcji ich producenta.

Podczas wkręcania złączek nie wolno stosować nadmiernej siły. Narzędzia należy przykładać do łączników w miejscach przewidzianych do tego celu.

W celu uniknięcia szkód montażowych, części konstrukcyjne winny być wkręcane zgodnie z przeznaczeniem za pomocą odpowiednich narzędzi.

2. Obszary zastosowań łączników mosiężnych gwintowanych.

| Zastosowanie | Przepływające medium |
|---------------------------------|---------------------------------------------------------------|
| Instalacje sanitarne | Woda |
| Instalacje grzewcze | Woda |
| Przemysłowe instalacje grzewcze | Woda grzewcza w sieciach elektrociepłowniczych |
| Instalacje solarne | Woda, woda/glikol 50/50% |
| Instalacje chłodnicze | Woda, woda/glikol 50/50% |
| Instalacje sprężonego powietrza | Sprężone powietrze wszystkich klas zgodnie z normą ISO 8573-1 |
| Instalacje gazów technicznych | Gazy techniczne (bez acetylenu) |
| Instalacje przemysłowe | Woda oczyszczona, zmiękczona, odsolona |

2.1 Dopuszczalne temperatury i ciśnienia robocze.

| Wymiary | Ciśnienie w barach | |
|-------------|--------------------|---------------|
| | Temp do 120°C | Temp do 225°C |
| 1/4" - 3/4" | 25 | 16 |
| 1" - 2" | 16 | 10 |
| 2 1/2" - 4" | 10 | 6 |

3. Gwarancja.

Łączniki gwintowane z mosiądzu serii 8000M posiadają atest PZH oraz objęte są 10 letnią gwarancją.

Oświadczenie o niewiążącym charakterze informacji.

Proszę zwrócić uwagę, że wszystkie ilustracje, rysunki, dane o wymiarach oraz informacje zawarte w tym katalogu mają charakter niewiążący.

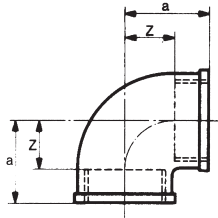
Zastrzegamy sobie prawo do dokonywania wszelkiego rodzaju zmian, także bez wcześniejszego specjalnego powiadomienia o tych zmianach.

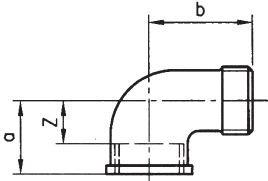
Series 8000 M

4. Asortyment łączników.

| | | | |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 8090M | 8090RM | 8091M | 8092M |
|  |  |  |  |
| 8098M | 81004M | 81005M | 8125M |
|  |  |  |  |
| 8126GM | 8130M | 8130RM | 8180M |
|  |  |  |  |
| 8240M | 8241M | 8243M | 8245M |
|  |  |  |  |
| 8270M | 8280M | 8292M | 8300M |
|  |  |  |  |
| 8310M | 8471M | 8530M | 8540M |
|  |  |  |  |

5. Wymiary łączników.

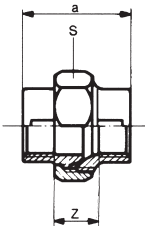
| 8090M | | Kolano 90° GW GW | | | | | Kod | |
|-----------------------------------------------------------------------------------|---------|------------------|----|--|--|-------|-----------|--|
|  | Wymiary | a | Z | | | | | |
| | 3/8" | 18 | 9 | | | 8090M | 002000000 | |
| | 1/2" | 22 | 11 | | | | 003000000 | |
| | 3/4" | 28 | 14 | | | | 004000000 | |
| | 1" | 32 | 14 | | | | 006000000 | |
| | 1 1/4" | 38 | 16 | | | | 008000000 | |
| | 1 1/2" | 41 | 16 | | | | 010000000 | |
| | 2" | 51 | 20 | | | | 012000000 | |
| | 3" | 77 | 27 | | | | 016000000 | |

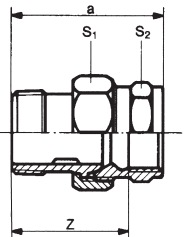
| 8092M | | Kolano 90° GW GZ | | | | | Kod | |
|-----------------------------------------------------------------------------------|---------|------------------|----|----|--|-------|-----------|--|
|  | Wymiary | a | b | Z | | | | |
| | 3/8" | 17 | 25 | 11 | | 8092M | 003000000 | |
| | 1/2" | 22 | 29 | 13 | | | 004000000 | |
| | 3/4" | 28 | 34 | 15 | | | 006000000 | |
| | 1" | 32 | 38 | 18 | | | 008000000 | |
| | 1 1/4" | 37 | 45 | 22 | | | 010000000 | |
| | 1 1/2" | 40 | 48 | 24 | | | 012000000 | |
| | 2" | 52 | 62 | 32 | | | 016000000 | |

| 81004M | | Złączka do węża GZ | | | | | Kod | |
|-------------------------------------------------------------------------------------|-----------|--------------------|----|----|--|----------|----------|--|
|  | Wymiary | L | L1 | L2 | | | | |
| | 3/8" x 10 | 40 | 27 | 8 | | 81004M | 03010000 | |
| | 1/2" x 10 | 42 | 27 | 10 | | | 04010000 | |
| | 1/2" x 12 | 44 | 28 | 10 | | | 04012000 | |
| | 1/2" x 14 | 47 | 32 | 10 | | | 04014000 | |
| | 1/2" x 16 | 49 | 34 | 10 | | | 04016000 | |
| | 1/2" x 18 | 49 | 34 | 10 | | | 04018000 | |
| | 1/2" x 20 | 54 | 38 | 10 | | | 04020000 | |
| | 3/4" x 20 | 54 | 38 | 11 | | | 06020000 | |
| | 3/4" x 25 | 55 | 39 | 11 | | | 06025000 | |
| | 1" x 25 | 56 | 39 | 12 | | | 08025000 | |
| | 1" x 30 | 56 | 39 | 12 | | | 08030000 | |
| 1 1/2" x 40 | 72 | 47 | 19 | | | 12040000 | | |

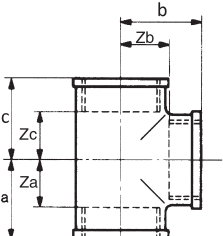
| 81005M | | Złączka do węża GW | | | | | Kod | |
|-------------------------------------------------------------------------------------|-----------|--------------------|----|----|--|--------|----------|--|
|  | Wymiary | L | L1 | L2 | | | | |
| | 1/2" x 10 | 40 | 27 | 11 | | 81005M | 04010000 | |
| | 1/2" x 12 | 40 | 27 | 11 | | | 04012000 | |
| | 1/2" x 14 | 45 | 32 | 11 | | | 04014000 | |
| | 1/2" x 16 | 47 | 34 | 11 | | | 04016000 | |
| | 1/2" x 18 | 47 | 34 | 11 | | | 04018000 | |
| | 1/2" x 20 | 51 | 38 | 11 | | | 04020000 | |
| | 3/4" x 20 | 54 | 38 | 13 | | | 06020000 | |
| | 3/4" x 25 | 54 | 38 | 13 | | | 06025000 | |
| | 1" x 25 | 56 | 38 | 14 | | | 08025000 | |
| | 1" x 30 | 56 | 38 | 14 | | | 08030000 | |

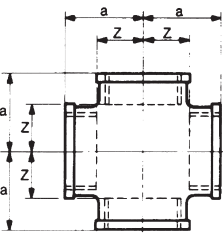
Series 8000 M

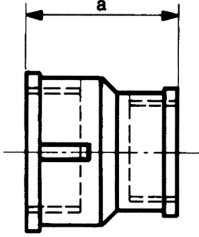
| 8125M | | Śrubunek prosty GW GW na stożek | | | | | | |
|-----------------------------------------------------------------------------------|---------|---------------------------------|----|--|--|--|--|-----------------|
|  | Wymiary | a | z | | | | | Kod |
| | 1/2" | 35 | 9 | | | | | 8125M 004000000 |
| | 3/4" | 40 | 10 | | | | | 006000000 |
| | 1" | 45 | 11 | | | | | 008000000 |

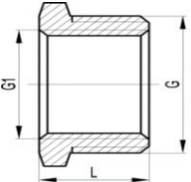
| 8126M | | Śrubunek prosty GW GZ z uszczelką | | | | | | |
|-----------------------------------------------------------------------------------|---------|-----------------------------------|----|--|--|--|-----------|-----------------|
|  | Wymiary | a | Z | | | | | Kod |
| | 1/2" | 45 | 36 | | | | | 8126M 004000000 |
| | 3/4" | 51 | 39 | | | | | 006000000 |
| | 1" | 59 | 43 | | | | | 008000000 |
| | 1 1/4" | 67 | 48 | | | | | 010000000 |
| | 1 1/2" | 70 | 51 | | | | | 012000000 |
| 2" | 92 | 72 | | | | | 016000000 | |

| 8130M | | Trójnik GW | | | | | | |
|------------------------------------------------------------------------------------|---------|------------|----|--|--|--|-----------|-----------------|
|  | Wymiary | a | Z | | | | | Kod |
| | 3/8" | 18 | 9 | | | | | 8130M 003003003 |
| | 1/2" | 22 | 11 | | | | | 004004004 |
| | 3/4" | 28 | 13 | | | | | 006006006 |
| | 1" | 32 | 14 | | | | | 008008008 |
| | 1 1/4" | 38 | 16 | | | | | 010010010 |
| | 1 1/2" | 41 | 17 | | | | | 012012012 |
| | 2" | 51 | 20 | | | | | 016016016 |
| | 2 1/2" | 67 | 25 | | | | | 012012012 |
| 3" | 77 | 27 | | | | | 016016016 | |

| 8130RM | | Trójnik redukcyjny GW | | | | | | |
|-------------------------------------------------------------------------------------|--------------------|-----------------------|------|------|------|------|------|------------------|
|  | Wymiary | a | b | c | Za | Zb | Zc | Kod |
| | 3/4" x 1/2" x 3/4" | 18,5 | 18,5 | 30 | 14,7 | 15 | 14,7 | 8130RM 006004006 |
| | 1" x 1/2" x 1" | 34,5 | 34,5 | 33 | 15,4 | 18 | 15,4 | 008004008 |
| | 1" x 3/4" x 1" | 34,5 | 34,5 | 34,5 | 15,4 | 18,2 | 15,4 | 008006008 |

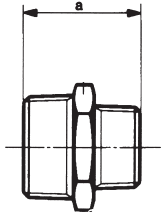
| 8180M | | Czwórnik GW | | | | | | |
|-------------------------------------------------------------------------------------|---------|-------------|----|--|--|--|--|-----------------|
|  | Wymiary | a | Z | | | | | Kod |
| | 1/2" | 22 | 11 | | | | | 8180M 004000000 |
| | 3/4" | 28 | 13 | | | | | 006000000 |
| | 1" | 32 | 15 | | | | | 008000000 |

| 8240M | | Mufa redukcyjna GW GW | | | | | |
|-----------------------------------------------------------------------------------|-----------------|-----------------------|--|--|--|--|-----------------|
|  | Wymiary | a | | | | | Kod |
| | 1/2" x 3/8" | 22 | | | | | 8240M 004003000 |
| | 3/4" x 1/2" | 26 | | | | | 006004000 |
| | 1" x 1/2" | 28 | | | | | 008004000 |
| | 1" x 3/4" | 29 | | | | | 008006000 |
| | 1 1/4" x 1/2" | 30 | | | | | 010004000 |
| | 1 1/4" x 3/4" | 32 | | | | | 010006000 |
| | 1 1/4" x 1" | 33 | | | | | 010008000 |
| | 1 1/2" x 1" | 33 | | | | | 012008000 |
| | 1 1/2" x 1 1/4" | 35 | | | | | 012010000 |
| | 2" x 1 1/2" | 37 | | | | | 016012000 |

| 8241M | | Redukcja GZ GW | | | | | |
|-----------------------------------------------------------------------------------|-----------------|----------------|--|--|--|-----------|-----------------|
|  | Wymiary | L | | | | | Kod |
| | 3/8" x 1/4" | 13 | | | | | 8241M 003002000 |
| | 1/2" x 1/4" | 15 | | | | | 004002000 |
| | 1/2" x 3/8" | 15 | | | | | 004003000 |
| | 3/4" x 3/8" | 16 | | | | | 006003000 |
| | 3/4" x 1/2" | 16 | | | | | 006004000 |
| | 1" x 1/2" | 18 | | | | | 008004000 |
| | 1" x 3/4" | 18 | | | | | 008006000 |
| | 1 1/4" x 1/2" | 20 | | | | | 010004000 |
| | 1 1/4" x 3/4" | 20 | | | | | 010006000 |
| | 1 1/4" x 1" | 20 | | | | | 010008000 |
| | 1 1/2" x 1/2" | 21 | | | | | 012004000 |
| | 1 1/2" x 3/4" | 21 | | | | | 012006000 |
| | 1 1/2" x 1" | 21 | | | | | 012010000 |
| | 1 1/2" x 1 1/4" | 21 | | | | | 012010000 |
| | 2" x 3/4" | 26 | | | | | 016006000 |
| | 2" x 1" | 26 | | | | | 016008000 |
| | 2" x 1 1/4" | 26 | | | | | 016010000 |
| | 2" x 1 1/2" | 26 | | | | | 016012000 |
| | 2 1/2" x 2" | 28 | | | | | 020016000 |
| 3" x 2" | 33 | | | | | 024016000 | |
| 3" x 2 1/2" | 33 | | | | | 024020000 | |

Series 8000 M

| 8243M | | Redukcja GW GZ | | | | | | | |
|-----------------------------------------------------------------------------------|---------------|----------------|----|----|--|--|--|--|-----------------|
|  | Wymiary | L | L1 | L2 | | | | | Kod |
| | 1/2" x 3/8" | 22 | 11 | 9 | | | | | 8243M 002001000 |
| | 3/4" x 1/2" | 24 | 12 | 11 | | | | | 003002000 |
| | 1" x 1/2" | 27 | 13 | 11 | | | | | 006003000 |
| | 1" x 3/4" | 27 | 13 | 12 | | | | | 008003000 |
| | 1 1/4" x 1/2" | 30 | 16 | 11 | | | | | 010006000 |
| | 1 1/4" x 3/4" | 31 | 16 | 12 | | | | | 010008000 |
| | 1 1/4" x 1" | 32 | 16 | 13 | | | | | 006003000 |
| | 1 1/2" x 1/4" | 34 | 17 | 15 | | | | | 008003000 |
| | 2" x 1 1/2" | 36 | 18 | 17 | | | | | 010006000 |

| 8245M | | Nypel redukcyjny GZ GZ | | | | | | | |
|------------------------------------------------------------------------------------|-----------------|------------------------|--|--|--|--|--|-----------|-----------------|
|  | Wymiary | a | | | | | | | Kod |
| | 3/8" x 1/4" | 27,3 | | | | | | | 8245M 003002000 |
| | 1/2" x 1/4" | 31 | | | | | | | 004002000 |
| | 3/4" x 3/8" | 33,2 | | | | | | | 006003000 |
| | 3/4" x 1/2" | 36,5 | | | | | | | 006004000 |
| | 1" x 1/2" | 40,1 | | | | | | | 008004000 |
| | 1 1/4" x 3/4" | 44,2 | | | | | | | 010006000 |
| | 1 1/4" x 1" | 47 | | | | | | | 010008000 |
| | 1 1/2" x 3/4" | 44,2 | | | | | | | 012006000 |
| | 1 1/2" x 1" | 47 | | | | | | | 012008000 |
| | 1 1/2" x 1 1/4" | 49,3 | | | | | | | 012010000 |
| | 2" x 1" | 51,8 | | | | | | | 016008000 |
| | 2" x 1 1/4" | 54,1 | | | | | | | 016010000 |
| 2" x 1 1/2" | 54,1 | | | | | | | 016012000 | |
| 2 1/2" x 2" | 71 | | | | | | | 020016000 | |

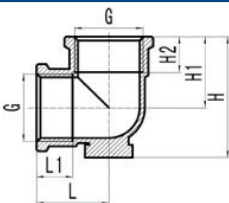
| 8270M | | Mufa GW | | | | | | | |
|-------------------------------------------------------------------------------------|---------|---------|--|--|--|--|--|-----------|-----------------|
|  | Wymiary | a | | | | | | | Kod |
| | 1/8" | 20 | | | | | | | 8270M 001000000 |
| | 1/4" | 20 | | | | | | | 002000000 |
| | 3/8" | 30 | | | | | | | 003000000 |
| | 1/2" | 31 | | | | | | | 004000000 |
| | 3/4" | 34 | | | | | | | 006000000 |
| | 1" | 41 | | | | | | | 008000000 |
| | 1 1/4" | 47 | | | | | | | 010000000 |
| | 1 1/2" | 52 | | | | | | | 012000000 |
| 2" | 64 | | | | | | | 016000000 | |

| 8280M | | Nypel GZ | | | | | |
|-----------------------------------------------------------------------------------|---------|----------|--|--|--|--|-----------------|
|  | Wymiary | a | | | | | Kod |
| | 1/8" | 19 | | | | | 8280M 001000000 |
| | 1/4" | 26 | | | | | 002000000 |
| | 3/8" | 28 | | | | | 003000000 |
| | 1/2" | 38 | | | | | 004000000 |
| | 3/4" | 38 | | | | | 006000000 |
| | 1" | 44 | | | | | 008000000 |
| | 1 1/4" | 49,5 | | | | | 010000000 |
| | 1 1/2" | 49,5 | | | | | 012000000 |
| | 2" | 59 | | | | | 016000000 |
| | 2 1/2" | 78 | | | | | 020000000 |
| | 3" | 75,6 | | | | | 024000000 |

| 8292M | | Korek GZ | | | | | |
|------------------------------------------------------------------------------------|---------|----------|--|--|--|--|-----------------|
|  | Wymiary | a | | | | | Kod |
| | 1/4" | 11,5 | | | | | 8292M 002000000 |
| | 3/8" | 13 | | | | | 003000000 |
| | 1/2" | 14 | | | | | 004000000 |
| | 3/4" | 15,5 | | | | | 006000000 |
| | 1" | 17 | | | | | 008000000 |

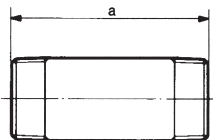
| 8300M | | Kapa GW | | | | | |
|-------------------------------------------------------------------------------------|---------|---------|--|--|--|-----------|-----------------|
|  | Wymiary | a | | | | | Kod |
| | 1/4" | 8,5 | | | | | 8300M 002000000 |
| | 3/8" | 9,5 | | | | | 003000000 |
| | 1/2" | 10 | | | | | 004000000 |
| | 3/4" | 11 | | | | | 006000000 |
| | 1" | 12,5 | | | | | 008000000 |
| | 1 1/4" | 14 | | | | | 010000000 |
| | 1 1/2" | 15 | | | | | 012000000 |
| 2" | 18 | | | | | 016000000 | |

| 8310M | | Nakrętka | | | | | |
|-------------------------------------------------------------------------------------|---------|----------|--|--|--|--|-----------------|
|  | Wymiary | L | | | | | Kod |
| | 1/2" | 7 | | | | | 8310M 004000000 |
| | 3/4" | 7 | | | | | 006000000 |
| | 1" | 8 | | | | | 008000000 |
| | 1 1/4" | 8 | | | | | 010000000 |
| | 1 1/2" | 9 | | | | | 012000000 |
| | 2" | 10 | | | | | 016000000 |

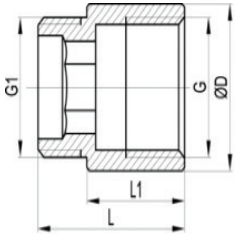
| 8471M | | Kolano 90° z łapami GW | | | | | |
|-------------------------------------------------------------------------------------|---------|------------------------|----|----|----|----|-----------------|
|  | Wymiary | H | H1 | H2 | L | L1 | Kod |
| | 1/2" | 37 | 22 | 11 | 22 | 11 | 8471M 004000000 |

8530M

Przedłużka GZ



| Wymiary | a | | | | | | Kod |
|--------------|-----|--|--|--|--|-----------------|-----|
| 1/2" x 30 | 30 | | | | | 8530M 004030000 | |
| 1/2" x 50 | 50 | | | | | 004050000 | |
| 1/2" x 60 | 60 | | | | | 004060000 | |
| 1/2" x 80 | 80 | | | | | 004080000 | |
| 1/2" x 100 | 100 | | | | | 004100000 | |
| 1/2" x 120 | 120 | | | | | 004120000 | |
| 1/2" x 150 | 150 | | | | | 004150000 | |
| 1/2" x 180 | 180 | | | | | 004180000 | |
| 1/2" x 200 | 200 | | | | | 004200000 | |
| 3/4" x 40 | 40 | | | | | 006040000 | |
| 3/4" x 50 | 50 | | | | | 006050000 | |
| 3/4" x 60 | 60 | | | | | 006060000 | |
| 3/4" x 80 | 80 | | | | | 006080000 | |
| 3/4" x 100 | 100 | | | | | 006100000 | |
| 3/4" x 120 | 120 | | | | | 006120000 | |
| 3/4" x 150 | 150 | | | | | 006150000 | |
| 3/4" x 180 | 180 | | | | | 006180000 | |
| 3/4" x 200 | 200 | | | | | 006200000 | |
| 1" x 50 | 50 | | | | | 008050000 | |
| 1" x 60 | 60 | | | | | 008060000 | |
| 1" x 80 | 80 | | | | | 008080000 | |
| 1" x 100 | 100 | | | | | 008100000 | |
| 1" x 120 | 120 | | | | | 008120000 | |
| 1" x 150 | 150 | | | | | 008150000 | |
| 1" x 180 | 180 | | | | | 008180000 | |
| 1" x 200 | 200 | | | | | 008200000 | |
| 1 1/4" x 80 | 80 | | | | | 010080000 | |
| 1 1/4" x 100 | 100 | | | | | 010100000 | |
| 1 1/4" x 120 | 120 | | | | | 010120000 | |
| 1 1/4" x 150 | 150 | | | | | 010150000 | |
| 1 1/4" x 200 | 200 | | | | | 010200000 | |
| 1 1/2" x 60 | 60 | | | | | 012060000 | |
| 1 1/2" x 100 | 100 | | | | | 012100000 | |
| 1 1/2" x 150 | 150 | | | | | 012150000 | |
| 1 1/2" x 200 | 200 | | | | | 012200000 | |

| 8540M | | Przedłużka GW GZ | | | | | | | Kod | |
|-----------------------------------------------------------------------------------|---------|------------------|-----|-----|----|--|--|-------|------------|--|
| | | Wymiary | D | L | L1 | | | | | |
|  | 1/2×10 | 25 | 20 | 10 | | | | 8540M | M04010000 | |
| | 1/2×15 | 25 | 25 | 15 | | | | | M04015000 | |
| | 1/2×20 | 25 | 30 | 20 | | | | | M04020000 | |
| | 1/2×25 | 25 | 35 | 25 | | | | | M004025000 | |
| | 1/2×30 | 25 | 40 | 30 | | | | | M04030000 | |
| | 1/2×40 | 25 | 50 | 40 | | | | | M04040000 | |
| | 1/2×50 | 25 | 60 | 50 | | | | | M04050000 | |
| | 1/2×60 | 25 | 70 | 60 | | | | | M04060000 | |
| | 1/2×70 | 25 | 80 | 70 | | | | | M04070000 | |
| | 1/2×80 | 25 | 90 | 80 | | | | | M04080000 | |
| | 1/2×100 | 25 | 110 | 100 | | | | | M04100000 | |
| | 3/4×10 | 30,5 | 22 | 10 | | | | | M06010000 | |
| | 3/4×15 | 30,5 | 27 | 15 | | | | | M06015000 | |
| | 3/4×20 | 30,5 | 32 | 20 | | | | | M06020000 | |
| | 3/4×30 | 30,5 | 42 | 30 | | | | | M06030000 | |
| | 3/4×40 | 30,5 | 52 | 40 | | | | | M06040000 | |
| | 3/4×50 | 30,5 | 62 | 50 | | | | | M06050000 | |
| | 3/4×60 | 30,5 | 72 | 60 | | | | | M06060000 | |
| | 3/4×70 | 30,5 | 82 | 70 | | | | | M06070000 | |
| | 3/4×80 | 30,5 | 92 | 80 | | | | | M06080000 | |
| | 1×10 | 37,5 | 23 | 10 | | | | | M08010000 | |
| | 1×20 | 37,5 | 33 | 20 | | | | | M08020000 | |
| | 1×30 | 37,5 | 43 | 30 | | | | | M08030000 | |
| | 1×40 | 37,5 | 53 | 40 | | | | | M08040000 | |
| | 1×50 | 37,5 | 63 | 50 | | | | | M08050000 | |

Conex | Bänninger
Series 8000 M

Conex | Bänninger
Series 8000

Conex | Bänninger
Series 3000

Conex | Bänninger
Series 4000

Conex | Bänninger
Series 5000

Conex | Bänninger
>B< Press Gas

Conex | Bänninger
>B< Press

Conex | Bänninger
>B< Press Solar

Conex | Bänninger
>B< Press Carbon

Conex | Bänninger
>B< Press Inox

Conex | Bänninger
Conex Compression

Conex | Bänninger
Conex O-Ring

Conex | Bänninger
>B< Flex

Conex | Bänninger
>B< ACR

Conex | Bänninger
K65[®]

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Medical Gas

Conex | Bänninger
Triflow Solder Ring

Conex | Bänninger
Push-Fit

Conex | Bänninger
OEM Solutions



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