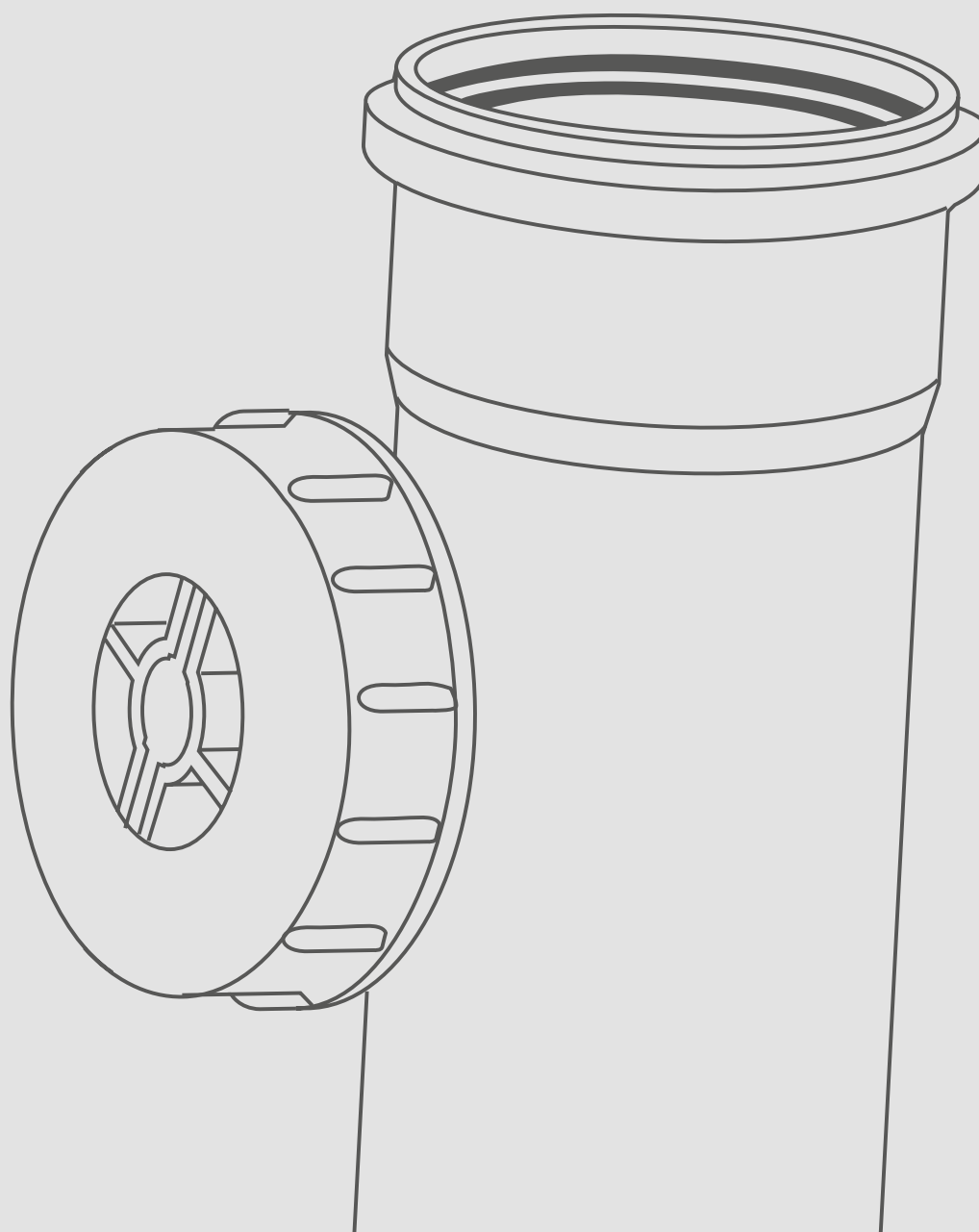


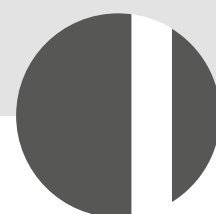
# PP3



## **Niskoszumowy system kanalizacji wewnętrznej kielichowej z polipropylenu**

*Soundproof push-fit systems for waste inside the building*

*Système acoustique d'évacuation en polypropylène à emboiture*



MADE IN ITALY

**04/2022**

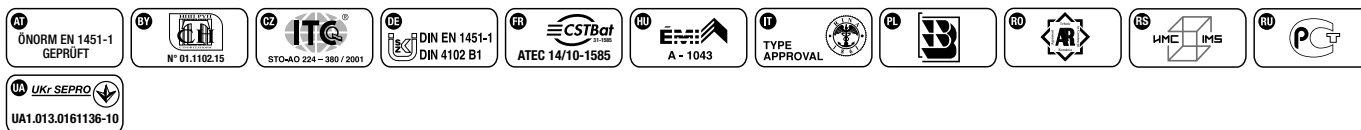
KATALOG/CENNIK  
CATALOGUE/PRICE LIST - CATALOGUE/TARIF  
L02-851/7

**valsir**<sup>®</sup>  
QUALITY FOR PLUMBING

PP3



PP



LEGENDA  
LEGEND  
LÉGENDE

Skróty Abbreviations Abréviations	Jednostki miary Measurement units Unité de mesure	Opis Description Désignation
KOD	-	Kod towaru - Item code - Référence de l'article
CL	-	Kod rabatu - Discount category - Groupe produit
pln/szt	pln	Cena za sztukę - Price for piece - Prix unitaire, poids
D	mm	Średnica - Diameter - Diamètre
DN	mm	Średnica nominalna - Nominal diameter - Diamètre nominale
	n°	Ilość w opak. jednostkowym - Pieces per pack - Prix par conditionnement
	n°	Ilość na warstwie palety - Pieces per pallet layer - Pièce par surpalette
	n°	Ilość na palecie - Pieces per pallet - Pièces par palette
HxLxP	mm	Wymiary palety - Pallet dimensions - Dimensions de la palette
α	°	Kąt - Sexagesimal degree - Angle
Mod.	-	Model - Model - Modèle
Mat.	-	Materiał - Material - Matière
Art.	-	Towar - Item - Article
Conf.	-	Sposób pakowania - Packaging - Conditionnement

Wszystkie wymiary podano w mm z wyjątkiem przypadków, w których zostały wyrażone inaczej.  
All the dimensions in this price list are in mm except as otherwise expressed.  
Toutes les dimensions reportées dans le tarif sont exprimées en mm si aucune autre précision.

Produkty Valsir dostarczone są w pełnych opakowaniach zgodnie z ilościami wyszczególnionymi w katalogu.  
Towary zamawiane w ilościach nieodpowiadających pełnym opakowaniom, zostaną zaokrąglone.

Valsir S.p.A. zastrzega sobie prawo do modyfikacji właściwości produktów przedstawianych w katalogu bez uprzedniego informowania. Ilustracje produktów w katalogu są przedstawione tylko w celach informacyjnych, dlatego też wygląd ich może odbiegać od rzeczywistego.

Valsir pragnie z góry przeprosić za ewentualne błędy drukarskie w niniejszym katalogu.

W przypadku natrafienia na jakiegokolwiek błąd prosimy o poinformowanie nas o tym i przesłanie nam własnych sugestii i komentarzy.

Valsir products are delivered according to the package quantity specified in this price list. Product requests not matching our package quantities will be rounded up, to the package quantity or a multiple of the same.

Valsir S.p.A. reserves the right to modify the characteristics of the products shown in this price list at any time. The colours in this price list are shown for representation purposes only.

To learn more about our sales conditions, warranty terms and to send us your opinion of Valsir, please refer to our services Card (booklet L02-416) or the "SUPPORT" section of our web site [www.valsir.it](http://www.valsir.it).

Please feel free to notify us your comments.

Les livraisons des produits Valsir sont effectuées au conditionnement complet. Toutes commandes ne correspondant pas au conditionnement seront arrondies sans préavis au conditionnement supérieur. Valsir S.p.A. se réserve le droit de modifier à tout moment les caractéristiques des produits présentés sur ce tarif. Les couleurs reproduites dans ce tarif sont à titre indicatif.

Pour connaître les conditions de vente, les termes de garantie et exprimer son niveau de satisfaction sur Valsir, nous vous prions de vous reporter au Document des services (fascicule L02-433) et à la session «SUPPORT» du site web : [www.valsir.fr](http://www.valsir.fr).

Nous invitons tous les utilisateurs à nous faire part de leurs éventuelles observations.



## VALSIR PP3: NOWA TECHNOLOGIA W SYSTEMACH KIELICHOWYCH

### VALSIR PP3: THE NEW TECHNOLOGY OF PUSH-FIT SYSTEMS

### VALSIR PP3 : LA NOUVELLE TECHNOLOGIE DES SYSTÈMES À EMBOÏEMENT

#### CHARAKTERYSTYKA

- Wysoka wytrzymałość mechaniczna w bardzo niskich temperaturach poniżej 0°C.
- Niezwykle prosty i szybki montaż bez użycia specjalistycznych narzędzi, dzięki kielichowemu łączeniu.
- Rury dostarczane są w różnych długościach i z dwoma kielichami, pozwalając tym samym zmniejszyć odpad materiału.
- Szeroka gama specjalnych kształtek, które pozwalają zbudować dowolny typ instalacji.
- Odporność na chwilowy przepływ medium w temperaturze do 95°C.
- Wysoka odporność chemiczna na działanie substancji rozpuszczonych w domowych i przemysłowych ściekach.
- Łatwe połączenie z innymi systemami kanalizacyjnymi takimi jak żeliwo, PVC, itp.
- Niski współczynnik rozszerzalności cieplnej.
- Instalacja nie wymaga żadnych specjalistycznych narzędzi lub urządzeń.
- Produkt podlega całkowitemu recyklingowi, a procesy wykorzystywane do jego produkcji oparte są na zasadach Green Building.

#### CHARACTERISTICS

- High impact resistance at extremely rigid temperatures below 0°C.
- Simple and fast to install without any special tools thanks to the push-fit connection.
- The pipes are supplied in various lengths and with two sockets thus allowing reductions in left-over material.
- Wide range of special pieces that allow any type of system to be constructed.
- Resistance to intermittent discharges at temperatures as high as 95°C.
- High chemical resistance to the substances dissolved in civil and industrial waste waters.
- Easily connected to other waste systems (cast iron, PVC, etc).
- Low coefficient of thermal expansion.
- No need of any special tools or appliances.
- The product, its recyclability and the production processes used are based on the Green Building principles.

#### CARACTERISTIQUES

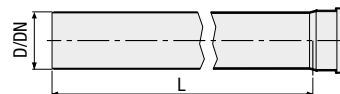
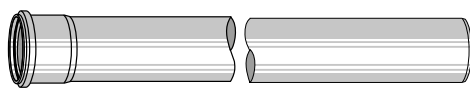
- Forte résistance aux températures en dessous de 0°C.
- Vitesse et facilité de mise en oeuvre sans outillage particulier grâce à son système d'emboîtement.
- Les tubes sont disponibles dans différentes longueurs avec simple ou double emboiture évitant ainsi le gaspillage.
- Large gamme de pièces spéciales qui permettent la réalisation de tout type d'installation.
- Résistance aux évacuations en continu pour des températures jusqu'à 95°C.
- Forte résistance chimique par rapport aux substances présentes dans les évacuations domestiques et industrielles.
- Facilité de raccordement avec d'autres systèmes d'évacuation (cuivre, PVC, etc.).
- Faible coefficient de dilatation thermique.
- Son utilisation ne nécessite pas d'outillage ou de matériel particulier.
- Le produit, sa possibilité de recyclage et les processus de production sont conformes aux principes Green Building.





# ASORTYMENT KANALIZACJI PP3

PP3 WASTE RANGE





PP3 GAMME EVACUATION

**HTEM rura PP3  
jednokielichowa**  
Single socket pipe PP3  
HTEM tube PP3 avec  
une emboiture

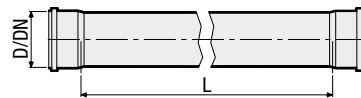
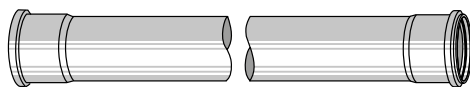






KOD	D	DN	L	kg				HxLxP 	CL	pln/szt
VS0501001	32	30	150	0,043	20	320	1600	980x800x1200	PP03	2,70
VS0501003	32	30	250	0,059	20	160	960	930x800x1200	PP03	3,53
VS0501004	32	30	315	0,075	20	160	960	930x800x1200	PP03	4,16
VS0501005	32	30	500	0,108	20	120	600	950x800x1200	PP03	5,76
VS0501007	32	30	750	0,150	30	150	750	1090x1200x850	PP03	8,07
VS0501009	32	30	1000	0,195	24	120	840	1190x1200x1100	PP03	10,10
VS0501011	32	30	1500	0,281	24	120	840	1190x1200x1600	PP03	14,98
VS0501013	32	30	2000	0,385	24	120	840	1190x1200x2110	PP03	19,04
VS0501015	32	30	3000	0,561	24	120	840	1190x1200x3100	PP03	27,45
VS0501021	40	40	150	0,054	20	160	960	950x800x1200	PP03	3,09
VS0501023	40	40	250	0,081	20	160	800	850x800x1200	PP03	6,53
VS0501024	40	40	315	0,096	20	160	800	850x800x1200	PP03	7,03
VS0501025	40	40	500	0,129	20	120	600	1030x800x1200	PP03	8,19
VS0501027	40	40	750	0,114	10	100	500	1070x1210x850	PP03	9,20
VS0501029	40	40	1000	0,245	20	100	500	1070x1210x1120	PP03	13,68
VS0501031	40	40	1500	0,355	20	100	500	1070x1210x1600	PP03	17,15
VS0501033	40	40	2000	0,482	20	100	500	1070x1210x2110	PP03	21,58
VS0501035	40	40	3000	0,682	20	100	500	1070x1210x3140	PP03	31,73
VS0501041	50	50	150	0,069	20	160	960	940x800x1200	PP03	5,09
VS0501043	50	50	250	0,097	20	160	640	1045x800x1200	PP03	5,18
VS0501044	50	50	315	0,115	20	160	640	1045x800x1200	PP03	6,30
VS0501045	50	50	500	0,170	20	120	480	1030x800x1200	PP03	7,11
VS0501047	50	50	750	0,243	30	120	360	1130x1200x880	PP03	10,55
VS0501049	50	50	1000	0,317	30	120	360	1130x1200x1140	PP03	12,61
VS0501051	50	50	1500	0,462	30	120	360	1130x1200x1630	PP03	17,77
VS0501053	50	50	2000	0,599	30	120	360	1130x1200x2120	PP03	23,38
VS0501055	50	50	3000	0,907	30	120	360	1130x1200x3110	PP03	33,67
VS0501061	75	70	150	0,107	20	160	480	1000x800x1200	PP03	6,85
VS0501063	75	70	250	0,152	20	160	320	1030x800x1200	PP03	7,92
VS0501065	75	70	500	0,265	20	80	240	830x800x1200	PP03	12,48
VS0501067	75	70	750	0,372	20	60	180	1100x1230x870	PP03	16,11
VS0501069	75	70	1000	0,481	20	60	180	1100x1230x1130	PP03	19,94
VS0501071	75	70	1500	0,708	20	60	180	1100x1230x1620	PP03	30,08
VS0501073	75	70	2000	0,929	20	60	180	1100x1230x2140	PP03	35,94
VS0501075	75	70	3000	1,333	20	60	180	1100x1230x3150	PP03	52,40
VS0501141	90	90	150	0,147	20	160	320	1030x800x1200	PP03	14,18
VS0501143	90	90	250	0,216	20	160	320	1350x800x1200	PP03	18,68



KOD	D	DN	L	kg				HxLxP 	CL	pln/szt
VS0501145	90	90	500	0,374	10	80	160	1350x800x1200	PP03	30,76
VS0501149	90	90	1000	0,669	10	-	120	1130x1200x1180	PP03	51,84
VS0501151	90	90	1500	0,953	10	-	120	1130x1200x1620	PP03	74,02
VS0501153	90	90	2000	1,253	10	-	120	1130x1200x2100	PP03	105,62
VS0501155	90	90	3000	1,860	10	-	120	1130x1200x3130	PP03	161,65
VS0501081	110	100	150	0,229	20	60	240	1080x800x1200	PP03	11,45
VS0501083	110	100	250	0,319	20	60	180	1130x800x1200	PP03	12,90
VS0501084	110	100	315	0,380	20	60	180	1130x800x1200	PP03	16,05
VS0501085	110	100	500	0,549	10	60	120	1310x800x1200	PP03	19,88
VS0501087	110	100	750	0,779	15	30	90	1210x1230x930	PP03	28,90
VS0501089	110	100	1000	1,024	15	30	90	1210x1230x1200	PP03	32,83
VS0501091	110	100	1500	1,480	15	30	90	1190x1230x1660	PP03	51,45
VS0501093	110	100	2000	1,930	15	30	90	1210x1230x2150	PP03	56,28
VS0501095	110	100	3000	2,833	15	30	90	1210x1230x3200	PP03	96,91
VS0501101	125	125	150	0,314	10	80	160	1030x800x1200	PP03	36,39
VS0501103	125	125	250	0,428	10	40	120	1170x800x1200	PP03	38,91
VS0501105	125	125	500	0,725	5	40	80	1350x800x1200	PP03	53,38
VS0501107	125	125	750	1,030	8	16	64	1270x1100x900	PP03	77,95
VS0501109	125	125	1000	1,359	8	16	64	1270x1100x1140	PP03	96,78
VS0501111	125	125	1500	1,972	8	16	64	1270x1100x1645	PP03	133,15
VS0501113	125	125	2000	2,576	8	16	64	1270x1100x2155	PP03	174,02
VS0501115	125	125	3000	3,824	8	16	64	1270x1100x3180	PP03	247,47
VS0501121	160	150	150	0,518	1	-	84	950x800x1200	PP03	22,04
VS0501123	160	150	250	0,701	1	-	56	950x800x1200	PP03	28,06
VS0501125	160	150	500	1,194	1	-	37	950x800x1200	PP03	46,92
VS0501129	160	150	1000	2,183	6	12	36	1130x1080x1180	PP03	98,87
VS0501131	160	150	1500	3,145	6	12	36	1130x1080x1600	PP03	140,42
VS0501133	160	150	2000	4,120	6	12	36	1130x1080x2220	PP03	173,98
VS0501135	160	150	3000	6,000	6	12	36	1130x1080x3200	PP03	248,02

**HTDM rura PP3  
dwukielichowa**  
Double socket pipe PP3  
HTDM tube avec 2 emboitures

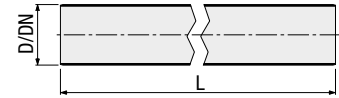
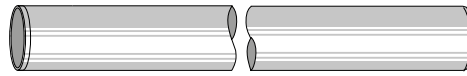



KOD	D	DN	L	kg				HxLxP 	CL	pln/szt
VS0501201	32	30	500	0,121	30	180	720	1030x800x1200	PP03	14,39
VS0501202	32	30	750	0,166	30	120	840	1230x1200x910	PP03	15,37
VS0501203	32	30	1000	0,210	24	120	840	1230x1200x1170	PP03	16,11
VS0501204	32	30	1500	0,300	24	120	840	1190x1200x1650	PP03	25,33
VS0501205	32	30	2000	0,379	24	120	840	1190x1200x2145	PP03	30,73
VS0501207	32	30	3000	0,551	24	120	840	1230x1200x3130	PP03	40,88
VS0501213	40	40	500	0,155	35	140	420	900x800x1200	PP03	10,16
VS0501214	40	40	750	0,211	30	150	600	1300x1200x915	PP03	14,39
VS0501215	40	40	1000	0,268	20	100	500	1080x1200x1155	PP03	15,26
VS0501216	40	40	1500	0,382	20	100	500	1080x1200x1670	PP03	23,38
VS0501217	40	40	2000	0,482	20	100	500	1080x1200x2160	PP03	27,49
VS0501219	40	40	3000	0,721	20	100	500	1080x1200x3185	PP03	40,61
VS0501225	50	50	500	0,198	25	100	300	915x800x1200	PP03	12,32
VS0501226	50	50	750	0,274	30	120	360	1190x1200x945	PP03	17,55
VS0501227	50	50	1000	0,342	30	120	360	1160x1200x1200	PP03	18,34
VS0501228	50	50	1500	0,490	30	120	360	1170x1200x1680	PP03	29,65
VS0501229	50	50	2000	0,637	30	120	360	1160x1200x2165	PP03	36,26
VS0501231	50	50	3000	0,911	30	120	360	1170x1200x3180	PP03	52,66
VS0501237	75	70	500	0,304	10	80	240	2030x800x1200	PP03	20,48
VS0501238	75	70	750	0,409	10	30	180	1090x1260x950	PP03	27,18
VS0501239	75	70	1000	0,528	10	30	180	1090x1260x1210	PP03	31,31
VS0501240	75	70	1500	0,745	10	30	180	1100x1260x1700	PP03	44,90
VS0501241	75	70	2000	0,961	10	30	180	1090x1260x2210	PP03	57,52
VS0501243	75	70	3000	1,400	10	30	180	1090x1260x3210	PP03	83,92
VS0501281	90	90	500	0,428	8	120	240	1480x800x1200	PP03	35,67
VS0501283	90	90	1000	0,731	10	-	120	1130x1200x1200	PP03	59,00
VS0501285	90	90	2000	1,343	10	-	120	1130x1200x2200	PP03	100,29
VS0501287	90	90	3000	1,901	10	-	120	1130x1200x3200	PP03	154,82
VS0501249	110	100	500	0,644	12	48	96	1380x800x1200	PP03	32,18
VS0501250	110	100	750	0,889	10	20	80	1110x1200x980	PP03	47,48
VS0501251	110	100	1000	1,102	10	20	80	1090x1220x1235	PP03	52,93
VS0501252	110	100	1500	0,794	10	20	80	1090x1220x1730	PP03	72,67
VS0501253	110	100	2000	1,003	10	20	80	1090x1220x2210	PP03	90,03
VS0501255	110	100	3000	2,945	10	20	80	1090x1220x3245	PP03	139,22
VS0501261	125	125	500	0,898	6	36	72	1480x800x1200	PP03	70,29
VS0501263	125	125	1000	1,475	8	16	64	1270x1100x1200	PP03	107,16
VS0501264	125	125	1500	2,038	8	16	64	1270x1100x1700	PP03	143,94
VS0501265	125	125	2000	2,713	8	16	64	1270x1100x2200	PP03	205,77
VS0501267	125	125	3000	3,900	8	16	64	1270x1100x3200	PP03	258,69

### HTGL rura PP3 bez kielicha

Plain end pipe PP3

HTGL tube lisse

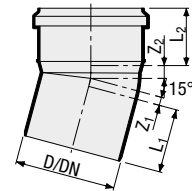






KOD	D	DN	L	kg		CL	pln/szt
VS0501019	32	30	5000	0,875	50	PP03	56,10
VS0501039	40	40	5000	1,095	50	PP03	61,86
VS0501059	50	50	5000	1,377	50	PP03	73,81
VS0501079	75	70	5000	2,245	30	PP03	118,84
VS0501159	90	90	5000	3,000	20	PP03	220,26
VS0501099	110	100	5000	4,705	15	PP03	203,95
VS0501119	125	125	5000	6,020	10	PP03	389,67

### HTB kolano 15°

15° bend

HTB coude 15°

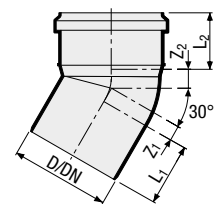






KOD	D	DN	Z <sub>1</sub>	L <sub>1</sub>	Z <sub>2</sub>	L <sub>2</sub>	kg				HxLxP 	CL	pln/szt
VS0504001	32	30	5	48	3	45	0,021	80	640	3840	970x800x1200	PP02	5,25
VS0504013	40	40	6	51	8	53	0,032	50	400	1600	850x800x1200	PP02	5,25
VS0504025	50	50	1	51	9	50	0,040	30	240	960	850x800x1200	PP02	5,25
VS0504037	75	70	10	54	11	54	0,066	20	160	640	1010x800x1200	PP02	13,22
VS0599041	90	90	8	58	12	57	0,090	20	160	480	1015x800x1200	PP02	21,30
VS0504049	110	100	14	63	14	60	0,149	20	80	240	970x800x1200	PP02	13,19
VS0504061	125	125	15	69	15	72	0,226	20	80	160	940x800x1200	PP02	60,20
VS0504073	160	150	35	79	19	73	0,512	10	40	80	940x800x1200	PP02	118,11

### HTB kolano 30°

30° bend

HTB coude 30°

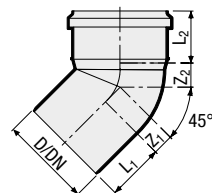


KOD	D	DN	Z <sub>1</sub>	L <sub>1</sub>	Z <sub>2</sub>	L <sub>2</sub>	kg				HxLxP 	CL	pln/szt
VS0504003	32	30	7	48	5	45	0,021	80	640	3840	970x800x1200	PP02	5,25
VS0504015	40	40	9	51	11	53	0,033	50	400	1600	850x800x1200	PP02	5,25
VS0504027	50	50	10	52	12	51	0,041	30	240	960	850x800x1200	PP02	5,25
VS0504039	75	70	11	55	15	54	0,069	20	160	640	1010x800x1200	PP02	13,22
VS0599043	90	90	14	58	17,5	57	0,098	20	80	320	1100x800x1200	PP02	21,30
VS0504051	110	100	20	63	21	65	0,161	20	80	240	970x800x1200	PP02	13,19
VS0504063	125	125	24	69	23	73	0,242	20	80	160	940x800x1200	PP02	60,20
VS0504075	160	150	25	79	30	82	0,555	10	40	80	940x800x1200	PP02	118,11

### HTB kolano 45°

45° bend

HTB coude 45°

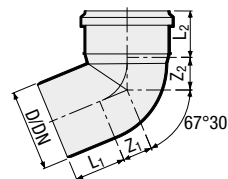
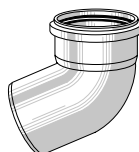


KOD	D	DN	Z <sub>1</sub>	L <sub>1</sub>	Z <sub>2</sub>	L <sub>2</sub>	kg				HxLxP	CL	pln/szt
VS0504005	32	30	5	53	8	45	0,022	80	640	2560	850x800x1200	PP02	5,25
VS0504017	40	40	9	51	14	53	0,032	50	400	1600	850x800x1200	PP02	5,25
VS0504029	50	50	12	52	16	51	0,040	30	240	960	850x800x1200	PP02	5,00
VS0504041	75	70	20	55	21	54	0,076	20	160	480	1015x800x1200	PP02	9,83
VS0599045	90	90	22	58	25	57	0,113	20	80	240	853x800x1200	PP02	21,22
VS0504053	110	100	30	63	29	61	0,171	20	80	240	1039x800x1200	PP02	12,72
VS0504065	125	125	33	69	33	72	0,260	15	60	120	940x800x1200	PP02	60,20
VS0504077	160	150	42	79	42	85	0,524	10	40	80	940x800x1200	PP02	75,85

### HTB kolano 67°30'

67°30' bend

HTB coude 67°30'

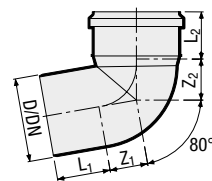
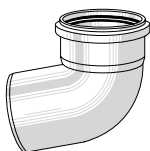


KOD	D	DN	Z <sub>1</sub>	L <sub>1</sub>	Z <sub>2</sub>	L <sub>2</sub>	kg				HxLxP	CL	pln/szt
VS0504007	32	30	9	53	20	45	0,028	60	480	2880	970x800x1200	PP02	5,25
VS0504019	40	40	16	51	20	53	0,037	50	400	1600	1010x800x1200	PP02	5,28
VS0504031	50	50	20	51	23	51	0,046	30	240	960	850x800x1200	PP02	5,43
VS0504043	75	70	30	54	31	54	0,080	20	160	480	1015x800x1200	PP02	15,47
VS0599047	90	90	32	58	36	57	0,119	20	80	240	853x800x1200	PP02	21,51
VS0504055	110	100	44	63	44	65	0,195	20	80	160	940x800x1200	PP02	14,15
VS0504067	125	125	49	69	50	72	0,289	15	60	120	940x800x1200	PP02	60,20

### HTB kolano 80°

80° bend

HTB coude 80°

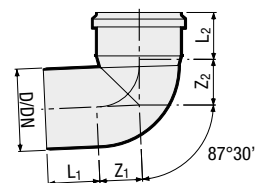


KOD	D	DN	Z <sub>1</sub>	L <sub>1</sub>	Z <sub>2</sub>	L <sub>2</sub>	kg				HxLxP	CL	pln/szt
VS0504009	32	30	12	53	24	45	0,024	60	480	2880	970x800x1200	PP02	8,17
VS0504021	40	40	19	51	24	52	0,037	50	400	1600	1010x800x1200	PP02	7,48
VS0504033	50	50	23	52	28	50	0,047	30	240	960	850x800x1200	PP02	8,32
VS0504045	75	70	36	55	38	54	0,082	20	160	480	1015x800x1200	PP02	17,66
VS0504057	110	100	50	63	54	64	0,216	20	80	160	940x800x1200	PP02	28,08
VS0504069	125	125	63	69	62	73	0,304	15	60	120	940x800x1200	PP02	63,78

## HTB kolano 87°30'

87°30' bend

HTB coude 87°30'

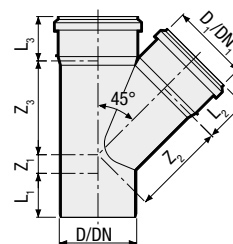
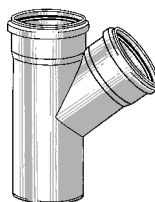


KOD	D	DN	Z <sub>1</sub>	L <sub>1</sub>	Z <sub>2</sub>	L <sub>2</sub>	kg				HxLxP	CL	pln/szt
VS0504011	32	30	12	53	26	45	0,024	60	480	2880	970x800x1200	PP02	5,25
VS0504023	40	40	23	51	26	53	0,036	50	400	1600	1010x800x1200	PP02	5,25
VS0504035	50	50	30	52	31	57	0,051	30	240	960	850x800x1200	PP02	5,46
VS0504047	75	70	40	55	43	55	0,089	20	160	480	1015x800x1200	PP02	10,60
VS0599051	90	90	48	58	51	57	0,132	20	80	240	853x800x1200	PP02	21,22
VS0504059	110	100	57	63	61	66	0,215	20	80	160	940x800x1200	PP02	13,17
VS0504071	125	125	71	69	70	72	0,321	10	40	120	1039x800x1200	PP02	60,20
VS0504083	160	150	87	79	89	85	0,700	10	40	80	1300x800x1200	PP02	80,45

## HTEA trójnik 45°

45° equal branch

HTEA culotte 45°

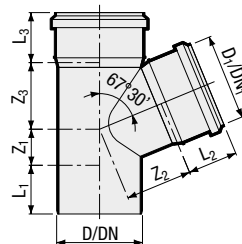
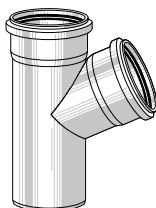


KOD	D/D <sub>1</sub>	DN/DN <sub>1</sub>	Z <sub>1</sub>	Z <sub>2</sub>	Z <sub>3</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	kg				HxLxP	CL	pln/szt
VS0508001	32/32	30/30	10	49	49	51	60	60	0,042	40	320	1280	850x800x1200	PP02	10,38
VS0508007	40/40	40/40	10	49	49	50	60	60	0,065	20	160	640	850x800x1200	PP02	10,38
VS0508013	50/50	50/50	12	61	61	53	55	54	0,090	20	160	640	1010x800x1200	PP02	10,01
VS0508019	75/75	70/70	18	91	91	57	54	54	0,152	20	80	240	970x800x1200	PP02	16,00
VS0599061	90/90	90/90	22	110	110	58	57	57	0,227	20	80	160	940x800x1200	PP02	40,23
VS0508025	110/110	100/100	25	134	134	64	63	63	0,386	15	60	120	1150x800x1200	PP02	25,67
VS0508031	125/125	125/125	28	152	152	69	68	69	0,537	10	40	80	1300x800x1200	PP02	191,44
VS0508037	160/160	150/150	36	194	194	94	87	86	1,325	1	-	32	930x800x1200	PP02	417,57

## HTEA trójnik 67°30'

67°30' equal branch

HTEA culotte 67°30'



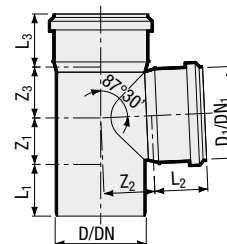
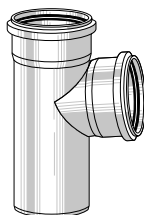
KOD	D/D <sub>1</sub>	DN/DN <sub>1</sub>	Z <sub>1</sub>	Z <sub>2</sub>	Z <sub>3</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	kg				HxLxP	CL	pln/szt
VS0508003	32/32	30/30	16	25	33	38	50	50	0,039	40	320	1280	850x800x1200	PP02	10,38
VS0508009	40/40	40/40	16	33	33	62	60	60	0,065	20	160	640	850x800x1200	PP02	10,38
VS0508015	50/50	50/50	20	41	41	53	50	50	0,073	20	160	640	1010x800x1200	PP02	10,01
VS0508021	75/75	70/70	28	61	59	57	54	54	0,130	20	80	240	970x800x1200	PP02	18,45
VS0508027	110/110	100/100	40	86	86	68	65	65	0,333	20	80	160	1300x800x1200	PP02	24,73
VS0508033 *	125/125	125/125	46	150	97	123	66	66	0,536	5	20	60	1039x800x1200	PP02	226,92
VS0508039 *	160/160	150/150	58	165	123	155	85	85	1,101	1	-	32	930x800x1200	PP02	417,57

\* Odgażenie zgrzewane. - Welded.- Dérivation soudée.

## HTEA trójnik 87°30'

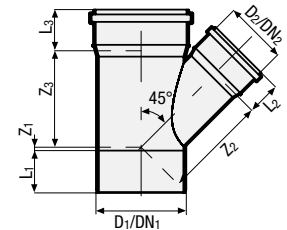
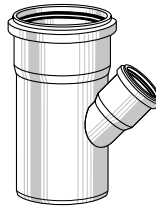
87°30' equal branch

HTEA culotte 87°30'



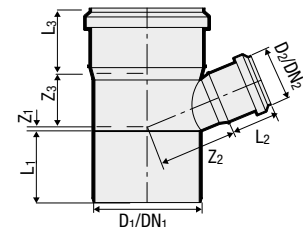
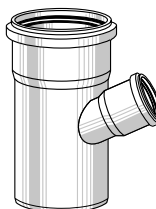
KOD	D/D <sub>1</sub>	DN/DN <sub>1</sub>	Z <sub>1</sub>	Z <sub>2</sub>	Z <sub>3</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	kg				HxLxP	CL	pln/szt
VS0508005	32/32	30/30	23	18	25	37	50	50	0,037	40	320	1280	850x800x1200	PP02	10,38
VS0508011	40/40	40/40	23	25	25	64	60	59	0,064	20	160	640	850x800x1200	PP02	10,38
VS0508017	50/50	50/50	28	32	30	54	49	49	0,079	20	160	640	1010x800x1200	PP02	10,01
VS0508023	75/75	70/70	40	25	43	59	54	55	0,126	20	80	240	853x800x1200	PP02	16,00
VS0599065	90/90	90/90	48	52	52	58	57	57	0,191	20	80	160	940x800x1200	PP02	40,23
VS0508029	110/110	100/100	57	60	62	62	65	65	0,321	20	80	160	1150x800x1200	PP02	24,73
VS0508035	125/125	125/125	65	69	70	68	68	68	0,435	10	40	80	940x800x1200	PP02	206,12
VS0508041	160/160	150/150	83	150	89	160	87	87	1,051	4	16	32	940x800x1200	PP02	417,57

HTEA trójnik  
redukcyjny 45°  
45° reducing branch  
HTEA embranchement réduit 45°



KOD	D/D <sub>1</sub>	DN/DN <sub>1</sub>	Z <sub>1</sub>	Z <sub>2</sub>	Z <sub>3</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	kg				HxLxP	CL	pln/szt
VS0510001	40/32	40/30	10	45	49	41	52	46	0,050	40	320	1280	1010x800x1200	PP02	18,77
VS0510007	50/40	50/40	5	56	54	53	57	54	0,072	20	160	640	1010x800x1200	PP02	13,29
VS0510013	75/40	70/40	-7	73	67	55	51	59	0,105	25	100	300	853x800x1200	PP02	24,36
VS0510019	75/50	70/50	-1	80	74	58	54	54	0,113	25	100	300	970x800x1200	PP02	17,25
VS0599071	90/40	90/40	15	85	60	48	51,5	57	0,136	20	80	240	853x800x1200	PP02	28,08
VS0599073	90/50	90/50	-7	90,5	82	58	49,5	57	0,151	20	80	240	970x800x1200	PP02	28,81
VS0599074	90/75	90/70	10	102	98	56	54	56	0,155	20	80	240	970x800x1200	PP02	39,83
VS0510025	110/40	100/40	-24	101	84	55	51	63	0,215	20	80	160	940x800x1200	PP02	30,28
VS0510031	110/50	100/50	-17	98	91	47	49	63	0,216	20	80	160	940x800x1200	PP02	17,73
VS0510037	110/75	100/70	1	120	109	63	55	65	0,273	15	60	120	940x800x1200	PP02	28,29
VS0599089	110/90	100/90	9,3	124,4	118,5	61,7	57,6	60,5	0,300	10	40	120	970x800x1200	PP02	79,71
VS0510043	125/50	125/50	-24	114	99	80	54	72	0,363	10	40	120	970x800x1200	PP02	129,50
VS0510049	125/110	125/100	18	137	141	89	69	69	0,500	8	32	64	940x800x1200	PP02	151,11
VS0510061	160/110	150/100	1	171	159	99	70	82	0,932	5	20	40	940x800x1200	PP02	297,55
VS0510067	160/125	150/125	12	180	169	105	79	85	1,046	5	20	40	940x800x1200	PP02	402,11

HTEA trójnik  
redukcyjny 67°30'  
67°30' reducing branch  
HTEA embranchement  
réduit 67°30'



KOD	D <sub>1</sub> /D <sub>2</sub>	DN <sub>1</sub> /DN <sub>2</sub>	Z <sub>1</sub>	Z <sub>2</sub>	Z <sub>3</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	kg				HxLxP	CL	pln/szt
VS0510003	40/32	40/30	16	32	33	40	46	51	0,046	40	320	1280	1010x800x1200	PP02	18,77
VS0510009	50/40	50/40	14	40	35	52	50	50	0,068	25	200	800	1010x800x1200	PP02	13,99
VS0510015	75/40	70/40	9	53	40	52	50	54	0,107	25	100	300	853x800x1200	PP02	30,03
VS0510021	75/50	70/50	14	56	46	58	50	54	0,106	25	100	300	970x800x1200	PP02	25,13
VS0510027	110/40	100/40	3	78	48	79	72	65	0,239	20	80	160	940x800x1200	PP02	37,09
VS0510033	110/50	100/50	8	78	54	67	51	65	0,214	20	80	160	940x800x1200	PP02	18,59
VS0510039	110/75	100/70	22	81	67	68	54	66	0,248	15	60	120	940x800x1200	PP02	28,54
VS0510045 *	125/50	125/50	6	80	57	90	54	72	0,349	10	40	120	1039x800x1200	PP02	129,50
VS0510051	125/110	125/100	38	100	89	78	71	75	0,473	8	32	64	940x800x1200	PP02	226,92
VS0510063	160/110	150/100	31	112	96	102	74	84	0,746	5	20	40	940x800x1200	PP02	390,77
VS0510069 *	160/125	150/125	39	136	104	141	76	86	0,858	5	20	40	940x800x1200	PP02	574,32

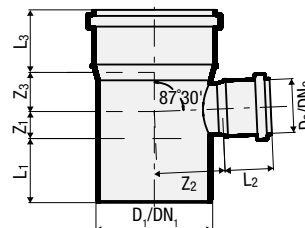
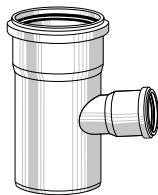
\* Odgałęzienie zgrzewane. - Welded.- Dérivation soudée.



## HTEA trójnik redukcyjny 87°30'

87°30' reducing branch

HTEA embranchement réduit 87°30'

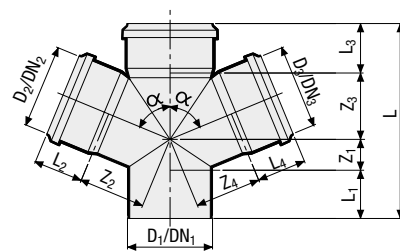
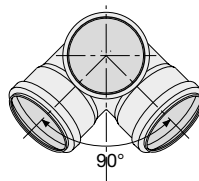
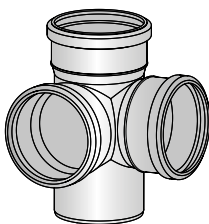


KOD	D <sub>1</sub> /D <sub>2</sub>	DN <sub>1</sub> /DN <sub>2</sub>	Z <sub>1</sub>	Z <sub>2</sub>	Z <sub>3</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	kg				HxLxP	CL	pln/szt
VS0510005	40/32	40/30	23	23	25	33	51	51	0,048	40	320	1280	1010x800x1200	PP02	18,77
VS0510011	50/40	50/40	23	30	25	54	50	50	0,065	25	200	800	1010x800x1200	PP02	13,99
VS0510017	75/40	70/40	22	45	26	52	50	54	0,105	25	100	300	853x800x1200	PP02	30,03
VS0510023	75/50	70/50	27	25	31	58	50	54	0,104	25	100	300	853x800x1200	PP02	17,94
VS0599075	90/40	90/40	23	50,5	27	58	51	57	0,133	20	80	240	853x800x1200	PP02	28,08
VS0599077	90/50	90/50	28	50	32	58	49,5	57	0,140	20	80	240	853x800x1200	PP02	28,81
VS0599079	90/75	90/70	39	60	44	56	54	56	0,133	20	80	240	853x800x1200	PP02	39,83
VS0510029	110/40	100/40	23	60	27	60	51	65	0,195	20	80	240	1039x800x1200	PP02	30,28
VS0510035	110/50	100/50	28	62	32	60	50	64	0,210	20	80	160	940x800x1200	PP02	17,73
VS0510041	110/75	100/70	40	61	45	61	55	65	0,239	15	60	120	940x800x1200	PP02	29,67
VS0599091	110/90	100/90	40,7	62,4	51,5	62,3	57,5	60,5	0,253	10	40	120	970x800x1200	PP02	79,71
VS0510047	125/50	125/50	28	67	33	90	54	72	0,342	10	40	120	1039x800x1200	PP02	129,50
VS0510053	125/110	125/100	58	70	63	83	63	68	0,402	8	32	96	1039x800x1200	PP02	151,11
VS0510065	160/110	150/100	58	86	64	99	72	84	0,785	5	20	40	940x800x1200	PP02	297,55
VS0510071	160/125	150/125	64	132	71	148	79	86	0,867	5	20	40	940x800x1200	PP02	506,89

## HTED czwórnik narożny

Corner branch

HTED embranchement multiple



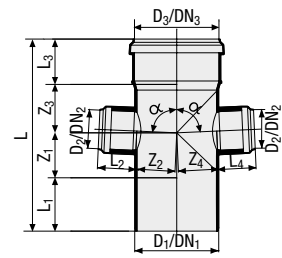
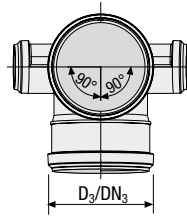
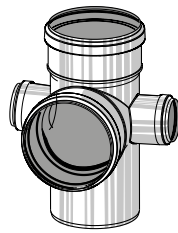
KOD	D <sub>1/2/3</sub>	DN <sub>1/2/3</sub>	α	Z <sub>1</sub>	Z <sub>2</sub>	Z <sub>3</sub>	Z <sub>4</sub>	L	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	kg				HxLxP	CL	pln/szt
VS0512001 *	110/110/110	100/100/100	67°30'	40	86	86	86	248	62	60	60	60	0,431	5	20	60	1039x800x1200	PP02	244,16
VS0512003 *	110/50/110	100/50/100	67°30'	40	86	86	84	260	68	65	65	51	0,359	5	20	60	970x800x1200	PP02	244,22
VS0512005 *	110/110/50	100/100/50	67°30'	40	84	86	86	260	68	51	65	65	0,360	5	20	60	970x800x1200	PP02	244,16
VS0512007 *	110/50/50	100/50/50	67°30'	8	78	54	78	195	67	51	65	51	0,240	10	40	120	853x800x1200	PP02	244,16
VS0512033	110/50/110	100/50/100	87°30'	59	52,5	63,5	63,5	252	70	49,5	59,5	59,5	0,351	10	40	80	940x800x1200	PP02	244,22
VS0512035	110/110/50	100/100/50	87°30'	59	63,5	63,5	52,5	252	70	59,5	59,5	49,5	0,351	10	40	80	940x800x1200	PP02	244,22

\* Odgałęzienie zgrzewane. - Welded.- Dérivation soudée.

### HTED czwórnik prosty redukcyjny 87°30'

87°30' corner branch

HTED embranchement multiple à 87°30'

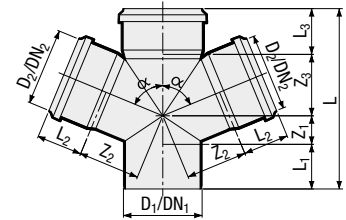
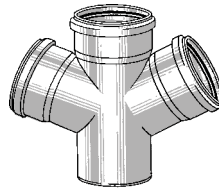


KOD	D <sub>1/2/3</sub>	DN <sub>1/2/3</sub>	Z <sub>1</sub>	Z <sub>2</sub>	Z <sub>3</sub>	Z <sub>4</sub>	L	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	kg				HxLxP	CL	pln/szt
VS0512037	110/110/50	110/110/50	59	52,5	63,5	52,5	252	70	49,5	59,5	49,5	0,378	10	40	80	940x800x1200	PP02	255,78

### HTDA czwórnik

Double branch

HDTA embranchement double parallèle

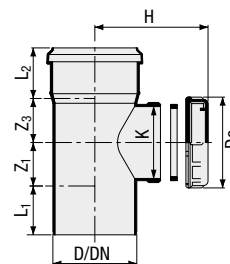
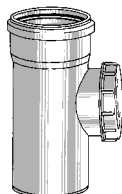


KOD	D <sub>1/2</sub>	DN <sub>1/2</sub>	α	Z <sub>1</sub>	Z <sub>2</sub>	Z <sub>3</sub>	L	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	kg				HxLxP	CL	pln/szt
VS0506001	50/50	50/50	67°30'	20	40	41	172	58	53	53	0,111	20	160	480	1015x800x1200	PP02	87,62
VS0506005	75/75	70/70	67°30'	28	59	59	206	64	55	55	0,185	10	40	120	853x800x1200	PP02	106,37
VS0599085	90/40	90/40	45°	15	85	85	215	58	51,5	57	0,160	15	60	180	853x800x1200	PP02	87,85
VS0599087	90/50	90/50	45°	7	90,5	90,5	212,5	58	49,5	57	0,174	15	60	180	970x800x1200	PP02	87,85
VS0506010	110/40	100/40	45°	16	104	90,5	239	72	50	60,5	0,237	10	40	120	853x800x1200	PP02	120,70
VS0506008	110/50	100/50	45°	16	110	91	227	62	50	58	0,245	10	40	120	853x800x1200	PP02	120,70
VS0506009	110/50	100/50	67°30'	8	78	54	192	68	50	62	0,232	10	40	120	853x800x1200	PP02	87,62
VS0506011	110/50	100/50	87°30'	28	60	32	185	60	55	65	0,271	10	40	120	853x800x1200	PP02	87,62
VS0506013	110/110	100/100	67°30'	40	86	86	257	66	63	65	0,422	5	20	60	970x800x1200	PP02	125,66
VS0506015	110/110	100/100	87°30'	57	84	86	278	70	63	65	0,395	5	20	60	970x800x1200	PP02	125,66

## HTRE czyszczak - rewizja

Access pipe

HTRE té de visite

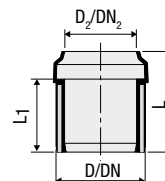


KOD	D	DN	Z <sub>1</sub>	Z <sub>3</sub>	L <sub>1</sub>	L <sub>2</sub>	K	Dc	H	kg				HxLxP	CL	pln/szt
VS0516003	50	50	28	30	82	54	75	90	83	0,101	20	160	640	1030x800x1200	PP02	18,24
VS0516005	75	70	40	43	58	54	66	90	77	0,141	20	80	240	853x800x1200	PP02	24,68
VS0599151	90	90	49	52	58	57	100	118	85	0,243	20	80	160	940x800x1200	PP02	46,04
VS0516007	110	100	57	62	61	67	105	118	100	0,343	15	60	120	940x800x1200	PP02	33,50
VS0516009	125	125	58	63	67	69	120	149	126	0,510	10	40	80	940x800x1200	PP02	222,39
VS0516011	160	150	58	64	93	83	120	149	126	0,917	5	20	40	940x800x1200	PP02	276,86

## Kielich redukcyjny

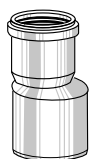
Increaser sleeve

Manchon de jonction

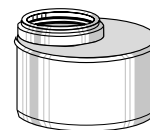
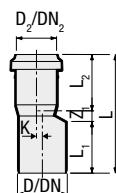


KOD	D/D <sub>2</sub>	DN/DN <sub>2</sub>	L	L <sub>1</sub>	kg				HxLxP	CL	pln/szt
VS0513000	40/32	40/30	65	50	0,021	100	800	4800	970x800x1200	PP02	13,59
VS0513001	50/40	50/40	56	38	0,027	80	640	3200	1030x800x1200	PP02	13,59
VS0599135	90/75	90/70	76	61	0,060	20	160	640	850x800x1200	PP02	20,29
VS0599137	110/90	100/90	81,5	65	0,112	20	160	640	1010x800x1200	PP02	23,45
VS0514015	125/110	125/100	86	68	0,131	30	120	360	853x800x1200	PP02	53,90

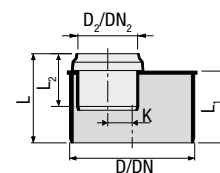
HTR redukcja  
niecentryczna  
Eccentric increaser  
HTR manchon excentré



Mod. A



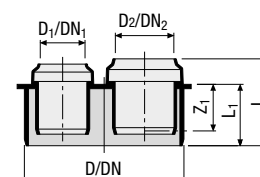
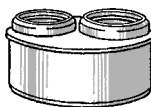
Mod. B



KOD	D/D <sub>2</sub>	DN/DN <sub>2</sub>	Mod.	K	Z <sub>1</sub>	L	L <sub>1</sub>	L <sub>2</sub>	kg				HxLxP	CL	pln/szt
VS0514001	40/32	40/30	A	4	12	98	41	44	0,023	50	400	2400	970x800x1200	PP02	8,91
VS0514002	50/32	50/30	A	9	15	98	38	44	0,028	40	320	1920	970x800x1200	PP02	7,91
VS0514003	50/40	50/40	A	5	13	125	51	58	0,036	50	400	1600	1010x800x1200	PP02	6,79
VS0514005	75/40	70/40	B	11	54	75	60	58	0,048	30	240	960	850x800x1200	PP02	13,29
VS0514007	75/50	70/50	B	5	50	75	59	58	0,051	30	240	1440	850x800x1200	PP02	8,88
VS0514031	75/50	70/50	A	12	20	120	52	48	0,053	20	160	960	965x800x1200	PP02	13,84
VS0599131	90/40	90/40	B	7	-	77	61	46,5	0,066	20	160	640	850x800x1200	PP02	17,53
VS0599133	90/50	90/50	B	11	-	76	61	45,5	0,066	20	160	640	850x800x1200	PP02	18,55
VS0514033	90/50	90/50	A	19,5	28	132	55	49	0,070	20	160	640	965x800x1200	PP02	18,72
VS0514035	90/75	90/70	A	7	13	122	55	54	0,075	20	160	640	965x800x1200	PP02	21,54
VS0514008	110/40	100/40	B	21,5	-	83	66	47	0,093	20	160	640	1010x800x1200	PP02	19,27
VS0514009	110/50	100/50	B	9	50	82	66	54	0,096	20	160	640	1010x800x1200	PP02	12,16
VS0514037	110/50	100/50	A	30	36	143	59	48	0,105	20	160	480	965x800x1200	PP02	20,35
VS0514011	110/75	100/70	B	16	55	82	66	56	0,101	20	160	640	1010x800x1200	PP02	12,47
VS0514039	110/75	100/70	A	17	27	139	59	53	0,109	20	160	480	965x800x1200	PP02	22,93
VS0514041	110/90	100/90	A	9,5	23	139	59	57	0,121	20	160	480	965x800x1200	PP02	24,39
VS0514013	125/75	125/70	B	0	55	85	70	55	0,134	20	160	480	1015x800x1200	PP02	46,21
VS0514043	125/110	125/100	A	7	12	138	64	62	0,165	20	80	240	965x800x1200	PP02	54,24
VS0514017	160/110	150/100	B	10	80	173	97	81	0,317	20	80	240	940x800x1200	PP02	74,05
VS0514019	160/125	150/125	B	4	80	160	92	82	0,296	20	80	240	1039x800x1200	PP02	107,30

HTDR redukcja podwójna

Double increaser  
HTDR manchon double

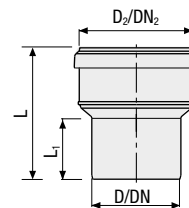
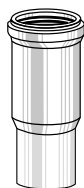


KOD	D/D <sub>1</sub> /D <sub>2</sub>	DN/DN <sub>1</sub> /DN <sub>2</sub>	Z <sub>1</sub>	L	L <sub>1</sub>	kg				HxLxP	CL	pln/szt
VS0525001 *	110/40/32	100/40/30	30	60	42	0,090	15	120	720	970x800x1200	PP02	171,12
VS0525003 *	110/40/40	100/40/40	30	60	42	0,092	15	120	720	970x800x1200	PP02	94,29
VS0525005	125/40/50	125/40/50	30	67	57	0,128	10	80	480	970x800x1200	PP02	221,71

\* Odgałężenia zgrzewane. - Welded.- Dérivation soudée.

### Złączka zwiększająca centryczna

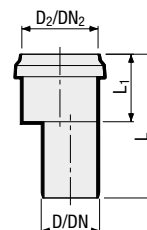
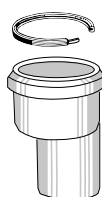
Concentric increaser  
Augmentation incorporée



KOD	D/D <sub>2</sub>	DN/DN <sub>2</sub>	L	L <sub>1</sub>	kg				HxLxP	CL	pln/szt
VS0599161	90/110	90/100	133	61,5	0,119	20	160	480	1015x800x1200	PP02	45,58

### Złączka zwiększająca niecentryczna

Eccentric increaser  
Augmentation excentrée

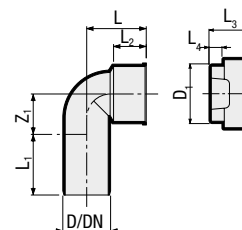
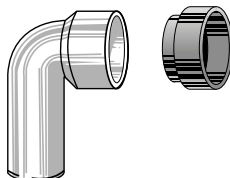


KOD	D/D <sub>2</sub>	DN/DN <sub>2</sub>	L	L <sub>1</sub>	kg				HxLxP	CL	pln/szt
VS0700033	40/50	40/50	99	48	0,033	30	240	1680	970x800x1200	PP02	14,97
VS0700034	32/40	30/40	95	50	0,026	30	480	2400	970x800x1200	PP02	15,66
VS0700039	50/75	50/70	101	50	0,051	20	160	1120	970x800x1200	PP02	16,72

### HTSW kolano techniczne do przyłączy syfonów z korkiem, bez manszety gumowego

Bend for trap connection  
with cap, without grommet

HTSW coude sanitaire  
avec bouchon sans joint

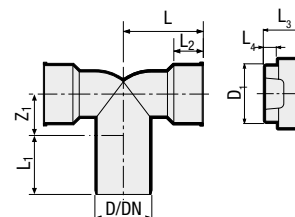
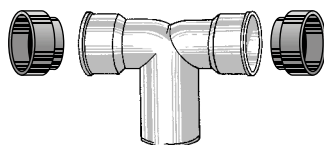


KOD	D/D <sub>1</sub>	DN	Z <sub>1</sub>	L	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	kg				HxLxP	CL	pln/szt
VS0518103	32/46	30	23	50	51	27	30	10	0,040	40	320	1280	850x800x1200	PP02	16,53
VS0518107	40/46	40	23	50	51	30	30	10	0,040	40	320	1280	850x800x1200	PP02	8,35
VS0518113	40/53,5	40	30	50	55	27	30	10	0,049	20	160	960	970x800x1200	PP02	9,39
VS0518117	50/53,5	50	30	52	55	28	30	10	0,051	20	160	960	970x800x1200	PP02	10,99
VS0518121	50/60	50	33	58	60	28	30	10	0,054	20	160	960	970x800x1200	PP02	10,99

### HTSDW kolano techniczne podwójne do przyłączy syfonów z korkami

Back to back connector for trap with caps

HTSDW double coude sanitaire avec bouchon sans joint

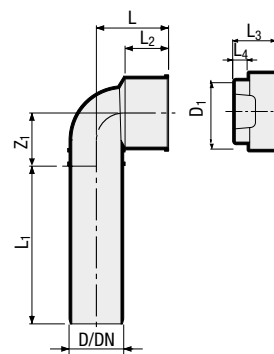
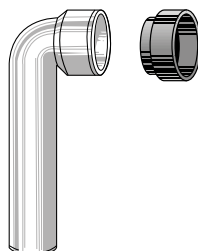


KOD	D/D <sub>1</sub>	DN	Z <sub>1</sub>	L	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	kg				HxLxP	CL	pln/szt
VS0519101	50/50	50	28	70	60	27	35	12	0,089	20	160	640	1010x800x1200	PP02	31,63

### HTSW kolano techniczne wydłużone do przyłączy syfonów z korkiem, bez manszety gumowego

Extended bend for trap connection with cap, without grommet

coude sanitaire rallongé avec bouchon sans joint

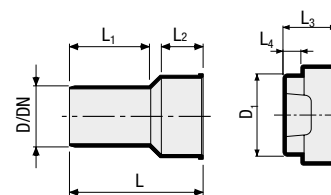
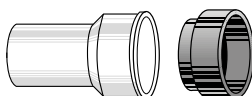


KOD	D/D <sub>1</sub>	DN	Z <sub>1</sub>	L	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	kg				HxLxP	CL	pln/szt
VS0520102	32/46	30	36	50	124	28	30	10	0,052	20	160	960	970x800x1200	PP02	18,72
VS0520103	32/50	30	36	50	119	28	35	12	0,055	20	160	960	970x800x1200	PP02	18,72
VS0520104	40/46	40	36	50	124	28	30	10	0,060	20	160	960	970x800x1200	PP02	11,03
VS0520107	40/50	40	36	53	119	32	35	12	0,067	20	160	960	970x800x1200	PP02	11,03

### HTS złączka prosta z korkiem, bez manszety gumowego

Straight fitting with cap, without grommet

HTS raccord droit avec bouchon sans joint



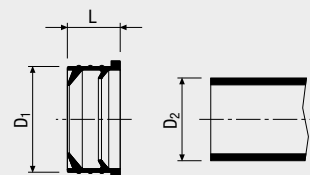
KOD	D/D <sub>1</sub>	DN	L	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	kg				HxLxP	CL	pln/szt
VS0522103	32/46	30	88	54	28	30	10	0,034	40	320	1920	970x800x1200	PP02	17,04
VS0522107	40/46	40	88	54	28	30	10	0,036	40	320	1920	970x800x1200	PP02	7,35
VS0522113	40/50	40	88	54	28	35	12	0,039	40	320	1280	850x800x1200	PP02	7,87
VS0522117	40/53,5	40	70	38	28	30	10	0,035	40	320	1280	850x800x1200	PP02	8,17
VS0522121	50/53,5	50	88	54	28	30	10	0,041	20	160	960	970x800x1200	PP02	8,80

## Akcesoria - Accessories - Accessoires

### Manszet gumowy

Rubber grommet

Joint

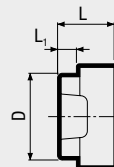


KOD	D <sub>1</sub>	D <sub>2</sub>	L	kg				HxLxP	CL	pln/szt
VS0334003	46	24-32	22	0,026	100	800	8000	1130x800x1200	VA02	4,43
VS0334005	46	36-40	22	0,012	150	1200	7200	1060x800x1200	VA02	4,43
VS0523009	50	24-32	22	0,031	30	600	4200	935x800x1200	VA02	6,92
VS0523011	50	36-40	22	0,026	30	600	4200	935x800x1200	VA02	6,92
VS0523015	53,5	24-32	22	0,029	30	600	4200	935x800x1200	VA02	6,92
VS0523017	53,5	36-40	22	0,025	30	600	4200	935x800x1200	VA02	6,92
VS0523019	60	46-55	24	0,020	30	600	4200	935x800x1200	VA02	10,53

### Korek ochronny

Protective cap

Bouchon de protection pour  
coude et raccord droit sanitaire



KOD	D	DE	L	L <sub>1</sub>	kg				HxLxP	CL	pln/szt
VS0503222	46	55	30	10	0,010	40	800	5600	935x800x1200	VA02	3,15
VS0503224	50	60	35	12	0,016	40	800	5600	935x800x1200	VA02	4,39
VS0503225	53,5	63	30	10	0,013	40	800	5600	935x800x1200	VA02	4,90
VS0503226	60	70	30	10	0,014	40	800	5600	935x800x1200	VA02	4,90

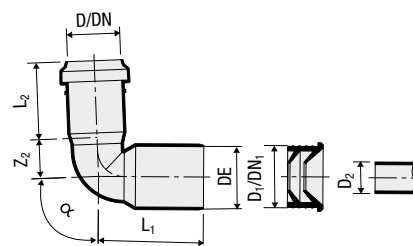
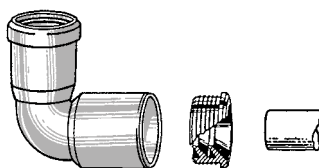
### HTRB kolano redukcyjne 40/50 1"1/4 z manszetem gumowym

Reducing bend 40/50

1"1/4 with grommet

HTRB coude réduit 40/50

1"1/4 avec joint



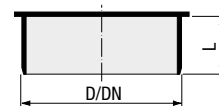
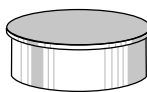
KOD	D/D <sub>1</sub>	DN/DN <sub>1</sub>	α	DE	D <sub>2</sub>	Z <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>	kg				HxLxP	CL	pln/szt
VS0532001	46/40	40/40	87°30'	50	24-32	54	77	28	0,070	20	160	960	970x800x1200	PP02	12,67



## HTM korek

Cap

HTM bouchon de visite

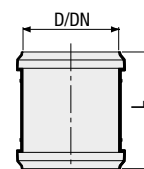
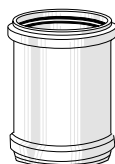


KOD	D	DN	L	kg				HxLxP	CL	pln/szt
VS0524001	40	40	32	0,011	40	800	5600	935x800x1200	PP02	5,32
VS0524003	50	50	32	0,014	20	400	2800	935x800x1200	PP02	4,45
VS0524005	75	70	32	0,024	15	300	2100	935x800x1200	PP02	7,93
VS0599141	90	90	35	0,033	30	240	1440	970x800x1200	PP02	14,33
VS0524007	110	100	40	0,068	20	160	960	970x800x1200	PP02	8,88
VS0524009	125	125	47	0,100	10	80	480	970x800x1200	PP02	32,96
VS0524011	160	150	48	0,135	10	80	320	1010x800x1200	PP02	78,22

## HTU mufa przesuwna

Sliding sleeve

HTU manchon coulissant

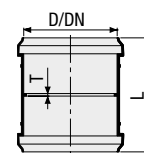
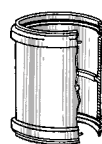


KOD	D	DN	L	kg				HxLxP	CL	pln/szt
VS0526000	32	30	85	0,023	60	480	2880	970x800x1200	PP02	10,38
VS0526001	40	40	108	0,037	30	240	1440	970x800x1200	PP02	9,19
VS0526003	50	50	108	0,049	30	240	1440	970x800x1200	PP02	9,50
VS0526005	75	70	120	0,076	20	160	640	1010x800x1200	PP02	14,82
VS0599101	90	90	120	0,101	20	160	480	1015x800x1200	PP02	25,29
VS0526007	110	100	136	0,170	20	80	240	970x800x1200	PP02	18,95
VS0526009	125	125	147	0,232	20	80	160	940x800x1200	PP02	67,23
VS0526011	160	150	204	0,554	10	40	80	940x800x1200	PP02	104,60

## HTMM mufa dwukielichowa

Bi-joint

HTMM manchon avec butée

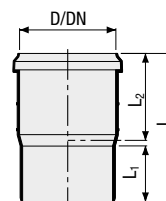


KOD	D	DN	L	T	kg				HxLxP	CL	pln/szt
VS0528000	32	30	85	2	0,024	60	480	2880	970x800x1200	PP02	12,70
VS0528001	40	40	108	2	0,037	30	240	1440	970x800x1200	PP02	9,19
VS0528003	50	50	108	2	0,050	30	240	1440	970x800x1200	PP02	9,75
VS0528005	75	70	120	2	0,077	20	160	640	1010x800x1200	PP02	16,95
VS0599111	90	90	120	2	0,101	20	160	480	1015x800x1200	PP02	25,29
VS0528007	110	100	136	3	0,172	20	80	240	970x800x1200	PP02	19,62
VS0528009	125	125	147	3	0,235	20	80	160	940x800x1200	PP02	67,23
VS0528011	160	150	210	28	0,558	10	40	80	940x800x1200	PP02	113,22

### HTL2 kielich o podwójnej głębokości

Double depth socket

HTL2 double emboiture

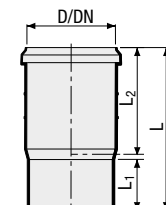
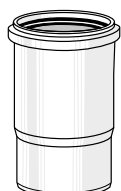


KOD	D	DN	L	L <sub>1</sub>	L <sub>2</sub>	kg				HxLxP	CL	pln/szt
VS0530001	40	40	135	48	80	0,035	30	240	1440	970x800x1200	PP02	19,76
VS0530003	50	50	135	50	80	0,043	20	160	960	970x800x1200	PP02	22,19
VS0530005	75	70	150	53	90	0,075	20	160	480	1015x800x1200	PP02	30,32
VS0599121	90	90	160	59	94	0,108	10	80	320	1010x800x1200	PP02	41,23
VS0530007	110	100	170	63	98	0,168	20	80	240	970x800x1200	PP02	44,92
VS0530009	125	125	190	70	108	0,235	10	40	120	853x800x1200	PP02	94,15

### HTLL3 kielich o potrójnej głębokości

Triple depth socket

HTLL3 triple emboiture

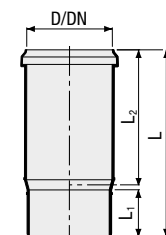
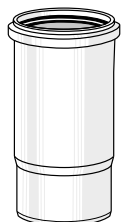


KOD	D	DN	L	L <sub>1</sub>	L <sub>2</sub>	kg				HxLxP	CL	pln/szt
VS0531001	40	40	165	48	110	0,042	30	240	960	850x800x1200	PP02	20,35
VS0531003	50	50	165	50	110	0,052	20	160	960	970x800x1200	PP02	23,11
VS0531005	75	70	169	53	123	0,087	20	160	480	1015x800x1200	PP02	31,17
VS0599123	90	90	196,5	58	123	0,130	10	80	320	1010x800x1200	PP02	42,35
VS0531007	110	100	205	63	135	0,195	20	80	160	940x800x1200	PP02	46,43
VS0531009	125	125	220	70	145	0,276	10	40	120	853x800x1200	PP02	103,72

### HTLL4 kielich o podczwórnej głębokości

Quadruple depth socket

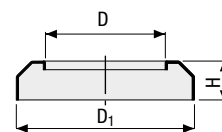
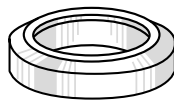
HTLL4 quadruple emboiture



KOD	D	DN	L	L <sub>1</sub>	L <sub>2</sub>	kg				HxLxP	CL	pln/szt
VS0531013	40	40	224	48	170	0,054	20	160	960	970x800x1200	PP02	29,79
VS0531015	50	50	225	50	170	0,067	20	160	640	850x800x1200	PP02	34,33
VS0531017	75	70	225	51	165	0,091	20	80	240	1040x800x1200	PP02	57,17
VS0599125	90	90	253	58	150	0,155	20	80	240	970x800x1200	PP02	59,82
VS0531011	110	100	245	63	175	0,248	20	80	160	940x800x1200	PP02	65,48
VS0531019	125	125	260	70	183	0,322	10	40	120	1039x800x1200	PP02	112,84

### Biały kołnierz

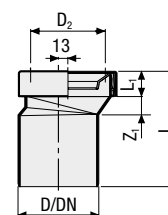
White flange  
Rosace blanche



KOD	D	D <sub>1</sub>	H	kg				HxLxP	CL	pln/szt
VS0588003	90	145	35	0,034	20	160	960	970x800x1200	VA02	20,63
VS0588001	110	165	35	0,040	20	160	640	850x800x1200	VA02	22,85

### HTSK złączka biała niecentryczna do WC z uszczelką

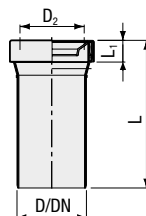
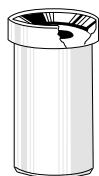
White eccentric WC  
connector with seal  
HTSK sortie droite de WC  
excentrée blanche avec joint



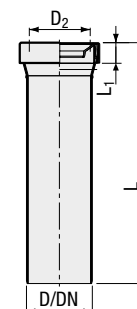
KOD	D	DN	D <sub>2</sub>	Z <sub>1</sub>	L	L <sub>1</sub>	kg				HxLxP	CL	pln/szt
VS0536005	110	100	102±5	20	160	46	0,227	20	80	240	970x800x1200	PP02	55,18

### HTSK złączka biała prosta do WC z uszczelką

White WC connector with seal  
HTSK sortie droite de WC  
blanche avec joint



Mod. A



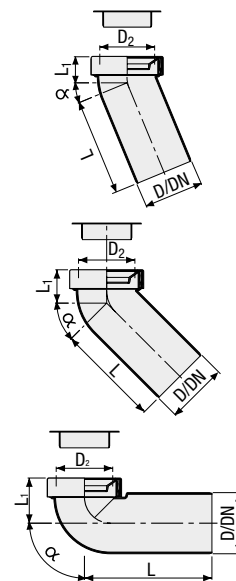
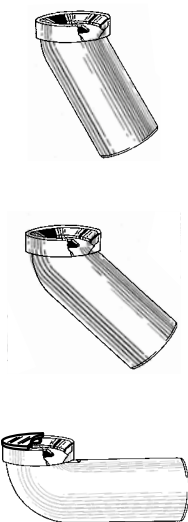
Mod. B

KOD	D	DN	D <sub>2</sub>	L	L <sub>1</sub>	Mod.	kg				HxLxP	CL	pln/szt
VS0536001	110	100	102±5	230	34	A	0,296	20	80	160	940x800x1200	PP02	51,91
VS0536003	110	100	102±5	400	34	B	0,464	10	40	120	1039x800x1200	PP02	121,97
VS0536007	90	90	102±5	250	34	A	0,286	20	80	160	940x800x1200	PP02	60,34

## HTSB kolano białe do WC z uszczelką i korkiem

White WC bend with seal and cap

HTSB pipe de WC blanche avec joint et bouchon

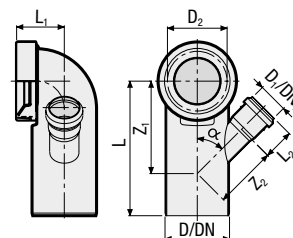
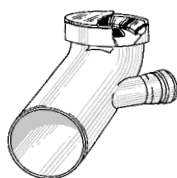


KOD	D	DN	$\alpha$	$D_2$	L	$L_1$	kg				HxLxP	CL	pln/szt
VS0534001	110	100	90°	102±5	230	82	0,408	15	60	120	940x800x1200	PP02	63,15
VS0534003	110	100	45°	102±5	230	71	0,354	15	60	120	940x800x1200	PP02	58,63
VS0534005	110	100	22°	102±5	230	57	0,350	15	60	180	1039x800x1200	PP02	58,63

## HTSB kolano białe do WC z przyłączem lewym, z uszczelką i korkiem

White WC bend with left inlet, seal and cap

HTSB pipe de WC blanche avec piquage à gauche avec joint

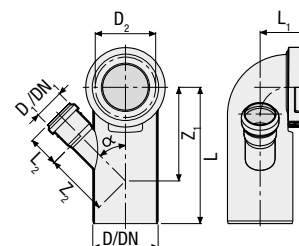
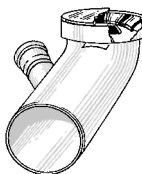


KOD	D/D <sub>1</sub>	DN/DN <sub>1</sub>	$\alpha$	$D_2$	Z <sub>1</sub>	Z <sub>2</sub>	L	$L_1$	$L_2$	kg				HxLxP	CL	pln/szt
VS0538001	110/40	100/40	45°	102±5	171	120	230	82	50	0,418	10	40	80	940x800x1200	PP02	79,57
VS0538003	110/50	100/50	45°	102±5	186	125	235	82	52	0,419	10	40	80	940x800x1200	PP02	88,76

### HTSB kolano białe do WC z przyłączem prawym, z uszczelką i korkiem

White WC bend with right  
inlet, seal and cap

HTSB pipe de WC blanche  
avec piquage à droite  
avec joint et bouchon

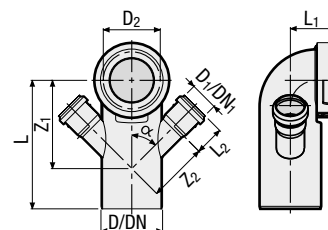
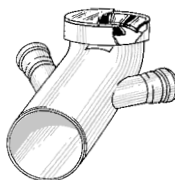


KOD	D/D <sub>1</sub>	DN/DN <sub>1</sub>	$\alpha$	D <sub>2</sub>	Z <sub>1</sub>	Z <sub>2</sub>	L	L <sub>1</sub>	L <sub>2</sub>	kg				HxLxP	CL	pln/szt
VS0540001	110/40	100/40	45°	102±5	171	120	230	82	50	0,417	10	40	120	1039x800x1200	PP02	79,57
VS0540003	110/50	100/50	45°	102±5	186	125	235	82	52	0,419	10	40	120	1039x800x1200	PP02	88,76

### HTSB kolano białe do WC z przyłączem podwójnym, z uszczelką i korkiem

White WC bend with 2  
inlets, seal and cap

HTSB pipe de WC blanche  
avec piquage parallèle  
avec joint et bouchon



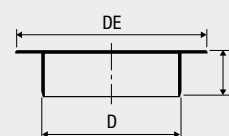
KOD	D/D <sub>1</sub>	DN/DN <sub>1</sub>	$\alpha$	D <sub>2</sub>	Z <sub>1</sub>	Z <sub>2</sub>	L	L <sub>1</sub>	L <sub>2</sub>	kg				HxLxP	CL	pln/szt
VS0542001	110/40	100/40	45°	102±5	171	120	230	82	50	0,439	10	40	80	940x800x1200	PP02	114,96
VS0542003	110/50	100/50	45°	102±5	186	125	235	82	52	0,442	10	40	80	940x800x1200	PP02	125,72

### Części zamienne - Spare parts - Pièces de rechange

#### Korek ochronny do kolan WC

Cap for WC bend

Bouchon de protection de pipe WC



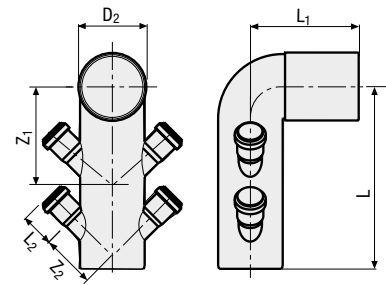
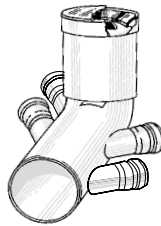
KOD	D	DE	L	kg				HxLxP	CL	pln/szt
VS0503115	100	124	30	0,053	20	160	960	970x800x1200	PP02	10,61

Dla kodów - For codes - Pour ref. VS0534001-VS0534003-VS0534005-VS0538001-VS0538003-VS0540001-VS0540003-VS0542001-VS0542003.

**Kolano białe do WC z przyłączem poczwórnym, z uszczelką i korkiem**

White WC bend with 4 inlets 110/40

Pipe de WC blanche rallongée avec 4 piquages 110/40

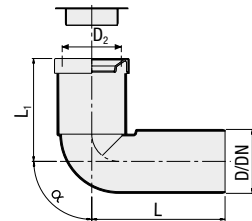


KOD	D/D <sub>1</sub>	DN/DN <sub>1</sub>	α	D <sub>2</sub>	Z <sub>1</sub>	Z <sub>2</sub>	L	L <sub>1</sub>	L <sub>2</sub>	kg				HxLxP	CL	pln/szt
VS0541001	110/40	100/40	45°	102±5	180	120	312	185,5	50	0,669	5	20	40	940x800x1200	PP02	219,76

**Kolano białe do WC wydłużone, z uszczelką i korkiem**

Extended white WC bend with seal and cap

Pipe de WC blanche rallongée avec joint et bouchon

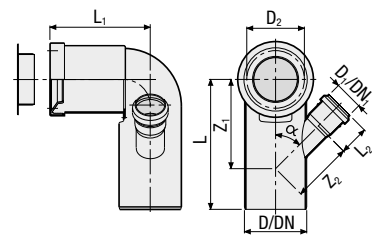
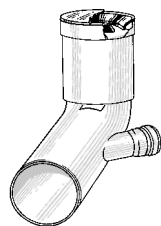


KOD	D/D <sub>1</sub>	DN/DN <sub>1</sub>	α	D <sub>2</sub>	L	L <sub>1</sub>	kg				HxLxP	CL	pln/szt
VS0543001	110	100	90°	102±5	230	180	0,439	10	40	80	940x800x1200	PP02	73,91
VS0599241	90	90	90°	102±5	230	176	0,359	15	60	120	940x800x1200	PP02	67,18

**Kolano białe do WC wydłużone z przyłączem lewym, z uszczelką i korkiem**

Extended white WC bend with left inlet, seal and cap

Pipe de WC blanche rallongée avec piquage à gauche avec joint et bouchon

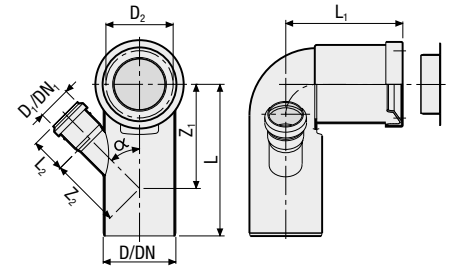
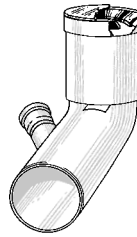


KOD	D/D <sub>1</sub>	DN/DN <sub>1</sub>	α	D <sub>2</sub>	Z <sub>1</sub>	Z <sub>2</sub>	L	L <sub>1</sub>	L <sub>2</sub>	kg				HxLxP	CL	pln/szt
VS0545001	110/40	100/40	45°	102±5	168	120	230	180	50	0,450	15	60	120	1300x800x1200	PP02	104,00
VS0545003	110/50	100/50	45°	102±5	175	119	230	180	52	0,459	15	60	120	1300x800x1200	PP02	111,64

**Kolano białe do WC wydłużone z przyłączem prawym, z uszczelką i korkiem**

Extended white WC bend with right inlet, seal and cap

Pipe de WC blanche rallongée avec piquage à droite avec joint et bouchon

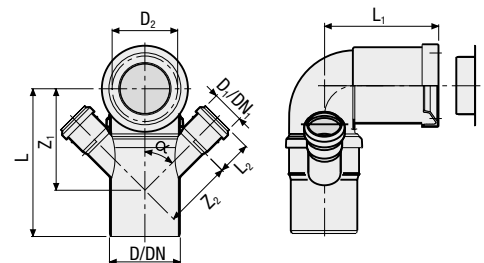
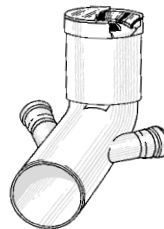


KOD	D/D <sub>1</sub>	DN/DN <sub>1</sub>	$\alpha$	D <sub>2</sub>	Z <sub>1</sub>	Z <sub>2</sub>	L	L <sub>1</sub>	L <sub>2</sub>	kg				HxLxP	CL	pln/szt
VS0547001	110/40	100/40	45°	102±5	168	120	230	180	50	0,453	15	60	120	1300x800x1200	PP02	104,00
VS0547003	110/50	100/50	45°	102±5	175	119	230	180	52	0,463	15	60	120	1300x800x1200	PP02	111,64

**Kolano białe do WC wydłużone z przyłączem podwójnym, z uszczelką i korkiem**

Extended white WC bend with 2 inlets, seal and cap

Pipe de WC blanche rallongée avec piquage parallèle avec joint et bouchon

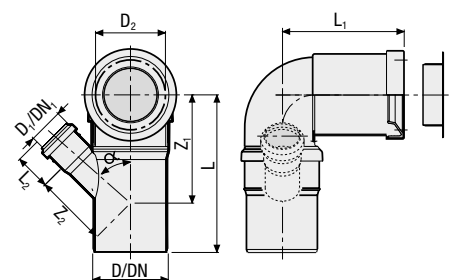
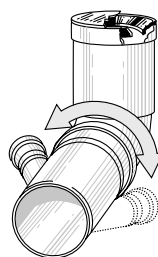


KOD	D/D <sub>1</sub>	DN/DN <sub>1</sub>	$\alpha$	D <sub>2</sub>	Z <sub>1</sub>	Z <sub>2</sub>	L	L <sub>1</sub>	L <sub>2</sub>	kg				HxLxP	CL	pln/szt
VS0549001	110/40	100/40	45°	102±5	168	120	230	180	50	0,473	10	40	80	1150x800x1200	PP02	139,97
VS0549003	110/50	100/50	45°	102±5	175	119	230	180	52	0,484	10	40	80	1300x800x1200	PP02	149,28

**Obrotowe, wydłużone kolano białe do WC z uszczelką i korkiem ochronnym**

Extended and swiveling white WC bend with seal and cap

Pipe de WC blanche rallongée avec piquage parallèle orientable avec joint et bouchon



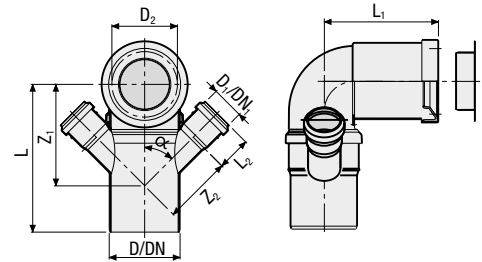
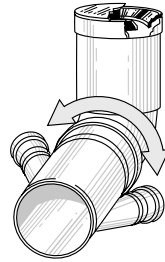
KOD	D/D <sub>1</sub>	DN/DN <sub>1</sub>	$\alpha$	D <sub>2</sub>	Z <sub>1</sub>	Z <sub>2</sub>	L	L <sub>1</sub>	L <sub>2</sub>	kg				HxLxP	CL	pln/szt
VS0599243	90/40	90/40	45°	102±5	190	85	230	172	51	0,425	10	40	80	940x800x1200	PP02	98,75
VS0599245	90/50	90/50	45°	102±5	190	90,5	240	172	49,5	0,434	10	40	80	940x800x1200	PP02	101,57



**Obrotowe, wydłużone  
kolano białe do WC z  
przyłączem podwójnym,  
z uszczelką i korkiem  
ochronnym**

Extended and swiveling  
white WC bend in 2 parts  
with 2 inlets, seal and cap

Pipe de WC blanche rallongée  
en 2 parties avec piquage  
parallèle  
avec joint et bouchon

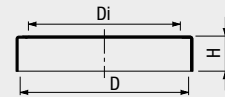
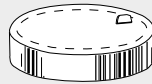


KOD	D/D <sub>1</sub>	DN/DN <sub>1</sub>	$\alpha$	D <sub>2</sub>	Z <sub>1</sub>	Z <sub>2</sub>	L	L <sub>1</sub>	L <sub>2</sub>	kg				HxLxP	CL	pln/szt
VS0599247	90/40	90/40	45°	102±5	190	85	230	172	51,5	0,445	10	40	80	940x800x1200	PP02	132,88
VS0599249	90/50	90/50	45°	102±5	190	90,5	240	172	49,5	0,458	10	40	80	940x800x1200	PP02	135,42

**Części zamienne - Spare parts - Pièces de rechange**

**Pierścień do zabezpieczenia  
połączeń**

Ring for securing joint  
Anneau de blocage du joint  
de pipe WC



KOD	D	Di	H	kg				HxLxP	CL	pln/szt
VS0585001	120	110	25	0,034	20	160	960	970x800x1200	PP02	13,75

Dla kodów - For codes - Pour ref. VS0543001-VS0545001-VS0545003-VS0547001-VS0547003-VS0549001-VS0549003-VS0599241-VS0599243-VS0599245-VS0599247-VS0599249.

**Uszczelka do kolan  
wydłużonych WC**

Seal for WC extended bend  
Joint pour pipe WC rallongée



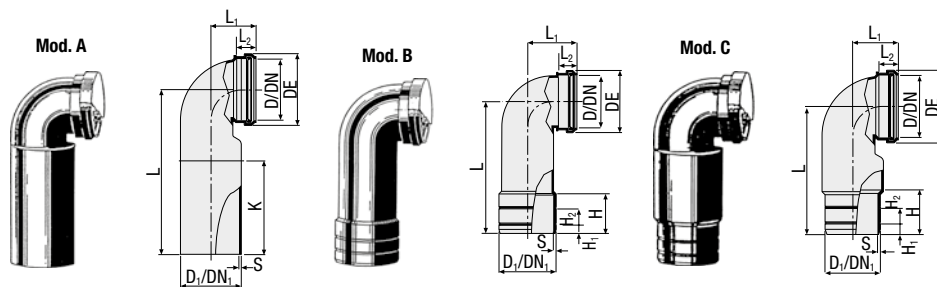
KOD	D	D <sub>1</sub>	H	kg				HxLxP	CL	pln/szt
VS0583001	120	102±5	25	0,053	20	320	1600	970x800x1200	PP02	16,00

Dla kodów - For codes - Pour ref. VS0534-VS0536-VS0538-VS0540-VS0542-VS0543-VS0545-VS0547-VS0549.

## Kolano do wiszących misek WC z uszczelką i korkiem ochronnym

WC toilet bend for wall-hung pan with seal and protective cap

Pipe de WC pour cuvette suspendue avec joint et bouchon de protection



KOD	D/D <sub>1</sub>	DN/DN <sub>1</sub>	Mod.	Mat.	s	L	L <sub>1</sub>	L <sub>2</sub>	DE	H	H <sub>1</sub>	H <sub>2</sub>	K	kg				HxLxP	CL	pln/szt
VS0364001	90/90	90/90	A	HDPE	3,5	270	90	40	108	-	-	-	150	0,388	10	40	160	1050x800x1200	SP02	121,03
VS0364003	110/110	100/100	A	HDPE	4,3	300	87	40	130	-	-	-	180	0,597	10	40	160	1210x800x1200	SP02	124,92
VS0364006 *	90/90	90/90	A	PP	3,5	230	65	35	108	-	-	-	150	0,239	10	40	160	1210x800x1200	SP02	117,85
VS0364008 *◆	90/90	90/90	A	PP	2,5	400	66	33	105	-	-	-	-	0,410	10	40	160	1210x800x1200	SP02	155,30
VS0364015	90/100	90/100	A	PVC	3,6	300	90	35	108	-	-	-	-	0,331	1	-	-	980x800x1200	SP02	114,42
VS0364052	90/100	90/100	A	PP	2,9	230	86	32	108	-	-	-	136	0,272	1	-	168	980x800x1200	SP02	117,60
VS0364059	90/100	90/100	B	HDPE	3,7	230	86	52	109	69	18	25	-	0,352	1	-	200	950x800x1200	SP02	163,64
VS0364111	90/110	90/100	A	HDPE	4,3	230	90	40	108	74	24	15	-	0,525	10	40	160	1050x800x1200	SP02	124,92
VS0364090	90/100	90/100	B	HDPE	4,9	230	87	40	130	76	25	25	-	0,387	10	40	160	1050x800x1200	SP02	134,20
VS0364100 ◆	110/100	100/100	C	HDPE	-	-	-	-	-	-	-	-	-	0,520	10	40	160	1210x800x1200	SP02	222,84

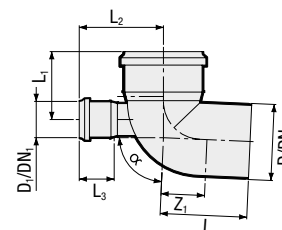
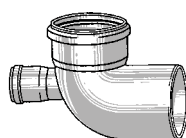
\* Oszczędność miejsca. - Space-saving. - Faible encombrement.

◆ Zgrzewane. - Welded.- Dérivation soudée.

## HTB kolano szare z przyłączem czołowym 87°30' z uszczelką

87°30' bend with front inlet, with seal

HTB coude avec piquage frontale à 87°30' joint



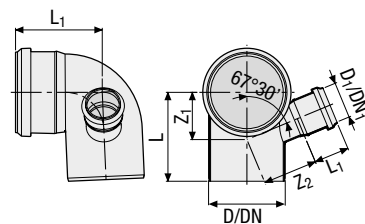
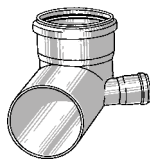
KOD	D/D <sub>1</sub>	DN/DN <sub>1</sub>	α	Z <sub>1</sub>	L	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	kg				HxLxP	CL	pln/szt
VS0551001	110/50	100/50	87°30'	57	63	100	120	54	0,254	15	60	120	940x800x1200	PP02	104,53

Odgąłęzienie zgrzewane. - Welded.- Dérivation soudée.

### HTB kolano szare z przyłączem lewym

Grey bend with left inlet

HTB coude gris avec piquage à gauche



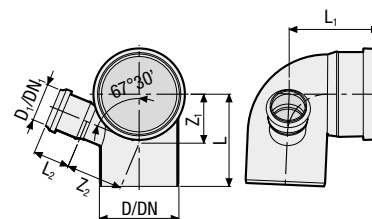
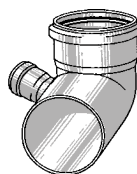
KOD	D/D <sub>1</sub>	DN/DN <sub>1</sub>	$\alpha$	Z <sub>1</sub>	Z <sub>2</sub>	L	L <sub>1</sub>	L <sub>2</sub>	kg				HxLxP	CL	pln/szt
VS0552001	110/40	100/40	22°30'	68	84	130	127	52	0,248	15	60	120	940x800x1200	PP02	102,23
VS0552003	110/50	100/50	22°30'	66	80	130	127	54	0,255	15	60	120	940x800x1200	PP02	102,47

Odgązlenie zgrzewane. - Welded.- Dérivation soudée.

### HTB kolano szare z przyłączem prawym

Grey bend with right inlet

HTB coude gris avec piquage à droite



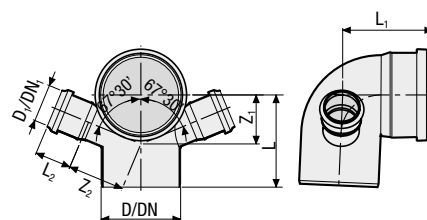
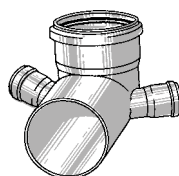
KOD	D/D <sub>1</sub>	DN/DN <sub>1</sub>	$\alpha$	Z <sub>1</sub>	Z <sub>2</sub>	L	L <sub>1</sub>	L <sub>2</sub>	kg				HxLxP	CL	pln/szt
VS0554001	110/40	100/40	22°30'	68	84	130	127	52	0,248	15	60	120	940x800x1200	PP02	102,23
VS0554003	110/50	100/50	22°30'	66	80	130	127	54	0,253	15	60	120	940x800x1200	PP02	102,47

Odgązlenie zgrzewane. - Welded.- Dérivation soudée.

### HTB kolano szare z przyłączem podwójnym

Grey bend with two inlets

HTB coude gris avec double piquage parallèle



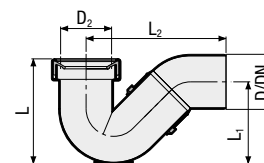
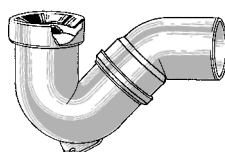
KOD	D/D <sub>1</sub>	DN/DN <sub>1</sub>	$\alpha$	Z <sub>1</sub>	Z <sub>2</sub>	L	L <sub>1</sub>	L <sub>2</sub>	kg				HxLxP	CL	pln/szt
VS0556001	110/40	100/40	22°30'	68	84	130	127	52	0,268	15	60	120	940x800x1200	PP02	146,34
VS0556003	110/50	100/50	22°30'	66	80	130	127	54	0,282	15	60	120	940x800x1200	PP02	146,34

Odgązlenia zgrzewane. - Welded.- Dérivation soudée.

### Syfon PVC do toalet kucanych, odpływ poziomy z PP

PVC trap for squatting toilet, PP horizontal outlet

Siphon de raccordement WC à la turque en PVC, sortie horizontale en PP

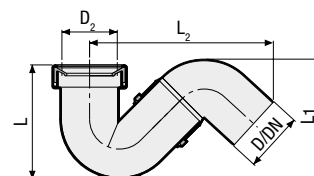
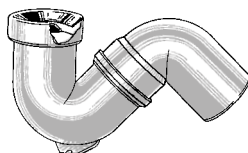


KOD	D	DN	$\alpha$	$D_2$	L	$L_1$	$L_2$	kg				HxLxP	CL	pln/szt
VS0533001	110	100	90°	102±5	210	170	295	0,842	5	20	60	970x800x1200	PP02	185,08

### Syfon PVC do toalet kucanych, odpływ 45° z PP

PVC trap for squatting toilet, PP 45° outlet

Siphon de raccordement WC à la turque en PVC, sortie 45° en PP

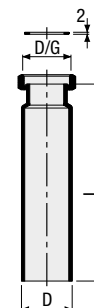


KOD	D	DN	$\alpha$	$D_2$	L	$L_1$	$L_2$	kg				HxLxP	CL	pln/szt
VS0533011	110	100	4	102±5	210	230	350	0,987	5	20	60	970x800x1200	PP02	185,08

### Wydłużona złączka PP do połączeń z nakrętką

PP extension coupling with nut

Raccord prolongé PP écrou tournant



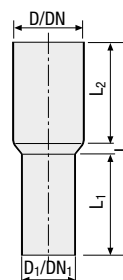
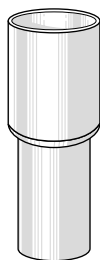
KOD	D	Nakrętka - Nut - Écrou	D/G	L	kg				HxLxP	CL	pln/szt
VS0700052 *	40	mosiądz - brass - laiton	1"1/4	195	0,124	20	320	1600	970x800x1200	PP02	78,78
VS0700064 *	40	mosiądz - brass - laiton	1"1/2	195	0,138	20	160	960	965x800x1200	PP02	78,78
VS0700252 *	40	plastik - plastic - plastique	1"1/4	195	0,075	20	320	1600	970x800x1200	PP02	80,44
VS0700264 *	40	plastik - plastic - plastique	1"1/2	195	0,078	20	160	1120	970x800x1200	PP02	80,44
VS0700267 *	50	plastik - plastic - plastique	1"1/4	195	0,087	20	160	1120	970x800x1200	PP02	151,37

\* Zgrzewane. - Welded.- Dérivation soudée.

## Redukcja PVC

PVC reducer

Raccord de liaison en PVC

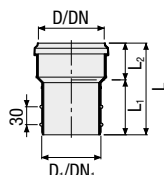


KOD	D/D <sub>1</sub>	DN/DN <sub>1</sub>	Kolor Colour - Couleur	L	L <sub>1</sub>	L <sub>2</sub>	kg				HxLxP	CL	pln/szt
VS0531333	125/110	125/100	arancio - orange - orange	300	85	200	0,465	10	40	120	970x800x1200	PP02	123,69
VS0531335	140/110	125/100	bruno - brown - braun	420	210	190	0,708	5	20	60	970x800x1200	PP02	204,80
VS0531337	150/125	150/125	bruno - brown - braun	420	210	190	0,859	5	20	60	1039x800x1200	PP02	217,29

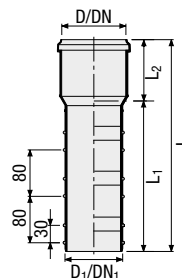
## Złączka PP do połączeń z PVC

PP fitting for connection to PVC

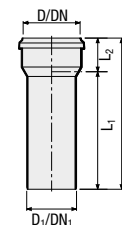
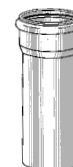
Raccord de liaison en PP  
pour raccordement au PVC



Mod. A



Mod. B



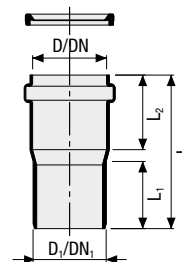
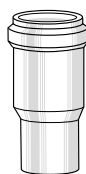
Mod. C

KOD	D/D <sub>1</sub>	DN/DN <sub>1</sub>	L	L <sub>1</sub>	L <sub>2</sub>	Mod.	kg				HxLxP	CL	pln/szt
VS0564001	110/100	100/100	156	95	60	A	0,164	20	80	240	853x800x1200	PP02	46,21
VS0564003	110/100	100/100	367	265	100	B	0,377	15	60	120	940x800x1200	PP02	59,60
VS0564005	125/110	125/100	330	260	70	C	0,333	10	40	120	970x800x1200	PP02	84,38
VS0564080	110/110	100/100	156	95	60	A	0,303	20	80	240	853x800x1200	PP02	104,42
VS0564260	110/110	100/100	367	265	102	B	0,498	15	60	120	940x800x1200	PP02	118,26

## Złączka do klejenia do połączeń z PVC

Solvent weld adaptor for  
connection to PVC

Raccord de liaison  
en PVC à coller

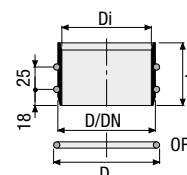


KOD	D/D <sub>1</sub>	DN/DN <sub>1</sub>	L	L <sub>1</sub>	L <sub>2</sub>	kg				HxLxP	CL	pln/szt
VS0564121	40/40	40/40	105	50	55	0,045	40	320	1920	970x800x1200	PP02	29,51
VS0564122	50/50	43/40	105	44	47	0,050	30	240	1440	970x800x1200	PP02	32,63
VS0564123	50/50	50/50	105	50	55	0,054	30	240	1440	970x800x1200	PP02	30,25
VS0564150	50/100	50/100	130	91	40	0,186	10	80	480	970x800x1200	PP02	90,59
VS0564075	75/75	70/70	144	87	58	0,177	15	120	480	850x800x1200	PP02	63,46
VS0564131	75/80	70/80	154	78	75	0,176	15	120	480	1010x800x1200	PP02	63,46
VS0564182	75/82	70/80	159	78	80	0,197	15	120	480	850x800x1200	PP02	63,46
VS0564175	75/100	70/100	156	77	77	0,143	10	80	480	970x800x1200	PP02	70,12
VS0564190	90/100	90/100	143	76	65	0,216	10	80	320	1010x800x1200	PP02	70,57
VS0564101	110/100	100/100	147	83	57	0,241	10	80	320	1010x800x1200	PP02	98,15
VS0564251	110/125	100/125	145	83	60	0,290	10	80	240	1015x800x1200	PP02	74,13

## Bezkielichowa złączka z o-ring do połączeń PP z PVC

Plain-ended adaptor with o-ring  
for connection of PP to PVC

Raccord de liaison avec joint  
torique pour liaison PP - PVC

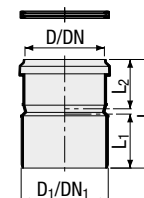


KOD	Di/D	DN	Mat.	L	kg		HxLxP	CL	pln/szt
VS0564110	100/110	100	PVC	70	0,135	1	930x800x1200	PP02	46,52

## Mufa redukcyjna do połączenia PVC z PP, z uszczelką

Female reducer PVC to  
PP, with ring seal

Manchon de réduction  
femelle du PVC au PP,  
avec joint côté PVC

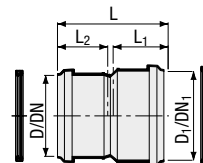
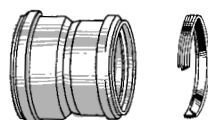


KOD	D/D <sub>1</sub>	DN/DN <sub>1</sub>	L	L <sub>1</sub>	L <sub>2</sub>	kg				HxLxP	CL	pln/szt
VS0565001	100/110	100/100	138	69	63	0,134	20	80	240	853x800x1200	PP02	52,64

## Mufa dwukielichowa do połączeń rur PVC i PP

Double socket, connection to PVC and PP pipes

Manchon 2 emboitures à joint pour raccordement tubes PVC et PP

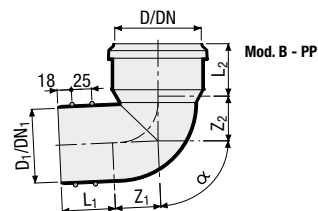
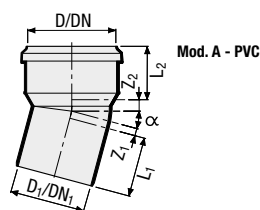
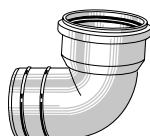


KOD	D/D <sub>1</sub>	DN/DN <sub>1</sub>	L	L <sub>1</sub>	L <sub>2</sub>	kg				HxLxP	CL	pln/szt
VS0565022	100/110	100/100	134	63	63	0,156	20	80	240	853x800x1200	PP02	56,75

## Kolano PP z o-ring i przyklejonym PVC do połączeń z PVC

PP bend with o-ring and solvent weld PVC for connection to PVC

Coude en PP avec joint torique et en PVC à coller pour raccordement au PVC



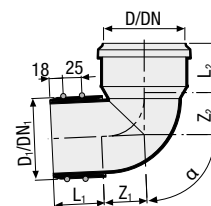
KOD	D/D <sub>1</sub>	DN/DN <sub>1</sub>	$\alpha$	Mod.	Z <sub>1</sub>	Z <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>	kg				HxLxP	CL	pln/szt
VS0566001	110/100	100/100	15°	A	9	14	63	63	0,240	20	80	240	970x800x1200	PP02	96,24
VS0566003	110/100	100/100	30°	A	17	21	59	70	0,264	20	80	240	970x800x1200	PP02	102,19
VS0566005	110/100	100/100	45°	B	25	29	71	64	0,197	20	80	240	970x800x1200	PP02	68,72
VS0566007	110/100	100/100	67°30'	A	40	44	62	63	0,359	20	80	160	940x800x1200	PP02	138,80
VS0566009	110/100	100/100	87°30'	B	57	61	63	65	0,226	20	80	160	940x800x1200	PP02	68,72



### Kolano PP z o-ring do połączeń z PVC D 110

PP bend with o-ring for connection to PVC D110

Coude en PP avec joint torique pour raccordement au PVC D 110

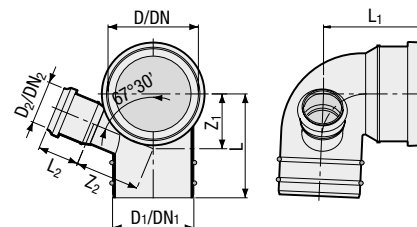


KOD	D/D <sub>1</sub>	DN/DN <sub>1</sub>	$\alpha$	Z <sub>1</sub>	Z <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>	kg				HxLxP	CL	pln/szt
VS0566015	110/110	100/100	15°	9	14	73	63	0,393	20	80	240	970x800x1200	PP02	131,31
VS0566030	110/110	100/100	30°	17	21	65	59	0,403	20	80	240	970x800x1200	PP02	131,31
VS0566045	110/110	100/100	45°	25	29	71	71	0,332	20	80	240	1039x800x1200	PP02	106,82
VS0566067	110/110	100/100	67°30'	40	44	78	62	0,415	20	80	160	940x800x1200	PP02	157,34
VS0566087	110/110	100/100	87°30'	57	61	63	63	0,362	20	80	160	940x800x1200	PP02	96,21

### Kolano do WC z o-ring i przyłączem prawym

WC bend with o-ring and right inlet

Pipe de WC avec joint torique et piquage à droite



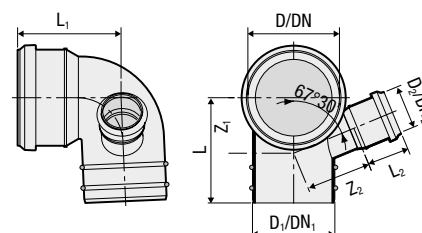
KOD	D/D <sub>1</sub>	DN/DN <sub>1</sub>	$\alpha$	Z <sub>1</sub>	Z <sub>2</sub>	L	L <sub>1</sub>	L <sub>2</sub>	kg				HxLxP	CL	pln/szt
VS0567001	110/100/40	100/100/40	22°30'	57	80	120	120	52	0,245	20	80	160	940x800x1200	PP02	93,42
VS0567003	110/100/50	100/100/50	22°30'	57	80	120	120	54	0,253	20	80	160	940x800x1200	PP02	93,42

Odgąłęzienie zgrzewane. - Welded.- Dérivation soudée.

### Kolano do WC z o-ring i przyłączem lewym

WC bend with o-ring and left inlet

Pipe de WC avec joint torique et piquage à gauche



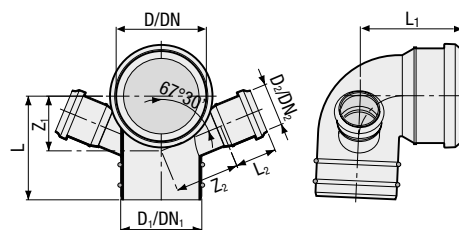
KOD	D/D <sub>1</sub>	DN/DN <sub>1</sub>	$\alpha$	Z <sub>1</sub>	Z <sub>2</sub>	L	L <sub>1</sub>	L <sub>2</sub>	kg				HxLxP	CL	pln/szt
VS0567005	110/100/40	100/100/40	22°30'	57	80	120	120	52	0,247	20	80	160	940x800x1200	PP02	93,42
VS0567007	110/100/50	100/100/50	22°30'	57	80	120	120	54	0,262	20	80	160	940x800x1200	PP02	93,42

Odgąłęzienie zgrzewane. - Welded.- Dérivation soudée.

### Kolano do WC z o-ring z przyłączem podwójnym

WC bend with o-ring  
and two inlets

Pipe de WC avec joint torique  
et piquage double parallèle



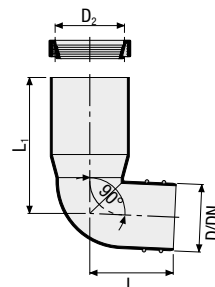
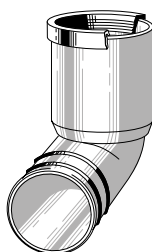
KOD	D/D <sub>1</sub>	DN/DN <sub>1</sub>	$\alpha$	Z <sub>1</sub>	Z <sub>2</sub>	L	L <sub>1</sub>	L <sub>2</sub>	kg				HxLxP	CL	pln/szt
VS0567009	110/100/40	100/100/40	22°30'	57	80	120	120	52	0,274	15	60	120	940x800x1200	PP02	139,70
VS0567011	110/100/50	100/100/50	22°30'	57	80	120	120	54	0,284	15	60	120	940x800x1200	PP02	139,70

Odgałężenie zgrzewane. - Welded.- Dérivation soudée.

### Kolano wydłużone do WC z uszczelką i o-ring

Extended WC bend with  
seal and o-rings

Pipe de WC rallongée  
avec joint torique

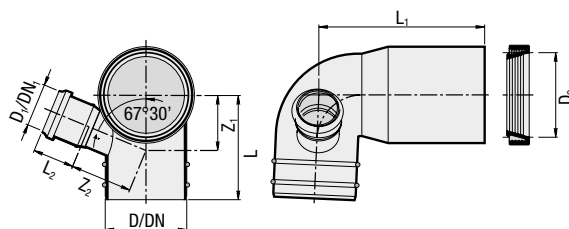
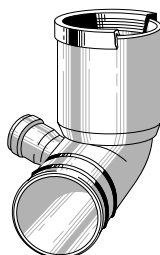


KOD	D	DN	$\alpha$	D <sub>2</sub>	L	L <sub>1</sub>	kg				HxLxP	CL	pln/szt
VS0568001	100	100	90°	102±5	120	200	0,349	15	60	120	940x800x1200	PP02	119,00

### Kolano wydłużone do WC z uszczelką i o-ring, z przyłączem prawym

Extended reducing WC  
bend with right inlet

Pipe de WC rallongée avec joint  
torique et piquage à droite



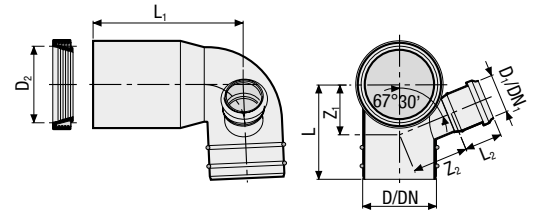
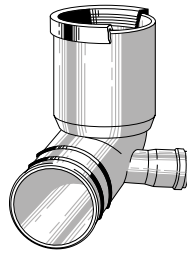
KOD	D/D <sub>1</sub>	DN/DN <sub>1</sub>	$\alpha$	D <sub>2</sub>	Z <sub>1</sub>	Z <sub>2</sub>	L	L <sub>1</sub>	L <sub>2</sub>	kg				HxLxP	CL	pln/szt
VS0568003	100/40	100/40	22°30'	102±5	57	62	120	200	52	0,369	10	40	80	940x800x1200	PP02	157,82
VS0568005	100/50	100/50	22°30'	102±5	57	65	120	200	54	0,375	10	40	80	940x800x1200	PP02	161,72

Odgałężenie zgrzewane. - Welded.- Dérivation soudée.

Kolano wydłużone do WC z uszczelką i o-ring, z przyłączem lewym

Extended reducing WC bend with left inlet

Pipe de WC rallongée avec joint torique et piquage à gauche



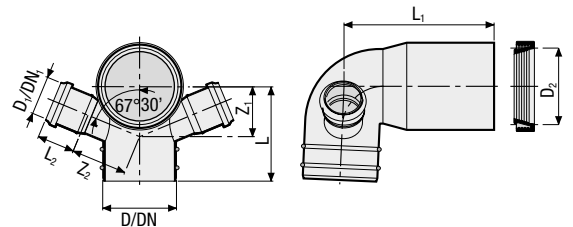
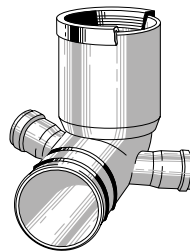
KOD	D/D <sub>1</sub>	DN/DN <sub>1</sub>	$\alpha$	D <sub>2</sub>	Z <sub>1</sub>	Z <sub>2</sub>	L	L <sub>1</sub>	L <sub>2</sub>	kg				HxLxP	CL	pln/szt
VS0568007	100/40	100/40	22°30'	102±5	57	62	120	200	52	0,370	10	40	80	940x800x1200	PP02	157,82
VS0568009	100/50	100/50	22°30'	102±5	57	65	120	200	54	0,377	10	40	80	940x800x1200	PP02	161,72

Odgązlenie zgrzewane. - Welded.- Dérivation soudée.

Kolano wydłużone do WC z uszczelką i o-ring, z podwójnym przyłączem

Extended reducing WC bend with two inlets

Pipe de WC rallongée avec joint torique et piquage double parallèle



KOD	D/D <sub>1</sub>	DN/DN <sub>1</sub>	$\alpha$	D <sub>2</sub>	Z <sub>1</sub>	Z <sub>2</sub>	L	L <sub>1</sub>	L <sub>2</sub>	kg				HxLxP	CL	pln/szt
VS0568011	100/40	100/40	22°30'	102±5	57	62	120	200	52	0,396	10	40	80	940x800x1200	PP02	191,56
VS0568013	100/50	100/50	22°30'	102±5	57	65	120	200	54	0,396	10	40	80	940x800x1200	PP02	199,55

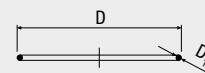
Odgązlenia zgrzewane. - Welded.- Dérivation soudée.

Części zamienne - Spare parts - Pièces de rechange

Uszczelka o-ring do złązek połączeniowych z PVC

O-ring seal for PVC adaptors

Joints toriques pour raccords de liaison au PVC



KOD	D	D <sub>1</sub>	kg		CL	pln/szt
VS0392222 *	100	2,4	0,002	20	VA02	5,37
VS0564099 **	100	3,53	0,004	20	VA02	8,22

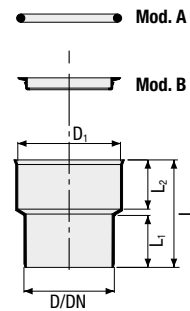
\* Dla kodów - For codes - Pour ref. VS0564001-VS0564003-VS0566005-VS0566009-VS0567001-VS0567003-VS0567005-VS0567007-VS0567009-VS0567011-VS0568001-VS0568003-VS0568005-VS0568007-VS0568009-VS0568011-VS0568013.

\*\* Dla kodów - For codes - Pour ref. VS0564080-VS0564260-VS0564110-VS0566015-VS0566030-VS0566045-VS0566067-VS0566087.

## HTUG złączka do połączeń z rurami żeliwnymi z o-ring i uszczelką (traper)

Adaptor for cast iron with o-ring and seal

HTUG raccord de liaison tubes en fonte avec joints toriques et joint d'étanchéité



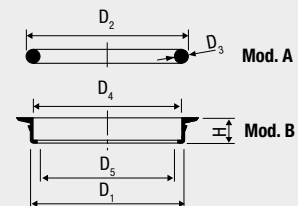
KOD	D/D <sub>1</sub>	DN	L	L <sub>1</sub>	L <sub>2</sub>	kg				HxLxP	CL	pln/szt
VS0569001	50/72	50	151	55	56	0,073	20	160	960	970x800x1200	PP02	35,14
VS0569003	75/92	70	148	55	57	0,099	20	160	640	1010x800x1200	PP02	38,28
VS0569005	110/124	100	160	60	60	0,125	20	80	240	859x800x1200	PP02	53,90
VS0569007	125/151	125	184	65	66	0,296	10	40	120	853x800x1200	PP02	179,74

## Części zamienne - Spare parts - Pièces de rechange

### Uszczelka i o-ring do złączek HTUG

Seal and o-ring for HTUG

Joints toriques et d'étanchéité pour HTUG

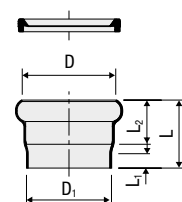


KOD	D <sub>1</sub>	DN	Mod.	D <sub>2</sub>	D <sub>3</sub>	Mod.	D <sub>4</sub>	D <sub>5</sub>	H	kg				HxLxP	CL	pln/szt
VS0581005	72	50	A	48	10	B	52	48	18	0,036	20	400	2800	935x800x1200	PP02	18,06
VS0581007	92	70	A	67	10	B	70	67	18	0,027	20	400	2800	935x800x1200	PP02	18,06
VS0581011	124	100	A	116	10	B	106	96	18	0,063	20	320	1600	970x800x1200	PP02	18,37

## Mosiężna złączka z uszczelką do połączeń z metalowymi rurami

Brass sleeve with seal for connection to metal pipes

Raccord en laiton avec joint pour raccordement au tube métallique



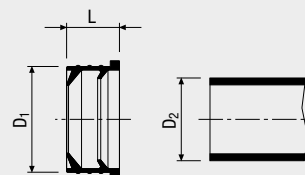
KOD	D	D <sub>1</sub>	L	L <sub>1</sub>	L <sub>2</sub>	kg				HxLxP	CL	pln/szt
VS0570001	32	32	61	26	33	0,028	40	800	5600	960x800x1200	PP02	41,52
VS0570002	40	32	59	28	25	0,040	40	800	5600	935x800x1200	PP02	41,52
VS0570003	40	40	55	25	25	0,037	40	800	5600	935x800x1200	PP02	41,52

## Części zamienne - Spare parts - Pièces de rechange

### Manszet gumowy do połączeń z rurami metalowymi

Rubber grommet for connection to metal

Joint de liaison pour tube métallique

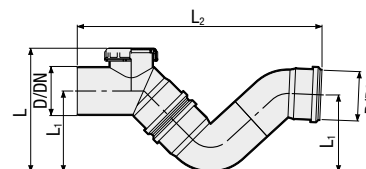
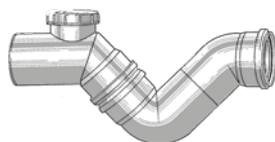


KOD	D <sub>1</sub> (PP)	D <sub>2</sub> (Metal)	L	kg				HxLxP	CL	pln/szt
VS0559001	40	26-28	24	0,013	50	1000	7000	960x800x1050	VA02	5,81
VS0559003	40	30-32	25	0,012	50	1000	7000	960x800x1050	VA02	5,81

### Syfon "Firenze"

"Firenze" trap

Siphon type "Firenze"



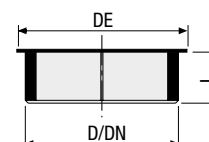
KOD	D	DN	L	L <sub>1</sub>	L <sub>2</sub>	kg		HxLxP	CL	pln/szt
VS0533050	50	50	165	110	380	0,176	1	930x800x1050	PP02	185,49
VS0533075	75	70	215	135	420	0,281	1	930x800x1050	PP02	255,53
VS0533110	110	100	280	180	535	0,710	1	930x800x1050	PP02	263,19
VS0533125	125	125	310	200	610	1,026	1	930x800x1050	PP02	568,57
VS0533160	160	150	350	250	700	2,037	1	930x800x1200	PP02	1 250,50

Zgrzewane. - Welded.- Dérivation soudée.

### Korek ochronny do kielicha

Protection cap for socket

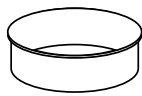
Bouchon de protection pour emboiture







KOD	D	DN	L	kg				HxLxP	CL	pln/szt
VS0503000	32	30	14	0,006	100	2000	14000	935x800x1200	PP02	2,84
VS0503001	40	40	36	0,007	40	800	5600	935x800x1200	PP02	4,12
VS0503003	50	50	36	0,011	50	800	4000	970x800x1200	PP02	4,12
VS0503005	75	70	36	0,020	30	480	2400	970x800x1200	PP02	4,94
VS0503008	90	90	36	0,029	30	240	1440	970x800x1200	PP02	6,16
VS0503007	110	100	36	0,043	30	240	960	1010x800x1200	PP02	6,16
VS0503009	125	125	36	0,045	20	160	640	1010x800x1200	PP02	8,66
VS0503011	160	150	36	0,146	10	80	320	970x800x1200	PP02	21,18

## Korek ochronny do rury

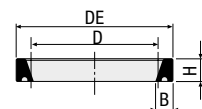
Protective cap for pipe  
Bouchon de protection  
pour tube




KOD	D	H	kg				HxLxP 	CL	pln/szt
VS0503033	50	30	0,008	50	800	3200	970x800x1200	PP02	4,94
VS0503015	75	29	0,018	30	480	1920	970x800x1200	PP02	5,76
VS0503017	90	30	0,022	30	240	1440	1000x800x1200	PP02	6,76
VS0503018	110	38,6	0,029	30	240	960	930x800x1200	PP02	8,18
VS0503019	125	39	0,036	20	160	960	1000x800x1200	PP02	10,22
VS0503031	160	49,5	0,062	10	80	320	930x800x1200	PP02	18,80

## Uszczelka jednowargowa do kielichów

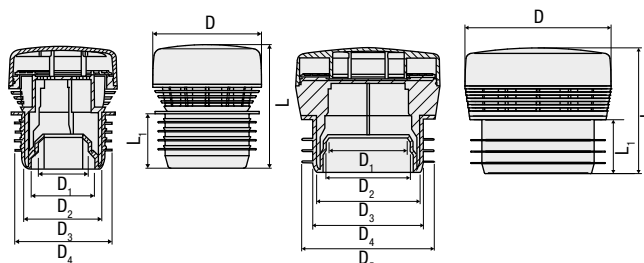
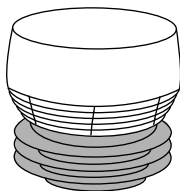
1-lip seal for sockets  
Joint à simple lèvres  
pour emboiture



KOD	D	DN	DE	H	B	kg		CL	pln/szt
VS0391001	32	30	40,5	6	4,9	0,003	50	VA02	2,32
VS0391003	40	40	51,4	7,8	6,5	0,005	50	VA02	2,32
VS0391005	50	50	61,4	7,8	6,5	0,007	50	VA02	2,32
VS0391011	75	70	86,6	7,8	6,5	0,010	20	VA02	2,84
VS0391222	100	100	114	9,3	8,2	0,018	20	VA02	4,07
VS0391013	90	80	103	8,9	7,5	0,013	20	VA02	3,51
VS0391015	110	100	123,9	8,9	7,9	0,020	20	VA02	3,61
VS0391017	125	125	142,2	10,2	8,9	0,029	20	VA02	5,68
VS0391019	160	150	179,8	11,5	10,2	0,046	20	VA02	7,48


## Zawór napowietrzający

Air admittance valve  
Aérateur



VS0700401

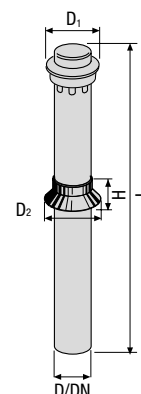
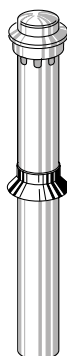
VS0700402

KOD	D	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	D <sub>4</sub>	D <sub>5</sub>	L	L <sub>1</sub>	kg		CL	pln/szt
VS0700401	70	32	40	50	63	-	79,5	35	0,102	12	VA02	260,17
VS0700402	125	70	75	90	100	110	108	46	0,358	6	VA02	479,38

## Rura wywiewna PP z kołnierzem szara

Grey PP vent cowl

Chapeau de ventilation en PP gris

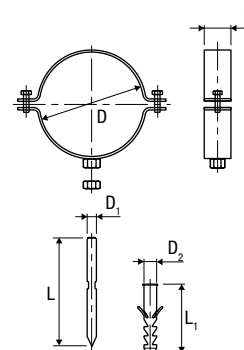
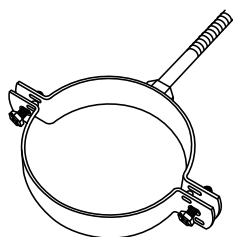


KOD	D	DN	D <sub>1</sub>	D <sub>2</sub>	L	H	kg				HxLxP	CL	pln/szt
VS0394001	50	50	140	91	720	45	0,242	10	30	120	1090x800x1200	PP02	185,52
VS0394003	75	70	200	121	720	52	0,369	5	15	60	1105x800x1200	PP02	206,13
VS0394005	110	100	200	166	720	55	0,759	5	15	45	1200x800x1200	PP02	221,18

## Ocynkowana obejma M10 z mocowaniem, do punktów stałych i przesuwnych

M10 galvanized pipe clip with anchor, for fixed and sliding point

Collier acier M10 avec cheville, point fixe et point coulissant



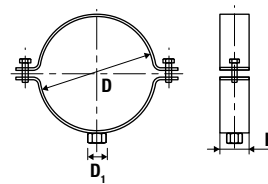
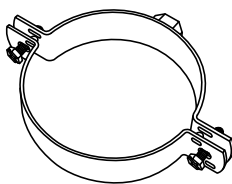
KOD	D	H	L	L <sub>1</sub>	D <sub>1</sub>	D <sub>2</sub>	kg		CL	pln/szt
VS0395001	40	30	120	75	M10	14	0,216	50	VA02	20,11
VS0395003	50	30	120	75	M10	14	0,234	50	VA02	22,02
VS0395007	75	30	120	75	M10	14	0,276	25	VA02	24,50
VS0395009	90	30	120	75	M10	14	0,305	25	VA02	24,50
VS0395011	110	30	120	75	M10	14	0,339	25	VA02	24,50
VS0395013	125	30	120	75	M10	14	0,370	25	VA02	27,59
VS0395015	160	30	120	75	M10	14	0,423	25	VA02	30,69


Obejma posiada rozwiązanie, które pozwala zastosować ją zarówno w punkcie stałym jak i przesuwym. Zamiana odbywa się przez obrócenie dolnej części obejmy o 180° (dookoła siebie) względem górnej. - The clips are designed in order to allow fixed and sliding installations by simply rotating the lower part of the clip itself by 180°. - Le collier est doté d'un système permettant la réalisation d'un point fixe ou coulissant en tournant à 180° la partie inférieure du collier.

## Ocynkowana obejma M10, do punktów stałych i przesuwnych

M10 galvanized pipe clip, for fixed and sliding point

Collier acier M10, point fixe et point coulissant



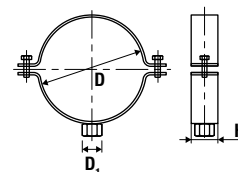
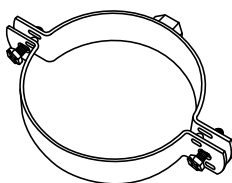
KOD	D	D <sub>1</sub>	H	kg		CL	pln/szt
VS0396021	40	M10	30	0,158	50	VA02	19,55
VS0396023	50	M10	30	0,177	50	VA02	21,41
VS0396027	75	M10	30	0,220	25	VA02	23,57
VS0396029	90	M10	30	0,250	25	VA02	23,57
VS0396031	110	M10	30	0,286	25	VA02	23,57
VS0396033	125	M10	30	0,309	25	VA02	26,66
VS0396035	160	M10	30	0,376	25	VA02	30,06


Obejma posiada rozwiązanie, które pozwala zastosować ją zarówno w punkcie stałym jak i przesuwym. Zamiana odbywa się przez obrócenie dolnej części obejmy o 180° (dookoła siebie) względem górnej. - The clips are designed in order to allow fixed and sliding point installations by simply rotating the lower part of the clip itself by 180°. - Le collier est doté d'un système permettant la réalisation d'un point fixe ou coulissant en tournant à 180° la partie inférieure du collier.

## Ocynkowana obejma G1/2" i G1" do punktów stałych i przesuwnych

G1/2" and G1" galvanized pipe clip, for fixed and sliding point

Collier métallique G1/2" et G1" pour point fixe/coulissant



KOD	D	D <sub>1</sub>	H	kg		CL	pln/szt
VS0396001	40	G1/2"	30	0,176	50	VA02	16,61
VS0396003	50	G1/2"	30	0,194	50	VA02	18,19
VS0396007	75	G1/2"	30	0,240	25	VA02	20,03
VS0396009	90	G1/2"	30	0,268	25	VA02	20,03
VS0396011	110	G1/2"	30	0,308	25	VA02	20,03
VS0396013	125	G1/2"	30	0,329	25	VA02	22,66
VS0396015	160	G1/2"	30	0,394	25	VA02	25,55

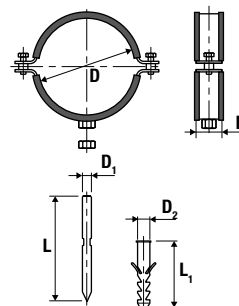
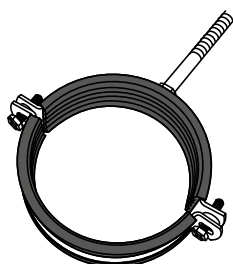
Obejma posiada rozwiązanie, które pozwala zastosować ją zarówno w punkcie stałym jak i przesuwym. Zamiana odbywa się przez obrócenie dolnej części obejmy o 180° (dookoła siebie) względem górnej. - The clips are designed in order to allow fixed and sliding point installations by simply rotating the lower part of the clip itself by 180°. - Le collier est doté d'un système permettant la réalisation d'un point fixe ou coulissant en tournant à 180° la partie inférieure du collier.



Ocynkowana obejma  
M10 z mocowaniem, z  
gumowym podkładem  
antywibracyjnym  
do punktów stałych  
i przesuwnych

M10 galvanized pipe clip with  
anchor and anti-vibration strip,  
for fixed and sliding point

Collier acier M10 avec cheville  
et point fixe et point coulissant  
et joint anti vibratile

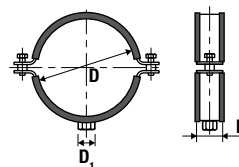
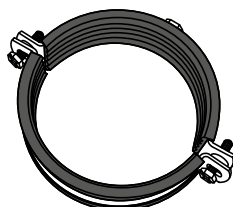


KOD	D	H	L	L <sub>1</sub>	D <sub>1</sub>	D <sub>2</sub>	Śruba Screw - Vis	kg		CL	pln/szt
VS0395021	40	30	120	75	M10	14	M6x20	0,236	50	VA02	29,29
VS0395022	50	30	120	75	M10	14	M6x20	0,260	50	VA02	30,33
VS0395026	75	30	120	75	M10	14	M6x20	0,318	25	VA02	36,15
VS0395028	90	30	120	75	M10	14	M6x20	0,354	25	VA02	39,66
VS0395029	110	30	120	75	M10	14	M6x20	0,399	25	VA02	40,28
VS0395030	125	30	120	75	M10	14	M6x20	0,439	25	VA02	45,39
VS0395032	160	30	120	75	M10	14	M6x20	0,522	25	VA02	55,39

Ocynkowana obejma  
M10 z gumowym  
podkładem  
antywibracyjnym  
do punktów stałych  
i przesuwnych

M10 galvanized pipe clip  
with anti-vibration strip, for  
fixed and sliding point

Collier acier M10 avec point  
fixe et point coulissant  
et joint anti vibratile

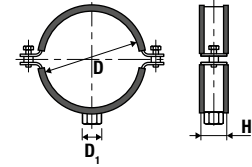
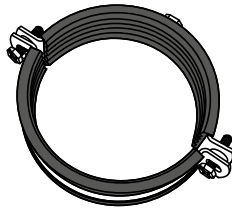


KOD	D	D <sub>1</sub>	H	kg		CL	pln/szt
VS0396081	40	M10	30	0,179	50	VA02	24,19
VS0396082	50	M10	30	0,205	50	VA02	25,22
VS0396083	56	M10	30	0,219	50	VA02	27,13
VS0396085	63	M10	30	0,234	50	VA02	28,72
VS0396086	75	M10	30	0,258	25	VA02	31,25
VS0396088	90	M10	30	0,291	25	VA02	34,55
VS0396089	110	M10	30	0,346	25	VA02	35,12
VS0396090	125	M10	30	0,384	25	VA02	40,28
VS0396092	160	M10	30	0,469	25	VA02	50,28

Ocynkowana  
obejma G1/2" i G1" z  
gumowym podkładem  
antywibracyjnym  
do punktów stałych  
i przesuwnych

G1/2" and G1" galvanized pipe  
clip with anti-vibration strip,  
for fixed and sliding point

Collier acier G1/2" et G1" avec  
point fixe et point coulissant  
et joint anti vibratile

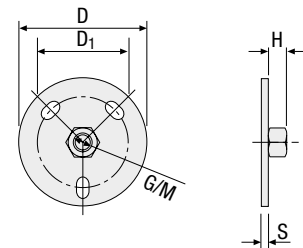


KOD	D	D <sub>1</sub>	H	kg		CL	pln/szt
VS0396061	40	G1/2"	30	0,198	50	VA02	24,60
VS0396062	50	G1/2"	30	0,224	50	VA02	25,63
VS0396066	75	G1/2"	30	0,277	25	VA02	31,82
VS0396068	90	G1/2"	30	0,319	25	VA02	35,17
VS0396069	110	G1/2"	30	0,365	25	VA02	35,79
VS0396070	125	G1/2"	30	0,401	25	VA02	41,00
VS0396072	160	G1/2"	30	0,484	25	VA02	51,21

Okrągły kołnierz ze  
stali ocynkowanej do  
mocowania do ściany

Galvanized steel flange  
for fixing to wall

Bride de fixation



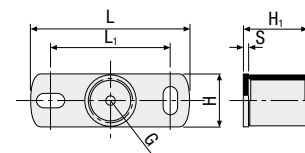
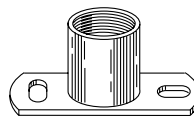
KOD	D	G/M	D <sub>1</sub>	H	s	kg		CL	pln/szt
VS0398001 •	70	G 1/2"	50	15	4	0,141	100	VA02	17,02

• Wypzedaż. - Sell out. - Fin de stock.

Prostokątny kołnierz ze  
stali ocynkowanej do  
mocowania do ściany

Galvanized steel plate  
for fixing to wall

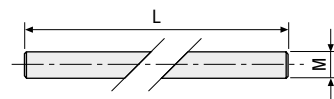
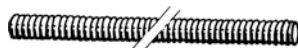
Bride en acier zingué  
pour fixation sur paroi




KOD	L	G	L <sub>1</sub>	H	H <sub>1</sub>	s	kg		CL	pln/szt
VS0398004	120	G1/2"	82	40	20	4	0,165	25	VA02	34,42
VS0398005	120	1"	90	40	50	4	0,236	25	VA02	37,39
VS0398007	80	M10	52	30	13	2	0,060	25	VA02	18,41

## Pręt gwintowany

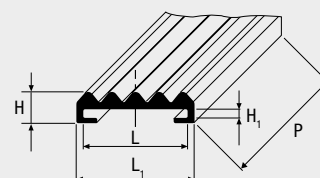
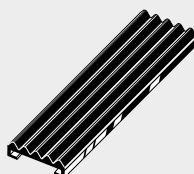
Threaded rod  
Tige filetée



KOD	M	L	kg		CL	pln/szt
VS0408001	M10	1000	0,418	1	VA02	18,67

## Podkład antywibracyjny do obejm

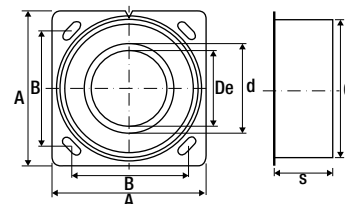
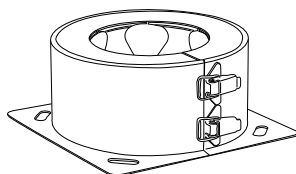
Anti-vibration strip for pipe clips  
Bande de joint anti-vibratile pour colliers




KOD	L	L <sub>1</sub>	H	H <sub>1</sub>	P (m)	kg		CL	pln/szt
VS0399222	30	36	9	3	30	5,427	1	VA02	1 050,70
VS0399224	40	46	9	4	10	2,393	1	VA02	402,09

## Kołnierz ogniowy Collarwings EI 240

Collarwings fire stop collar EI 240  
Colliers coupe feu  
Collarwings EI 240

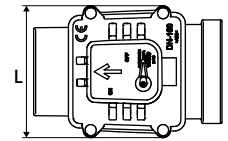
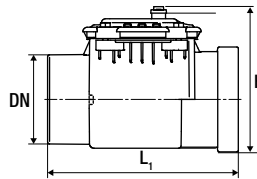
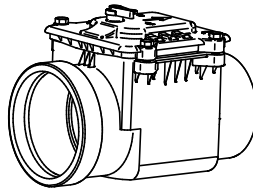


KOD	De (rura - pipe - tube)	d	A	B	C	s	kg		CL	pln/szt
VS0411000	32	42	101	77	79	49,5	0,375	1	VA02	363,81
VS0411001	40	50	114	87	92	49,5	0,482	1	VA02	363,81
VS0411003	50	60	129	95	107	49,5	0,606	1	VA02	363,81
VS0411009	75	87	171	126	149	49,5	0,996	1	VA02	533,45
VS0411011	90	106	193	145	171	89,5	2,117	1	VA02	749,07
VS0411012	100	116	212	156	190	89,5	2,315	1	VA02	749,07
VS0411013	110	128	225	167	202	89,5	2,716	1	VA02	749,07
VS0411015	125	143	248	181	226	89,5	3,122	1	VA02	941,82
VS0411017	160	180	294	217	272	89,5	4,311	1	VA02	1 480,08

## Zawór zwrotny klapowy

Back flow preventing valve  
with locking lever

Clapet simple anti  
retour avec ferm



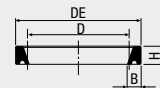
KOD	DN	L	L <sub>1</sub>	H	kg		CL	pln/szt
VS0200112	110	190	310	200	1,420	1	SL02	859,92
VS0200114	125	200	400	270	1,993	1	SL02	949,22
VS0200116	160	235	340	260	2,035	1	SL02	1 031,99

## Części zamienne - Spare parts - Pièces de rechange

### Uszczelka jednowargowa do zaworów zwrotnych

Single-lipped seal for back  
flow preventing valves

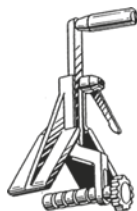
Joint 1 lèvre pour vanne  
anti reflux




KOD	D/DN	DE	H	B	kg		CL	pln/szt
VS0391015	110/100	123,9	8,9	7,9	0,020	20	VA02	3,61
VS0391017	125/125	142,2	10,2	8,9	0,029	20	VA02	5,68
VS0391019	160/150	179,8	11,5	10,2	0,046	20	VA02	7,48

## Przyrząd do fazowania rur

Beveling tool  
Chanfreineur

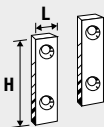



KOD	D	kg		CL	pln/szt
VS0460001	32÷160	0,803	1	VA01	781,73
VS0460003	40÷250	1,385	1	VA01	1 291,83

## Części zamienne - Spare parts - Pièces de rechange

### Ostrza do fazownika

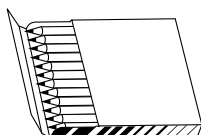
Spare blades  
Lames de rechange




KOD	D	H	L	kg		CL	pln/szt
VS0460110	32÷160	32	13	0,025	1 para - pair	VA01	294,04
VS0460111	40÷250	34	12	0,025	1 para - pair	VA01	308,85

## Ołówki permanentne

Permanent pens  
Crayons vitro graphiques



KOD	kg		CL	pln/szt
VS0474001	0,117	1 (12 szt - pcs)	VA02	410,04

## Dmuchała gorącego powietrza

Hot air blower  
Soufflet automatique d'air chaud




KOD	Watt	kg		CL	pln/szt
VS0476001	700	1,789	1	VA01	3 218,70

## Polipropylenowy drut do spawania

Strip for welding

Baguette pour soudure  
pour soufflet




KOD	L (cm)	mm	kg		CL	pln/szt
VS0477003	100	5,5x3	2,007	1 (2 kg)	VA02	713,89

## Pasta silikonowa - środek poślizgowy

Lubricant

Lubrifiant

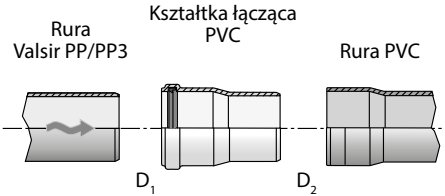

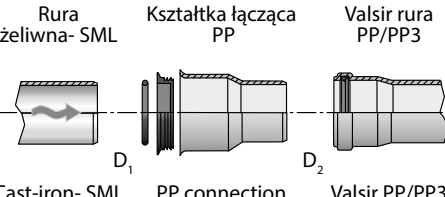
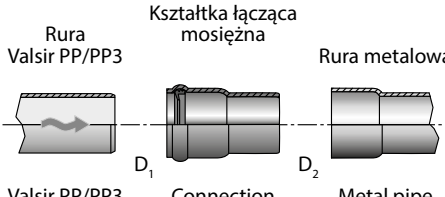


KOD	g	kg		CL	pln/szt
VS0900001	150	0,161	50	VA02	11,63
VS0900003	250	0,269	50	VA02	13,33
VS0900005	1000	1,000	1	VA02	56,57
VS0900007	5000	5,000	1	VA02	261,98

# POŁĄCZENIE MUF Z RURAMI Z RÓŻNYCH MATERIAŁÓW

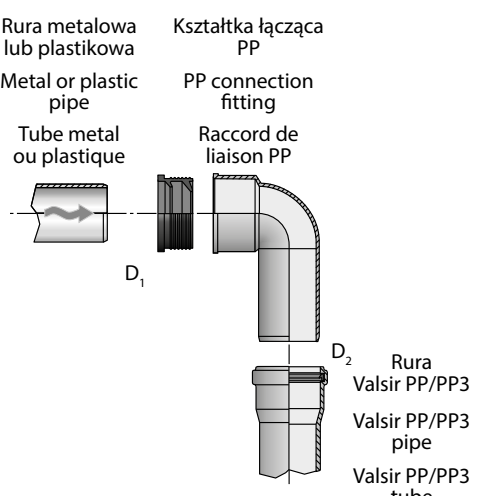
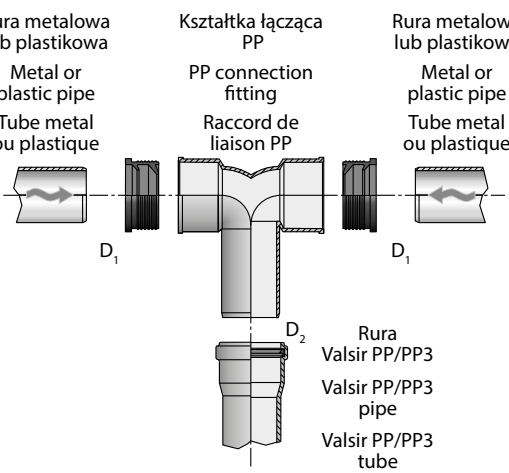
## CONNECTION OF SLEEVE WITH PIPES IN DIFFERENT MATERIALS PP A DES TUYAUX DE RACCORDEMENT MATÉRIEL DANS DIFFÉRENTES

Łączone systemy Connection systems Système de raccordement			Niezbędne elementy Necessary parts Articles nécessaires	D <sub>1</sub>	D <sub>2</sub>
 <p>Rura PVC PVC pipe PVC</p> <p>Kształtka łącząca PP PP connection fitting Raccord de liaison PP</p> <p>Rura Valsir PP/PP3 Valsir PP/PP3 pipe Valsir PP/PP3 tube</p>	VS0565001	De 100 mm	De 110 mm		
 <p>Rura Valsir Silere® Valsir Silere® pipe Valsir Silere® tube</p> <p>Kształtka łącząca Silere® Silere® connection fitting Raccord de liaison Silere®</p> <p>Rura Valsir PP/PP3 Valsir PP/PP3 pipe Valsir PP/PP3 tube</p>	VS0237003 VS0237007 VS0237013	De 58 mm De 78 mm De 135 mm	De 50 mm De 75 mm De 125 mm		
 <p>Rura Valsir PP/PP3 Valsir PP/PP3 pipe Valsir PP/PP3 tube</p> <p>Kształtka łącząca PP PP connection fitting Raccord de liaison PP</p> <p>Rura PVC PVC pipe PVC tube</p>	VS0564001 VS0564003	De 110 mm De 110 mm	De 100 mm De 100 mm		
 <p>Rura Valsir PP/PP3 Valsir PP/PP3 pipe Valsir PP/PP3 tube</p> <p>Kształtka łącząca PP PP connection fitting Raccord de liaison PP</p> <p>Rura PVC PVC pipe PVC tube</p>	VS0565022	De 110 mm	De 100 mm		


Łączone systemy Connection systems Système de raccordement			Niezbędne elementy Necessary parts Articles nécessaires	D <sub>1</sub>	D <sub>2</sub>
 <p>Rura Valsir PP/PP3      Kształtka łącząca PVC      Rura PVC</p> <p>Valsir PP/PP3 pipe      PVC connection fitting      PVC pipe</p> <p>Valsir PP/PP3 tube      Raccord de liaison PVC      PVC tube</p>			VS0564121	De 40 mm	De 40 mm
			VS0564123	De 50 mm	De 50 mm
			VS0564150	De 50 mm	De 100 mm
			VS0564075	De 75 mm	De 75 mm
			VS0564131	De 75 mm	De 80 mm
			VS0564182	De 75 mm	De 82 mm
			VS0564175	De 75 mm	De 100 mm
			VS0564190	De 90 mm	De 100 mm
			VS0564101	De 110 mm	De 100 mm
			VS0564251	De 110 mm	De 125 mm
 <p>Rura Valsir PP/PP3      Kształtka łącząca Silere®      Rura Valsir Silere®</p> <p>Valsir PP/PP3 pipe      Silere® connection fitting      Valsir Silere® pipe</p> <p>Valsir PP/PP3 tube      Raccord de liaison Silere®      Valsir Silere® tube</p>			VS0231001	De 40 mm	De 58 mm
			VS0231003	De 50 mm	De 58 mm
			VS0231005	De 50 mm	De 78 mm
			VS0231007	De 75 mm	De 78 mm
			VS0231013	De 125 mm	De 135 mm
 <p>Rura żeliwna-SML      Kształtka łącząca PP      Valsir rura PP/PP3</p> <p>Cast-iron-SML pipe      PP connection fitting      Valsir PP/PP3 pipe</p> <p>Tube acier-SML      Raccord de liaison PP      Valsir PP/PP3 tube</p>			VS0569001	De 58 mm	De 50 mm
			VS0569003	De 78 mm	De 75 mm
			VS0569005	De 110 mm	De 110 mm
			VS0569007	De 135 mm	De 125 mm
 <p>Rura Valsir PP/PP3      Kształtka łącząca mosiężna      Rura metalowa</p> <p>Valsir PP/PP3 pipe      Connection fitting in brass      Metal pipe</p> <p>Valsir PP/PP3 tube      Raccord de liaison en laiton      Tube métal</p>			VS0570001	De 32 mm	DN 32 mm
			VS0570002	De 40 mm	DN 32 mm
			VS0570003	De 40 mm	DN 40 mm
			VS0570005	De 50 mm	DN 50 mm





Łączone systemy Connection systems Système de raccordement			Niezbędne elementy Necessary parts Articles nécessaires	D <sub>1</sub>	D <sub>2</sub>
 <p>Rura metalowa      Kształtka łącząca PP      Rura Valsir PP/PP3</p> <p>Metal pipe      PP connection fitting      Valsir PP/PP3 pipe</p> <p>Tube métal      Raccord de liaison PP      Valsir PP/PP3 tube</p>			VS0700052	G 1"1/4	De 40 mm
			VS0700064	G 1"1/2	De 40 mm
			VS0700252	G 1"1/4	De 40 mm
			VS0700264	G 1"1/2	De 40 mm
			VS0700267	G 1"1/4	De 50 mm
			VS0700269	G 1"1/2	De 50 mm
			VS0522003 + VS0334003	De 24÷32 mm	De 36 mm
			VS0522003 + VS0334005	De 36÷40 mm	De 36 mm
			VS0522107 + VS0334003	De 24÷32 mm	De 40 mm
			VS0522107 + VS0334005	De 36÷40 mm	De 40 mm
 <p>Rura metalowa lub plastikowa      Kształtka łącząca PP      Rura Valsir PP/PP3</p> <p>Metal or plastic pipe      PP connection fitting      Valsir PP/PP3 pipe</p> <p>Tube metal ou plastique      Raccord de liaison PP      Valsir PP/PP3 tube</p>			VS0522113 + VS0523009	De 24÷32 mm	De 40 mm
			VS0522113 + VS0523011	De 36÷40 mm	De 40 mm
			VS0522117 + VS0523015	De 24÷32 mm	De 40 mm
			VS0522117 + VS0523017	De 36÷40 mm	De 40 mm
			VS0522121 + VS0523015	De 24÷32 mm	De 50 mm
			VS0522121 + VS0523017	De 36÷40 mm	De 50 mm




Łączone systemy Connection systems Système de raccordement		Niezbędne elementy Necessary parts Articles nécessaires	D <sub>1</sub>	D <sub>2</sub>
 <p>Rura metalowa lub plastikowa Metal or plastic pipe Tube metal ou plastique</p> <p>Kształtka łącząca PP PP connection fitting Raccord de liaison PP</p> <p>D<sub>1</sub></p> <p>D<sub>2</sub></p> <p>Rura Valsir PP/PP3 Valsir PP/PP3 pipe Valsir PP/PP3 tube</p>		VS0518103 + VS0334003	De 24÷32 mm	De 32 mm
		VS0518103 + VS0334005	De 36÷40 mm	De 32 mm
		VS0518107 + VS0334003	De 24÷32 mm	De 40 mm
		VS0518107 + VS0334005	De 36÷40 mm	De 40 mm
		VS0518113 + VS0523015	De 24÷32 mm	De 40 mm
		VS0518113 + VS0523017	De 36÷40 mm	De 40 mm
		VS0518117 + VS0523015	De 24÷32 mm	De 50 mm
		VS0518117 + VS0523017	De 36÷40 mm	De 50 mm
 <p>Rura metalowa lub plastikowa Metal or plastic pipe Tube metal ou plastique</p> <p>Kształtka łącząca PP PP connection fitting Raccord de liaison PP</p> <p>Rura metalowa lub plastikowa Metal or plastic pipe Tube metal ou plastique</p> <p>D<sub>1</sub></p> <p>D<sub>1</sub></p> <p>D<sub>2</sub></p> <p>Rura Valsir PP/PP3 Valsir PP/PP3 pipe Valsir PP/PP3 tube</p>		VS0519101 + VS0523009	De 24÷32 mm	De 50 mm
		VS0519101 + VS0523011	De 36÷40 mm	De 50 mm




LISTA TOWARÓW  
LIST OF PRODUCTS  
LISTE DES ARTICLES




KOD	Str.		CL	pln
VS0200112	44	1	SL02	859,92
VS0200114	44	1	SL02	949,22
VS0200116	44	1	SL02	1 031,99
VS0334003	18	100	VA02	4,43
VS0334005	18	150	VA02	4,43
VS0364001	27	10	SP02	121,03
VS0364003	27	10	SP02	124,92
VS0364006	27	10	SP02	117,85
VS0364008	27	10	SP02	155,30
VS0364015	27	1	SP02	114,42
VS0364052	27	1	SP02	117,60
VS0364059	27	1	SP02	163,64
VS0364090	27	10	SP02	134,20
VS0364100	27	10	SP02	222,84
VS0364111	27	10	SP02	124,92
VS0391001	38	50	VA02	2,32
VS0391003	38	50	VA02	2,32
VS0391005	38	50	VA02	2,32
VS0391011	38	20	VA02	2,84
VS0391013	38	20	VA02	3,51
VS0391015	38	20	VA02	3,61
VS0391017	38	20	VA02	5,68
VS0391019	38	20	VA02	7,48
VS0391222	38	20	VA02	4,07
VS0392222	35	20	VA02	5,37
VS0394001	39	10	PP02	185,52
VS0394003	39	5	PP02	206,13
VS0394005	39	5	PP02	221,18
VS0395001	39	50	VA02	20,11
VS0395003	39	50	VA02	22,02
VS0395007	39	25	VA02	24,50
VS0395009	39	25	VA02	24,50
VS0395011	39	25	VA02	24,50
VS0395013	39	25	VA02	27,59
VS0395015	39	25	VA02	30,69
VS0395021	41	50	VA02	29,29
VS0395022	41	50	VA02	30,33
VS0395026	41	25	VA02	36,15
VS0395028	41	25	VA02	39,66
VS0395029	41	25	VA02	40,28
VS0395030	41	25	VA02	45,39
VS0395032	41	25	VA02	55,39
VS0396001	40	50	VA02	16,61
VS0396003	40	50	VA02	18,19
VS0396007	40	25	VA02	20,03
VS0396009	40	25	VA02	20,03
VS0396011	40	25	VA02	20,03

KOD	Str.		CL	pln
VS0396013	40	25	VA02	22,66
VS0396015	40	25	VA02	25,55
VS0396021	40	50	VA02	19,55
VS0396023	40	50	VA02	21,41
VS0396027	40	25	VA02	23,57
VS0396029	40	25	VA02	23,57
VS0396031	40	25	VA02	23,57
VS0396033	40	25	VA02	26,66
VS0396035	40	25	VA02	30,06
VS0396061	42	50	VA02	24,60
VS0396062	42	50	VA02	25,63
VS0396066	42	25	VA02	31,82
VS0396068	42	25	VA02	35,17
VS0396069	42	25	VA02	35,79
VS0396070	42	25	VA02	41,00
VS0396072	42	25	VA02	51,21
VS0396081	41	50	VA02	24,19
VS0396082	41	50	VA02	25,22
VS0396083	41	50	VA02	27,13
VS0396085	41	50	VA02	28,72
VS0396086	41	25	VA02	31,25
VS0396088	41	25	VA02	34,55
VS0396089	41	25	VA02	35,12
VS0396090	41	25	VA02	40,28
VS0396092	41	25	VA02	50,28
VS0398001	42	100	VA02	17,02
VS0398004	42	25	VA02	34,42
VS0398005	42	25	VA02	37,39
VS0398007	42	25	VA02	18,41
VS0399222	43	1	VA02	1 050,70
VS0399224	43	1	VA02	402,09
VS0408001	43	1	VA02	18,67
VS0411000	43	1	VA02	363,81
VS0411001	43	1	VA02	363,81
VS0411003	43	1	VA02	363,81
VS0411009	43	1	VA02	533,45
VS0411011	43	1	VA02	749,07
VS0411012	43	1	VA02	749,07
VS0411013	43	1	VA02	749,07
VS0411015	43	1	VA02	941,82
VS0411017	43	1	VA02	1 480,08
VS0460001	45	1	VA01	781,73
VS0460003	45	1	VA01	1 291,83
VS0460110	45	1	VA01	294,04
VS0460111	45	1	VA01	308,85
VS0474001	45	1	VA02	410,04
VS0476001	45	1	VA01	3 218,70

KOD	Str.		CL	pln
VS0477003	46	1	VA02	713,89
VS0501001	4	20	PP03	2,70
VS0501003	4	20	PP03	3,53
VS0501004	4	20	PP03	4,16
VS0501005	4	20	PP03	5,76
VS0501007	4	30	PP03	8,07
VS0501009	4	24	PP03	10,10
VS0501011	4	24	PP03	14,98
VS0501013	4	24	PP03	19,04
VS0501015	4	24	PP03	27,45
VS0501019	7	50	PP03	56,10
VS0501021	4	20	PP03	3,09
VS0501023	4	20	PP03	6,53
VS0501024	4	20	PP03	7,03
VS0501025	4	20	PP03	8,19
VS0501027	4	10	PP03	9,20
VS0501029	4	20	PP03	13,68
VS0501031	4	20	PP03	17,15
VS0501033	4	20	PP03	21,58
VS0501035	4	20	PP03	31,73
VS0501039	7	50	PP03	61,86
VS0501041	4	20	PP03	5,09
VS0501043	4	20	PP03	5,18
VS0501044	4	20	PP03	6,30
VS0501045	4	20	PP03	7,11
VS0501047	4	30	PP03	10,55
VS0501049	4	30	PP03	12,61
VS0501051	4	30	PP03	17,77
VS0501053	4	30	PP03	23,38
VS0501055	4	30	PP03	33,67
VS0501059	7	50	PP03	73,81
VS0501061	4	20	PP03	6,85
VS0501063	4	20	PP03	7,92
VS0501065	4	20	PP03	12,48
VS0501067	4	20	PP03	16,11
VS0501069	4	20	PP03	19,94
VS0501071	4	20	PP03	30,08
VS0501073	4	20	PP03	35,94
VS0501075	4	20	PP03	52,40
VS0501079	7	30	PP03	118,84
VS0501081	5	20	PP03	11,45
VS0501083	5	20	PP03	12,90
VS0501084	5	20	PP03	16,05
VS0501085	5	10	PP03	19,88
VS0501087	5	15	PP03	28,90
VS0501089	5	15	PP03	32,83
VS0501091	5	15	PP03	51,45

KOD	Str.		CL	pln	KOD	Str.		CL	pln	KOD	Str.		CL	pln
VS0501093	5	15	PP03	56,28	VS0501240	6	10	PP03	44,90	VS0504023	9	50	PP02	5,25
VS0501095	5	15	PP03	96,91	VS0501241	6	10	PP03	57,52	VS0504025	7	30	PP02	5,25
VS0501099	7	15	PP03	203,95	VS0501243	6	10	PP03	83,92	VS0504027	7	30	PP02	5,25
VS0501101	5	10	PP03	36,39	VS0501249	6	12	PP03	32,18	VS0504029	8	30	PP02	5,00
VS0501103	5	10	PP03	38,91	VS0501250	6	10	PP03	47,48	VS0504031	8	30	PP02	5,43
VS0501105	5	5	PP03	53,38	VS0501251	6	10	PP03	52,93	VS0504033	8	30	PP02	8,32
VS0501107	5	8	PP03	77,95	VS0501252	6	10	PP03	72,67	VS0504035	9	30	PP02	5,46
VS0501109	5	8	PP03	96,78	VS0501253	6	10	PP03	90,03	VS0504037	7	20	PP02	13,22
VS0501111	5	8	PP03	133,15	VS0501255	6	10	PP03	139,22	VS0504039	7	20	PP02	13,22
VS0501113	5	8	PP03	174,02	VS0501261	6	6	PP03	70,29	VS0504041	8	20	PP02	9,83
VS0501115	5	8	PP03	247,47	VS0501263	6	8	PP03	107,16	VS0504043	8	20	PP02	15,47
VS0501119	7	10	PP03	389,67	VS0501264	6	8	PP03	143,94	VS0504045	8	20	PP02	17,66
VS0501121	5	1	PP03	22,04	VS0501265	6	8	PP03	205,77	VS0504047	9	20	PP02	10,60
VS0501123	5	1	PP03	28,06	VS0501267	6	8	PP03	258,69	VS0504049	7	20	PP02	13,19
VS0501125	5	1	PP03	46,92	VS0501281	6	8	PP03	35,67	VS0504051	7	20	PP02	13,19
VS0501129	5	6	PP03	98,87	VS0501283	6	10	PP03	59,00	VS0504053	8	20	PP02	12,72
VS0501131	5	6	PP03	140,42	VS0501285	6	10	PP03	100,29	VS0504055	8	20	PP02	14,15
VS0501133	5	6	PP03	173,98	VS0501287	6	10	PP03	154,82	VS0504057	8	20	PP02	28,08
VS0501135	5	6	PP03	248,02	VS0503000	37	100	PP02	2,84	VS0504059	9	20	PP02	13,17
VS0501141	4	20	PP03	14,18	VS0503001	37	40	PP02	4,12	VS0504061	7	20	PP02	60,20
VS0501143	4	20	PP03	18,68	VS0503003	37	50	PP02	4,12	VS0504063	7	20	PP02	60,20
VS0501145	5	10	PP03	30,76	VS0503005	37	30	PP02	4,94	VS0504065	8	15	PP02	60,20
VS0501149	5	10	PP03	51,84	VS0503007	37	30	PP02	6,16	VS0504067	8	15	PP02	60,20
VS0501151	5	10	PP03	74,02	VS0503008	37	30	PP02	6,16	VS0504069	8	15	PP02	63,78
VS0501153	5	10	PP03	105,62	VS0503009	37	20	PP02	8,66	VS0504071	9	10	PP02	60,20
VS0501155	5	10	PP03	161,65	VS0503011	37	10	PP02	21,18	VS0504073	7	10	PP02	118,11
VS0501159	7	20	PP03	220,26	VS0503015	38	30	PP02	5,76	VS0504075	7	10	PP02	118,11
VS0501201	6	30	PP03	14,39	VS0503017	38	30	PP02	6,76	VS0504077	8	10	PP02	75,85
VS0501202	6	30	PP03	15,37	VS0503018	38	30	PP02	8,18	VS0504083	9	10	PP02	80,45
VS0501203	6	24	PP03	16,11	VS0503019	38	20	PP02	10,22	VS0506001	13	20	PP02	87,62
VS0501204	6	24	PP03	25,33	VS0503031	38	10	PP02	18,80	VS0506005	13	10	PP02	106,37
VS0501205	6	24	PP03	30,73	VS0503033	38	50	PP02	4,94	VS0506008	13	10	PP02	120,70
VS0501207	6	24	PP03	40,88	VS0503115	23	20	PP02	10,61	VS0506009	13	10	PP02	87,62
VS0501213	6	35	PP03	10,16	VS0503222	18	40	VA02	3,15	VS0506010	13	10	PP02	120,70
VS0501214	6	30	PP03	14,39	VS0503224	18	40	VA02	4,39	VS0506011	13	10	PP02	87,62
VS0501215	6	20	PP03	15,26	VS0503225	18	40	VA02	4,90	VS0506013	13	5	PP02	125,66
VS0501216	6	20	PP03	23,38	VS0503226	18	40	VA02	4,90	VS0506015	13	5	PP02	125,66
VS0501217	6	20	PP03	27,49	VS0504001	7	80	PP02	5,25	VS0508001	9	40	PP02	10,38
VS0501219	6	20	PP03	40,61	VS0504003	7	80	PP02	5,25	VS0508003	10	40	PP02	10,38
VS0501225	6	25	PP03	12,32	VS0504005	8	80	PP02	5,25	VS0508005	10	40	PP02	10,38
VS0501226	6	30	PP03	17,55	VS0504007	8	60	PP02	5,25	VS0508007	9	20	PP02	10,38
VS0501227	6	30	PP03	18,34	VS0504009	8	60	PP02	8,17	VS0508009	10	20	PP02	10,38
VS0501228	6	30	PP03	29,65	VS0504011	9	60	PP02	5,25	VS0508011	10	20	PP02	10,38
VS0501229	6	30	PP03	36,26	VS0504013	7	50	PP02	5,25	VS0508013	9	20	PP02	10,01
VS0501231	6	30	PP03	52,66	VS0504015	7	50	PP02	5,25	VS0508015	10	20	PP02	10,01
VS0501237	6	10	PP03	20,48	VS0504017	8	50	PP02	5,25	VS0508017	10	20	PP02	10,01
VS0501238	6	10	PP03	27,18	VS0504019	8	50	PP02	5,28	VS0508019	9	20	PP02	16,00
VS0501239	6	10	PP03	31,31	VS0504021	8	50	PP02	7,48	VS0508021	10	20	PP02	18,45

KOD	Str.		CL	pln	KOD	Str.		CL	pln	KOD	Str.		CL	pln
VS0508023	10	20	PP02	16,00	VS0512035	12	10	PP02	244,22	VS0524001	19	40	PP02	5,32
VS0508025	9	15	PP02	25,67	VS0512037	13	10	PP02	255,78	VS0524003	19	20	PP02	4,45
VS0508027	10	20	PP02	24,73	VS0513000	14	100	PP02	13,59	VS0524005	19	15	PP02	7,93
VS0508029	10	20	PP02	24,73	VS0513001	14	80	PP02	13,59	VS0524007	19	20	PP02	8,88
VS0508031	9	10	PP02	191,44	VS0514001	15	50	PP02	8,91	VS0524009	19	10	PP02	32,96
VS0508033	10	5	PP02	226,92	VS0514002	15	40	PP02	7,91	VS0524011	19	10	PP02	78,22
VS0508035	10	10	PP02	206,12	VS0514003	15	50	PP02	6,79	VS0525001	15	15	PP02	171,12
VS0508037	9	1	PP02	417,57	VS0514005	15	30	PP02	13,29	VS0525003	15	15	PP02	94,29
VS0508039	10	1	PP02	417,57	VS0514007	15	30	PP02	8,88	VS0525005	15	10	PP02	221,71
VS0508041	10	4	PP02	417,57	VS0514008	15	20	PP02	19,27	VS0526000	19	60	PP02	10,38
VS0510001	11	40	PP02	18,77	VS0514009	15	20	PP02	12,16	VS0526001	19	30	PP02	9,19
VS0510003	11	40	PP02	18,77	VS0514011	15	20	PP02	12,47	VS0526003	19	30	PP02	9,50
VS0510005	12	40	PP02	18,77	VS0514013	15	20	PP02	46,21	VS0526005	19	20	PP02	14,82
VS0510007	11	20	PP02	13,29	VS0514015	14	30	PP02	53,90	VS0526007	19	20	PP02	18,95
VS0510009	11	25	PP02	13,99	VS0514017	15	20	PP02	74,05	VS0526009	19	20	PP02	67,23
VS0510011	12	25	PP02	13,99	VS0514019	15	20	PP02	107,30	VS0526011	19	10	PP02	104,60
VS0510013	11	25	PP02	24,36	VS0514031	15	20	PP02	13,84	VS0528000	19	60	PP02	12,70
VS0510015	11	25	PP02	30,03	VS0514033	15	20	PP02	18,72	VS0528001	19	30	PP02	9,19
VS0510017	12	25	PP02	30,03	VS0514035	15	20	PP02	21,54	VS0528003	19	30	PP02	9,75
VS0510019	11	25	PP02	17,25	VS0514037	15	20	PP02	20,35	VS0528005	19	20	PP02	16,95
VS0510021	11	25	PP02	25,13	VS0514039	15	20	PP02	22,93	VS0528007	19	20	PP02	19,62
VS0510023	12	25	PP02	17,94	VS0514041	15	20	PP02	24,39	VS0528009	19	20	PP02	67,23
VS0510025	11	20	PP02	30,28	VS0514043	15	20	PP02	54,24	VS0528011	19	10	PP02	113,22
VS0510027	11	20	PP02	37,09	VS0516003	14	20	PP02	18,24	VS0530001	20	30	PP02	19,76
VS0510029	12	20	PP02	30,28	VS0516005	14	20	PP02	24,68	VS0530003	20	20	PP02	22,19
VS0510031	11	20	PP02	17,73	VS0516007	14	15	PP02	33,50	VS0530005	20	20	PP02	30,32
VS0510033	11	20	PP02	18,59	VS0516009	14	10	PP02	222,39	VS0530007	20	20	PP02	44,92
VS0510035	12	20	PP02	17,73	VS0516011	14	5	PP02	276,86	VS0530009	20	10	PP02	94,15
VS0510037	11	15	PP02	28,29	VS0518103	16	40	PP02	16,53	VS0531001	20	30	PP02	20,35
VS0510039	11	15	PP02	28,54	VS0518107	16	40	PP02	8,35	VS0531003	20	20	PP02	23,11
VS0510041	12	15	PP02	29,67	VS0518113	16	20	PP02	9,39	VS0531005	20	20	PP02	31,17
VS0510043	11	10	PP02	129,50	VS0518117	16	20	PP02	10,99	VS0531007	20	20	PP02	46,43
VS0510045	11	10	PP02	129,50	VS0518121	16	20	PP02	10,99	VS0531009	20	10	PP02	103,72
VS0510047	12	10	PP02	129,50	VS0519101	17	20	PP02	31,63	VS0531011	20	20	PP02	65,48
VS0510049	11	8	PP02	151,11	VS0520102	17	20	PP02	18,72	VS0531013	20	20	PP02	29,79
VS0510051	11	8	PP02	226,92	VS0520103	17	20	PP02	18,72	VS0531015	20	20	PP02	34,33
VS0510053	12	8	PP02	151,11	VS0520104	17	20	PP02	11,03	VS0531017	20	20	PP02	57,17
VS0510061	11	5	PP02	297,55	VS0520107	17	20	PP02	11,03	VS0531019	20	10	PP02	112,84
VS0510063	11	5	PP02	390,77	VS0522103	17	40	PP02	17,04	VS0531333	30	10	PP02	123,69
VS0510065	12	5	PP02	297,55	VS0522107	17	40	PP02	7,35	VS0531335	30	5	PP02	204,80
VS0510067	11	5	PP02	402,11	VS0522113	17	40	PP02	7,87	VS0531337	30	5	PP02	217,29
VS0510069	11	5	PP02	574,32	VS0522117	17	40	PP02	8,17	VS0532001	18	20	PP02	12,67
VS0510071	12	5	PP02	506,89	VS0522121	17	20	PP02	8,80	VS0533001	29	5	PP02	185,08
VS0512001	12	5	PP02	244,16	VS0523009	18	30	VA02	6,92	VS0533011	29	5	PP02	185,08
VS0512003	12	5	PP02	244,22	VS0523011	18	30	VA02	6,92	VS0533050	37	1	PP02	185,49
VS0512005	12	5	PP02	244,16	VS0523015	18	30	VA02	6,92	VS0533075	37	1	PP02	255,53
VS0512007	12	10	PP02	244,16	VS0523017	18	30	VA02	6,92	VS0533110	37	1	PP02	263,19
VS0512033	12	10	PP02	244,22	VS0523019	18	30	VA02	10,53	VS0533125	37	1	PP02	568,57

KOD	Str.		CL	pln	KOD	Str.		CL	pln	KOD	Str.		CL	pln
VS0533160	37	1	PP02	1 250,50	VS0564260	30	15	PP02	118,26	VS0599073	11	20	PP02	28,81
VS0534001	22	15	PP02	63,15	VS0565001	31	20	PP02	52,64	VS0599074	11	20	PP02	39,83
VS0534003	22	15	PP02	58,63	VS0565022	32	20	PP02	56,75	VS0599075	12	20	PP02	28,08
VS0534005	22	15	PP02	58,63	VS0566001	32	20	PP02	96,24	VS0599077	12	20	PP02	28,81
VS0536001	21	20	PP02	51,91	VS0566003	32	20	PP02	102,19	VS0599079	12	20	PP02	39,83
VS0536003	21	10	PP02	121,97	VS0566005	32	20	PP02	68,72	VS0599085	13	15	PP02	87,85
VS0536005	21	20	PP02	55,18	VS0566007	32	20	PP02	138,80	VS0599087	13	15	PP02	87,85
VS0536007	21	20	PP02	60,34	VS0566009	32	20	PP02	68,72	VS0599089	11	10	PP02	79,71
VS0538001	22	10	PP02	79,57	VS0566015	33	20	PP02	131,31	VS0599091	12	10	PP02	79,71
VS0538003	22	10	PP02	88,76	VS0566030	33	20	PP02	131,31	VS0599101	19	20	PP02	25,29
VS0540001	23	10	PP02	79,57	VS0566045	33	20	PP02	106,82	VS0599111	19	20	PP02	25,29
VS0540003	23	10	PP02	88,76	VS0566067	33	20	PP02	157,34	VS0599121	20	10	PP02	41,23
VS0541001	24	5	PP02	219,76	VS0566087	33	20	PP02	96,21	VS0599123	20	10	PP02	42,35
VS0542001	23	10	PP02	114,96	VS0567001	33	20	PP02	93,42	VS0599125	20	20	PP02	59,82
VS0542003	23	10	PP02	125,72	VS0567003	33	20	PP02	93,42	VS0599131	15	20	PP02	17,53
VS0543001	24	10	PP02	73,91	VS0567005	33	20	PP02	93,42	VS0599133	15	20	PP02	18,55
VS0545001	24	15	PP02	104,00	VS0567007	33	20	PP02	93,42	VS0599135	14	20	PP02	20,29
VS0545003	24	15	PP02	111,64	VS0567009	34	15	PP02	139,70	VS0599137	14	20	PP02	23,45
VS0547001	25	15	PP02	104,00	VS0567011	34	15	PP02	139,70	VS0599141	19	30	PP02	14,33
VS0547003	25	15	PP02	111,64	VS0568001	34	15	PP02	119,00	VS0599151	14	20	PP02	46,04
VS0549001	25	10	PP02	139,97	VS0568003	34	10	PP02	157,82	VS0599161	16	20	PP02	45,58
VS0549003	25	10	PP02	149,28	VS0568005	34	10	PP02	161,72	VS0599241	24	15	PP02	67,18
VS0551001	27	15	PP02	104,53	VS0568007	35	10	PP02	157,82	VS0599243	25	10	PP02	98,75
VS0552001	28	15	PP02	102,23	VS0568009	35	10	PP02	161,72	VS0599245	25	10	PP02	101,57
VS0552003	28	15	PP02	102,47	VS0568011	35	10	PP02	191,56	VS0599247	26	10	PP02	132,88
VS0554001	28	15	PP02	102,23	VS0568013	35	10	PP02	199,55	VS0599249	26	10	PP02	135,42
VS0554003	28	15	PP02	102,47	VS0569001	36	20	PP02	35,14	VS0700033	16	30	PP02	14,97
VS0556001	28	15	PP02	146,34	VS0569003	36	20	PP02	38,28	VS0700034	16	30	PP02	15,66
VS0556003	28	15	PP02	146,34	VS0569005	36	20	PP02	53,90	VS0700039	16	20	PP02	16,72
VS0559001	37	50	VA02	5,81	VS0569007	36	10	PP02	179,74	VS0700052	29	20	PP02	78,78
VS0559003	37	50	VA02	5,81	VS0570001	36	40	PP02	41,52	VS0700064	29	20	PP02	78,78
VS0564001	30	20	PP02	46,21	VS0570002	36	40	PP02	41,52	VS0700252	29	20	PP02	80,44
VS0564003	30	15	PP02	59,60	VS0570003	36	40	PP02	41,52	VS0700264	29	20	PP02	80,44
VS0564005	30	10	PP02	84,38	VS0581005	36	20	PP02	18,06	VS0700267	29	20	PP02	151,37
VS0564075	31	15	PP02	63,46	VS0581007	36	20	PP02	18,06	VS0700401	38	12	VA02	260,17
VS0564080	30	20	PP02	104,42	VS0581011	36	20	PP02	18,37	VS0700402	38	6	VA02	479,38
VS0564099	35	20	VA02	8,22	VS0583001	26	20	PP02	16,00	VS0900001	46	50	VA02	11,63
VS0564101	31	10	PP02	98,15	VS0585001	26	20	PP02	13,75	VS0900003	46	50	VA02	13,33
VS0564110	31	1	PP02	46,52	VS0588001	21	20	VA02	22,85	VS0900005	46	1	VA02	56,57
VS0564121	31	40	PP02	29,51	VS0588003	21	20	VA02	20,63	VS0900007	46	1	VA02	261,98
VS0564122	31	40	PP02	32,63	VS0599041	7	20	PP02	21,30					
VS0564123	31	30	PP02	30,25	VS0599043	7	20	PP02	21,30					
VS0564131	31	15	PP02	63,46	VS0599045	8	20	PP02	21,22					
VS0564150	31	10	PP02	90,59	VS0599047	8	20	PP02	21,51					
VS0564175	31	10	PP02	70,12	VS0599051	9	20	PP02	21,22					
VS0564182	31	15	PP02	63,46	VS0599061	9	20	PP02	40,23					
VS0564190	31	10	PP02	70,57	VS0599065	10	20	PP02	40,23					
VS0564251	31	10	PP02	74,13	VS0599071	11	20	PP02	28,08					

Handwriting practice sheet with 20 sets of horizontal lines. Each set consists of a solid top line, a dashed midline, and a solid bottom line. The first 10 sets on the right side of the page feature a circular icon at the end of the lines, which changes for each set. The icons are: 1. A circle with a vertical line through the center. 2. A circle with a horizontal line through the center. 3. A circle with a flame-like shape. 4. A circle with a teardrop shape. 5. A circle with a curved shape. 6. A circle with a swastika-like shape. 7. A circle with a U-shaped line. 8. A circle with a teardrop shape. 9. A circle with a spiral shape. 10. A circle with a triangle shape. The remaining 10 sets of lines are plain.

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BATHROOM SYSTEMS  
SYSTEME SALLE DE BAIN



SYFONY  
TRAPS  
SIPHON



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SYSTEME PLANCHER CHAUFFANT



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