THE INTERNATIONAL EPD® SYSTEM

Environmental Product Declaration

In accordance with ISO 14025 and EN 15804:2012+A2:2019 for:

Galvanized Press Fittings M and V Profile a-collection

from

Ahlsell AB

Programme	EPD International AB
Programme operator	The International EPD® System
EPD registration number	S-P-11009
Publication date	2023-12-04
Valid until	2028-12-03

An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at www.environdec.com

General Information

Programme information	
Programme	The International EPD® System
Address:	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
Website	www.environdec.com
E-mail	info@environdec.com

Accountabilities for PCR, LCA and independent, third-party verification	
Product Category Rules (PCR)	Product Category Rules (PCR): Construction products, 2019:14, Version 1.3.1
Life Cycle Assessment (LCA)	Carbonzero AB
Third-party verification:	Independent third-party verification of the declaration and data, according to ISO 14025:2006: ☑ EPD process certification Vladimír Kocí, LCA Studio  Approved by: The International EPD® System
Procedure for follow-up of data during EPD validity involves third party verifier: ☐ Yes ☑ No	

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

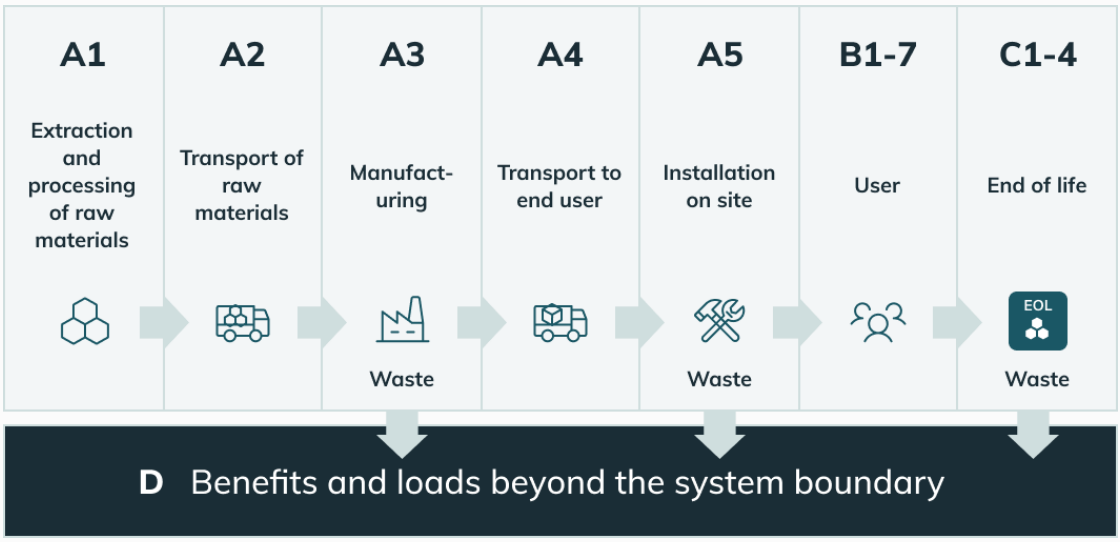
EPDs within the same product category but registered in different EPD programmes, or not compliant with EN 15804, may not be comparable. For two EPDs to be comparable, they must be based on the same PCR (including the same version number) or be based on fully-aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have equivalent system boundaries and descriptions of data; apply equivalent data quality requirements, methods of data collection, and allocation methods; apply identical cut-off rules and impact assessment methods (including the same version of characterisation factors); have equivalent content declarations; and be valid at the time of comparison. For further information about comparability, see EN 15804 and ISO 14025.

Company information	
Owner of the EPD	Ahlsell AB
Contact	Andrea Wästlund
Description of the organisation	Ahlsell AB is present where people reside, work, and live their lives. Ahlsell AB is currently the Nordic region's leading community-building distributor of installation products, tools, and supplies for installation, construction, real estate management, industrial and power companies, and the public sector. With around 7,500 employees, 300 stores, e-commerce, and four central warehouses, we are working daily to achieve our vision of building a more sustainable society.
Product-related or management system-related certifications:	ISO 9001& ISO 14001
Name and location of production site(s):	**Name of plant:** Manufacturing plant **Location:** Sweden

Product information	
Product name(s)	76,1 BEND 90° WITH PLAIN ENDS
Product description:	A-Press press coupling system with M and V profile in electro-galvanized steel from 12 mm - 108 mm for installations in closed heating and cooling systems, Compressed air and inert gas systems. Dimensions 12-54 are delivered with a red press indicator that helps you see if it is pressed or not already during the installation work. Press fittings have EPDM O-rings and are designed to leak in the unpressed state.
RSL	50 years
UN CPC code	41292 - Tube or pipe fittings, of cast-iron or of cast-steel

LCA information	
Functional unit / declared unit	1 kg of Galvanized press fittings M and V Profile
Time representative-ness	Data obtained refer to the year 2022
System Boundary	The system boundaries are set to be "cradle-to-gate" with modules A4, C1-C4, and D for end-of-life.
Database(s) and LCA software used	Eando X version 1.01

System diagram



A1	Raw material supply	This module considers the extraction and processing of all raw materials, energy, and transportation which occur upstream to the studied manufacturing process, including packaging material.
A2	Transport to the manufacturer	The raw materials are transported to the manufacturing site.
A3	Manufacturing	This module includes all resources used to produce and waste produced. This also includes additives and packaging material.
A4	Transport	Transportation from the manufacturing site to distribution centre and then from the distribution centre to the building site is included.
	Transport Scenario	Truck: 200km
A5	Construction installation	This stage is not declared.
B1-B7	Use stage	This stage is not declared.
C1	Deconstruction/Demolition	This stage includes the de-construction and/or demolition of the building. This is not relevant as the product included in this study is not used in the construction process.
C2	Transport	This stage represents the transport distance to the waste processing facility.
C3	Waste processing	This stage includes any waste treatment needed.
	EOL Scenario	Landfill 5.46%. Incineration 0.39%. Recycling 49.85%.
C4	Final disposal	This includes any material that is landfilled.
D	Benefits	Emission credits obtained from energy recovery and/or recycling materials

Modules declared, geographical scope, share of specific data (in GWP-GHG results) and data variation (in GWP-GHG results):

	Product stage			Assembly stage		Use stage							End of life stage				Benefits & loads beoyond system boundary
	Raw Materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery - Recycling-potential
	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Declared	X	X	X	X	ND	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
Geography	IT	EU	SE	SE	-	-	-	-	-	-	-	-	SE	SE	SE	SE	SE
Specific data used	Factory supplied specific data for A1 - A3			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation-Products	Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation-Sites	0 %			-	-	-	-	-	-	-	-	-	-	-	-	-	-

Content Information

Product Components	Weight, kg	Post-consumer material, weight-%	Biogenic material, weight-% and kg C/kg
Metal	0.993	0.000	0.000
Rubber	0.007	0.000	0.000
Total	1.000	0.000	0.000

Packaging Materials	Weight, kg	Weight-% (versus the product)	Weight biogenic carbon, kg C/kg
Carton	0.006	0.570	0.003
LDPE	0.000	0.046	0.000
Corrugated board	0.058	5.760	0.026
Total	0.064	6.376	0.028

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per functional or declared unit

At the date of issue of this declaration, there is no “Substance of Very High Concern” (SVHC) in concentration above 0.1% by weight, and neither does the packaging, following the European REACH regulation (Registration, Evaluation, Authorization and Restriction of Chemicals)

Environmental Information

Potential environmental impact – indicators according to EN 15804+A2

Results per functional unit: 1 kg								
Indicator	Unit	A1 - A3	A4	C1	C2	C3	C4	D
GWP-total	kg CO2 eq	1.39e+1	1.78e-2	0.00e+0	2.13e-2	3.03e-3	2.56e-2	-8.09e+0
GWP-fossil	kg CO2 eq	1.35e+1	1.71e-2	0.00e+0	2.04e-2	3.03e-3	2.60e-2	-7.86e+0
GWP-biogenic	kg CO2 eq	3.27e-1	7.30e-4	0.00e+0	8.70e-4	1.36e-7	-3.21e-4	-1.95e-1
GWP-luluc	kg CO2 eq	2.62e-3	4.72e-7	0.00e+0	5.63e-7	2.33e-7	2.64e-5	-9.66e-4
ODP	kg CFC-11 eq	2.37e-10	1.03e-15	0.00e+0	1.23e-15	2.18e-15	4.28e-14	-1.47e-10
AP	mole H+ eq	2.92e-2	1.47e-4	0.00e+0	1.75e-4	6.79e-7	8.32e-5	-9.89e-3
EP-freshwater	kg P eq	5.65e-5	2.20e-9	0.00e+0	2.62e-9	6.39e-10	2.35e-8	-3.23e-5
EP-marine	kg N eq	1.11e-2	7.32e-5	0.00e+0	8.72e-5	2.21e-7	2.09e-5	-3.49e-3
EP-terrestrial	mole N eq	1.20e-1	8.02e-4	0.00e+0	9.56e-4	2.92e-6	2.30e-4	-3.66e-2
POCP	kg NMVOC eq	2.49e-2	1.38e-4	0.00e+0	1.65e-4	6.28e-7	6.55e-5	-8.72e-3
ADP-minerals & metals	kg Sb eq	1.25e-4	1.14e-10	0.00e+0	1.36e-10	1.91e-11	7.10e-10	-9.98e-7
ADP-fossil	MJ	1.95e+2	2.46e-1	0.00e+0	2.93e-1	4.85e-3	3.88e-1	-1.10e+2
WDP	m3	1.36e+0	7.70e-5	0.00e+0	9.18e-5	3.02e-4	-3.52e-4	-1.74e-1
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption							

** Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator*

Use of resources

Results per functional unit: 1 kg								
Indicator	Unit	A1 - A3	A4	C1	C2	C3	C4	D
PERE	MJ	1.23e+2	1.35e-3	0.00e+0	1.61e-3	1.13e-3	3.48e-2	-7.10e+1
PERM	MJ	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0
PERT	MJ	1.23e+2	1.35e-3	0.00e+0	1.61e-3	1.13e-3	3.48e-2	-7.10e+1
PENRE	MJ	1.94e+2	2.46e-1	0.00e+0	2.93e-1	4.85e-3	3.88e-1	-1.10e+2
PENRM	MJ	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0
PENRT	MJ	1.95e+2	2.46e-1	0.00e+0	2.93e-1	4.85e-3	3.88e-1	-1.10e+2
SM	kg	5.88e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	-4.49e+0
RSF	MJ	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0
NRSF	MJ	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0
FW	m3	6.23e-2	2.06e-6	0.00e+0	2.45e-6	7.57e-6	4.37e-6	-2.58e-2
Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water							

** This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO2 is set to zero.*

Additional voluntary indicators

Results per functional unit: 1 kg								
Indicator	Unit	A1 - A3	A4	C1	C2	C3	C4	D
GWP-GHG	kg CO2 eq	1.39e+1	1.75e-2	0.00e+0	2.09e-2	3.03e-3	2.51e-2	-7.95e+0
EP	kg PO4 eq	3.28e-6	0.00e+0	0.00e+0	0.00e+0	9.70e-8	7.38e-6	-5.32e-8
Acronyms	GWP-GHG global warming potential - greenhouse gases; EP eutrophication potential							

Additional voluntary indicators
This indicator supports comparability with EPDs based on the previous version of EN 15804 (EN 15804:2012+A1:2013).

Waste and output flows

Results per functional unit: 1 kg								
Indicator	Unit	A1 - A3	A4	C1	C2	C3	C4	D
HWD	kg	-2.45e-9	6.12e-14	0.00e+0	7.29e-14	1.66e-14	3.20e-11	6.65e-9
NHWD	kg	1.92e-1	9.34e-6	0.00e+0	1.11e-5	1.30e-3	5.55e-1	-8.81e-2
RWD	kg	1.09e-2	8.88e-8	0.00e+0	1.06e-7	1.35e-7	4.51e-6	-7.37e-3
Acronyms	HW Hazardous waste disposed; NHW Non-hazardous waste disposed; RW Radioactive waste disposed							

Output flows

Results per functional unit: 1 kg								
Indicator	Unit	A1 - A3	A4	C1	C2	C3	C4	D
CRU	kg	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0
MFR	kg	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0
MER	kg	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0
EEE	MJ	0.00e+0	0.00e+0	0.00e+0	0.00e+0	4.04e-3	0.00e+0	0.00e+0
EET	MJ	0.00e+0	0.00e+0	0.00e+0	0.00e+0	7.34e-3	0.00e+0	0.00e+0
Acronyms	CRU Components for reuse; MFR Materials for recycling; MER Materials for energy recovery; EEE Exported electric energy; ETE Exported thermal energy							

Product Table

Name	Weight, kg	Unit
76,1 BEND 90° WITH PLAIN ENDS	1.634	pc
M22-RP¾ BEND ADAPTOR 90° W.FEM. THR.	0.150	pc
88,9 BEND 90° WITH PLAIN ENDS	2.240	pc
108 BEND 90° WITH PLAIN ENDS	3.170	pc
M18-RP½ BEND ADAPTOR 90° W.FEM. THR.	0.088	pc
M15-RP1/2 BEND ADAPTOR 90° W.FEM. THR.	0.083	pc
M12-RP3/8 BEND ADAPTOR 90° W.FEM. THR.	0.080	pc
M28-RP½ BEND ADAPTOR 90° W.FEM. THR.	0.200	pc
12 BEND 60° WITH PLAIN ENDS	0.070	pc
M15-RP3/8 BEND ADAPTOR 90° W.FEM. THR.	0.083	pc
54 BEND 60° WITH PLAIN ENDS	0.857	pc
28 BEND 60° WITH PLAIN ENDS	0.176	pc
42 BEND 60° WITH PLAIN ENDS	0.544	pc
35 BEND 60° WITH PLAIN ENDS	0.396	pc
88,9 BEND 60° WITH PLAIN ENDS	2.090	pc
15 BEND 60° WITH PLAIN ENDS	0.090	pc
18 BEND 60° WITH PLAIN ENDS	0.110	pc
76,1 BEND 60° WITH PLAIN ENDS	1.537	pc
108 BEND 60° WITH PLAIN ENDS	2.542	pc
22 BEND 60° WITH PLAIN ENDS	0.130	pc

Name	Weight, kg	Unit
35 BEND 45° WITH PLAIN ENDS	0.366	pc
54 BEND 45° WITH PLAIN ENDS	0.889	pc
22 BEND 45° WITH PLAIN ENDS	0.130	pc
15 BEND 45° WITH PLAIN ENDS	0.092	pc
12 BEND 45° WITH PLAIN ENDS	0.070	pc
28 BEND 45° WITH PLAIN ENDS	0.170	pc
88,9 BEND 45° WITH PLAIN ENDS	2.270	pc
18 BEND 45° WITH PLAIN ENDS	0.088	pc
42 BEND 45° WITH PLAIN ENDS	0.538	pc
76,1 BEND 45° WITH PLAIN ENDS	1.660	pc
15 BEND 30° WITH PLAIN ENDS	0.092	pc
28 BEND 30° WITH PLAIN ENDS	0.176	pc
35 BEND 30° WITH PLAIN ENDS	0.362	pc
18 BEND 30° WITH PLAIN ENDS	0.088	pc
42 BEND 30° WITH PLAIN ENDS	5.515	pc
76,1 BEND 30° WITH PLAIN ENDS	1.413	pc
22 BEND 30° WITH PLAIN ENDS	0.130	pc
12 BEND 30° WITH PLAIN ENDS	0.071	pc
108 BEND 45° WITH PLAIN ENDS	3.022	pc
54 BEND 30° WITH PLAIN ENDS	0.886	pc

Product Table

Name	Weight, kg	Unit
108 BEND 30° WITH PLAIN ENDS	2.554	pc
28 BEND 15° WITH PLAIN ENDS	0.182	pc
35 BEND 15° WITH PLAIN ENDS	0.364	pc
42 BEND 15° WITH PLAIN ENDS	0.528	pc
22 BEND 15° WITH PLAIN ENDS	0.131	pc
15 BEND 15° WITH PLAIN ENDS	0.092	pc
88,9 BEND 30° WITH PLAIN ENDS	2.209	pc
12 BEND 15° WITH PLAIN ENDS	0.071	pc
54 BEND 15° WITH PLAIN ENDS	0.894	pc
18 BEND 15° WITH PLAIN ENDS	0.090	pc
M54-M15-M54 T-PIECE REDUCED	0.321	pc
108 BEND 15° WITH PLAIN ENDS	2.688	pc
M18-RP½ ELBOW ADAPT. 90° FEM.END	0.172	pc
88,9 BEND 15° WITH PLAIN ENDS	2.160	pc
M42-M15-M42 T-PIECE REDUCED	0.218	pc
M15-RP½ ELBOW ADAPT. 90° FEM.END	0.171	pc
TEE REDUCED M15X15X12MM M15XM12XM12	0.063	pc
M22-RP½ ELBOW ADAPT. 90° FEM.END	0.236	pc
76,1 BEND 15° WITH PLAIN ENDS	1.650	pc
TEE REDUCED M108XM54XM108	1.872	pc

Name	Weight, kg	Unit
M54-M18-M54 T-PIECE REDUCED	0.331	pc
M108-M22-M108 T-PIECE REDUCED	1.831	pc
M108-M28-M108 T-PIECE REDUCED	1.820	pc
M76.1-M35-M76.1 T-PIECE REDUCED	0.998	pc
M76.1-M28-M76.1 T-PIECE REDUCED	0.981	pc
M88.9-M22-M88.9 T-PIECE REDUCED	1.306	pc
M76.1-M22-M76.1 T-PIECE REDUCED	0.986	pc
M88.9-M28-M88.9 T-PIECE REDUCED	1.240	pc
M88.9-M35-M88.9 T-PIECE REDUCED	1.295	pc
M42-M18-M42 T-PIECE REDUCED	0.222	pc
M108-M76.1-M108 T-PIECE	2.119	pc
M88.9-M42-M88.9 T-PIECE REDUCED	1.336	pc
M54-RP¾-M54 T-PIECE W. FEM.THREAD	0.354	pc
M42-RP¾-M42 T-PIECE W. FEM.THREAD	0.250	pc
M108-M42-M108 T-PIECE REDUCED	1.849	pc
M76.1-M42-M76.1 T-PIECE REDUCED	1.015	pc
M88.9-M54-M88.9 T-PIECE	1.372	pc
M108-M35-M108 T-PIECE REDUCED	1.835	pc
M35-M15 REDUCER W. PLAIN END	0.086	pc
M28-RP¾-M28 T-PIECE W. FEM.THREAD	0.157	pc

Product Table

Name	Weight, kg	Unit
22MM PLUG	0.038	pc
42MM PLUG	0.096	pc
18MM PLUG	0.028	pc
M42-M18 REDUCER W. PLAIN END	0.124	pc
35MM PLUG	0.070	pc
15MM PLUG	0.022	pc
12MM PLUG	0.014	pc
28MM PLUG	0.050	pc
M54-M18 REDUCER W. PLAIN END	0.192	pc
M35-M18 REDUCER W. PLAIN END	0.092	pc
M15-RP¾ ADAPT. W. UN.FEM. NUT FLAT S	0.195	pc
M22-R½ ADAPT. W. UN.MALE. NUT FLAT S	0.250	pc
76.1MM PLUG	0.380	pc
54MM PLUG	0.144	pc
88.9MM PLUG	0.474	pc
108MM PLUG	0.698	pc
M22-RP1 ADAPT. W. UN.FEM. NUT FLAT S	0.274	pc
M18-R½ ADAPT. W. UN.MALE. NUT FLAT S	0.140	pc
M18-RP½ ADAPT. W. UN.FEM. NUT FLAT S	0.165	pc
M18-RP¾ ADAPT. W. UN.FEM. NUT FLAT S	0.188	pc

Name	Weight, kg	Unit
G¾-M18 ADAPT. W. UN.FEM. NUT FLAT S	0.072	pc
M15-R¾ ADAPT. W. UN.MALE. NUT FLAT S	0.170	pc
G1½-M35 ADAPT. W. UN.FEM. NUT FLAT S	0.275	pc
M18-R¾ ADAPT. W. UN.MALE. NUT FLAT S	0.160	pc
G1-M22 ADAPT. W. UN.FEM. NUT FLAT S	0.105	pc
G1¼-M28 ADAPT. W. UN.FEM. NUT FLAT S	0.180	pc
G¾-M15 ADAPT. W. UN.FEM. NUT FLAT S	0.070	pc
M22-R1 ADAPT. W. UN.MALE. NUT FLAT S	0.290	pc
G1¾-M42 ADAPT. W. UN.FEM. NUT FLAT S	0.307	pc
22R15 ADAPTOR MALE THREAD A-PRESS M CARBON STEEL	0.074	pc
42R40 UNION FEMALE THREAD M CARBON STEEL A-PRESS	0.610	pc
42R40 ADAPTOR FEMALE THREAD A-PRESS M CARBON STEEL	0.248	pc
54R50 ADAPTOR FEMALE THREAD A-PRESS M CARBON STEEL	0.476	pc
42R40 UNION MALE THREAD M CARBON STEEL A-PRESS	0.651	pc
35R32 ADAPTOR FEMALE THREAD A-PRESS M CARBON STEEL	0.198	pc
54R50 UNION FEMALE THREAD M CARBON STEEL A-PRESS	1.110	pc
28R20 ADAPTOR MALE THREAD A-PRESS M CARBON STEEL	0.096	pc
ADAPTOR W. FEMALE THREAD M28 X R15	0.174	pc
54R50 UNION MALE THREAD M CARBON STEEL A-PRESS	1.100	pc
35R25 ADAPTOR MALE THREAD A-PRESS M CARBON STEEL	0.155	pc

Product Table

Name	Weight, kg	Unit
M54 FLANGE W. SOCKET PN6	2.844	pc
ADAPTOR W FEMALE THREAD M15XR20	0.091	pc
ADAPTOR W FEMALE THREAD M22XR15	0.088	pc
M28 FLANGE W. SOCKET PN6	1.224	pc
ADAPTOR W MALE THREAD M22 X R25	0.120	pc
M22 FLANGE W. SOCKET PN6	0.676	pc
M35 FLANGE W. SOCKET PN6	2.048	pc
M42 FLANGE W. SOCKET PN6	2.394	pc
ADAPTOR W MALE THREAD M15 X R20	0.086	pc
ADAPTOR W.FEMALE THREAD M35 X R25	0.223	pc
M28 FLANGE W. SOCKET PN10/16	0.828	pc
M35 FLANGE W. SOCKET PN10/16	1.364	pc
M22 FLANGE W. SOCKET PN10/16	0.676	pc
88.9X88.9 TRANS. JOINT F. GR. FITTINGS	0.991	pc
35X42.4 TRANS. JOINT F. GR. FITTINGS	0.212	pc
M42 FLANGE W. SOCKET PN10/16	1.608	pc
108X114.3 TRANS. JOINT F. GR. FITTINGS	1.055	pc
42X48.3 TRANS. JOINT F. GR. FITTINGS	0.260	pc
54X60.3 TRANS. JOINT F. GR. FITTINGS	0.367	pc
76.1X76.1 TRANS. JOINT F. GR. FITTINGS	0.802	pc

Name	Weight, kg	Unit
M12-R3/8 ADAPTOR W.MALE THR. PL. END	0.040	pc
M22-RP1 ADAPTOR W. FEMALE THREAD	0.105	pc
M22-R½ ADAPTOR W.MALE THR. PL. END	0.070	pc
M12-RP3/8 ADAPTOR W. FEMALE THREAD	0.053	pc
M15-RP3/8 ADAPTOR W. FEMALE THREAD	0.054	pc
M15-R½ ADAPTOR W.MALE THR. PL. END	0.057	pc
M76.1-R2½ ADAPTOR W. MALE THREAD	0.999	pc
M35-R1½ ADAPTOR W. MALE THREAD	0.275	pc
M15-RP3/8 ADAPTOR W. FEM.THR.PL.END	0.064	pc
M12-R½ ADAPTOR W.MALE THR. PL. END	0.058	pc
M22-R¾ ADAPTOR W.MALE THR. PL. END	0.074	pc
M22-26.9 ADAPTOR W. PLAIN &WELD.END	0.217	pc
M18-R¾ ADAPTOR W.MALE THR. PL. END	0.075	pc
M76.1-M76.1 ADAPTOR W. PLAIN &WELD.END	0.570	pc
M18-21.3 ADAPTOR W. PLAIN &WELD.END	0.131	pc
76.1 FLANGE-PRESSING SOCKET PN6 M CARBON STEEL A-PRESS	2.144	pc
M108-114.3 ADAPTOR W. PLAIN &WELD.END	0.842	pc
M15-17.2 ADAPTOR W. PLAIN &WELD.END	0.127	pc
88.9 FLANGE-PRESSING SOCKET PN6 M CARBON STEEL A-PRESS	3.306	pc
M88.9-M88.9 ADAPTOR W. PLAIN &WELD.END	0.692	pc

Product Table

Name	Weight, kg	Unit
76.1 ELBOW 90° WITH PLAIN END M CARBON STEEL A-PRESS	1.006	pc
76.1 FLANGE-PRESSING SOCKET PN10/16 M CARBON STEEL A-PRESS	3.584	pc
108 FLANGE-PRESSING SOCKET PN6 M CARBON STEEL A-PRESS	4.100	pc
88.9 ELBOW 90° WITH PLAIN END M CARBON STEEL A-PRESS	1.378	pc
108 ELBOW 90° M CARBON STEEL A-PRESS	2.060	pc
108 ELBOW 90° WITH PLAIN END M CARBON STEEL A-PRESS	2.028	pc
108 FLANGE-PRESSING SOCKET PN10/16 M CARBON STEEL A-PRESS	5.271	pc
88.9 ELBOW 90° M CARBON STEEL A-PRESS	1.364	pc
76.1 ELBOW 90° M CARBON STEEL A-PRESS	0.994	pc
88.9 FLANGE-PRESSING SOCKET PN10/16 M CARBON STEEL A-PRESS	4.450	pc
76.1 ELBOW 45° WITH PLAIN END M CARBON STEEL A-PRESS	0.793	pc
88.9 ELBOW 45° WITH PLAIN END M CARBON STEEL A-PRESS	1.076	pc
12 ELBOW 90° M CARBON STEEL A-PRESS	0.038	pc
76.1 ELBOW 45° M CARBON STEEL A-PRESS	0.800	pc
108 ELBOW 45° M CARBON STEEL A-PRESS	1.598	pc
88.9 ELBOW 45° M CARBON STEEL A-PRESS	1.084	pc
22 ELBOW 90° M CARBON STEEL A-PRESS	0.084	pc
108 ELBOW 45° WITH PLAIN END M CARBON STEEL A-PRESS	1.564	pc
18 ELBOW 90° M CARBON STEEL A-PRESS	0.061	pc
15 ELBOW 90° M CARBON STEEL A-PRESS	0.048	pc

Name	Weight, kg	Unit
35 ELBOW 90° WITH PLAIN END M CARBON STEEL A-PRESS	0.164	pc
35 ELBOW 90° M CARBON STEEL A-PRESS	0.165	pc
15 ELBOW 90° WITH PLAIN END M CARBON STEEL A-PRESS	0.048	pc
12 ELBOW 90° WITH PLAIN END M CARBON STEEL A-PRESS	0.038	pc
28 ELBOW 90° M CARBON STEEL A-PRESS	0.120	pc
22 ELBOW 90° WITH PLAIN END M CARBON STEEL A-PRESS	0.089	pc
18 ELBOW 90° WITH PLAIN END M CARBON STEEL A-PRESS	0.060	pc
42 ELBOW 90° M CARBON STEEL A-PRESS	0.256	pc
54 ELBOW 90° M CARBON STEEL A-PRESS	0.386	pc
28 ELBOW 90° WITH PLAIN END M CARBON STEEL A-PRESS	0.120	pc
42 ELBOW 90° WITH PLAIN END M CARBON STEEL A-PRESS	0.255	pc
35 ELBOW 45° M CARBON STEEL A-PRESS	0.126	pc
54 ELBOW 90° WITH PLAIN END M CARBON STEEL A-PRESS	0.382	pc
15 ELBOW 45° M CARBON STEEL A-PRESS	0.041	pc
28 ELBOW 45° M CARBON STEEL A-PRESS	0.093	pc
15 ELBOW 45° WITH PLAIN END M CARBON STEEL A-PRESS	0.041	pc
42 ELBOW 45° M CARBON STEEL A-PRESS	0.198	pc
54 ELBOW 45° M CARBON STEEL A-PRESS	0.308	pc
22 ELBOW 45° M CARBON STEEL A-PRESS	0.068	pc
18 ELBOW 45° M CARBON STEEL A-PRESS	0.051	pc

Product Table

Name	Weight, kg	Unit
18 ELBOW 45° WITH PLAIN END M CARBON STEEL A-PRESS	0.050	pc
18 PIPE BRIDGE SHORT CC60 M&V CARBON STEEL A-PRESS	0.107	pc
12 PIPE BRIDGE SHORT CC60 M&V CARBON STEEL A-PRESS	0.061	pc
35 ELBOW 45° WITH PLAIN END M CARBON STEEL A-PRESS	0.128	pc
22 PIPE BRIDGE SHORT CC60 M&V CARBON STEEL A-PRESS	0.145	pc
22 ELBOW 45° WITH PLAIN END M CARBON STEEL A-PRESS	0.069	pc
42 ELBOW 45° WITH PLAIN END M CARBON STEEL A-PRESS	0.198	pc
28 ELBOW 45° WITH PLAIN END M CARBON STEEL A-PRESS	0.099	pc
15 PIPE BRIDGE SHORT CC60 M&V CARBON STEEL A-PRESS	0.081	pc
54 ELBOW 45° WITH PLAIN END M CARBON STEEL A-PRESS	0.316	pc
18 ELBOW 90° WITH PLAIN ENDS M&V CARBON STEEL A-PRESS	0.100	pc
28 ELBOW 90° WITH PLAIN ENDS M&V CARBON STEEL A-PRESS	0.191	pc
12R10 ELBOW 90° M CARBON STEEL A-PRESS-MALE THREAD	0.053	pc
12 ELBOW 90° WITH PLAIN ENDS M&V CARBON STEEL A-PRESS	0.070	pc
54 ELBOW 90° WITH PLAIN ENDS M&V CARBON STEEL A-PRESS	0.867	pc
35 ELBOW 90° WITH PLAIN ENDS M&V CARBON STEEL A-PRESS	0.359	pc
42 ELBOW 90° WITH PLAIN ENDS M&V CARBON STEEL A-PRESS	0.530	pc
15 ELBOW 90° WITH PLAIN ENDS M&V CARBON STEEL A-PRESS	0.090	pc
22 ELBOW 90° WITH PLAIN ENDS M&V CARBON STEEL A-PRESS	0.126	pc
28 PIPE BRIDGE SHORT CC60 M&V CARBON STEEL A-PRESS	0.240	pc

Name	Weight, kg	Unit
15R15 ELBOW 90° M CARBON STEEL A-PRESS-MALE THREAD	0.070	pc
15R10 ELBOW 90° M CARBON STEEL A-PRESS-MALE THREAD	0.062	pc
35R32 BEND 90° M CARBON STEEL A-PRESS-MALE THREAD	0.292	pc
22R20 ELBOW 90° M CARBON STEEL A-PRESS-MALE THREAD	0.106	pc
12R10 ELBOW 90° M CARBON STEEL A-PRESS-MALE THREAD	0.084	pc
28R25 ELBOW 90° M CARBON STEEL A-PRESS-MALE THREAD	0.174	pc
42R40 ELBOW 90° M CARBON STEEL A-PRESS-MALE THREAD	0.376	pc
15R10 ELBOW 90° M CARBON STEEL A-PRESS-MALE THREAD	0.086	pc
18R15 ELBOW 90° M CARBON STEEL A-PRESS-MALE THREAD	0.070	pc
54R50 ELBOW 90° M CARBON STEEL A-PRESS-MALE THREAD	0.666	pc
18R15 ELBOW 90° M CARBON STEEL A-PRESS-MALE THREAD	0.136	pc
18 TEE EQUAL M CARBON STEEL A-PRESS	0.082	pc
28R25 ELBOW 90° M CARBON STEEL A-PRESS-FEMALE THREAD	0.292	pc
22 TEE EQUAL M CARBON STEEL A-PRESS	0.109	pc
15R15 ELBOW 90° M CARBON STEEL A-PRESS-MALE THREAD	0.093	pc
15 TEE EQUAL M CARBON STEEL A-PRESS	0.069	pc
12 TEE EQUAL M CARBON STEEL A-PRESS	0.046	pc
28G15 ELBOW 90° M CARBON STEEL A-PRESS-FEMALE THREAD	0.454	pc
22R20 ELBOW 90° M CARBON STEEL A-PRESS-MALE THREAD	0.190	pc
28 TEE EQUAL M CARBON STEEL A-PRESS	0.146	pc

Product Table

Name	Weight, kg	Unit
15-12 TEE REDUCED M CARBON STEEL A-PRESS	0.065	pc
22-18 TEE REDUCED M CARBON STEEL A-PRESS	0.102	pc
54 TEE EQUAL M CARBON STEEL A-PRESS	0.397	pc
18-12 TEE REDUCED M CARBON STEEL A-PRESS	0.075	pc
35 TEE EQUAL M CARBON STEEL A-PRESS	0.195	pc
22-15 TEE REDUCED M CARBON STEEL A-PRESS	0.099	pc
42 TEE EQUAL M CARBON STEEL A-PRESS	0.271	pc
22-12 TEE REDUCED M CARBON STEEL A-PRESS	0.095	pc
18-15 TEE REDUCED M CARBON STEEL A-PRESS	0.077	pc
28-15 TEE REDUCED M CARBON STEEL A-PRESS	0.127	pc
42-35 TEE REDUCED M CARBON STEEL A-PRESS	0.250	pc
35-22 TEE REDUCED M CARBON STEEL A-PRESS	0.172	pc
35-28 TEE REDUCED M CARBON STEEL A-PRESS	0.181	pc
42-28 TEE REDUCED M CARBON STEEL A-PRESS	0.234	pc
35-15 TEE REDUCED M CARBON STEEL A-PRESS	0.157	pc
28-22 TEE REDUCED M CARBON STEEL A-PRESS	0.136	pc
54-22 TEE REDUCED M CARBON STEEL A-PRESS	0.338	pc
35-18 TEE REDUCED M CARBON STEEL A-PRESS	0.161	pc
42-22 TEE REDUCED M CARBON STEEL A-PRESS	0.228	pc
28-18 TEE REDUCED M CARBON STEEL A-PRESS	0.130	pc

Name	Weight, kg	Unit
22-28 TEE ENLARGED M CARBON STEEL A-PRESS	0.122	pc
54-42 TEE REDUCED M CARBON STEEL A-PRESS	0.375	pc
12R15 TEE M CARBON STEEL A-PRESS-FEMALE THREAD	0.068	pc
12-15 TEE ENLARGED M CARBON STEEL A-PRESS	0.052	pc
18-22 TEE ENLARGED M CARBON STEEL A-PRESS	0.094	pc
15-22 TEE ENLARGED M CARBON STEEL A-PRESS	0.086	pc
54-35 TEE REDUCED M CARBON STEEL A-PRESS	0.356	pc
12R10 TEE M CARBON STEEL A-PRESS-FEMALE THREAD	0.067	pc
54-28 TEE REDUCED M CARBON STEEL A-PRESS	0.352	pc
15-18 TEE ENLARGED M CARBON STEEL A-PRESS	0.072	pc
35-28 REDUCER WITH PLAIN END M CARBON STEEL A-PRESS	0.084	pc
42-22 REDUCER WITH PLAIN END M CARBON STEEL A-PRESS	0.118	pc
54R15 TEE M CARBON STEEL A-PRESS-FEMALE THREAD	0.355	pc
35-22 REDUCER WITH PLAIN END M CARBON STEEL A-PRESS	0.092	pc
22R15 TEE M CARBON STEEL A-PRESS-FEMALE THREAD	0.127	pc
42R15 TEE M CARBON STEEL A-PRESS-FEMALE THREAD	0.248	pc
28R15 TEE M CARBON STEEL A-PRESS-FEMALE THREAD	0.150	pc
18R15 TEE M CARBON STEEL A-PRESS-FEMALE THREAD	0.095	pc
15R15 TEE M CARBON STEEL A-PRESS-FEMALE THREAD	0.084	pc
35R15 TEE M CARBON STEEL A-PRESS-FEMALE THREAD	0.185	pc

Product Table

Name	Weight, kg	Unit
54-42 REDUCER WITH PLAIN END M CARBON STEEL A-PRESS	0.210	pc
54-22 REDUCER WITH PLAIN END M CARBON STEEL A-PRESS	0.190	pc
42-35 REDUCER WITH PLAIN END M CARBON STEEL A-PRESS	0.112	pc
31-28 ADAPTOR WITH PLAIN AND WELD. END M&V C. STEEL A-PRESS	0.303	pc
44-42 ADAPTOR WITH PLAIN AND WELD. END M&V C. STEEL A-PRESS	0.440	pc
38-35 ADAPTOR WITH PLAIN AND WELD. END M&V C. STEEL A-PRESS	0.420	pc
42-28 REDUCER WITH PLAIN END M CARBON STEEL A-PRESS	0.131	pc
57-54 ADAPTOR WITH PLAIN AND WELD. END M&V C. STEEL A-PRESS	0.540	pc
54-28 REDUCER WITH PLAIN END M CARBON STEEL A-PRESS	0.186	pc
54-35 REDUCER WITH PLAIN END M CARBON STEEL A-PRESS	0.204	pc
42R40 ADAPTOR M CARBON STEEL A-PRESS-MALE THREAD	0.197	pc
18R15 ADAPTOR M CARBON STEEL A-PRESS-MALE THREAD	0.061	pc
15R15 ADAPTOR M CARBON STEEL A-PRESS-MALE THREAD	0.050	pc
12R10 ADAPTOR M CARBON STEEL A-PRESS-MALE THREAD	0.042	pc
28R25 ADAPTOR M CARBON STEEL A-PRESS-MALE THREAD	0.100	pc
15R10 ADAPTOR M CARBON STEEL A-PRESS-MALE THREAD	0.040	pc
35R32 ADAPTOR M CARBON STEEL A-PRESS-MALE THREAD	0.164	pc
22R20 ADAPTOR M CARBON STEEL A-PRESS-MALE THREAD	0.079	pc
54R50 ADAPTOR M CARBON STEEL A-PRESS-MALE THREAD	0.358	pc
18R20 ADAPTOR M CARBON STEEL A-PRESS-MALE THREAD	0.079	pc

Name	Weight, kg	Unit
22R20 ADAPTOR M CARBON STEEL A-PRESS-FEMALE THREAD	0.088	pc
28R25 ADAPTOR M CARBON STEEL A-PRESS-FEMALE THREAD	0.097	pc
18R20 ADAPTOR M CARBON STEEL A-PRESS-FEMALE THREAD	0.072	pc
15R15 ADAPTOR FEMALE THREAD PLAIN END M&V C. STEEL A-PRESS	0.073	pc
18R15 ADAPTOR M CARBON STEEL A-PRESS-FEMALE THREAD	0.059	pc
12R15 ADAPTOR FEMALE THREAD PLAIN END M&V C. STEEL A-PRESS	0.060	pc
15R15 ADAPTOR M CARBON STEEL A-PRESS-FEMALE THREAD	0.082	pc
28R20 ADAPTOR M CARBON STEEL A-PRESS-FEMALE THREAD	0.158	pc
12R15 ADAPTOR M CARBON STEEL A-PRESS-FEMALE THREAD	0.058	pc
18R15 ADAPTOR FEMALE THREAD PLAIN END M&V C. STEEL A-PRESS	0.071	pc
88.9xG20 TEE M CARBON ST. A-PRESS-FEMALE THREAD	1.314	pc
108 TEE EQUAL M CARBON STEEL A-PRESS	2.392	pc
76.1 TEE EQUAL M CARBON STEEL A-PRESS	1.220	pc
88.9 TEE EQUAL M CARBON STEEL A-PRESS	1.640	pc
18R20 ADAPTOR FEMALE THREAD PLAIN END M&V C. STEEL A-PRESS	0.125	pc
22R15 ADAPTOR FEMALE THREAD PLAIN END M&V C. STEEL A-PRESS	0.069	pc
22R20 ADAPTOR FEMALE THREAD PLAIN END M&V C. STEEL A-PRESS	0.124	pc
108xG20 TEE M CARBON ST. A-PRESS-FEMALE THREAD	1.900	pc
76.1x54 TEE REDUCED M CARBON STEEL A-PRESS	1.034	pc
76.1XG20 TEE M CARBON ST. A-PRESS-FEMALE THREAD	0.987	pc

Product Table

Name	Weight, kg	Unit
88.9x76.1TEE REDUCED M CARBON STEEL A-PRESS	1.572	pc
76.1x54 RED. WITH PLAIN END M CARBON STEEL A-PRESS	0.454	pc
12 ELBOW 45° WITH PLAIN END M CARBON STEEL A-PRESS	0.033	pc
12 ELBOW 45° M CARBON STEEL A-PRESS	0.034	pc
76.1x42 RED. WITH PLAIN END M CARBON STEEL A-PRESS	0.438	pc
88.9x76.1 RED. WITH PLAIN END M CARBON STEEL A-PRESS	0.699	pc
108x88.9 RED. WITH PLAIN END M CARBON STEEL A-PRESS	0.996	pc
108x76.1 RED. WITH PLAIN END M CARBON STEEL A-PRESS	0.980	pc
88.9x54 RED. WITH PLAIN END M CARBON STEEL A-PRESS	0.596	pc
108x88.9 TEE REDUCED M CARBON STEEL A-PRESS	2.100	pc
18 CAP M CARBON STEEL A-PRESS	0.033	pc
76.1 CAP M CARBON STEEL A-PRESS	0.376	pc
54 CAP M CARBON STEEL A-PRESS	0.178	pc
22 CAP M CARBON STEEL A-PRESS	0.045	pc
28 CAP M CARBON STEEL A-PRESS	0.061	pc
88.9 CAP M CARBON STEEL A-PRESS	0.504	pc
12 CAP M CARBON STEEL A-PRESS	0.021	pc
42 CAP M CARBON STEEL A-PRESS	0.116	pc
35 CAP M CARBON STEEL A-PRESS	0.082	pc
15 CAP M CARBON STEEL A-PRESS	0.028	pc

Name	Weight, kg	Unit
28-R25UNION MALE THREAD M CARBON STEEL A-PRESS	0.440	pc
35-R32 UNION MALE THREAD M CARBON STEEL A-PRESS	0.555	pc
28-R25 UNION FEMALE THREAD M CARBON STEEL A-PRESS	0.440	pc
22-R20 UNION FEMALE THREAD M CARBON STEEL A-PRESS	0.220	pc
22-R20 UNION MALE THREAD M CARBON STEEL A-PRESS	0.220	pc
15-R15 UNION FEMALE THREAD M CARBON STEEL A-PRESS	0.160	pc
35-R32 UNION FEMALE THREAD M CARBON STEEL A-PRESS	0.535	pc
108 CAP M CARBON STEEL A-PRESS	0.760	pc
12-12 SINGLE CROSSING M CARBON STEEL A-PRESS	0.188	pc
15-R15 UNION MALE THREAD M CARBON STEEL A-PRESS	0.138	pc
28-15 SINGLE CROSSING M CARBON STEEL A-PRESS	0.380	pc
12-12 DOUBLE CROSSING CARBON STEEL A-PRESS	0.230	pc
18-12 SINGLE CROSSING M CARBON STEEL A-PRESS	0.262	pc
22-12 SINGLE CROSSING M CARBON STEEL A-PRESS	0.304	pc
28-12 SINGLE CROSSING M CARBON STEEL A-PRESS	0.430	pc
15-12 SINGLE CROSSING M CARBON STEEL A-PRESS	0.234	pc
22-15SINGLE CROSSING M CARBON STEEL A-PRESS	0.327	pc
15-15 SINGLE CROSSING M CARBON STEEL A-PRESS	0.255	pc
15-12 DOUBLE CROSSING CARBON STEEL A-PRESS	0.315	pc
18-15 SINGLE CROSSING M CARBON STEEL A-PRESS	0.284	pc

Product Table

Name	Weight, kg	Unit
M18-M15 PIPE CROSS 90°	0.111	pc
18-15 DOUBLE CROSSING CARBON STEEL A-PRESS	0.399	pc
28-12 DOUBLE CROSSING CARBON STEEL A-PRESS	0.440	pc
18-12DOUBLE CROSSING CARBON STEEL A-PRESS	0.358	pc
PIPE CROSS 90 M15-M15	0.102	pc
22-15 DOUBLE CROSSING CARBON STEEL A-PRESS	0.422	pc
35-15 DOUBLE CROSSING CARBON STEEL A-PRESS	0.528	pc
22-12 DOUBLE CROSSING CARBON STEEL A-PRESS	0.366	pc
28-15 DOUBLE CROSSING CARBON STEEL A-PRESS	0.487	pc
15-15 DOUBLE CROSSING CARBON STEEL A-PRESS	0.360	pc
M22-M15 PIPE CROSS 90°	0.132	pc
DOUBLE CROSSING W. STOP M15XM12	0.484	pc
DOUBLE CROSSING W. STOP M15XM15	0.584	pc
REDUCER W. PLAIN END M108XM54	0.898	pc
M22-M18 PIPE CROSS 90°	0.142	pc
M28-M15 PIPE CROSS 90°	0.160	pc
DOUBLE CROSSING W. STOP M12XM12	0.458	pc
DOUBLE CROSSING W. STOP M22XM15	0.642	pc
M28-M18 PIPE CROSS 90°	0.171	pc
M28-M22 PIPE CROSS 90°	0.188	pc

Name	Weight, kg	Unit
M35-M22 PIPE CROSS 90°	0.220	pc
M42-M22 PIPE CROSS 90°	0.282	pc
22 PIPE BRIDGE LONG	0.197	pc
12 WELDING JOINT	0.014	pc
15 WELDING JOINT	0.016	pc
12 PIPE BRIDGE LONG	0.086	pc
15 PIPE BRIDGE LONG	0.110	pc
28 PIPE BRIDGE LONG	0.312	pc
M54-M22 PIPE CROSS 90°	0.390	pc
18 PIPE BRIDGE LONG	0.148	pc
BEND ADAPTOR 90° FEMALE THREAD V12-Rp3/8	0.080	pc
18 WELDING JOINT	0.020	pc
108 WELDING JOINT	0.584	pc
22 WELDING JOINT	0.028	pc
28 WELDING JOINT	0.035	pc
54 WELDING JOINT	0.096	pc
42 WELDING JOINT	0.070	pc
35 WELDING JOINT	0.053	pc
76,1 WELDING JOINT	0.290	pc
88,9 WELDING JOINT	0.397	pc

Product Table

Name	Weight, kg	Unit
ADAPTOR UNION FEM NUT BRASS G¾-V15	0.079	pc
BEND ADAPTOR 90° FEMALE THREAD V28-Rp½	0.195	pc
BEND ADAPTOR 90° FEMALE THREAD V15-Rp3/8	0.085	pc
BEND ADAPTOR 90° FEMALE THREAD V22-Rp¾	0.158	pc
ADAPTOR UNION FEM NUT BRASS G¾-V18	0.078	pc
ADAPTOR UNION FEM NUT BRASS G1¼-V28	0.182	pc
BEND ADAPTOR 90° FEMALE THREAD V15-Rp½	0.092	pc
ADAPTOR UNION FEM NUT BRASS G1-V22	0.108	pc
15x12x12 TEE REDUCED CARBON STEEL A-PRESS V	0.063	pc
BEND ADAPTOR 90° FEMALE THREAD V18-Rp½	0.094	pc
FLANGE PR PN 16 PN 10/16 V54	2.920	pc
ADAPTOR UNION FEM NUT BRASS G1½-V35	0.270	pc
28-22 REDUCER WITH PLAIN END V CARBON STEEL A-PRESS	0.069	pc
ADAPTOR UNION FEM NUT BRASS G2-V54	0.524	pc
FLANGE PR PN 16 PN 10/16 V42	2.400	pc
FLANGE PR PN 16 PN 10/16 V28	1.258	pc
FLANGE PR PN 16 PN 10/16 V35	2.036	pc
FLANGE PR PN 16 PN 10/16 V22	1.060	pc
Adaptor with Male head V22 x R15	0.091	pc
ADAPTOR UNION FEM NUT BRASS G1¾-V42	0.339	pc

Name	Weight, kg	Unit
42-35 REDUCER WITH PLAIN END V CARBON STEEL A-PRESS	0.131	pc
42-28 REDUCER WITH PLAIN END V CARBON STEEL A-PRESS	0.133	pc
35-22 REDUCER WITH PLAIN END V CARBON STEEL A-PRESS	0.094	pc
42-22 REDUCER WITH PLAIN END V CARBON STEEL A-PRESS	0.125	pc
54-22 REDUCER WITH PLAIN END V CARBON STEEL A-PRESS	0.191	pc
35-18 REDUCER WITH PLAIN END V CARBON STEEL A-PRESS	0.084	pc
54-18 REDUCER WITH PLAIN END V CARBON STEEL A-PRESS	0.195	pc
35-15 REDUCER WITH PLAIN END V CARBON STEEL A-PRESS	0.088	pc
35-28 REDUCER WITH PLAIN END V CARBON STEEL A-PRESS	0.099	pc
42-18 REDUCER WITH PLAIN END V CARBON STEEL A-PRESS	0.124	pc
12R15 ADAPTOR FEMALE THREAD A-PRESS V CARBON STEEL	0.045	pc
18R20 ADAPTOR FEMALE THREAD A-PRESS V CARBON STEEL	0.110	pc
18R15 ADAPTOR FEMALE THREAD A-PRESS V CARBON STEEL	0.066	pc
15R20 ADAPTOR FEMALE THREAD A-PRESS V CARBON STEEL	0.035	pc
54-35 REDUCER WITH PLAIN END V CARBON STEEL A-PRESS	0.191	pc
12R10 ADAPTOR FEMALE THREAD A-PRESS V CARBON STEEL	0.047	pc
15R10 ADAPTOR FEMALE THREAD A-PRESS V CARBON STEEL	0.051	pc
54-42 REDUCER WITH PLAIN END V CARBON STEEL A-PRESS	0.242	pc
15R15 ADAPTOR FEMALE THREAD A-PRESS V CARBON STEEL	0.051	pc
54-28 REDUCER WITH PLAIN END V CARBON STEEL A-PRESS	0.186	pc

Product Table

Name	Weight, kg	Unit
22R15 ADAPTOR FEMALE THREAD A-PRESS V CARBON STEEL	0.103	pc
35R32 ADAPTOR FEMALE THREAD A-PRESS V CARBON STEEL	0.215	pc
35R25 ADAPTOR FEMALE THREAD A-PRESS V CARBON STEEL	0.227	pc
42R40 ADAPTOR FEMALE THREAD A-PRESS V CARBON STEEL	0.277	pc
28R25 ADAPTOR FEMALE THREAD A-PRESS V CARBON STEEL	0.131	pc
28R15 ADAPTOR FEMALE THREAD A-PRESS V CARBON STEEL	0.143	pc
54R50 ADAPTOR FEMALE THREAD A-PRESS V CARBON STEEL	0.497	pc
28R20 ADAPTOR FEMALE THREAD A-PRESS V CARBON STEEL	0.149	pc
22R20 ADAPTOR FEMALE THREAD A-PRESS V CARBON STEEL	0.098	pc
22R25 ADAPTOR FEMALE THREAD A-PRESS V CARBON STEEL	0.133	pc
12R10 ADAPTOR MALE THREAD A-PRESS V CARBON STEEL	0.041	pc
28R20 ADAPTOR MALE THREAD A-PRESS V CARBON STEEL	0.140	pc
22R20 ADAPTOR MALE THREAD A-PRESS V CARBON STEEL	0.109	pc
15R20 ADAPTOR MALE THREAD A-PRESS V CARBON STEEL	0.069	pc
18R20 ADAPTOR MALE THREAD A-PRESS V CARBON STEEL	0.090	pc
15R15 ADAPTOR MALE THREAD A-PRESS V CARBON STEEL	0.057	pc
18R15 ADAPTOR MALE THREAD A-PRESS V CARBON STEEL	0.065	pc
12R15 ADAPTOR MALE THREAD A-PRESS V CARBON STEEL	0.041	pc
22R25 ADAPTOR MALE THREAD A-PRESS V CARBON STEEL	0.144	pc
15R10 ADAPTOR MALE THREAD A-PRESS V CARBON STEEL	0.051	pc

Name	Weight, kg	Unit
42R40 ADAPTOR MALE THREAD A-PRESS V CARBON STEEL	0.273	pc
15R20 UNION FEMALE THREAD V CARBON STEEL A-PRESS	0.195	pc
28R25 ADAPTOR MALE THREAD A-PRESS V CARBON STEEL	0.137	pc
12R15 ADAPTOR MALE THREAD A-PRESS V CARBON STEEL	0.411	pc
22R20 UNION FEMALE THREAD V CARBON STEEL A-PRESS	0.220	pc
18R15 UNION FEMALE THREAD V CARBON STEEL A-PRESS	0.169	pc
35R40 ADAPTOR MALE THREAD A-PRESS V CARBON STEEL	0.327	pc
15R15 UNION FEMALE THREAD V CARBON STEEL A-PRESS	0.160	pc
35R32 ADAPTOR MALE THREAD A-PRESS V CARBON STEEL	0.194	pc
18R20 UNION FEMALE THREAD V CARBON STEEL A-PRESS	0.192	pc
22R15 UNION MALE THREAD V CARBON STEEL A-PRESS	0.250	pc
18R20 UNION MALE THREAD V CARBON STEEL A-PRESS	0.164	pc
42R40 UNION FEMALE THREAD V CARBON STEEL A-PRESS	0.610	pc
35R32 UNION FEMALE THREAD V CARBON STEEL A-PRESS	0.535	pc
54R50 ADAPTOR FEMALE THREAD A-PRESS V CARBON STEEL	1.110	pc
18R15 UNION MALE THREAD V CARBON STEEL A-PRESS	0.144	pc
15R20 UNION MALE THREAD V CARBON STEEL A-PRESS	0.170	pc
22R25 UNION FEMALE THREAD V CARBON STEEL A-PRESS	0.274	pc
28R25 UNION FEMALE THREAD V CARBON STEEL A-PRESS	0.440	pc
15R15 UNION MALE THREAD V CARBON STEEL A-PRESS	0.138	pc

Product Table

Name	Weight, kg	Unit
35R32 UNION MALE THREAD V CARBON STEEL A-PRESS	0.555	pc
12 ELBOW 90° V CARBON STEEL A-PRESS	0.036	pc
15 ELBOW 90° V CARBON STEEL A-PRESS	0.050	pc
18 ELBOW 90° V CARBON STEEL A-PRESS	0.064	pc
22 ELBOW 90° V CARBON STEEL A-PRESS	0.086	pc
42R40 UNION MALE THREAD V CARBON STEEL A-PRESS	0.651	pc
54R50 UNION MALE THREAD V CARBON STEEL A-PRESS	1.100	pc
28R25 UNION MALE THREAD V CARBON STEEL A-PRESS	0.440	pc
22R25 UNION MALE THREAD V CARBON STEEL A-PRESS	0.290	pc
22R20 UNION MALE THREAD V CARBON STEEL A-PRESS	0.220	pc
18 ELBOW 90° WITH PLAIN END V CARBON STEEL A-PRESS	0.064	pc
28 ELBOW 90° V CARBON STEEL A-PRESS	0.125	pc
12 ELBOW 90° WITH PLAIN END V CARBON STEEL A-PRESS	0.036	pc
42 ELBOW 90° V CARBON STEEL A-PRESS	0.342	pc
22 ELBOW 90° WITH PLAIN END V CARBON STEEL A-PRESS	0.086	pc
15 ELBOW 90° WITH PLAIN END V CARBON STEEL A-PRESS	0.051	pc
54 ELBOW 90° V CARBON STEEL A-PRESS	0.511	pc
28 ELBOW 90° WITH PLAIN END V CARBON STEEL A-PRESS	0.124	pc
35 ELBOW 90° WITH PLAIN END V CARBON STEEL A-PRESS	0.179	pc
35 ELBOW 90° V CARBON STEEL A-PRESS	0.175	pc

Name	Weight, kg	Unit
15 ELBOW 45° V CARBON STEEL A-PRESS	0.044	pc
28 ELBOW 45° V CARBON STEEL A-PRESS	0.101	pc
54 ELBOW 90° WITH PLAIN END V CARBON STEEL A-PRESS	0.512	pc
35 ELBOW 45° V CARBON STEEL A-PRESS	0.154	pc
22 ELBOW 45° V CARBON STEEL A-PRESS	0.075	pc
42 ELBOW 90° WITH PLAIN END V CARBON STEEL A-PRESS	0.341	pc
12 ELBOW 45° V CARBON STEEL A-PRESS	0.032	pc
42 ELBOW 45° V CARBON STEEL A-PRESS	0.271	pc
54 ELBOW 45° V CARBON STEEL A-PRESS	0.413	pc
18 ELBOW 45° V CARBON STEEL A-PRESS	0.054	pc
12 ELBOW 45° WITH PLAIN END V CARBON STEEL A-PRESS	0.033	pc
35 ELBOW 45° WITH PLAIN END V CARBON STEEL A-PRESS	0.153	pc
15 ELBOW 45° WITH PLAIN END V CARBON STEEL A-PRESS	0.045	pc
42 ELBOW 90° WITH PLAIN END V CARBON STEEL A-PRESS	0.269	pc
12R10 ELBOW 90° V CARBON STEEL A-PRESS-MALE THREAD	0.054	pc
15R10 BEND 90° V CARBON STEEL A-PRESS-MALE THREAD	0.063	pc
28 ELBOW 45° WITH PLAIN END V CARBON STEEL A-PRESS	0.102	pc
18 ELBOW 45° WITH PLAIN END V CARBON STEEL A-PRESS	0.054	pc
54 ELBOW 45° WITH PLAIN END V CARBON STEEL A-PRESS	0.462	pc
22 ELBOW 45° WITH PLAIN END V CARBON STEEL A-PRESS	0.074	pc

Product Table

Name	Weight, kg	Unit
15R15 BEND 90° V CARBON STEEL A-PRESS-MALE THREAD	0.071	pc
42R40 ELBOW 90° V CARBON STEEL A-PRESS-MALE THREAD	0.467	pc
54R50 ADAPTOR MALE THREAD A-PRESS V CARBON STEEL	0.800	pc
15G15 ELBOW 90° V CARBON STEEL A-PRESS-FEMALE THREAD	0.187	pc
35R32 ELBOW 90° V CARBON STEEL A-PRESS-MALE THREAD	0.320	pc
28R25 ELBOW 90° V CARBON STEEL A-PRESS-MALE THREAD	0.180	pc
18R15 BEND 90° V CARBON STEEL A-PRESS-MALE THREAD	0.082	pc
18G15 ELBOW 90° V CARBON STEEL A-PRESS-FEMALE THREAD	0.152	pc
22G15 ELBOW 90° V CARBON STEEL A-PRESS-FEMALE THREAD	0.249	pc
22R20 ELBOW 90° V CARBON STEEL A-PRESS-MALE THREAD	0.111	pc
22G20 ELBOW 90° V CARBON STEEL A-PRESS-FEMALE THREAD	0.318	pc
28G15 ELBOW 90° V CARBON STEEL A-PRESS-FEMALE THREAD	0.498	pc
18G15 ELBOW 90° V CARBON STEEL A-PRESS-MALE THREAD	0.151	pc
15G15 ELBOW 90° V CARBON STEEL A-PRESS-MALE THREAD	0.108	pc
12 TEE EQUAL V CARBON STEEL A-PRESS	0.045	pc
22G20 ELBOW 90° V CARBON STEEL A-PRESS-MALE THREAD	0.217	pc
12G10 ELBOW 90° V CARBON STEEL A-PRESS-MALE THREAD	0.089	pc
18G20 ELBOW 90° V CARBON STEEL A-PRESS-MALE THREAD	0.170	pc
15G10 ELBOW 90° V CARBON STEEL A-PRESS-MALE THREAD	0.097	pc
15 TEE EQUAL V CARBON STEEL A-PRESS	0.070	pc

Name	Weight, kg	Unit
54 TEE EQUAL V CARBON STEEL A-PRESS	0.550	pc
35 TEE EQUAL V CARBON STEEL A-PRESS	0.201	pc
28 TEE EQUAL V CARBON STEEL A-PRESS	0.145	pc
18 TEE EQUAL V CARBON STEEL A-PRESS	0.085	pc
22-12 TEE REDUCED V CARBON STEEL A-PRESS	0.089	pc
15-12 TEE REDUCED V CARBON STEEL A-PRESS	0.064	pc
42 TEE EQUAL V CARBON STEEL A-PRESS	0.366	pc
18-15 TEE REDUCED V CARBON STEEL A-PRESS	0.080	pc
22 TEE EQUAL V CARBON STEEL A-PRESS	0.112	pc
18-12 TEE REDUCED V CARBON STEEL A-PRESS	0.074	pc
22-18 TEE REDUCED V CARBON STEEL A-PRESS	0.103	pc
35-15 TEE REDUCED V CARBON STEEL A-PRESS	0.169	pc
35-28 TEE REDUCED V CARBON STEEL A-PRESS	0.185	pc
35-22 TEE REDUCED V CARBON STEEL A-PRESS	0.180	pc
22-15 TEE REDUCED V CARBON STEEL A-PRESS	0.100	pc
42-15 T-PIECE REDUCED V CARBON STEEL A-PRESS	0.292	pc
35-18 TEE REDUCED V CARBON STEEL A-PRESS	0.174	pc
28-15 TEE REDUCED V CARBON STEEL A-PRESS	0.127	pc
28-18 TEE REDUCED V CARBON STEEL A-PRESS	0.130	pc
28-22 TEE REDUCED V CARBON STEEL A-PRESS	0.138	pc

Product Table

Name	Weight, kg	Unit
54-42 TEE REDUCED V CARBON STEEL A-PRESS	0.494	pc
42-28 TEE REDUCED V CARBON STEEL A-PRESS	0.310	pc
54-15 T-PIECE REDUCED V CARBON STEEL A-PRESS	0.419	pc
42-18 T-PIECE REDUCED V CARBON STEEL A-PRESS	0.292	pc
42-22 TEE REDUCED V CARBON STEEL A-PRESS	0.303	pc
54-28 TEE REDUCED V CARBON STEEL A-PRESS	0.436	pc
54-18 T-PIECE REDUCED V CARBON STEEL A-PRESS	0.421	pc
42-35 TEE REDUCED V CARBON STEEL A-PRESS	0.322	pc
54-22 TEE REDUCED V CARBON STEEL A-PRESS	0.432	pc
54-35 TEE REDUCED V CARBON STEEL A-PRESS	0.448	pc
15R15 TEE V CARBON STEEL A-PRESS-FEMALE THREAD	0.086	pc
18-22 TEE ENLARGED V CARBON STEEL A-PRESS	0.108	pc
18R15 TEE V CARBON STEEL A-PRESS-FEMALE THREAD	0.097	pc
12-15 TEE ENLARGED V CARBON STEEL A-PRESS	0.059	pc
12R15 TEE V CARBON STEEL A-PRESS-FEMALE THREAD	0.066	pc
22R15 TEE V CARBON STEEL A-PRESS-FEMALE THREAD	0.127	pc
15-18 TEE ENLARGED V CARBON STEEL A-PRESS	0.081	pc
12R10 TEE V CARBON STEEL A-PRESS-FEMALE THREAD	0.065	pc
22-28 TEE ENLARGED V CARBON STEEL A-PRESS	0.134	pc
15-22 TEE ENLARGED V CARBON STEEL A-PRESS	0.091	pc

Name	Weight, kg	Unit
54R15 TEE V CARBON STEEL A-PRESS-FEMALE THREAD	0.445	pc
42R20 T-PIECE V CARBON STEEL A-PRESS-FEMALE THREAD	0.322	pc
28R15 TEE V CARBON STEEL A-PRESS-FEMALE THREAD	0.155	pc
54R20 T-PIECE V CARBON STEEL A-PRESS-FEMALE THREAD	0.448	pc
22R20 T-PIECE V CARBON STEEL A-PRESS-FEMALE THREAD	0.131	pc
35R15 TEE V CARBON STEEL A-PRESS-FEMALE THREAD	0.196	pc
28R20 T-PIECE V CARBON STEEL A-PRESS-FEMALE THREAD	0.160	pc
42R15 TEE V CARBON STEEL A-PRESS-FEMALE THREAD	0.317	pc
12 CAP V CARBON STEEL A-PRESS	0.018	pc
35R20 T-PIECE V CARBON STEEL A-PRESS-FEMALE THREAD	0.199	pc
15-15 SINGLE CROSSING V CARBON STEEL A-PRESS V	0.283	pc
35 CAP V CARBON STEEL A-PRESS	0.087	pc
12-12 SINGLE CROSSING V CARBON STEEL A-PRESS V	0.196	pc
54 CAP V CARBON STEEL A-PRESS	0.223	pc
42 CAP V CARBON STEEL A-PRESS	0.145	pc
28 CAP V CARBON STEEL A-PRESS	0.063	pc
22 CAP V CARBON STEEL A-PRESS	0.047	pc
18 CAP V CARBON STEEL A-PRESS	0.035	pc
15-12 SINGLE CROSSING V CARBON STEEL A-PRESS V	0.256	pc
15 CAP V CARBON STEEL A-PRESS	0.029	pc

Product Table

Name	Weight, kg	Unit
12-12 DOUBLE CROSSING V CARBON STEEL A-PRESS V	0.292	pc
18-12 SINGLE CROSSING V CARBON STEEL A-PRESS V	0.273	pc
18-15 SINGLE CROSSING V CARBON STEEL A-PRESS V	0.300	pc
28-12 SINGLE CROSSING V CARBON STEEL A-PRESS V	0.368	pc
15-12 DOUBLE CROSSING V CARBON STEEL A-PRESS V	0.351	pc
28-15 SINGLE CROSSING V CARBON STEEL A-PRESS V	0.394	pc
15-15 DOUBLE CROSSING V CARBON STEEL A-PRESS V	0.406	pc
18-12DOUBLE CROSSING V CARBON STEEL A-PRESS V	0.368	pc
22-12 SINGLE CROSSING V CARBON STEEL A-PRESS V	0.314	pc
22-15 SINGLE CROSSING V CARBON STEEL A-PRESS V	0.341	pc
28-15 DOUBLE CROSSING V CARBON STEEL A-PRESS V	0.513	pc
35-15 DOUBLE CROSSING V CARBON STEEL A-PRESS V	0.567	pc
28-12 DOUBLE CROSSING V CARBON STEEL A-PRESS V	0.460	pc
22-15 DOUBLE CROSSING V CARBON STEEL A-PRESS V	0.461	pc
18-15 DOUBLE CROSSING V CARBON STEEL A-PRESS V	0.421	pc
22-12 DOUBLE CROSSING V CARBON STEEL A-PRESS V	0.408	pc

Additional information

The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins, and/or risks. It is advised not to use the results of modules A1-A3 (A1-A5 for services) without considering the results of module C.

The end-of-life reflects the Swedish market, where 1 % of ferrous metallic waste is landfilled, and 99 % recycled, a wastage of 10 % is considered during the recycling process. The other materials' EoL scenarios are as per SCBdata for 2020. For the credit for recovered material (module D), EU datasets were used.

Data quality: All datasets used came from reputable databases Sphera Managed LCA Content (MLC) (fka GaBi database) and Ecoinvent, with good technological representativeness. Therefore, it could be considered good.

Allocation: No co-product allocation has been applied since no co-products are generated, and therefore allocation has not been relevant.

Cut-off Criteria: The general rules for the exclusion of inputs and outputs follow the requirements in EN15804+A2.

References

EN 15804:2012+A2	Sustainability of construction works – Environmental product declaration – Core rules for the product category of construction products
EPD International (2021)	General Programme Instructions of the International EPD® System, version 4.0
PCR 2019:14	PCR 2019:14. v1.3.1. Construction products (EN 15804: A2)
SCB (2023)	https://www.statistikdatabasen.scb.se/pxweb/en/ssd/START__MI__MI0305/MI0305T003/table/tableViewLayout1/
ISO 14025:2006	International Standard ISO 14025 – Environmental labels and declarations — Type III environmental declarations — Principles and procedures
ISO 14040:2006	International Standard ISO 14040: Environmental Management – Life cycle assessment – Principles and framework. Second edition 2006-07-01.
ISO 14044:2006	International Standard ISO 14044: Environmental Management – Life cycle assessment – Requirements and Guidelines.

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