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# Environmental report

## „MP-U-I (01)“

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# 1 Life Cycle Assessment „HILTI MP-U-I (01)“

## 1.1 Technical data and material distribution

Table 1.1: Technical data and material distribution

IT- Number	Product name	Pcs. per salespack	Weight [kg]	Material
2242237	MP-U-I 9-13 1/8" M8	25	0,832	Steel, Polymer
2242238	MP-U-I 13-17 1/4" M8	25	0,890	Steel, Polymer
2242239	MP-U-I 17-21 3/8" M8	25	0,968	Steel, Polymer
2242250	MP-U-I 21-25 1/2" M8	25	1,076	Steel, Polymer
2242251	MP-U-I 25-29 3/4" M8	25	1,186	Steel, Polymer
2242252	MP-U-I 29-33 M8	25	1,285	Steel, Polymer
2242253	MP-U-I 33-37 1" M8	25	1,373	Steel, Polymer
2242254	MP-U-I 37-42 M8	25	1,503	Steel, Polymer
2242255	MP-U-I 42-47 1 1/4" M8	25	1,604	Steel, Polymer
2242256	MP-U-I 47-52 1 1/2" M8	25	1,715	Steel, Polymer
2305363	MP-U-I 52-57 M8	25	1,824	Steel, Polymer
2305364	MP-U-I 57-62 2" M8	10	0,779	Steel, Polymer
2242258	MP-U-I 9-13 1/8" M8/10	25	0,969	Steel, Polymer
2242259	MP-U-I 13-17 1/4" M8/10	25	1,027	Steel, Polymer
2242260	MP-U-I 17-21 3/8" M8/10	25	1,104	Steel, Polymer
2242261	MP-U-I 21-25 1/2" M8/10	25	1,212	Steel, Polymer
2242262	MP-U-I 25-29 3/4" M8/10	25	1,322	Steel, Polymer
2242263	MP-U-I 29-33 M8/10	25	1,422	Steel, Polymer
2242264	MP-U-I 33-37 1" M8/10	25	1,509	Steel, Polymer
2242265	MP-U-I 37-42 M8/10	25	1,639	Steel, Polymer
2242266	MP-U-I 42-47 1 1/4" M8/10	25	1,741	Steel, Polymer
2242267	MP-U-I 47-52 1 1/2" M8/10	25	1,851	Steel, Polymer
2242268	MP-U-I 52-57 M8/10	25	1,960	Steel, Polymer
2242269	MP-U-I 57-62 2" M8/10	10	0,834	Steel, Polymer
2242270	MP-U-I 62-67 M8/10	10	1,389	Steel, Polymer
2242271	MP-U-I 67-72 M8/10	10	1,456	Steel, Polymer
2242272	MP-U-I 72-77 2 1/2" M8/10	10	1,522	Steel, Polymer
2242273	MP-U-I 78-84 M8/10	10	1,617	Steel, Polymer
2242274	MP-U-I 84-90 3" M8/10	10	1,696	Steel, Polymer
2242275	MP-U-I 90-96 M8/10	10	1,776	Steel, Polymer
2242276	MP-U-I 97-103 M8/10	10	2,276	Steel, Polymer
2242277	MP-U-I 103-109 M8/10	10	2,395	Steel, Polymer
2242278	MP-U-I 109-115 4" M8/10	10	2,486	Steel, Polymer

Table 1.2: Technical data and material distribution

IT- Number	Product name	Pcs. per salespack	Weight [kg]	Material
2242279	MP-U-I 115-121 M8/10	10	2,578	Steel, Polymer
2242280	MP-U-I 122-128 M8/10	10	2,685	Steel, Polymer
2242281	MP-U-I 129-135 M8/10	10	2,792	Steel, Polymer
2305365	MP-U-I 135-141 5" M8/10	10	2,883	Steel, Polymer
2305366	MP-U-I 141-147 M8/10	10	3,228	Steel, Polymer
2305367	MP-U-I 147-153 M8/10	10	3,327	Steel, Polymer
2305368	MP-U-I 154-160 M8/10	10	3,442	Steel, Polymer
2305369	MP-U-I 160-166 6" M8/10	10	3,541	Steel, Polymer
2305370	MP-U-I 164-170 M8/10	10	3,607	Steel, Polymer
2242283	MP-U-I 9-13 1/8" M8/10/1/2"	25	1,914	Steel, Polymer
2242284	MP-U-I 13-17 1/4" M8/10/1/2"	25	1,971	Steel, Polymer
2242285	MP-U-I 17-21 3/8" M8/10/1/2"	25	2,049	Steel, Polymer
2242286	MP-U-I 21-25 1/2" M8/10/1/2"	25	2,168	Steel, Polymer
2242287	MP-U-I 25-29 3/4" M8/10/1/2"	25	2,278	Steel, Polymer
2242288	MP-U-I 29-33 M8/10/1/2"	25	2,367	Steel, Polymer
2242289	MP-U-I 33-37 1" M8/10/1/2"	25	2,454	Steel, Polymer
2242290	MP-U-I 37-42 M8/10/1/2"	25	2,584	Steel, Polymer
2242291	MP-U-I 42-47 1 1/4" M8/10/1/2"	25	2,685	Steel, Polymer
2242292	MP-U-I 47-52 1 1/2" M8/10/1/2"	25	2,796	Steel, Polymer
2242293	MP-U-I 52-57 M8/10/1/2"	25	2,905	Steel, Polymer
2242294	MP-U-I 57-62 2" M8/10/1/2"	10	1,223	Steel, Polymer
2242295	MP-U-I 62-67 M8/10/1/2"	10	1,766	Steel, Polymer
2242296	MP-U-I 67-72 M8/10/1/2"	10	1,833	Steel, Polymer
2242297	MP-U-I 72-77 2 1/2" M8/10/1/2"	10	1,898	Steel, Polymer
2242298	MP-U-I 78-84 M8/10/1/2"	10	1,993	Steel, Polymer
2242299	MP-U-I 84-90 3" M8/10/1/2"	10	2,073	Steel, Polymer
2242300	MP-U-I 90-96 M8/10/1/2"	10	2,153	Steel, Polymer
2242301	MP-U-I 97-103 M8/10/1/2"	10	2,652	Steel, Polymer
2242302	MP-U-I 103-109 M8/10/1/2"	10	2,771	Steel, Polymer
2242303	MP-U-I 109-115 4" M8/10/1/2"	10	2,863	Steel, Polymer
2242304	MP-U-I 115-121 M8/10/1/2"	10	2,955	Steel, Polymer
2242305	MP-U-I 122-128 M8/10/1/2"	10	3,062	Steel, Polymer

Table 1.3: Technical data and material distribution

IT- Number	Product name	Pcs. per salespack	Weight [kg]	Material
2242306	MP-U-I 129-135 M8/10/1/2"	10	3,168	Steel, Polymer
2305371	MP-U-I 135-141 5" M8/10/1/2"	10	3,259	Steel, Polymer
2305372	MP-U-I 141-147 M8/10/1/2"	10	3,604	Steel, Polymer
2305373	MP-U-I 147-153 M8/10/1/2"	10	3,703	Steel, Polymer
2305374	MP-U-I 154-160 M8/10/1/2"	10	3,818	Steel, Polymer
2305375	MP-U-I 160-166 6" M8/10/1/2"	10	3,917	Steel, Polymer
2305376	MP-U-I 164-170 M8/10/1/2"	10	3,983	Steel, Polymer
2244773	MP-GA 1/2" (M16)	20	0,703	Steel, Polymer, Cardboard
2242308	MP-U-I 9-13 1/8" M8/10/O16	25	1,057	Steel, Polymer
2242309	MP-U-I 13-17 1/4" M8/10/O16	25	1,115	Steel, Polymer
2242310	MP-U-I 17-21 3/8" M8/10/O16	25	1,193	Steel, Polymer
2242311	MP-U-I 21-25 1/2" M8/10/O16	25	1,300	Steel, Polymer
2242312	MP-U-I 25-29 3/4" M8/10/O16	25	1,411	Steel, Polymer
2242313	MP-U-I 29-33 M8/10/O16	25	1,510	Steel, Polymer
2242314	MP-U-I 33-37 1" M8/10/O16	25	1,597	Steel, Polymer
2242315	MP-U-I 37-42 M8/10/O16	25	1,727	Steel, Polymer
2242316	MP-U-I 42-47 1 1/4" M8/10/O16	25	1,829	Steel, Polymer
2242317	MP-U-I 47-52 1 1/2" M8/10/O16	25	1,940	Steel, Polymer
2242318	MP-U-I 52-57 M8/10/O16	25	2,049	Steel, Polymer
2242319	MP-U-I 57-62 2" M8/10/O16	10	0,869	Steel, Polymer
2242320	MP-U-I 62-67 M8/10/O16	10	1,423	Steel, Polymer
2242321	MP-U-I 67-72 M8/10/O16	10	1,490	Steel, Polymer
2242322	MP-U-I 72-77 2 1/2" M8/10/O16	10	1,556	Steel, Polymer
2242323	MP-U-I 78-84 M8/10/O16	10	1,650	Steel, Polymer
2242324	MP-U-I 84-90 3" M8/10/O16	10	1,730	Steel, Polymer
2242325	MP-U-I 90-96 M8/10/O16	10	1,810	Steel, Polymer
2242326	MP-U-I 97-103 M8/10/O16	10	2,310	Steel, Polymer

**Table 1.4: Technical data and material distribution**

IT- Number	Product name	Pcs. per salespack	Weight [kg]	Material
2242327	MP-U-I 103-109 M8/10/O16	10	2,429	Steel, Polymer
2242328	MP-U-I 109-115 4" M8/10/O16	10	2,520	Steel, Polymer
2242329	MP-U-I 115-121 M8/10/O16	10	2,612	Steel, Polymer
2242330	MP-U-I 122-128 M8/10/O16	10	2,719	Steel, Polymer
2242331	MP-U-I 129-135 M8/10/O16	10	2,826	Steel, Polymer
2305377	MP-U-I 135-141 5" M8/10/O16	10	2,917	Steel, Polymer
2305378	MP-U-I 141-147 M8/10/O16	10	3,262	Steel, Polymer
2305379	MP-U-I 147-153 M8/10/O16	10	3,360	Steel, Polymer
2305380	MP-U-I 154-160 M8/10/O16	10	3,476	Steel, Polymer
2305381	MP-U-I 160-166 6" M8/10/O16	10	3,574	Steel, Polymer
2305382	MP-U-I 164-170 M8/10/O16	10	3,641	Steel, Polymer
2244772	MP-GA M16 (M16)	20	0,522	Steel, Polymer, Cardboard



## 1.2 Description of the applied method

A life cycle assessment according to DIN EN ISO 14040/44, was performed on a product of HILTI AG (MP-U-I (01)), which considers the entire life cycle of the product (cradle to grave). The accounting data come from the source: GaBi 9.2, and are evaluated from IPCC 2001, April. 2015.

The entire life cycle of the product is divided into the following stages:

- Raw material,
- Production,
- Use,
- End of life,
- Transportation.

The data of the “Raw material” distribution of the product is derived from a dismantling and disassembling analysis, that was already carried out by an external partner.

Each material, which is defined in the dismantling and disassembling analysis is specifically assigned to one or several “Production” processes in order to describe the process as closely as possible.

The products produce no emissions in the “Use” phase.

In the “End of life” it is assumed, that the entire product is first fed to a reduction process. A Shredder (QZ 1600 HD) from MeWa, is used for separating and crushing the individual materials. The respective credits come from the material recycling of metals, as well as from the energy recovery of the paper and the polymers.

The “Transportation” scenario is based on the 2009 Limit Stretch study by PE International, and is evaluated according to the weight of the product. The first transport reflects the transport distances, which are essential for bringing together the individual components (by sea- a container ship for 16 800 km for 30% of the product weight, by road- a truck for 4 716 km for 70% of the product weight).

The second transport reflects the distribution of the product to the various sales companies within the EU (2 300 km by road in a truck for 100% of the product weight).

The emissions of both transports are added together in this report.

## 1.3 Life Cycle Assessment

### 1.3.1 MP-U-I 9-13 1/8" M8

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242237	MP-U-I 9-13 1/8" M8	25	0,832	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	1,347	1,990	0,134	0,000	-1,151	0,374
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	5,35E-15	4,09E-15	3,97E-15	0,00E+00	-2,77E-15	6,07E-17
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	4,20E-03	4,06E-03	2,80E-04	0,00E+00	-3,15E-03	3,01E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> -eq.]	7,57E-04	4,06E-04	3,09E-05	0,00E+00	-2,96E-04	6,16E-04
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-7,12E-04	5,66E-04	2,00E-05	0,00E+00	-4,63E-04	-8,35E-04
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	2,82E-07	2,28E-07	4,44E-08	0,00E+00	-2,00E-08	2,94E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	1,82E+01	2,47E+01	1,50E+00	0,00E+00	-1,31E+01	5,09E+00
Energy (net calorific value) [MJ]	1,91E+01	2,52E+01	2,41E+00	0,00E+00	-1,35E+01	5,10E+00
Energy ren. (net calorific value) [MJ]	1,50E+00	1,04E+00	1,05E+00	0,00E+00	-8,51E-01	2,64E-01
Water consumption [kg]	2,94E+00	2,77E+00	1,26E+00	0,00E+00	-1,41E+00	3,07E-01
Air pollution [m <sup>3</sup> ]	6,63E+01	1,88E+02	8,58E+00	0,00E+00	-1,57E+02	2,73E+01
Water pollution [m <sup>3</sup> ]	2,26E-01	1,88E-01	3,48E-02	0,00E+00	-7,66E-02	7,99E-02
Hazardous waste for disposal [kg]	2,55E-07	4,55E-08	9,91E-10	0,00E+00	-9,65E-09	2,18E-07
Disposed of non-hazardous waste [kg]	1,28E-02	2,31E-02	1,70E-03	0,00E+00	-1,27E-02	7,60E-04
Disposed of radioactive waste [kg]	3,15E-04	1,35E-04	3,61E-04	0,00E+00	-1,87E-04	6,27E-06

evaluated from CML 2001, April. 2015

### 1.3.2 MP-U-I 13-17 1/4" M8

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242238	MP-U-I 13-17 1/4" M8	25	0,890	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	1,488	2,143	0,148	0,000	-1,203	0,400
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	5,90E-15	4,58E-15	4,38E-15	0,00E+00	-3,12E-15	6,49E-17
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	4,51E-03	4,32E-03	3,09E-04	0,00E+00	-3,34E-03	3,22E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	8,13E-04	4,35E-04	3,42E-05	0,00E+00	-3,14E-04	6,58E-04
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-7,59E-04	6,03E-04	2,21E-05	0,00E+00	-4,91E-04	-8,93E-04
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	3,26E-07	2,69E-07	4,90E-08	0,00E+00	-2,34E-08	3,14E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	2,03E+01	2,73E+01	1,65E+00	0,00E+00	-1,40E+01	5,44E+00
Energy (net calorific value) [MJ]	2,12E+01	2,77E+01	2,65E+00	0,00E+00	-1,46E+01	5,46E+00
Energy ren. (net calorific value) [MJ]	1,64E+00	1,14E+00	1,16E+00	0,00E+00	-9,52E-01	2,82E-01
Water consumption [kg]	3,28E+00	3,03E+00	1,40E+00	0,00E+00	-1,47E+00	3,28E-01
Air pollution [m <sup>3</sup> ]	7,17E+01	2,00E+02	9,47E+00	0,00E+00	-1,67E+02	2,92E+01
Water pollution [m <sup>3</sup> ]	2,53E-01	2,12E-01	3,84E-02	0,00E+00	-8,30E-02	8,54E-02
Hazardous waste for disposal [kg]	2,76E-07	5,26E-08	1,09E-09	0,00E+00	-1,03E-08	2,33E-07
Disposed of non-hazardous waste [kg]	1,45E-02	2,50E-02	1,88E-03	0,00E+00	-1,32E-02	8,12E-04
Disposed of radioactive waste [kg]	3,39E-04	1,50E-04	3,98E-04	0,00E+00	-2,16E-04	6,70E-06

evaluated from CML 2001, April. 2015

### 1.3.3 MP-U-I 17-21 3/8" M8

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242239	MP-U-I 17-21 3/8" M8	25	0,968	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	1,678	2,348	0,166	0,000	-1,272	0,435
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	6,65E-15	5,24E-15	4,94E-15	0,00E+00	-3,60E-15	7,05E-17
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	4,92E-03	4,68E-03	3,48E-04	0,00E+00	-3,60E-03	3,50E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	8,89E-04	4,73E-04	3,85E-05	0,00E+00	-3,39E-04	7,16E-04
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-8,22E-04	6,52E-04	2,49E-05	0,00E+00	-5,27E-04	-9,71E-04
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	3,85E-07	3,24E-07	5,53E-08	0,00E+00	-2,81E-08	3,42E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	2,31E+01	3,07E+01	1,86E+00	0,00E+00	-1,53E+01	5,92E+00
Energy (net calorific value) [MJ]	2,41E+01	3,12E+01	2,99E+00	0,00E+00	-1,60E+01	5,93E+00
Energy ren. (net calorific value) [MJ]	1,81E+00	1,28E+00	1,31E+00	0,00E+00	-1,09E+00	3,07E-01
Water consumption [kg]	3,76E+00	3,38E+00	1,58E+00	0,00E+00	-1,56E+00	3,57E-01
Air pollution [m <sup>3</sup> ]	7,92E+01	2,16E+02	1,07E+01	0,00E+00	-1,79E+02	3,18E+01
Water pollution [m <sup>3</sup> ]	2,90E-01	2,46E-01	4,34E-02	0,00E+00	-9,17E-02	9,29E-02
Hazardous waste for disposal [kg]	3,06E-07	6,23E-08	1,23E-09	0,00E+00	-1,12E-08	2,53E-07
Disposed of non-hazardous waste [kg]	1,69E-02	2,76E-02	2,12E-03	0,00E+00	-1,37E-02	8,83E-04
Disposed of radioactive waste [kg]	3,71E-04	1,70E-04	4,50E-04	0,00E+00	-2,56E-04	7,29E-06

evaluated from CML 2001, April. 2015

### 1.3.4 MP-U-I 21-25 1/2" M8

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242250	MP-U-I 21-25 1/2" M8	25	1,076	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	1,967	2,639	0,196	0,000	-1,352	0,483
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	7,80E-15	6,24E-15	5,83E-15	0,00E+00	-4,36E-15	7,84E-17
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	5,51E-03	5,16E-03	4,11E-04	0,00E+00	-3,95E-03	3,89E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	9,95E-04	5,26E-04	4,54E-05	0,00E+00	-3,72E-04	7,96E-04
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-9,07E-04	7,19E-04	2,94E-05	0,00E+00	-5,76E-04	-1,08E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	4,79E-07	4,11E-07	6,52E-08	0,00E+00	-3,56E-08	3,80E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	2,74E+01	3,58E+01	2,19E+00	0,00E+00	-1,72E+01	6,58E+00
Energy (net calorific value) [MJ]	2,85E+01	3,64E+01	3,53E+00	0,00E+00	-1,80E+01	6,60E+00
Energy ren. (net calorific value) [MJ]	2,08E+00	1,50E+00	1,55E+00	0,00E+00	-1,30E+00	3,41E-01
Water consumption [kg]	4,53E+00	3,92E+00	1,87E+00	0,00E+00	-1,66E+00	3,96E-01
Air pollution [m <sup>3</sup> ]	9,01E+01	2,38E+02	1,26E+01	0,00E+00	-1,96E+02	3,53E+01
Water pollution [m <sup>3</sup> ]	3,47E-01	2,97E-01	5,11E-02	0,00E+00	-1,04E-01	1,03E-01
Hazardous waste for disposal [kg]	3,48E-07	7,74E-08	1,45E-09	0,00E+00	-1,24E-08	2,81E-07
Disposed of non-hazardous waste [kg]	2,05E-02	3,13E-02	2,51E-03	0,00E+00	-1,43E-02	9,82E-04
Disposed of radioactive waste [kg]	4,19E-04	1,99E-04	5,30E-04	0,00E+00	-3,19E-04	8,10E-06

evaluated from CML 2001, April. 2015

### 1.3.5 MP-U-I 25-29 3/4" M8

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242251	MP-U-I 25-29 3/4" M8	25	1,186	Steel, Polymer

Environmental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	2,274	2,938	0,228	0,000	-1,426	0,533
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	9,04E-15	7,32E-15	6,80E-15	0,00E+00	-5,16E-15	8,64E-17
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	6,12E-03	5,65E-03	4,78E-04	0,00E+00	-4,29E-03	4,28E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,11E-03	5,81E-04	5,29E-05	0,00E+00	-4,06E-04	8,77E-04
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-9,93E-04	7,87E-04	3,42E-05	0,00E+00	-6,24E-04	-1,19E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	5,80E-07	5,06E-07	7,60E-08	0,00E+00	-4,39E-08	4,19E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	3,20E+01	4,13E+01	2,55E+00	0,00E+00	-1,91E+01	7,25E+00
Energy (net calorific value) [MJ]	3,32E+01	4,19E+01	4,11E+00	0,00E+00	-2,01E+01	7,27E+00
Energy ren. (net calorific value) [MJ]	2,37E+00	1,72E+00	1,81E+00	0,00E+00	-1,53E+00	3,76E-01
Water consumption [kg]	5,36E+00	4,49E+00	2,19E+00	0,00E+00	-1,76E+00	4,37E-01
Air pollution [m <sup>3</sup> ]	1,02E+02	2,60E+02	1,47E+01	0,00E+00	-2,12E+02	3,89E+01
Water pollution [m <sup>3</sup> ]	4,09E-01	3,53E-01	5,96E-02	0,00E+00	-1,17E-01	1,14E-01
Hazardous waste for disposal [kg]	3,92E-07	9,39E-08	1,69E-09	0,00E+00	-1,36E-08	3,10E-07
Disposed of non-hazardous waste [kg]	2,44E-02	3,51E-02	2,92E-03	0,00E+00	-1,47E-02	1,08E-03
Disposed of radioactive waste [kg]	4,70E-04	2,31E-04	6,18E-04	0,00E+00	-3,88E-04	8,93E-06

evaluated from CML 2001, April. 2015

### 1.3.6 MP-U-I 29-33 M8

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242252	MP-U-I 29-33 M8	25	1,285	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	2,571	3,202	0,258	0,000	-1,466	0,578
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	9,94E-15	8,18E-15	7,67E-15	0,00E+00	-6,01E-15	9,37E-17
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	6,73E-03	6,12E-03	5,40E-04	0,00E+00	-4,58E-03	4,64E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,21E-03	6,30E-04	5,98E-05	0,00E+00	-4,34E-04	9,51E-04
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,06E-03	8,54E-04	3,86E-05	0,00E+00	-6,64E-04	-1,29E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	6,64E-07	5,86E-07	8,58E-08	0,00E+00	-5,31E-08	4,54E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	3,63E+01	4,64E+01	2,88E+00	0,00E+00	-2,09E+01	7,86E+00
Energy (net calorific value) [MJ]	3,77E+01	4,72E+01	4,64E+00	0,00E+00	-2,20E+01	7,88E+00
Energy ren. (net calorific value) [MJ]	2,59E+00	1,91E+00	2,04E+00	0,00E+00	-1,77E+00	4,08E-01
Water consumption [kg]	6,46E+00	5,34E+00	2,47E+00	0,00E+00	-1,82E+00	4,74E-01
Air pollution [m <sup>3</sup> ]	1,14E+02	2,81E+02	1,66E+01	0,00E+00	-2,26E+02	4,22E+01
Water pollution [m <sup>3</sup> ]	4,58E-01	3,97E-01	6,73E-02	0,00E+00	-1,30E-01	1,23E-01
Hazardous waste for disposal [kg]	4,31E-07	1,07E-07	1,91E-09	0,00E+00	-1,47E-08	3,36E-07
Disposed of non-hazardous waste [kg]	2,76E-02	3,82E-02	3,30E-03	0,00E+00	-1,51E-02	1,17E-03
Disposed of radioactive waste [kg]	5,03E-04	2,56E-04	6,98E-04	0,00E+00	-4,61E-04	9,67E-06

evaluated from CML 2001, April. 2015

### 1.3.7 MP-U-I 33-37 1" M8

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242253	MP-U-I 33-37 1" M8	25	1,373	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	2,811	3,438	0,283	0,000	-1,527	0,617
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	1,09E-14	9,02E-15	8,42E-15	0,00E+00	-6,64E-15	1,00E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	7,20E-03	6,51E-03	5,93E-04	0,00E+00	-4,86E-03	4,96E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> -eq.]	1,29E-03	6,74E-04	6,56E-05	0,00E+00	-4,61E-04	1,02E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,13E-03	9,07E-04	4,24E-05	0,00E+00	-7,02E-04	-1,38E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	7,43E-07	6,60E-07	9,42E-08	0,00E+00	-5,95E-08	4,85E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	3,98E+01	5,06E+01	3,16E+00	0,00E+00	-2,24E+01	8,39E+00
Energy (net calorific value) [MJ]	4,13E+01	5,15E+01	5,09E+00	0,00E+00	-2,36E+01	8,42E+00
Energy ren. (net calorific value) [MJ]	2,82E+00	2,09E+00	2,24E+00	0,00E+00	-1,94E+00	4,35E-01
Water consumption [kg]	7,11E+00	5,79E+00	2,72E+00	0,00E+00	-1,90E+00	5,06E-01
Air pollution [m <sup>3</sup> ]	1,23E+02	2,99E+02	1,82E+01	0,00E+00	-2,40E+02	4,50E+01
Water pollution [m <sup>3</sup> ]	5,05E-01	4,40E-01	7,39E-02	0,00E+00	-1,40E-01	1,32E-01
Hazardous waste for disposal [kg]	4,65E-07	1,20E-07	2,10E-09	0,00E+00	-1,56E-08	3,59E-07
Disposed of non-hazardous waste [kg]	3,07E-02	4,12E-02	3,63E-03	0,00E+00	-1,54E-02	1,25E-03
Disposed of radioactive waste [kg]	5,43E-04	2,80E-04	7,66E-04	0,00E+00	-5,14E-04	1,03E-05

evaluated from CML 2001, April. 2015



### 1.3.8 MP-U-I 37-42 M8

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242254	MP-U-I 37-42 M8	25	1,503	Steel, Polymer

Environmental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	3,127	3,777	0,320	0,000	-1,645	0,675
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	1,23E-14	1,01E-14	9,52E-15	0,00E+00	-7,43E-15	1,10E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	7,90E-03	7,10E-03	6,70E-04	0,00E+00	-5,29E-03	5,43E-03
Eutrophication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> -eq.]	1,42E-03	7,37E-04	7,42E-05	0,00E+00	-5,02E-04	1,11E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,23E-03	9,90E-04	4,79E-05	0,00E+00	-7,64E-04	-1,51E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	8,42E-07	7,49E-07	1,06E-07	0,00E+00	-6,71E-08	5,31E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	4,45E+01	5,62E+01	3,57E+00	0,00E+00	-2,45E+01	9,18E+00
Energy (net calorific value) [MJ]	4,61E+01	5,72E+01	5,75E+00	0,00E+00	-2,60E+01	9,21E+00
Energy ren. (net calorific value) [MJ]	3,16E+00	2,32E+00	2,53E+00	0,00E+00	-2,17E+00	4,77E-01
Water consumption [kg]	7,97E+00	6,38E+00	3,07E+00	0,00E+00	-2,04E+00	5,54E-01
Air pollution [m <sup>3</sup> ]	1,35E+02	3,26E+02	2,05E+01	0,00E+00	-2,61E+02	4,93E+01
Water pollution [m <sup>3</sup> ]	5,68E-01	4,95E-01	8,35E-02	0,00E+00	-1,55E-01	1,44E-01
Hazardous waste for disposal [kg]	5,14E-07	1,36E-07	2,37E-09	0,00E+00	-1,71E-08	3,93E-07
Disposed of non-hazardous waste [kg]	3,45E-02	4,55E-02	4,10E-03	0,00E+00	-1,64E-02	1,37E-03
Disposed of radioactive waste [kg]	6,11E-04	3,13E-04	8,66E-04	0,00E+00	-5,79E-04	1,13E-05

evaluated from CML 2001, April. 2015

### 1.3.9 MP-U-I 42-47 1 ¼" M8

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242255	MP-U-I 42-47 1 ¼" M8	25	1,604	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	3,413	4,053	0,350	0,000	-1,712	0,721
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	1,34E-14	1,11E-14	1,04E-14	0,00E+00	-8,18E-15	1,17E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	8,47E-03	7,55E-03	7,33E-04	0,00E+00	-5,61E-03	5,80E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,52E-03	7,88E-04	8,12E-05	0,00E+00	-5,33E-04	1,19E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,31E-03	1,05E-03	5,24E-05	0,00E+00	-8,08E-04	-1,61E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	9,36E-07	8,38E-07	1,17E-07	0,00E+00	-7,48E-08	5,66E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	4,87E+01	6,13E+01	3,90E+00	0,00E+00	-2,63E+01	9,81E+00
Energy (net calorific value) [MJ]	5,05E+01	6,23E+01	6,29E+00	0,00E+00	-2,79E+01	9,84E+00
Energy ren. (net calorific value) [MJ]	3,42E+00	2,53E+00	2,77E+00	0,00E+00	-2,38E+00	5,09E-01
Water consumption [kg]	8,75E+00	6,92E+00	3,37E+00	0,00E+00	-2,13E+00	5,91E-01
Air pollution [m <sup>3</sup> ]	1,46E+02	3,47E+02	2,25E+01	0,00E+00	-2,76E+02	5,26E+01
Water pollution [m <sup>3</sup> ]	6,25E-01	5,47E-01	9,14E-02	0,00E+00	-1,67E-01	1,54E-01
Hazardous waste for disposal [kg]	5,55E-07	1,51E-07	2,60E-09	0,00E+00	-1,82E-08	4,20E-07
Disposed of non-hazardous waste [kg]	3,82E-02	4,90E-02	4,49E-03	0,00E+00	-1,68E-02	1,46E-03
Disposed of radioactive waste [kg]	6,59E-04	3,42E-04	9,48E-04	0,00E+00	-6,43E-04	1,21E-05

evaluated from CML 2001, April. 2015

### 1.3.10 MP-U-I 47-52 1 ½" M8

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242256	MP-U-I 47-52 1 ½" M8	25	1,715	Steel, Polymer

Environmental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	3,721	4,354	0,383	0,000	-1,787	0,771
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	1,47E-14	1,22E-14	1,14E-14	0,00E+00	-8,99E-15	1,25E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	9,08E-03	8,04E-03	8,01E-04	0,00E+00	-5,96E-03	6,19E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,63E-03	8,42E-04	8,87E-05	0,00E+00	-5,67E-04	1,27E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,40E-03	1,12E-03	5,72E-05	0,00E+00	-8,57E-04	-1,72E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,04E-06	9,33E-07	1,27E-07	0,00E+00	-8,31E-08	6,05E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	5,33E+01	6,67E+01	4,26E+00	0,00E+00	-2,82E+01	1,05E+01
Energy (net calorific value) [MJ]	5,52E+01	6,78E+01	6,87E+00	0,00E+00	-3,00E+01	1,05E+01
Energy ren. (net calorific value) [MJ]	3,71E+00	2,75E+00	3,03E+00	0,00E+00	-2,61E+00	5,44E-01
Water consumption [kg]	9,59E+00	7,50E+00	3,68E+00	0,00E+00	-2,23E+00	6,32E-01
Air pollution [m <sup>3</sup> ]	1,58E+02	3,70E+02	2,45E+01	0,00E+00	-2,93E+02	5,63E+01
Water pollution [m <sup>3</sup> ]	6,86E-01	6,02E-01	9,98E-02	0,00E+00	-1,80E-01	1,65E-01
Hazardous waste for disposal [kg]	5,99E-07	1,67E-07	2,84E-09	0,00E+00	-1,94E-08	4,49E-07
Disposed of non-hazardous waste [kg]	4,21E-02	5,29E-02	4,90E-03	0,00E+00	-1,73E-02	1,56E-03
Disposed of radioactive waste [kg]	7,11E-04	3,73E-04	1,04E-03	0,00E+00	-7,12E-04	1,29E-05

evaluated from CML 2001, April. 2015

### 1.3.11 MP-U-I 52-57 M8

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2305363	MP-U-I 52-57 M8	25	1,824	Steel, Polymer

Environmental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	4,020	4,649	0,414	0,000	-1,863	0,820
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	1,59E-14	1,32E-14	1,23E-14	0,00E+00	-9,78E-15	1,33E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	9,67E-03	8,52E-03	8,67E-04	0,00E+00	-6,30E-03	6,59E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,74E-03	8,96E-04	9,59E-05	0,00E+00	-6,00E-04	1,35E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,48E-03	1,19E-03	6,19E-05	0,00E+00	-9,05E-04	-1,83E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,14E-06	1,03E-06	1,38E-07	0,00E+00	-9,10E-08	6,44E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	5,77E+01	7,20E+01	4,61E+00	0,00E+00	-3,01E+01	1,11E+01
Energy (net calorific value) [MJ]	5,98E+01	7,32E+01	7,43E+00	0,00E+00	-3,20E+01	1,12E+01
Energy ren. (net calorific value) [MJ]	3,99E+00	2,97E+00	3,27E+00	0,00E+00	-2,83E+00	5,79E-01
Water consumption [kg]	1,04E+01	8,06E+00	3,99E+00	0,00E+00	-2,32E+00	6,72E-01
Air pollution [m <sup>3</sup> ]	1,69E+02	3,92E+02	2,65E+01	0,00E+00	-3,09E+02	5,99E+01
Water pollution [m <sup>3</sup> ]	7,46E-01	6,56E-01	1,08E-01	0,00E+00	-1,93E-01	1,75E-01
Hazardous waste for disposal [kg]	6,43E-07	1,83E-07	3,07E-09	0,00E+00	-2,06E-08	4,77E-07
Disposed of non-hazardous waste [kg]	4,59E-02	5,66E-02	5,31E-03	0,00E+00	-1,77E-02	1,66E-03
Disposed of radioactive waste [kg]	7,61E-04	4,04E-04	1,12E-03	0,00E+00	-7,78E-04	1,37E-05

evaluated from CML 2001, April. 2015

### 1.3.12 MP-U-I 57-62 2" M8

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2305364	MP-U-I 57-62 2" M8	10	0,779	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	1,759	1,992	0,181	0,000	-0,765	0,350
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	6,81E-15	5,72E-15	5,38E-15	0,00E+00	-4,34E-15	5,68E-17
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	4,18E-03	3,65E-03	3,78E-04	0,00E+00	-2,67E-03	2,82E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	7,48E-04	3,83E-04	4,19E-05	0,00E+00	-2,54E-04	5,77E-04
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-6,28E-04	5,09E-04	2,70E-05	0,00E+00	-3,82E-04	-7,82E-04
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	4,97E-07	4,51E-07	6,01E-08	0,00E+00	-4,11E-08	2,75E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	2,53E+01	3,14E+01	2,01E+00	0,00E+00	-1,29E+01	4,76E+00
Energy (net calorific value) [MJ]	2,62E+01	3,19E+01	3,24E+00	0,00E+00	-1,38E+01	4,78E+00
Energy ren. (net calorific value) [MJ]	1,71E+00	1,29E+00	1,43E+00	0,00E+00	-1,25E+00	2,47E-01
Water consumption [kg]	4,72E+00	3,65E+00	1,74E+00	0,00E+00	-9,60E-01	2,87E-01
Air pollution [m <sup>3</sup> ]	7,37E+01	1,67E+02	1,16E+01	0,00E+00	-1,31E+02	2,56E+01
Water pollution [m <sup>3</sup> ]	3,23E-01	2,85E-01	4,71E-02	0,00E+00	-8,36E-02	7,48E-02
Hazardous waste for disposal [kg]	2,76E-07	8,01E-08	1,34E-09	0,00E+00	-8,78E-09	2,04E-07
Disposed of non-hazardous waste [kg]	2,00E-02	2,42E-02	2,32E-03	0,00E+00	-7,25E-03	7,11E-04
Disposed of radioactive waste [kg]	3,21E-04	1,74E-04	4,89E-04	0,00E+00	-3,49E-04	5,87E-06

evaluated from CML 2001, April. 2015

### 1.3.13 MP-U-I 9-13 1/8" M8/10

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242258	MP-U-I 9-13 1/8" M8/10	25	0,969	Steel, Polymer

Environmental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	1,483	2,306	0,137	0,000	-1,395	0,435
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	5,72E-15	4,52E-15	4,06E-15	0,00E+00	-2,93E-15	7,06E-17
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	4,82E-03	4,75E-03	2,86E-04	0,00E+00	-3,72E-03	3,50E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	8,73E-04	4,73E-04	3,16E-05	0,00E+00	-3,48E-04	7,17E-04
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-8,39E-04	6,61E-04	2,05E-05	0,00E+00	-5,48E-04	-9,72E-04
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	2,92E-07	2,31E-07	4,54E-08	0,00E+00	-1,93E-08	3,42E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	1,99E+01	2,76E+01	1,53E+00	0,00E+00	-1,51E+01	5,92E+00
Energy (net calorific value) [MJ]	2,08E+01	2,80E+01	2,46E+00	0,00E+00	-1,56E+01	5,94E+00
Energy ren. (net calorific value) [MJ]	1,64E+00	1,17E+00	1,08E+00	0,00E+00	-9,13E-01	3,07E-01
Water consumption [kg]	2,90E+00	2,95E+00	1,29E+00	0,00E+00	-1,70E+00	3,57E-01
Air pollution [m <sup>3</sup> ]	7,41E+01	2,19E+02	8,78E+00	0,00E+00	-1,86E+02	3,18E+01
Water pollution [m <sup>3</sup> ]	2,45E-01	2,03E-01	3,56E-02	0,00E+00	-8,71E-02	9,29E-02
Hazardous waste for disposal [kg]	2,91E-07	4,77E-08	1,01E-09	0,00E+00	-1,13E-08	2,53E-07
Disposed of non-hazardous waste [kg]	1,37E-02	2,67E-02	1,74E-03	0,00E+00	-1,56E-02	8,84E-04
Disposed of radioactive waste [kg]	3,39E-04	1,52E-04	3,69E-04	0,00E+00	-1,89E-04	7,29E-06

evaluated from CML 2001, April. 2015

### 1.3.14 MP-U-I 13-17 1/4" M8/10

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242259	MP-U-I 13-17 1/4" M8/10	25	1,027	Steel, Polymer

Environmental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	1,623	2,458	0,151	0,000	-1,447	0,461
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	6,27E-15	5,01E-15	4,47E-15	0,00E+00	-3,28E-15	7,48E-17
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	5,13E-03	5,01E-03	3,15E-04	0,00E+00	-3,91E-03	3,71E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	9,29E-04	5,02E-04	3,49E-05	0,00E+00	-3,67E-04	7,59E-04
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-8,86E-04	6,97E-04	2,26E-05	0,00E+00	-5,75E-04	-1,03E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	3,35E-07	2,72E-07	5,00E-08	0,00E+00	-2,27E-08	3,62E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	2,20E+01	3,01E+01	1,69E+00	0,00E+00	-1,61E+01	6,27E+00
Energy (net calorific value) [MJ]	2,30E+01	3,06E+01	2,71E+00	0,00E+00	-1,66E+01	6,29E+00
Energy ren. (net calorific value) [MJ]	1,77E+00	1,27E+00	1,19E+00	0,00E+00	-1,01E+00	3,26E-01
Water consumption [kg]	3,25E+00	3,21E+00	1,43E+00	0,00E+00	-1,76E+00	3,78E-01
Air pollution [m <sup>3</sup> ]	7,96E+01	2,31E+02	9,66E+00	0,00E+00	-1,95E+02	3,37E+01
Water pollution [m <sup>3</sup> ]	2,72E-01	2,28E-01	3,92E-02	0,00E+00	-9,35E-02	9,85E-02
Hazardous waste for disposal [kg]	3,12E-07	5,47E-08	1,12E-09	0,00E+00	-1,19E-08	2,68E-07
Disposed of non-hazardous waste [kg]	1,54E-02	2,86E-02	1,92E-03	0,00E+00	-1,60E-02	9,37E-04
Disposed of radioactive waste [kg]	3,63E-04	1,66E-04	4,06E-04	0,00E+00	-2,17E-04	7,73E-06

evaluated from CML 2001, April. 2015

### 1.3.15 MP-U-I 17-21 3/8" M8/10

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242260	MP-U-I 17-21 3/8" M8/10	25	1,104	Steel, Polymer

Environmental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	1,814	2,663	0,169	0,000	-1,515	0,496
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	7,02E-15	5,67E-15	5,03E-15	0,00E+00	-3,76E-15	8,05E-17
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	5,54E-03	5,37E-03	3,55E-04	0,00E+00	-4,17E-03	3,99E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,01E-03	5,40E-04	3,92E-05	0,00E+00	-3,91E-04	8,17E-04
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-9,48E-04	7,46E-04	2,54E-05	0,00E+00	-6,12E-04	-1,11E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	3,94E-07	3,27E-07	5,63E-08	0,00E+00	-2,74E-08	3,90E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	2,48E+01	3,35E+01	1,90E+00	0,00E+00	-1,74E+01	6,75E+00
Energy (net calorific value) [MJ]	2,58E+01	3,40E+01	3,05E+00	0,00E+00	-1,80E+01	6,77E+00
Energy ren. (net calorific value) [MJ]	1,95E+00	1,41E+00	1,34E+00	0,00E+00	-1,15E+00	3,50E-01
Water consumption [kg]	3,73E+00	3,56E+00	1,61E+00	0,00E+00	-1,85E+00	4,07E-01
Air pollution [m <sup>3</sup> ]	8,71E+01	2,48E+02	1,09E+01	0,00E+00	-2,08E+02	3,62E+01
Water pollution [m <sup>3</sup> ]	3,09E-01	2,61E-01	4,41E-02	0,00E+00	-1,02E-01	1,06E-01
Hazardous waste for disposal [kg]	3,42E-07	6,44E-08	1,26E-09	0,00E+00	-1,28E-08	2,89E-07
Disposed of non-hazardous waste [kg]	1,78E-02	3,11E-02	2,16E-03	0,00E+00	-1,66E-02	1,01E-03
Disposed of radioactive waste [kg]	3,95E-04	1,86E-04	4,58E-04	0,00E+00	-2,57E-04	8,31E-06

evaluated from CML 2001, April. 2015



### 1.3.16 MP-U-I 21-25 1/2" M8/10

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242261	MP-U-I 21-25 1/2" M8/10	25	1,212	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	2,103	2,954	0,199	0,000	-1,595	0,545
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	8,17E-15	6,67E-15	5,92E-15	0,00E+00	-4,51E-15	8,83E-17
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	6,13E-03	5,85E-03	4,17E-04	0,00E+00	-4,51E-03	4,38E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,11E-03	5,94E-04	4,61E-05	0,00E+00	-4,25E-04	8,97E-04
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,03E-03	8,13E-04	2,98E-05	0,00E+00	-6,60E-04	-1,22E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	4,88E-07	4,14E-07	6,62E-08	0,00E+00	-3,50E-08	4,28E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	2,90E+01	3,86E+01	2,23E+00	0,00E+00	-1,92E+01	7,41E+00
Energy (net calorific value) [MJ]	3,02E+01	3,93E+01	3,58E+00	0,00E+00	-2,00E+01	7,43E+00
Energy ren. (net calorific value) [MJ]	2,22E+00	1,62E+00	1,57E+00	0,00E+00	-1,36E+00	3,84E-01
Water consumption [kg]	4,50E+00	4,10E+00	1,90E+00	0,00E+00	-1,95E+00	4,47E-01
Air pollution [m <sup>3</sup> ]	9,80E+01	2,70E+02	1,28E+01	0,00E+00	-2,24E+02	3,98E+01
Water pollution [m <sup>3</sup> ]	3,66E-01	3,13E-01	5,19E-02	0,00E+00	-1,15E-01	1,16E-01
Hazardous waste for disposal [kg]	3,84E-07	7,96E-08	1,48E-09	0,00E+00	-1,40E-08	3,17E-07
Disposed of non-hazardous waste [kg]	2,14E-02	3,48E-02	2,55E-03	0,00E+00	-1,71E-02	1,11E-03
Disposed of radioactive waste [kg]	4,43E-04	2,16E-04	5,39E-04	0,00E+00	-3,20E-04	9,12E-06

evaluated from CML 2001, April. 2015

### 1.3.17 MP-U-I 25-29 3/4" M8/10

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242262	MP-U-I 25-29 3/4" M8/10	25	1,322	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	2,410	3,253	0,231	0,000	-1,669	0,594
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	9,41E-15	7,74E-15	6,89E-15	0,00E+00	-5,32E-15	9,64E-17
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	6,74E-03	6,33E-03	4,85E-04	0,00E+00	-4,86E-03	4,78E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,22E-03	6,49E-04	5,36E-05	0,00E+00	-4,58E-04	9,78E-04
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,12E-03	8,81E-04	3,46E-05	0,00E+00	-7,09E-04	-1,33E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	5,90E-07	5,09E-07	7,70E-08	0,00E+00	-4,32E-08	4,67E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	3,36E+01	4,41E+01	2,58E+00	0,00E+00	-2,11E+01	8,08E+00
Energy (net calorific value) [MJ]	3,49E+01	4,48E+01	4,16E+00	0,00E+00	-2,21E+01	8,11E+00
Energy ren. (net calorific value) [MJ]	2,51E+00	1,85E+00	1,83E+00	0,00E+00	-1,59E+00	4,19E-01
Water consumption [kg]	5,33E+00	4,68E+00	2,22E+00	0,00E+00	-2,05E+00	4,87E-01
Air pollution [m <sup>3</sup> ]	1,09E+02	2,92E+02	1,49E+01	0,00E+00	-2,41E+02	4,34E+01
Water pollution [m <sup>3</sup> ]	4,28E-01	3,68E-01	6,04E-02	0,00E+00	-1,28E-01	1,27E-01
Hazardous waste for disposal [kg]	4,28E-07	9,60E-08	1,72E-09	0,00E+00	-1,52E-08	3,46E-07
Disposed of non-hazardous waste [kg]	2,53E-02	3,87E-02	2,96E-03	0,00E+00	-1,76E-02	1,21E-03
Disposed of radioactive waste [kg]	4,95E-04	2,47E-04	6,26E-04	0,00E+00	-3,89E-04	9,95E-06

evaluated from CML 2001, April. 2015

### 1.3.18 MP-U-I 29-33 M8/10

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242263	MP-U-I 29-33 M8/10	25	1,422	Steel, Polymer

Environmental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	2,707	3,517	0,261	0,000	-1,710	0,639
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	1,03E-14	8,61E-15	7,76E-15	0,00E+00	-6,17E-15	1,04E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	7,35E-03	6,81E-03	5,47E-04	0,00E+00	-5,15E-03	5,14E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,32E-03	6,98E-04	6,05E-05	0,00E+00	-4,87E-04	1,05E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,19E-03	9,48E-04	3,91E-05	0,00E+00	-7,49E-04	-1,43E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	6,73E-07	5,89E-07	8,68E-08	0,00E+00	-5,25E-08	5,02E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	3,79E+01	4,92E+01	2,92E+00	0,00E+00	-2,29E+01	8,69E+00
Energy (net calorific value) [MJ]	3,94E+01	5,00E+01	4,69E+00	0,00E+00	-2,40E+01	8,72E+00
Energy ren. (net calorific value) [MJ]	2,73E+00	2,04E+00	2,06E+00	0,00E+00	-1,83E+00	4,51E-01
Water consumption [kg]	6,43E+00	5,52E+00	2,50E+00	0,00E+00	-2,11E+00	5,24E-01
Air pollution [m <sup>3</sup> ]	1,22E+02	3,13E+02	1,67E+01	0,00E+00	-2,55E+02	4,67E+01
Water pollution [m <sup>3</sup> ]	4,77E-01	4,13E-01	6,81E-02	0,00E+00	-1,41E-01	1,36E-01
Hazardous waste for disposal [kg]	4,67E-07	1,09E-07	1,94E-09	0,00E+00	-1,63E-08	3,72E-07
Disposed of non-hazardous waste [kg]	2,85E-02	4,17E-02	3,34E-03	0,00E+00	-1,79E-02	1,30E-03
Disposed of radioactive waste [kg]	5,27E-04	2,72E-04	7,06E-04	0,00E+00	-4,62E-04	1,07E-05

evaluated from CML 2001, April. 2015

### 1.3.19 MP-U-I 33-37 1" M8/10

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242264	MP-U-I 33-37 1" M8/10	25	1,509	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	2,947	3,753	0,286	0,000	-1,770	0,678
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	1,13E-14	9,44E-15	8,51E-15	0,00E+00	-6,79E-15	1,10E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	7,83E-03	7,20E-03	5,99E-04	0,00E+00	-5,42E-03	5,45E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,41E-03	7,41E-04	6,63E-05	0,00E+00	-5,13E-04	1,12E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,26E-03	1,00E-03	4,28E-05	0,00E+00	-7,87E-04	-1,51E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	7,52E-07	6,63E-07	9,52E-08	0,00E+00	-5,89E-08	5,33E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	4,15E+01	5,35E+01	3,19E+00	0,00E+00	-2,44E+01	9,22E+00
Energy (net calorific value) [MJ]	4,31E+01	5,43E+01	5,14E+00	0,00E+00	-2,57E+01	9,25E+00
Energy ren. (net calorific value) [MJ]	2,95E+00	2,22E+00	2,26E+00	0,00E+00	-2,01E+00	4,79E-01
Water consumption [kg]	7,08E+00	5,97E+00	2,74E+00	0,00E+00	-2,19E+00	5,56E-01
Air pollution [m <sup>3</sup> ]	1,31E+02	3,31E+02	1,84E+01	0,00E+00	-2,68E+02	4,95E+01
Water pollution [m <sup>3</sup> ]	5,24E-01	4,56E-01	7,46E-02	0,00E+00	-1,51E-01	1,45E-01
Hazardous waste for disposal [kg]	5,01E-07	1,22E-07	2,12E-09	0,00E+00	-1,72E-08	3,95E-07
Disposed of non-hazardous waste [kg]	3,15E-02	4,48E-02	3,66E-03	0,00E+00	-1,83E-02	1,38E-03
Disposed of radioactive waste [kg]	5,67E-04	2,97E-04	7,74E-04	0,00E+00	-5,15E-04	1,14E-05

evaluated from CML 2001, April. 2015

### 1.3.20 MP-U-I 37-42 M8/10

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242265	MP-U-I 37-42 M8/10	25	1,639	Steel, Polymer

Environmental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	3,263	4,092	0,323	0,000	-1,888	0,737
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	1,27E-14	1,05E-14	9,61E-15	0,00E+00	-7,58E-15	1,19E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	8,53E-03	7,79E-03	6,77E-04	0,00E+00	-5,86E-03	5,92E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,54E-03	8,05E-04	7,49E-05	0,00E+00	-5,55E-04	1,21E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,36E-03	1,08E-03	4,83E-05	0,00E+00	-8,49E-04	-1,64E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	8,51E-07	7,52E-07	1,07E-07	0,00E+00	-6,64E-08	5,79E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	4,61E+01	5,90E+01	3,60E+00	0,00E+00	-2,66E+01	1,00E+01
Energy (net calorific value) [MJ]	4,78E+01	6,00E+01	5,81E+00	0,00E+00	-2,80E+01	1,00E+01
Energy ren. (net calorific value) [MJ]	3,29E+00	2,45E+00	2,55E+00	0,00E+00	-2,23E+00	5,20E-01
Water consumption [kg]	7,93E+00	6,56E+00	3,10E+00	0,00E+00	-2,33E+00	6,04E-01
Air pollution [m <sup>3</sup> ]	1,43E+02	3,58E+02	2,07E+01	0,00E+00	-2,89E+02	5,38E+01
Water pollution [m <sup>3</sup> ]	5,87E-01	5,11E-01	8,43E-02	0,00E+00	-1,65E-01	1,57E-01
Hazardous waste for disposal [kg]	5,50E-07	1,38E-07	2,40E-09	0,00E+00	-1,87E-08	4,29E-07
Disposed of non-hazardous waste [kg]	3,54E-02	4,90E-02	4,14E-03	0,00E+00	-1,92E-02	1,50E-03
Disposed of radioactive waste [kg]	6,36E-04	3,29E-04	8,75E-04	0,00E+00	-5,80E-04	1,23E-05

evaluated from CML 2001, April. 2015

### 1.3.21 MP-U-I 42-47 1 ¼" M8/10

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242266	MP-U-I 42-47 1 ¼" M8/10	25	1,741	Steel, Polymer

Environmental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	3,549	4,368	0,353	0,000	-1,955	0,782
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	1,38E-14	1,15E-14	1,05E-14	0,00E+00	-8,34E-15	1,27E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	9,09E-03	8,23E-03	7,40E-04	0,00E+00	-6,17E-03	6,29E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,64E-03	8,55E-04	8,19E-05	0,00E+00	-5,85E-04	1,29E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,44E-03	1,15E-03	5,28E-05	0,00E+00	-8,93E-04	-1,75E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	9,46E-07	8,41E-07	1,18E-07	0,00E+00	-7,42E-08	6,14E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	5,04E+01	6,41E+01	3,94E+00	0,00E+00	-2,83E+01	1,06E+01
Energy (net calorific value) [MJ]	5,22E+01	6,51E+01	6,35E+00	0,00E+00	-2,99E+01	1,07E+01
Energy ren. (net calorific value) [MJ]	3,56E+00	2,66E+00	2,79E+00	0,00E+00	-2,44E+00	5,52E-01
Water consumption [kg]	8,72E+00	7,10E+00	3,39E+00	0,00E+00	-2,42E+00	6,41E-01
Air pollution [m <sup>3</sup> ]	1,54E+02	3,79E+02	2,27E+01	0,00E+00	-3,05E+02	5,71E+01
Water pollution [m <sup>3</sup> ]	6,44E-01	5,62E-01	9,22E-02	0,00E+00	-1,77E-01	1,67E-01
Hazardous waste for disposal [kg]	5,91E-07	1,53E-07	2,62E-09	0,00E+00	-1,98E-08	4,55E-07
Disposed of non-hazardous waste [kg]	3,90E-02	5,26E-02	4,53E-03	0,00E+00	-1,96E-02	1,59E-03
Disposed of radioactive waste [kg]	6,83E-04	3,58E-04	9,57E-04	0,00E+00	-6,44E-04	1,31E-05

evaluated from CML 2001, April. 2015

### 1.3.22 MP-U-I 47-52 1 ½" M8/10

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242267	MP-U-I 47-52 1 ½" M8/10	25	1,851	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	3,856	4,669	0,386	0,000	-2,030	0,832
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	1,51E-14	1,26E-14	1,15E-14	0,00E+00	-9,15E-15	1,35E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	9,70E-03	8,72E-03	8,08E-04	0,00E+00	-6,52E-03	6,69E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,75E-03	9,10E-04	8,94E-05	0,00E+00	-6,19E-04	1,37E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,53E-03	1,22E-03	5,77E-05	0,00E+00	-9,41E-04	-1,86E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,05E-06	9,36E-07	1,28E-07	0,00E+00	-8,24E-08	6,54E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	5,49E+01	6,96E+01	4,30E+00	0,00E+00	-3,02E+01	1,13E+01
Energy (net calorific value) [MJ]	5,69E+01	7,07E+01	6,93E+00	0,00E+00	-3,20E+01	1,14E+01
Energy ren. (net calorific value) [MJ]	3,85E+00	2,88E+00	3,05E+00	0,00E+00	-2,67E+00	5,87E-01
Water consumption [kg]	9,55E+00	7,68E+00	3,71E+00	0,00E+00	-2,52E+00	6,82E-01
Air pollution [m <sup>3</sup> ]	1,65E+02	4,01E+02	2,47E+01	0,00E+00	-3,21E+02	6,08E+01
Water pollution [m <sup>3</sup> ]	7,05E-01	6,18E-01	1,01E-01	0,00E+00	-1,91E-01	1,78E-01
Hazardous waste for disposal [kg]	6,36E-07	1,70E-07	2,86E-09	0,00E+00	-2,10E-08	4,84E-07
Disposed of non-hazardous waste [kg]	4,29E-02	5,64E-02	4,94E-03	0,00E+00	-2,01E-02	1,69E-03
Disposed of radioactive waste [kg]	7,35E-04	3,89E-04	1,04E-03	0,00E+00	-7,13E-04	1,39E-05

evaluated from CML 2001, April. 2015

### 1.3.23 MP-U-I 52-57 M8/10

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242268	MP-U-I 52-57 M8/10	25	1,960	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	4,155	4,964	0,417	0,000	-2,106	0,881
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	1,63E-14	1,36E-14	1,24E-14	0,00E+00	-9,93E-15	1,43E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,03E-02	9,21E-03	8,73E-04	0,00E+00	-6,86E-03	7,08E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,86E-03	9,64E-04	9,66E-05	0,00E+00	-6,52E-04	1,45E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,61E-03	1,28E-03	6,23E-05	0,00E+00	-9,89E-04	-1,97E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,15E-06	1,03E-06	1,39E-07	0,00E+00	-9,04E-08	6,92E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	5,94E+01	7,49E+01	4,64E+00	0,00E+00	-3,21E+01	1,20E+01
Energy (net calorific value) [MJ]	6,15E+01	7,61E+01	7,48E+00	0,00E+00	-3,41E+01	1,20E+01
Energy ren. (net calorific value) [MJ]	4,12E+00	3,10E+00	3,30E+00	0,00E+00	-2,89E+00	6,22E-01
Water consumption [kg]	1,04E+01	8,24E+00	4,01E+00	0,00E+00	-2,62E+00	7,22E-01
Air pollution [m <sup>3</sup> ]	1,77E+02	4,24E+02	2,67E+01	0,00E+00	-3,38E+02	6,43E+01
Water pollution [m <sup>3</sup> ]	7,65E-01	6,71E-01	1,09E-01	0,00E+00	-2,04E-01	1,88E-01
Hazardous waste for disposal [kg]	6,79E-07	1,85E-07	3,09E-09	0,00E+00	-2,22E-08	5,13E-07
Disposed of non-hazardous waste [kg]	4,67E-02	6,02E-02	5,34E-03	0,00E+00	-2,06E-02	1,79E-03
Disposed of radioactive waste [kg]	7,85E-04	4,20E-04	1,13E-03	0,00E+00	-7,79E-04	1,48E-05

evaluated from CML 2001, April. 2015



### 1.3.24 MP-U-I 57-62 2" M8/10

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242269	MP-U-I 57-62 2" M8/10	10	0,834	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	1,813	2,118	0,182	0,000	-0,862	0,375
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	6,96E-15	5,89E-15	5,41E-15	0,00E+00	-4,40E-15	6,08E-17
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	4,42E-03	3,92E-03	3,81E-04	0,00E+00	-2,89E-03	3,01E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	7,94E-04	4,10E-04	4,21E-05	0,00E+00	-2,75E-04	6,17E-04
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-6,79E-04	5,46E-04	2,72E-05	0,00E+00	-4,16E-04	-8,37E-04
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	5,01E-07	4,52E-07	6,05E-08	0,00E+00	-4,09E-08	2,94E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	2,59E+01	3,25E+01	2,03E+00	0,00E+00	-1,37E+01	5,10E+00
Energy (net calorific value) [MJ]	2,69E+01	3,31E+01	3,27E+00	0,00E+00	-1,46E+01	5,11E+00
Energy ren. (net calorific value) [MJ]	1,76E+00	1,34E+00	1,44E+00	0,00E+00	-1,28E+00	2,65E-01
Water consumption [kg]	4,70E+00	3,72E+00	1,75E+00	0,00E+00	-1,08E+00	3,07E-01
Air pollution [m <sup>3</sup> ]	7,68E+01	1,80E+02	1,17E+01	0,00E+00	-1,42E+02	2,74E+01
Water pollution [m <sup>3</sup> ]	3,31E-01	2,91E-01	4,74E-02	0,00E+00	-8,78E-02	8,00E-02
Hazardous waste for disposal [kg]	2,91E-07	8,09E-08	1,35E-09	0,00E+00	-9,43E-09	2,18E-07
Disposed of non-hazardous waste [kg]	2,03E-02	2,56E-02	2,33E-03	0,00E+00	-8,38E-03	7,61E-04
Disposed of radioactive waste [kg]	3,30E-04	1,81E-04	4,92E-04	0,00E+00	-3,49E-04	6,28E-06

evaluated from CML 2001, April. 2015

### 1.3.25 MP-U-I 62-67 M8/10

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242270	MP-U-I 62-67 M8/10	10	1,389	Steel, Polymer

Environmental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	2,655	3,163	0,596	0,000	-1,730	0,624
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	1,92E-14	7,19E-15	1,76E-14	0,00E+00	-5,70E-15	1,01E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	7,56E-03	6,38E-03	1,25E-03	0,00E+00	-5,08E-03	5,02E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,32E-03	6,31E-04	1,38E-04	0,00E+00	-4,80E-04	1,03E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,11E-03	9,39E-04	8,95E-05	0,00E+00	-7,41E-04	-1,39E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	7,15E-07	5,16E-07	1,98E-07	0,00E+00	-4,71E-08	4,91E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	3,62E+01	4,32E+01	6,72E+00	0,00E+00	-2,22E+01	8,49E+00
Energy (net calorific value) [MJ]	3,99E+01	4,40E+01	1,08E+01	0,00E+00	-2,33E+01	8,52E+00
Energy ren. (net calorific value) [MJ]	5,19E+00	1,76E+00	4,69E+00	0,00E+00	-1,70E+00	4,41E-01
Water consumption [kg]	1,04E+01	6,44E+00	5,55E+00	0,00E+00	-2,13E+00	5,12E-01
Air pollution [m <sup>3</sup> ]	1,43E+02	3,11E+02	3,84E+01	0,00E+00	-2,52E+02	4,56E+01
Water pollution [m <sup>3</sup> ]	5,18E-01	3,64E-01	1,55E-01	0,00E+00	-1,35E-01	1,33E-01
Hazardous waste for disposal [kg]	4,50E-07	9,78E-08	4,42E-09	0,00E+00	-1,60E-08	3,63E-07
Disposed of non-hazardous waste [kg]	2,87E-02	3,82E-02	7,57E-03	0,00E+00	-1,84E-02	1,27E-03
Disposed of radioactive waste [kg]	1,43E-03	2,33E-04	1,61E-03	0,00E+00	-4,19E-04	1,05E-05

evaluated from CML 2001, April. 2015

### 1.3.26 MP-U-I 67-72 M8/10

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242271	MP-U-I 67-72 M8/10	10	1,456	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	2,815	3,325	0,630	0,000	-1,794	0,655
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	2,04E-14	7,69E-15	1,86E-14	0,00E+00	-6,08E-15	1,06E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	7,94E-03	6,67E-03	1,32E-03	0,00E+00	-5,31E-03	5,26E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,38E-03	6,61E-04	1,46E-04	0,00E+00	-5,01E-04	1,08E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,16E-03	9,82E-04	9,45E-05	0,00E+00	-7,74E-04	-1,46E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	7,67E-07	5,58E-07	2,09E-07	0,00E+00	-5,07E-08	5,14E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	3,85E+01	4,59E+01	7,09E+00	0,00E+00	-2,33E+01	8,90E+00
Energy (net calorific value) [MJ]	4,24E+01	4,66E+01	1,14E+01	0,00E+00	-2,45E+01	8,93E+00
Energy ren. (net calorific value) [MJ]	5,47E+00	1,87E+00	4,95E+00	0,00E+00	-1,81E+00	4,62E-01
Water consumption [kg]	1,10E+01	6,79E+00	5,87E+00	0,00E+00	-2,21E+00	5,37E-01
Air pollution [m <sup>3</sup> ]	1,51E+02	3,26E+02	4,05E+01	0,00E+00	-2,63E+02	4,78E+01
Water pollution [m <sup>3</sup> ]	5,51E-01	3,90E-01	1,64E-01	0,00E+00	-1,42E-01	1,40E-01
Hazardous waste for disposal [kg]	4,74E-07	1,05E-07	4,67E-09	0,00E+00	-1,67E-08	3,81E-07
Disposed of non-hazardous waste [kg]	3,07E-02	4,03E-02	8,00E-03	0,00E+00	-1,89E-02	1,33E-03
Disposed of radioactive waste [kg]	1,50E-03	2,47E-04	1,70E-03	0,00E+00	-4,50E-04	1,10E-05

evaluated from CML 2001, April. 2015

### 1.3.27 MP-U-I 72-77 2 ½" M8/10

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242272	MP-U-I 72-77 2 ½" M8/10	10	1,522	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	2,969	3,482	0,662	0,000	-1,860	0,684
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	2,14E-14	8,15E-15	1,96E-14	0,00E+00	-6,44E-15	1,11E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	8,31E-03	6,96E-03	1,39E-03	0,00E+00	-5,54E-03	5,50E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,45E-03	6,91E-04	1,53E-04	0,00E+00	-5,23E-04	1,13E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,21E-03	1,02E-03	9,94E-05	0,00E+00	-8,06E-04	-1,53E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	8,17E-07	5,97E-07	2,20E-07	0,00E+00	-5,41E-08	5,37E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	4,07E+01	4,84E+01	7,46E+00	0,00E+00	-2,44E+01	9,30E+00
Energy (net calorific value) [MJ]	4,48E+01	4,92E+01	1,19E+01	0,00E+00	-2,56E+01	9,33E+00
Energy ren. (net calorific value) [MJ]	5,75E+00	1,97E+00	5,21E+00	0,00E+00	-1,92E+00	4,83E-01
Water consumption [kg]	1,16E+01	7,12E+00	6,17E+00	0,00E+00	-2,29E+00	5,61E-01
Air pollution [m <sup>3</sup> ]	1,58E+02	3,40E+02	4,26E+01	0,00E+00	-2,74E+02	5,00E+01
Water pollution [m <sup>3</sup> ]	5,84E-01	4,15E-01	1,72E-01	0,00E+00	-1,49E-01	1,46E-01
Hazardous waste for disposal [kg]	4,98E-07	1,12E-07	4,91E-09	0,00E+00	-1,74E-08	3,98E-07
Disposed of non-hazardous waste [kg]	3,25E-02	4,23E-02	8,41E-03	0,00E+00	-1,95E-02	1,39E-03
Disposed of radioactive waste [kg]	1,58E-03	2,62E-04	1,78E-03	0,00E+00	-4,79E-04	1,15E-05

evaluated from CML 2001, April. 2015

### 1.3.28 MP-U-I 78-84 M8/10

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242273	MP-U-I 78-84 M8/10	10	1,617	Steel, Polymer

Environmental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	3,192	3,710	0,709	0,000	-1,954	0,727
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	2,30E-14	8,83E-15	2,10E-14	0,00E+00	-6,97E-15	1,18E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	8,83E-03	7,37E-03	1,48E-03	0,00E+00	-5,86E-03	5,84E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,54E-03	7,34E-04	1,64E-04	0,00E+00	-5,54E-04	1,20E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,28E-03	1,09E-03	1,06E-04	0,00E+00	-8,52E-04	-1,62E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	8,89E-07	6,55E-07	2,35E-07	0,00E+00	-5,90E-08	5,71E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	4,39E+01	5,20E+01	7,99E+00	0,00E+00	-2,60E+01	9,88E+00
Energy (net calorific value) [MJ]	4,83E+01	5,29E+01	1,28E+01	0,00E+00	-2,73E+01	9,91E+00
Energy ren. (net calorific value) [MJ]	6,15E+00	2,12E+00	5,58E+00	0,00E+00	-2,07E+00	5,13E-01
Water consumption [kg]	1,24E+01	7,60E+00	6,61E+00	0,00E+00	-2,41E+00	5,96E-01
Air pollution [m <sup>3</sup> ]	1,69E+02	3,60E+02	4,57E+01	0,00E+00	-2,90E+02	5,31E+01
Water pollution [m <sup>3</sup> ]	6,31E-01	4,50E-01	1,85E-01	0,00E+00	-1,60E-01	1,55E-01
Hazardous waste for disposal [kg]	5,32E-07	1,23E-07	5,26E-09	0,00E+00	-1,85E-08	4,23E-07
Disposed of non-hazardous waste [kg]	3,53E-02	4,52E-02	9,01E-03	0,00E+00	-2,03E-02	1,47E-03
Disposed of radioactive waste [kg]	1,68E-03	2,82E-04	1,91E-03	0,00E+00	-5,22E-04	1,22E-05

evaluated from CML 2001, April. 2015

### 1.3.29 MP-U-I 84-90 3" M8/10

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242274	MP-U-I 84-90 3" M8/10	10	1,696	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	3,380	3,901	0,749	0,000	-2,032	0,762
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	2,43E-14	9,40E-15	2,22E-14	0,00E+00	-7,42E-15	1,24E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	9,28E-03	7,72E-03	1,57E-03	0,00E+00	-6,13E-03	6,13E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,62E-03	7,70E-04	1,73E-04	0,00E+00	-5,80E-04	1,25E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,34E-03	1,14E-03	1,12E-04	0,00E+00	-8,91E-04	-1,70E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	9,49E-07	7,04E-07	2,48E-07	0,00E+00	-6,32E-08	5,99E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	4,66E+01	5,51E+01	8,43E+00	0,00E+00	-2,73E+01	1,04E+01
Energy (net calorific value) [MJ]	5,12E+01	5,60E+01	1,35E+01	0,00E+00	-2,87E+01	1,04E+01
Energy ren. (net calorific value) [MJ]	6,48E+00	2,25E+00	5,89E+00	0,00E+00	-2,20E+00	5,38E-01
Water consumption [kg]	1,31E+01	8,01E+00	6,99E+00	0,00E+00	-2,50E+00	6,25E-01
Air pollution [m <sup>3</sup> ]	1,78E+02	3,77E+02	4,82E+01	0,00E+00	-3,04E+02	5,57E+01
Water pollution [m <sup>3</sup> ]	6,70E-01	4,81E-01	1,95E-01	0,00E+00	-1,68E-01	1,63E-01
Hazardous waste for disposal [kg]	5,61E-07	1,32E-07	5,55E-09	0,00E+00	-1,94E-08	4,44E-07
Disposed of non-hazardous waste [kg]	3,76E-02	4,76E-02	9,51E-03	0,00E+00	-2,10E-02	1,55E-03
Disposed of radioactive waste [kg]	1,77E-03	3,00E-04	2,02E-03	0,00E+00	-5,57E-04	1,28E-05

evaluated from CML 2001, April. 2015

### 1.3.30 MP-U-I 90-96 M8/10

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242275	MP-U-I 90-96 M8/10	10	1,776	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	3,571	4,094	0,789	0,000	-2,110	0,798
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	2,56E-14	9,99E-15	2,34E-14	0,00E+00	-7,87E-15	1,29E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	9,73E-03	8,06E-03	1,65E-03	0,00E+00	-6,40E-03	6,42E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,70E-03	8,07E-04	1,83E-04	0,00E+00	-6,06E-04	1,31E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,41E-03	1,19E-03	1,18E-04	0,00E+00	-9,30E-04	-1,78E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,01E-06	7,55E-07	2,62E-07	0,00E+00	-6,75E-08	6,27E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	4,93E+01	5,82E+01	8,88E+00	0,00E+00	-2,86E+01	1,09E+01
Energy (net calorific value) [MJ]	5,41E+01	5,92E+01	1,42E+01	0,00E+00	-3,01E+01	1,09E+01
Energy ren. (net calorific value) [MJ]	6,82E+00	2,37E+00	6,21E+00	0,00E+00	-2,33E+00	5,63E-01
Water consumption [kg]	1,38E+01	8,42E+00	7,36E+00	0,00E+00	-2,60E+00	6,54E-01
Air pollution [m <sup>3</sup> ]	1,87E+02	3,94E+02	5,08E+01	0,00E+00	-3,17E+02	5,83E+01
Water pollution [m <sup>3</sup> ]	7,10E-01	5,11E-01	2,05E-01	0,00E+00	-1,77E-01	1,70E-01
Hazardous waste for disposal [kg]	5,91E-07	1,41E-07	5,85E-09	0,00E+00	-2,03E-08	4,65E-07
Disposed of non-hazardous waste [kg]	4,00E-02	5,01E-02	1,00E-02	0,00E+00	-2,17E-02	1,62E-03
Disposed of radioactive waste [kg]	1,86E-03	3,17E-04	2,13E-03	0,00E+00	-5,94E-04	1,34E-05

evaluated from CML 2001, April. 2015

### 1.3.31 MP-U-I 97-103 M8/10

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242276	MP-U-I 97-103 M8/10	10	2,276	Steel, Polymer

Environmental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	4,226	5,141	1,001	0,000	-2,939	1,023
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	3,25E-14	1,15E-14	2,96E-14	0,00E+00	-8,80E-15	1,66E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,23E-02	1,04E-02	2,09E-03	0,00E+00	-8,42E-03	8,22E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	2,15E-03	1,03E-03	2,32E-04	0,00E+00	-7,93E-04	1,68E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,83E-03	1,54E-03	1,50E-04	0,00E+00	-1,23E-03	-2,28E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,15E-06	8,05E-07	3,32E-07	0,00E+00	-6,97E-08	8,04E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	5,74E+01	6,85E+01	1,13E+01	0,00E+00	-3,62E+01	1,39E+01
Energy (net calorific value) [MJ]	6,37E+01	6,95E+01	1,81E+01	0,00E+00	-3,78E+01	1,40E+01
Energy ren. (net calorific value) [MJ]	8,76E+00	2,82E+00	7,87E+00	0,00E+00	-2,65E+00	7,22E-01
Water consumption [kg]	1,65E+01	9,96E+00	9,31E+00	0,00E+00	-3,60E+00	8,39E-01
Air pollution [m <sup>3</sup> ]	2,32E+02	5,11E+02	6,45E+01	0,00E+00	-4,18E+02	7,47E+01
Water pollution [m <sup>3</sup> ]	8,42E-01	5,81E-01	2,60E-01	0,00E+00	-2,18E-01	2,18E-01
Hazardous waste for disposal [kg]	7,31E-07	1,55E-07	7,42E-09	0,00E+00	-2,62E-08	5,95E-07
Disposed of non-hazardous waste [kg]	4,61E-02	6,24E-02	1,27E-02	0,00E+00	-3,11E-02	2,08E-03
Disposed of radioactive waste [kg]	2,45E-03	3,74E-04	2,70E-03	0,00E+00	-6,33E-04	1,71E-05

evaluated from CML 2001, April. 2015



### 1.3.32 MP-U-I 103-109 M8/10

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242277	MP-U-I 103-109 M8/10	10	2,395	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	4,517	5,418	1,057	0,000	-3,035	1,076
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	3,41E-14	1,22E-14	3,13E-14	0,00E+00	-9,55E-15	1,75E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,30E-02	1,10E-02	2,21E-03	0,00E+00	-8,81E-03	8,65E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	2,27E-03	1,08E-03	2,44E-04	0,00E+00	-8,31E-04	1,77E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,91E-03	1,62E-03	1,59E-04	0,00E+00	-1,29E-03	-2,40E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,22E-06	8,66E-07	3,50E-07	0,00E+00	-7,74E-08	8,45E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	6,15E+01	7,31E+01	1,19E+01	0,00E+00	-3,82E+01	1,46E+01
Energy (net calorific value) [MJ]	6,81E+01	7,43E+01	1,91E+01	0,00E+00	-4,00E+01	1,47E+01
Energy ren. (net calorific value) [MJ]	9,20E+00	2,99E+00	8,31E+00	0,00E+00	-2,86E+00	7,60E-01
Water consumption [kg]	1,79E+01	1,09E+01	9,83E+00	0,00E+00	-3,72E+00	8,82E-01
Air pollution [m <sup>3</sup> ]	2,47E+02	5,37E+02	6,81E+01	0,00E+00	-4,37E+02	7,86E+01
Water pollution [m <sup>3</sup> ]	8,92E-01	6,18E-01	2,75E-01	0,00E+00	-2,31E-01	2,30E-01
Hazardous waste for disposal [kg]	7,72E-07	1,66E-07	7,83E-09	0,00E+00	-2,75E-08	6,26E-07
Disposed of non-hazardous waste [kg]	4,90E-02	6,56E-02	1,34E-02	0,00E+00	-3,22E-02	2,18E-03
Disposed of radioactive waste [kg]	2,56E-03	3,95E-04	2,85E-03	0,00E+00	-6,95E-04	1,80E-05

evaluated from CML 2001, April. 2015

### 1.3.33 MP-U-I 109-115 4" M8/10

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242278	MP-U-I 109-115 4" M8/10	10	2,486	Steel, Polymer

Environmental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	4,720	5,635	1,102	0,000	-3,133	1,117
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	3,56E-14	1,28E-14	3,26E-14	0,00E+00	-1,00E-14	1,81E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,35E-02	1,14E-02	2,30E-03	0,00E+00	-9,13E-03	8,98E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	2,36E-03	1,12E-03	2,55E-04	0,00E+00	-8,61E-04	1,84E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,98E-03	1,68E-03	1,65E-04	0,00E+00	-1,33E-03	-2,49E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,29E-06	9,16E-07	3,65E-07	0,00E+00	-8,16E-08	8,78E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	6,43E+01	7,64E+01	1,24E+01	0,00E+00	-3,97E+01	1,52E+01
Energy (net calorific value) [MJ]	7,12E+01	7,77E+01	1,99E+01	0,00E+00	-4,16E+01	1,52E+01
Energy ren. (net calorific value) [MJ]	9,58E+00	3,12E+00	8,66E+00	0,00E+00	-3,00E+00	7,89E-01
Water consumption [kg]	1,86E+01	1,13E+01	1,02E+01	0,00E+00	-3,85E+00	9,16E-01
Air pollution [m <sup>3</sup> ]	2,57E+02	5,57E+02	7,09E+01	0,00E+00	-4,53E+02	8,16E+01
Water pollution [m <sup>3</sup> ]	9,34E-01	6,50E-01	2,87E-01	0,00E+00	-2,41E-01	2,39E-01
Hazardous waste for disposal [kg]	8,05E-07	1,75E-07	8,16E-09	0,00E+00	-2,86E-08	6,50E-07
Disposed of non-hazardous waste [kg]	5,15E-02	6,84E-02	1,40E-02	0,00E+00	-3,31E-02	2,27E-03
Disposed of radioactive waste [kg]	2,67E-03	4,14E-04	2,97E-03	0,00E+00	-7,32E-04	1,87E-05

evaluated from CML 2001, April. 2015

### 1.3.34 MP-U-I 115-121 M8/10

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242279	MP-U-I 115-121 M8/10	10	2,578	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	4,925	5,852	1,146	0,000	-3,232	1,159
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	3,70E-14	1,34E-14	3,39E-14	0,00E+00	-1,05E-14	1,88E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,40E-02	1,18E-02	2,40E-03	0,00E+00	-9,45E-03	9,31E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	2,45E-03	1,16E-03	2,65E-04	0,00E+00	-8,92E-04	1,91E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-2,06E-03	1,74E-03	1,72E-04	0,00E+00	-1,38E-03	-2,59E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,35E-06	9,67E-07	3,80E-07	0,00E+00	-8,58E-08	9,10E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	6,72E+01	7,98E+01	1,29E+01	0,00E+00	-4,12E+01	1,58E+01
Energy (net calorific value) [MJ]	7,44E+01	8,11E+01	2,07E+01	0,00E+00	-4,32E+01	1,58E+01
Energy ren. (net calorific value) [MJ]	9,96E+00	3,26E+00	9,02E+00	0,00E+00	-3,13E+00	8,18E-01
Water consumption [kg]	1,94E+01	1,18E+01	1,07E+01	0,00E+00	-3,97E+00	9,50E-01
Air pollution [m <sup>3</sup> ]	2,67E+02	5,77E+02	7,38E+01	0,00E+00	-4,69E+02	8,46E+01
Water pollution [m <sup>3</sup> ]	9,77E-01	6,82E-01	2,98E-01	0,00E+00	-2,50E-01	2,47E-01
Hazardous waste for disposal [kg]	8,37E-07	1,84E-07	8,49E-09	0,00E+00	-2,96E-08	6,74E-07
Disposed of non-hazardous waste [kg]	5,40E-02	7,11E-02	1,46E-02	0,00E+00	-3,40E-02	2,35E-03
Disposed of radioactive waste [kg]	2,77E-03	4,33E-04	3,09E-03	0,00E+00	-7,69E-04	1,94E-05

evaluated from CML 2001, April. 2015

### 1.3.35 MP-U-I 122-128 M8/10

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242280	MP-U-I 122-128 M8/10	10	2,685	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	5,162	6,104	1,199	0,000	-3,348	1,207
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	3,88E-14	1,41E-14	3,55E-14	0,00E+00	-1,10E-14	1,96E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,46E-02	1,22E-02	2,51E-03	0,00E+00	-9,82E-03	9,70E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> -eq.]	2,55E-03	1,21E-03	2,77E-04	0,00E+00	-9,27E-04	1,99E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-2,14E-03	1,81E-03	1,80E-04	0,00E+00	-1,43E-03	-2,69E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,43E-06	1,02E-06	3,97E-07	0,00E+00	-9,07E-08	9,48E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	7,06E+01	8,36E+01	1,35E+01	0,00E+00	-4,30E+01	1,64E+01
Energy (net calorific value) [MJ]	7,80E+01	8,50E+01	2,16E+01	0,00E+00	-4,50E+01	1,65E+01
Energy ren. (net calorific value) [MJ]	1,04E+01	3,42E+00	9,43E+00	0,00E+00	-3,29E+00	8,52E-01
Water consumption [kg]	2,03E+01	1,23E+01	1,12E+01	0,00E+00	-4,11E+00	9,89E-01
Air pollution [m <sup>3</sup> ]	2,79E+02	6,00E+02	7,72E+01	0,00E+00	-4,87E+02	8,81E+01
Water pollution [m <sup>3</sup> ]	1,03E+00	7,19E-01	3,12E-01	0,00E+00	-2,61E-01	2,58E-01
Hazardous waste for disposal [kg]	8,75E-07	1,94E-07	8,88E-09	0,00E+00	-3,08E-08	7,02E-07
Disposed of non-hazardous waste [kg]	5,68E-02	7,43E-02	1,52E-02	0,00E+00	-3,51E-02	2,45E-03
Disposed of radioactive waste [kg]	2,89E-03	4,55E-04	3,23E-03	0,00E+00	-8,12E-04	2,02E-05

evaluated from CML 2001, April. 2015

### 1.3.36 MP-U-I 129-135 M8/10

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242281	MP-U-I 129-135 M8/10	10	2,792	Steel, Polymer

Environmental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	5,399	6,356	1,251	0,000	-3,463	1,255
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	4,05E-14	1,48E-14	3,70E-14	0,00E+00	-1,16E-14	2,03E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,52E-02	1,27E-02	2,62E-03	0,00E+00	-1,02E-02	1,01E-02
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	2,65E-03	1,26E-03	2,89E-04	0,00E+00	-9,63E-04	2,07E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-2,22E-03	1,88E-03	1,88E-04	0,00E+00	-1,49E-03	-2,80E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,50E-06	1,08E-06	4,14E-07	0,00E+00	-9,56E-08	9,86E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	7,39E+01	8,75E+01	1,41E+01	0,00E+00	-4,47E+01	1,71E+01
Energy (net calorific value) [MJ]	8,17E+01	8,89E+01	2,26E+01	0,00E+00	-4,69E+01	1,71E+01
Energy ren. (net calorific value) [MJ]	1,09E+01	3,58E+00	9,84E+00	0,00E+00	-3,45E+00	8,86E-01
Water consumption [kg]	2,12E+01	1,28E+01	1,16E+01	0,00E+00	-4,25E+00	1,03E+00
Air pollution [m <sup>3</sup> ]	2,90E+02	6,24E+02	8,05E+01	0,00E+00	-5,06E+02	9,16E+01
Water pollution [m <sup>3</sup> ]	1,08E+00	7,56E-01	3,25E-01	0,00E+00	-2,72E-01	2,68E-01
Hazardous waste for disposal [kg]	9,12E-07	2,05E-07	9,27E-09	0,00E+00	-3,20E-08	7,30E-07
Disposed of non-hazardous waste [kg]	5,97E-02	7,75E-02	1,59E-02	0,00E+00	-3,62E-02	2,55E-03
Disposed of radioactive waste [kg]	3,01E-03	4,77E-04	3,37E-03	0,00E+00	-8,54E-04	2,10E-05

evaluated from CML 2001, April. 2015

### 1.3.37 MP-U-I 135-141 5" M8/10

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2305365	MP-U-I 135-141 5" M8/10	10	2,883	Steel, Polymer

Environmental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	5,599	6,571	1,295	0,000	-3,562	1,296
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	4,19E-14	1,54E-14	3,83E-14	0,00E+00	-1,20E-14	2,10E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,57E-02	1,31E-02	2,71E-03	0,00E+00	-1,05E-02	1,04E-02
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	2,74E-03	1,30E-03	3,00E-04	0,00E+00	-9,93E-04	2,13E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-2,29E-03	1,94E-03	1,94E-04	0,00E+00	-1,53E-03	-2,89E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,56E-06	1,13E-06	4,29E-07	0,00E+00	-9,97E-08	1,02E-07
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	7,68E+01	9,08E+01	1,46E+01	0,00E+00	-4,62E+01	1,76E+01
Energy (net calorific value) [MJ]	8,48E+01	9,22E+01	2,34E+01	0,00E+00	-4,85E+01	1,77E+01
Energy ren. (net calorific value) [MJ]	1,12E+01	3,71E+00	1,02E+01	0,00E+00	-3,58E+00	9,15E-01
Water consumption [kg]	2,20E+01	1,32E+01	1,21E+01	0,00E+00	-4,37E+00	1,06E+00
Air pollution [m <sup>3</sup> ]	3,00E+02	6,44E+02	8,34E+01	0,00E+00	-5,21E+02	9,46E+01
Water pollution [m <sup>3</sup> ]	1,12E+00	7,87E-01	3,37E-01	0,00E+00	-2,82E-01	2,77E-01
Hazardous waste for disposal [kg]	9,44E-07	2,14E-07	9,60E-09	0,00E+00	-3,31E-08	7,54E-07
Disposed of non-hazardous waste [kg]	6,21E-02	8,02E-02	1,64E-02	0,00E+00	-3,72E-02	2,63E-03
Disposed of radioactive waste [kg]	3,11E-03	4,95E-04	3,49E-03	0,00E+00	-8,90E-04	2,17E-05

evaluated from CML 2001, April. 2015

### 1.3.38 MP-U-I 141-147 M8/10

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2305366	MP-U-I 141-147 M8/10	10	3,228	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	6,131	7,299	1,440	0,000	-4,059	1,451
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	4,63E-14	1,64E-14	4,26E-14	0,00E+00	-1,30E-14	2,35E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,76E-02	1,48E-02	3,01E-03	0,00E+00	-1,18E-02	1,17E-02
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	3,06E-03	1,46E-03	3,33E-04	0,00E+00	-1,12E-03	2,39E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-2,57E-03	2,18E-03	2,16E-04	0,00E+00	-1,73E-03	-3,24E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,66E-06	1,18E-06	4,77E-07	0,00E+00	-1,07E-07	1,14E-07
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	8,34E+01	9,90E+01	1,62E+01	0,00E+00	-5,16E+01	1,97E+01
Energy (net calorific value) [MJ]	9,25E+01	1,01E+02	2,60E+01	0,00E+00	-5,40E+01	1,98E+01
Energy ren. (net calorific value) [MJ]	1,25E+01	4,04E+00	1,13E+01	0,00E+00	-3,90E+00	1,02E+00
Water consumption [kg]	2,45E+01	1,49E+01	1,34E+01	0,00E+00	-4,99E+00	1,19E+00
Air pollution [m <sup>3</sup> ]	3,35E+02	7,24E+02	9,27E+01	0,00E+00	-5,88E+02	1,06E+02
Water pollution [m <sup>3</sup> ]	1,21E+00	8,36E-01	3,75E-01	0,00E+00	-3,13E-01	3,10E-01
Hazardous waste for disposal [kg]	1,04E-06	2,24E-07	1,07E-08	0,00E+00	-3,71E-08	8,44E-07
Disposed of non-hazardous waste [kg]	6,64E-02	8,83E-02	1,83E-02	0,00E+00	-4,31E-02	2,95E-03
Disposed of radioactive waste [kg]	3,48E-03	5,33E-04	3,88E-03	0,00E+00	-9,53E-04	2,43E-05

evaluated from CML 2001, April. 2015

### 1.3.39 MP-U-I 147-153 M8/10

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2305367	MP-U-I 147-153 M8/10	10	3,327	Steel, Polymer

Environmental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	6,343	7,530	1,488	0,000	-4,170	1,495
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	4,78E-14	1,71E-14	4,40E-14	0,00E+00	-1,35E-14	2,42E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,81E-02	1,52E-02	3,11E-03	0,00E+00	-1,22E-02	1,20E-02
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	3,15E-03	1,50E-03	3,44E-04	0,00E+00	-1,15E-03	2,46E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-2,65E-03	2,25E-03	2,23E-04	0,00E+00	-1,78E-03	-3,34E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,73E-06	1,23E-06	4,93E-07	0,00E+00	-1,11E-07	1,17E-07
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	8,64E+01	1,02E+02	1,68E+01	0,00E+00	-5,32E+01	2,03E+01
Energy (net calorific value) [MJ]	9,57E+01	1,04E+02	2,68E+01	0,00E+00	-5,57E+01	2,04E+01
Energy ren. (net calorific value) [MJ]	1,29E+01	4,18E+00	1,17E+01	0,00E+00	-4,04E+00	1,06E+00
Water consumption [kg]	2,53E+01	1,54E+01	1,38E+01	0,00E+00	-5,12E+00	1,23E+00
Air pollution [m <sup>3</sup> ]	3,46E+02	7,46E+02	9,58E+01	0,00E+00	-6,05E+02	1,09E+02
Water pollution [m <sup>3</sup> ]	1,25E+00	8,69E-01	3,87E-01	0,00E+00	-3,23E-01	3,19E-01
Hazardous waste for disposal [kg]	1,08E-06	2,34E-07	1,10E-08	0,00E+00	-3,82E-08	8,70E-07
Disposed of non-hazardous waste [kg]	6,90E-02	9,12E-02	1,89E-02	0,00E+00	-4,42E-02	3,04E-03
Disposed of radioactive waste [kg]	3,59E-03	5,53E-04	4,01E-03	0,00E+00	-9,90E-04	2,50E-05

evaluated from CML 2001, April. 2015



### 1.3.40 MP-U-I 154-160 M8/10

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2305368	MP-U-I 154-160 M8/10	10	3,442	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	6,589	7,799	1,543	0,000	-4,300	1,547
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	4,97E-14	1,78E-14	4,57E-14	0,00E+00	-1,41E-14	2,51E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,88E-02	1,57E-02	3,23E-03	0,00E+00	-1,26E-02	1,24E-02
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	3,27E-03	1,55E-03	3,57E-04	0,00E+00	-1,19E-03	2,55E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-2,74E-03	2,32E-03	2,32E-04	0,00E+00	-1,84E-03	-3,45E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,80E-06	1,29E-06	5,11E-07	0,00E+00	-1,16E-07	1,22E-07
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	8,99E+01	1,06E+02	1,74E+01	0,00E+00	-5,51E+01	2,10E+01
Energy (net calorific value) [MJ]	9,95E+01	1,08E+02	2,78E+01	0,00E+00	-5,77E+01	2,11E+01
Energy ren. (net calorific value) [MJ]	1,34E+01	4,34E+00	1,21E+01	0,00E+00	-4,20E+00	1,09E+00
Water consumption [kg]	2,63E+01	1,59E+01	1,44E+01	0,00E+00	-5,28E+00	1,27E+00
Air pollution [m <sup>3</sup> ]	3,58E+02	7,71E+02	9,94E+01	0,00E+00	-6,25E+02	1,13E+02
Water pollution [m <sup>3</sup> ]	1,30E+00	9,06E-01	4,02E-01	0,00E+00	-3,34E-01	3,30E-01
Hazardous waste for disposal [kg]	1,12E-06	2,44E-07	1,14E-08	0,00E+00	-3,95E-08	9,00E-07
Disposed of non-hazardous waste [kg]	7,19E-02	9,46E-02	1,96E-02	0,00E+00	-4,54E-02	3,14E-03
Disposed of radioactive waste [kg]	3,72E-03	5,75E-04	4,16E-03	0,00E+00	-1,03E-03	2,59E-05

evaluated from CML 2001, April. 2015

### 1.3.41 MP-U-I 160-166 6" M8/10

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2305369	MP-U-I 160-166 6" M8/10	10	3,541	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	6,801	8,030	1,591	0,000	-4,411	1,591
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	5,12E-14	1,84E-14	4,71E-14	0,00E+00	-1,45E-14	2,58E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,93E-02	1,62E-02	3,33E-03	0,00E+00	-1,30E-02	1,28E-02
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	3,36E-03	1,60E-03	3,68E-04	0,00E+00	-1,22E-03	2,62E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-2,81E-03	2,39E-03	2,39E-04	0,00E+00	-1,89E-03	-3,55E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,87E-06	1,34E-06	5,27E-07	0,00E+00	-1,20E-07	1,25E-07
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	9,28E+01	1,10E+02	1,79E+01	0,00E+00	-5,67E+01	2,16E+01
Energy (net calorific value) [MJ]	1,03E+02	1,12E+02	2,87E+01	0,00E+00	-5,94E+01	2,17E+01
Energy ren. (net calorific value) [MJ]	1,38E+01	4,48E+00	1,25E+01	0,00E+00	-4,34E+00	1,12E+00
Water consumption [kg]	2,71E+01	1,64E+01	1,48E+01	0,00E+00	-5,42E+00	1,30E+00
Air pollution [m <sup>3</sup> ]	3,69E+02	7,93E+02	1,02E+02	0,00E+00	-6,43E+02	1,16E+02
Water pollution [m <sup>3</sup> ]	1,35E+00	9,39E-01	4,14E-01	0,00E+00	-3,45E-01	3,40E-01
Hazardous waste for disposal [kg]	1,15E-06	2,53E-07	1,18E-08	0,00E+00	-4,06E-08	9,26E-07
Disposed of non-hazardous waste [kg]	7,44E-02	9,75E-02	2,02E-02	0,00E+00	-4,65E-02	3,23E-03
Disposed of radioactive waste [kg]	3,84E-03	5,95E-04	4,28E-03	0,00E+00	-1,07E-03	2,66E-05

evaluated from CML 2001, April. 2015

### 1.3.42 MP-U-I 164-170 M8/10

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2305370	MP-U-I 164-170 M8/10	10	3,607	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	6,942	8,185	1,623	0,000	-4,487	1,621
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	5,23E-14	1,88E-14	4,80E-14	0,00E+00	-1,48E-14	2,63E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,97E-02	1,64E-02	3,39E-03	0,00E+00	-1,32E-02	1,30E-02
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	3,43E-03	1,63E-03	3,75E-04	0,00E+00	-1,24E-03	2,67E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-2,87E-03	2,43E-03	2,44E-04	0,00E+00	-1,92E-03	-3,62E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,91E-06	1,37E-06	5,38E-07	0,00E+00	-1,23E-07	1,27E-07
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	9,48E+01	1,12E+02	1,83E+01	0,00E+00	-5,77E+01	2,20E+01
Energy (net calorific value) [MJ]	1,05E+02	1,14E+02	2,93E+01	0,00E+00	-6,05E+01	2,21E+01
Energy ren. (net calorific value) [MJ]	1,41E+01	4,58E+00	1,28E+01	0,00E+00	-4,43E+00	1,14E+00
Water consumption [kg]	2,76E+01	1,67E+01	1,51E+01	0,00E+00	-5,51E+00	1,33E+00
Air pollution [m <sup>3</sup> ]	3,76E+02	8,07E+02	1,04E+02	0,00E+00	-6,54E+02	1,18E+02
Water pollution [m <sup>3</sup> ]	1,38E+00	9,60E-01	4,22E-01	0,00E+00	-3,51E-01	3,46E-01
Hazardous waste for disposal [kg]	1,17E-06	2,60E-07	1,20E-08	0,00E+00	-4,14E-08	9,43E-07
Disposed of non-hazardous waste [kg]	7,61E-02	9,95E-02	2,06E-02	0,00E+00	-4,72E-02	3,29E-03
Disposed of radioactive waste [kg]	3,91E-03	6,08E-04	4,37E-03	0,00E+00	-1,09E-03	2,71E-05

evaluated from CML 2001, April. 2015

### 1.3.43 MP-U-I 9-13 1/8" M8/10<sup>1</sup>/<sub>2</sub>"

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242283	MP-U-I 9-13 1/8" M8/10 <sup>1</sup> / <sub>2</sub> "	25	1,914	Steel, Polymer

Environmental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	2,405	4,485	0,155	0,000	-3,095	0,860
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	8,21E-15	7,41E-15	4,59E-15	0,00E+00	-3,94E-15	1,39E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	9,13E-03	9,54E-03	3,24E-04	0,00E+00	-7,64E-03	6,91E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,68E-03	9,41E-04	3,59E-05	0,00E+00	-7,12E-04	1,42E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,72E-03	1,32E-03	2,32E-05	0,00E+00	-1,14E-03	-1,92E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	3,48E-07	2,43E-07	5,14E-08	0,00E+00	-1,40E-08	6,76E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	3,11E+01	4,68E+01	1,74E+00	0,00E+00	-2,91E+01	1,17E+01
Energy (net calorific value) [MJ]	3,24E+01	4,75E+01	2,79E+00	0,00E+00	-2,96E+01	1,17E+01
Energy ren. (net calorific value) [MJ]	2,55E+00	2,05E+00	1,22E+00	0,00E+00	-1,32E+00	6,07E-01
Water consumption [kg]	2,60E+00	4,17E+00	1,45E+00	0,00E+00	-3,73E+00	7,05E-01
Air pollution [m <sup>3</sup> ]	1,28E+02	4,40E+02	9,94E+00	0,00E+00	-3,84E+02	6,28E+01
Water pollution [m <sup>3</sup> ]	3,72E-01	3,08E-01	4,03E-02	0,00E+00	-1,60E-01	1,84E-01
Hazardous waste for disposal [kg]	5,40E-07	6,10E-08	1,15E-09	0,00E+00	-2,25E-08	5,00E-07
Disposed of non-hazardous waste [kg]	1,95E-02	5,11E-02	1,97E-03	0,00E+00	-3,54E-02	1,75E-03
Disposed of radioactive waste [kg]	5,05E-04	2,63E-04	4,18E-04	0,00E+00	-1,90E-04	1,44E-05

evaluated from CML 2001, April. 2015

### 1.3.44 MP-U-I 13-17 1/4" M8/10/1/2"

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242284	MP-U-I 13-17 1/4" M8/10/1/2"	25	1,971	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	2,546	4,637	0,169	0,000	-3,146	0,886
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	8,76E-15	7,90E-15	5,01E-15	0,00E+00	-4,29E-15	1,44E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	9,44E-03	9,80E-03	3,53E-04	0,00E+00	-7,83E-03	7,12E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> -eq.]	1,74E-03	9,69E-04	3,91E-05	0,00E+00	-7,31E-04	1,46E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,76E-03	1,35E-03	2,53E-05	0,00E+00	-1,16E-03	-1,98E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	3,91E-07	2,83E-07	5,60E-08	0,00E+00	-1,74E-08	6,96E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	3,31E+01	4,93E+01	1,89E+00	0,00E+00	-3,01E+01	1,20E+01
Energy (net calorific value) [MJ]	3,46E+01	5,01E+01	3,04E+00	0,00E+00	-3,06E+01	1,21E+01
Energy ren. (net calorific value) [MJ]	2,68E+00	2,15E+00	1,33E+00	0,00E+00	-1,42E+00	6,25E-01
Water consumption [kg]	2,95E+00	4,43E+00	1,59E+00	0,00E+00	-3,80E+00	7,26E-01
Air pollution [m <sup>3</sup> ]	1,34E+02	4,52E+02	1,08E+01	0,00E+00	-3,94E+02	6,47E+01
Water pollution [m <sup>3</sup> ]	3,99E-01	3,32E-01	4,40E-02	0,00E+00	-1,66E-01	1,89E-01
Hazardous waste for disposal [kg]	5,62E-07	6,81E-08	1,25E-09	0,00E+00	-2,32E-08	5,16E-07
Disposed of non-hazardous waste [kg]	2,12E-02	5,30E-02	2,15E-03	0,00E+00	-3,58E-02	1,80E-03
Disposed of radioactive waste [kg]	5,29E-04	2,77E-04	4,55E-04	0,00E+00	-2,19E-04	1,48E-05

evaluated from CML 2001, April. 2015

### 1.3.45 MP-U-I 17-21 3/8" M8/10/1/2"

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242285	MP-U-I 17-21 3/8" M8/10/1/2"	25	2,049	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	2,736	4,843	0,188	0,000	-3,215	0,921
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	9,51E-15	8,56E-15	5,57E-15	0,00E+00	-4,77E-15	1,49E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	9,85E-03	1,02E-02	3,93E-04	0,00E+00	-8,09E-03	7,40E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> -eq.]	1,81E-03	1,01E-03	4,34E-05	0,00E+00	-7,56E-04	1,52E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,83E-03	1,40E-03	2,81E-05	0,00E+00	-1,20E-03	-2,06E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	4,51E-07	3,38E-07	6,23E-08	0,00E+00	-2,21E-08	7,23E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	3,59E+01	5,27E+01	2,10E+00	0,00E+00	-3,14E+01	1,25E+01
Energy (net calorific value) [MJ]	3,74E+01	5,35E+01	3,38E+00	0,00E+00	-3,20E+01	1,26E+01
Energy ren. (net calorific value) [MJ]	2,86E+00	2,29E+00	1,48E+00	0,00E+00	-1,56E+00	6,50E-01
Water consumption [kg]	3,42E+00	4,78E+00	1,77E+00	0,00E+00	-3,88E+00	7,55E-01
Air pollution [m <sup>3</sup> ]	1,41E+02	4,68E+02	1,20E+01	0,00E+00	-4,06E+02	6,72E+01
Water pollution [m <sup>3</sup> ]	4,36E-01	3,66E-01	4,89E-02	0,00E+00	-1,75E-01	1,97E-01
Hazardous waste for disposal [kg]	5,91E-07	7,77E-08	1,39E-09	0,00E+00	-2,40E-08	5,36E-07
Disposed of non-hazardous waste [kg]	2,35E-02	5,56E-02	2,39E-03	0,00E+00	-3,63E-02	1,87E-03
Disposed of radioactive waste [kg]	5,61E-04	2,97E-04	5,07E-04	0,00E+00	-2,58E-04	1,54E-05

evaluated from CML 2001, April. 2015

### 1.3.46 MP-U-I 21-25 1/2" M8/10/1/2"

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242286	MP-U-I 21-25 1/2" M8/10/1/2"	25	2,168	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	3,075	5,157	0,221	0,000	-3,276	0,974
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	1,06E-14	9,57E-15	6,56E-15	0,00E+00	-5,71E-15	1,58E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,06E-02	1,07E-02	4,62E-04	0,00E+00	-8,45E-03	7,83E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> -eq.]	1,93E-03	1,07E-03	5,12E-05	0,00E+00	-7,91E-04	1,60E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,91E-03	1,48E-03	3,31E-05	0,00E+00	-1,25E-03	-2,18E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	5,46E-07	4,28E-07	7,34E-08	0,00E+00	-3,23E-08	7,65E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	4,09E+01	5,86E+01	2,47E+00	0,00E+00	-3,35E+01	1,33E+01
Energy (net calorific value) [MJ]	4,25E+01	5,96E+01	3,98E+00	0,00E+00	-3,43E+01	1,33E+01
Energy ren. (net calorific value) [MJ]	3,12E+00	2,52E+00	1,74E+00	0,00E+00	-1,83E+00	6,88E-01
Water consumption [kg]	4,62E+00	5,69E+00	2,09E+00	0,00E+00	-3,97E+00	7,99E-01
Air pollution [m <sup>3</sup> ]	1,55E+02	4,93E+02	1,42E+01	0,00E+00	-4,23E+02	7,11E+01
Water pollution [m <sup>3</sup> ]	4,94E-01	4,17E-01	5,76E-02	0,00E+00	-1,89E-01	2,08E-01
Hazardous waste for disposal [kg]	6,36E-07	9,29E-08	1,64E-09	0,00E+00	-2,53E-08	5,67E-07
Disposed of non-hazardous waste [kg]	2,72E-02	5,93E-02	2,82E-03	0,00E+00	-3,69E-02	1,98E-03
Disposed of radioactive waste [kg]	6,00E-04	3,26E-04	5,97E-04	0,00E+00	-3,39E-04	1,63E-05

evaluated from CML 2001, April. 2015

### 1.3.47 MP-U-I 25-29 3/4" M8/10/1/2"

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242287	MP-U-I 25-29 3/4" M8/10/1/2"	25	2,278	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	3,383	5,456	0,253	0,000	-3,351	1,024
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	1,18E-14	1,06E-14	7,53E-15	0,00E+00	-6,52E-15	1,66E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,12E-02	1,12E-02	5,30E-04	0,00E+00	-8,80E-03	8,23E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> -eq.]	2,04E-03	1,12E-03	5,87E-05	0,00E+00	-8,24E-04	1,69E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-2,00E-03	1,55E-03	3,79E-05	0,00E+00	-1,30E-03	-2,29E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	6,48E-07	5,23E-07	8,42E-08	0,00E+00	-4,05E-08	8,04E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	4,54E+01	6,40E+01	2,83E+00	0,00E+00	-3,54E+01	1,39E+01
Energy (net calorific value) [MJ]	4,72E+01	6,51E+01	4,56E+00	0,00E+00	-3,64E+01	1,40E+01
Energy ren. (net calorific value) [MJ]	3,41E+00	2,74E+00	2,00E+00	0,00E+00	-2,05E+00	7,23E-01
Water consumption [kg]	5,45E+00	6,27E+00	2,41E+00	0,00E+00	-4,07E+00	8,39E-01
Air pollution [m <sup>3</sup> ]	1,66E+02	5,16E+02	1,62E+01	0,00E+00	-4,40E+02	7,48E+01
Water pollution [m <sup>3</sup> ]	5,55E-01	4,73E-01	6,60E-02	0,00E+00	-2,02E-01	2,19E-01
Hazardous waste for disposal [kg]	6,81E-07	1,09E-07	1,88E-09	0,00E+00	-2,66E-08	5,96E-07
Disposed of non-hazardous waste [kg]	3,11E-02	6,31E-02	3,24E-03	0,00E+00	-3,73E-02	2,08E-03
Disposed of radioactive waste [kg]	6,51E-04	3,58E-04	6,85E-04	0,00E+00	-4,08E-04	1,71E-05

evaluated from CML 2001, April. 2015



### 1.3.48 MP-U-I 29-33 M8/10/1/2"

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242288	MP-U-I 29-33 M8/10/1/2"	25	2,367	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	3,630	5,696	0,279	0,000	-3,410	1,064
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	1,28E-14	1,15E-14	8,30E-15	0,00E+00	-7,18E-15	1,72E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,17E-02	1,16E-02	5,85E-04	0,00E+00	-9,07E-03	8,55E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	2,13E-03	1,17E-03	6,47E-05	0,00E+00	-8,51E-04	1,75E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-2,07E-03	1,60E-03	4,18E-05	0,00E+00	-1,34E-03	-2,37E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	7,29E-07	6,00E-07	9,28E-08	0,00E+00	-4,72E-08	8,35E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	4,91E+01	6,84E+01	3,12E+00	0,00E+00	-3,69E+01	1,45E+01
Energy (net calorific value) [MJ]	5,10E+01	6,95E+01	5,02E+00	0,00E+00	-3,81E+01	1,45E+01
Energy ren. (net calorific value) [MJ]	3,64E+00	2,92E+00	2,21E+00	0,00E+00	-2,24E+00	7,51E-01
Water consumption [kg]	6,13E+00	6,74E+00	2,66E+00	0,00E+00	-4,14E+00	8,72E-01
Air pollution [m <sup>3</sup> ]	1,76E+02	5,34E+02	1,79E+01	0,00E+00	-4,53E+02	7,77E+01
Water pollution [m <sup>3</sup> ]	6,04E-01	5,17E-01	7,28E-02	0,00E+00	-2,13E-01	2,27E-01
Hazardous waste for disposal [kg]	7,16E-07	1,23E-07	2,07E-09	0,00E+00	-2,75E-08	6,19E-07
Disposed of non-hazardous waste [kg]	3,43E-02	6,62E-02	3,57E-03	0,00E+00	-3,77E-02	2,16E-03
Disposed of radioactive waste [kg]	6,93E-04	3,83E-04	7,55E-04	0,00E+00	-4,63E-04	1,78E-05

evaluated from CML 2001, April. 2015

### 1.3.49 MP-U-I 33-37 1" M8/10½"

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242289	MP-U-I 33-37 1" M8/10½"	25	2,454	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	3,869	5,932	0,304	0,000	-3,470	1,103
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	1,38E-14	1,23E-14	9,05E-15	0,00E+00	-7,80E-15	1,79E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,21E-02	1,20E-02	6,37E-04	0,00E+00	-9,35E-03	8,86E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	2,22E-03	1,21E-03	7,05E-05	0,00E+00	-8,77E-04	1,81E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-2,13E-03	1,66E-03	4,56E-05	0,00E+00	-1,38E-03	-2,46E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	8,08E-07	6,74E-07	1,01E-07	0,00E+00	-5,36E-08	8,66E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	5,27E+01	7,27E+01	3,40E+00	0,00E+00	-3,84E+01	1,50E+01
Energy (net calorific value) [MJ]	5,46E+01	7,38E+01	5,47E+00	0,00E+00	-3,97E+01	1,50E+01
Energy ren. (net calorific value) [MJ]	3,86E+00	3,10E+00	2,40E+00	0,00E+00	-2,42E+00	7,78E-01
Water consumption [kg]	6,78E+00	7,18E+00	2,91E+00	0,00E+00	-4,22E+00	9,04E-01
Air pollution [m <sup>3</sup> ]	1,85E+02	5,51E+02	1,95E+01	0,00E+00	-4,67E+02	8,05E+01
Water pollution [m <sup>3</sup> ]	6,52E-01	5,60E-01	7,94E-02	0,00E+00	-2,23E-01	2,35E-01
Hazardous waste for disposal [kg]	7,51E-07	1,35E-07	2,26E-09	0,00E+00	-2,85E-08	6,42E-07
Disposed of non-hazardous waste [kg]	3,73E-02	6,92E-02	3,89E-03	0,00E+00	-3,80E-02	2,24E-03
Disposed of radioactive waste [kg]	7,33E-04	4,08E-04	8,23E-04	0,00E+00	-5,17E-04	1,85E-05

evaluated from CML 2001, April. 2015

### 1.3.50 MP-U-I 37-42 M8/10/1/2"

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242290	MP-U-I 37-42 M8/10/1/2"	25	2,584	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	4,185	6,271	0,341	0,000	-3,588	1,161
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	1,52E-14	1,34E-14	1,02E-14	0,00E+00	-8,59E-15	1,88E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,28E-02	1,26E-02	7,15E-04	0,00E+00	-9,78E-03	9,33E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	2,34E-03	1,27E-03	7,91E-05	0,00E+00	-9,19E-04	1,91E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-2,24E-03	1,74E-03	5,11E-05	0,00E+00	-1,44E-03	-2,59E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	9,07E-07	7,63E-07	1,14E-07	0,00E+00	-6,11E-08	9,12E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	5,73E+01	7,83E+01	3,81E+00	0,00E+00	-4,06E+01	1,58E+01
Energy (net calorific value) [MJ]	5,94E+01	7,95E+01	6,13E+00	0,00E+00	-4,20E+01	1,58E+01
Energy ren. (net calorific value) [MJ]	4,20E+00	3,33E+00	2,70E+00	0,00E+00	-2,64E+00	8,20E-01
Water consumption [kg]	7,63E+00	7,78E+00	3,26E+00	0,00E+00	-4,37E+00	9,52E-01
Air pollution [m <sup>3</sup> ]	1,97E+02	5,79E+02	2,19E+01	0,00E+00	-4,88E+02	8,48E+01
Water pollution [m <sup>3</sup> ]	7,14E-01	6,15E-01	8,90E-02	0,00E+00	-2,38E-01	2,48E-01
Hazardous waste for disposal [kg]	7,99E-07	1,51E-07	2,53E-09	0,00E+00	-2,99E-08	6,76E-07
Disposed of non-hazardous waste [kg]	4,12E-02	7,35E-02	4,37E-03	0,00E+00	-3,90E-02	2,36E-03
Disposed of radioactive waste [kg]	8,02E-04	4,40E-04	9,23E-04	0,00E+00	-5,81E-04	1,94E-05

evaluated from CML 2001, April. 2015

**1.3.51 MP-U-I 42-47 1 ¼" M8/10/½"**

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242291	MP-U-I 42-47 1 ¼" M8/10/½"	25	2,685	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	4,471	6,548	0,371	0,000	-3,655	1,207
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	1,63E-14	1,44E-14	1,11E-14	0,00E+00	-9,35E-15	1,96E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,34E-02	1,30E-02	7,78E-04	0,00E+00	-1,01E-02	9,70E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> -eq.]	2,45E-03	1,32E-03	8,61E-05	0,00E+00	-9,49E-04	1,99E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-2,32E-03	1,80E-03	5,56E-05	0,00E+00	-1,48E-03	-2,69E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,00E-06	8,53E-07	1,24E-07	0,00E+00	-6,89E-08	9,48E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	6,15E+01	8,33E+01	4,14E+00	0,00E+00	-4,23E+01	1,64E+01
Energy (net calorific value) [MJ]	6,38E+01	8,46E+01	6,67E+00	0,00E+00	-4,39E+01	1,65E+01
Energy ren. (net calorific value) [MJ]	4,47E+00	3,54E+00	2,94E+00	0,00E+00	-2,85E+00	8,52E-01
Water consumption [kg]	8,41E+00	8,32E+00	3,56E+00	0,00E+00	-4,45E+00	9,89E-01
Air pollution [m <sup>3</sup> ]	2,08E+02	5,99E+02	2,38E+01	0,00E+00	-5,03E+02	8,81E+01
Water pollution [m <sup>3</sup> ]	7,71E-01	6,66E-01	9,69E-02	0,00E+00	-2,50E-01	2,58E-01
Hazardous waste for disposal [kg]	8,40E-07	1,66E-07	2,75E-09	0,00E+00	-3,11E-08	7,02E-07
Disposed of non-hazardous waste [kg]	4,48E-02	7,70E-02	4,75E-03	0,00E+00	-3,94E-02	2,45E-03
Disposed of radioactive waste [kg]	8,49E-04	4,69E-04	1,01E-03	0,00E+00	-6,45E-04	2,02E-05

evaluated from CML 2001, April. 2015

**1.3.52 MP-U-I 47-52 1 ½" M8/10/½"**

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242292	MP-U-I 47-52 1 ½" M8/10/½"	25	2,796	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	4,779	6,848	0,404	0,000	-3,730	1,257
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	1,76E-14	1,55E-14	1,20E-14	0,00E+00	-1,02E-14	2,04E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,40E-02	1,35E-02	8,46E-04	0,00E+00	-1,04E-02	1,01E-02
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	2,56E-03	1,38E-03	9,36E-05	0,00E+00	-9,83E-04	2,07E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-2,40E-03	1,87E-03	6,04E-05	0,00E+00	-1,53E-03	-2,81E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,10E-06	9,48E-07	1,34E-07	0,00E+00	-7,71E-08	9,87E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	6,61E+01	8,88E+01	4,50E+00	0,00E+00	-4,42E+01	1,71E+01
Energy (net calorific value) [MJ]	6,85E+01	9,02E+01	7,25E+00	0,00E+00	-4,60E+01	1,71E+01
Energy ren. (net calorific value) [MJ]	4,76E+00	3,76E+00	3,19E+00	0,00E+00	-3,08E+00	8,87E-01
Water consumption [kg]	9,25E+00	8,90E+00	3,87E+00	0,00E+00	-4,55E+00	1,03E+00
Air pollution [m <sup>3</sup> ]	2,20E+02	6,22E+02	2,59E+01	0,00E+00	-5,20E+02	9,18E+01
Water pollution [m <sup>3</sup> ]	8,32E-01	7,22E-01	1,05E-01	0,00E+00	-2,63E-01	2,68E-01
Hazardous waste for disposal [kg]	8,85E-07	1,83E-07	2,99E-09	0,00E+00	-3,23E-08	7,31E-07
Disposed of non-hazardous waste [kg]	4,87E-02	8,09E-02	5,17E-03	0,00E+00	-3,99E-02	2,55E-03
Disposed of radioactive waste [kg]	9,01E-04	5,00E-04	1,09E-03	0,00E+00	-7,14E-04	2,10E-05

evaluated from CML 2001, April. 2015

### 1.3.53 MP-U-I 52-57 M8/10/1/2"

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242293	MP-U-I 52-57 M8/10/1/2"	25	2,905	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	5,078	7,144	0,435	0,000	-3,806	1,306
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	1,88E-14	1,65E-14	1,30E-14	0,00E+00	-1,09E-14	2,12E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,46E-02	1,40E-02	9,11E-04	0,00E+00	-1,08E-02	1,05E-02
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	2,66E-03	1,43E-03	1,01E-04	0,00E+00	-1,02E-03	2,15E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-2,49E-03	1,94E-03	6,51E-05	0,00E+00	-1,58E-03	-2,91E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,20E-06	1,04E-06	1,45E-07	0,00E+00	-8,51E-08	1,03E-07
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	7,06E+01	9,41E+01	4,85E+00	0,00E+00	-4,61E+01	1,78E+01
Energy (net calorific value) [MJ]	7,31E+01	9,55E+01	7,81E+00	0,00E+00	-4,81E+01	1,78E+01
Energy ren. (net calorific value) [MJ]	5,04E+00	3,98E+00	3,44E+00	0,00E+00	-3,30E+00	9,22E-01
Water consumption [kg]	1,01E+01	9,46E+00	4,18E+00	0,00E+00	-4,65E+00	1,07E+00
Air pollution [m <sup>3</sup> ]	2,31E+02	6,44E+02	2,79E+01	0,00E+00	-5,36E+02	9,53E+01
Water pollution [m <sup>3</sup> ]	8,92E-01	7,76E-01	1,14E-01	0,00E+00	-2,76E-01	2,79E-01
Hazardous waste for disposal [kg]	9,28E-07	1,99E-07	3,23E-09	0,00E+00	-3,35E-08	7,60E-07
Disposed of non-hazardous waste [kg]	5,25E-02	8,46E-02	5,57E-03	0,00E+00	-4,03E-02	2,65E-03
Disposed of radioactive waste [kg]	9,51E-04	5,31E-04	1,18E-03	0,00E+00	-7,80E-04	2,19E-05

evaluated from CML 2001, April. 2015

### 1.3.54 MP-U-I 57-62 2" M8/10½"

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242294	MP-U-I 57-62 2" M8/10½"	10	1,223	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	2,232	3,013	0,193	0,000	-1,523	0,550
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	7,87E-15	7,05E-15	5,73E-15	0,00E+00	-5,00E-15	8,91E-17
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	6,27E-03	5,93E-03	4,03E-04	0,00E+00	-4,48E-03	4,42E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,13E-03	6,03E-04	4,46E-05	0,00E+00	-4,22E-04	9,05E-04
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,03E-03	8,21E-04	2,88E-05	0,00E+00	-6,53E-04	-1,23E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	5,25E-07	4,59E-07	6,41E-08	0,00E+00	-4,14E-08	4,32E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	3,10E+01	4,10E+01	2,15E+00	0,00E+00	-1,96E+01	7,47E+00
Energy (net calorific value) [MJ]	3,22E+01	4,17E+01	3,46E+00	0,00E+00	-2,05E+01	7,50E+00
Energy ren. (net calorific value) [MJ]	2,12E+00	1,70E+00	1,52E+00	0,00E+00	-1,49E+00	3,88E-01
Water consumption [kg]	5,01E+00	4,59E+00	1,85E+00	0,00E+00	-1,88E+00	4,51E-01
Air pollution [m <sup>3</sup> ]	1,01E+02	2,71E+02	1,24E+01	0,00E+00	-2,22E+02	4,01E+01
Water pollution [m <sup>3</sup> ]	3,82E-01	3,33E-01	5,02E-02	0,00E+00	-1,19E-01	1,17E-01
Hazardous waste for disposal [kg]	3,94E-07	8,63E-08	1,43E-09	0,00E+00	-1,40E-08	3,20E-07
Disposed of non-hazardous waste [kg]	2,27E-02	3,54E-02	2,47E-03	0,00E+00	-1,63E-02	1,12E-03
Disposed of radioactive waste [kg]	3,88E-04	2,25E-04	5,21E-04	0,00E+00	-3,68E-04	9,20E-06

evaluated from CML 2001, April. 2015

### 1.3.55 MP-U-I 62-67 M8/10/1/2"

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242295	MP-U-I 62-67 M8/10/1/2"	10	1,766	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	3,014	4,030	0,602	0,000	-2,411	0,794
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	2,02E-14	8,32E-15	1,78E-14	0,00E+00	-6,07E-15	1,29E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	9,28E-03	8,29E-03	1,26E-03	0,00E+00	-6,65E-03	6,38E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,64E-03	8,17E-04	1,39E-04	0,00E+00	-6,25E-04	1,31E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,46E-03	1,20E-03	9,04E-05	0,00E+00	-9,77E-04	-1,77E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	7,34E-07	5,17E-07	2,00E-07	0,00E+00	-4,46E-08	6,23E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	4,05E+01	5,08E+01	6,79E+00	0,00E+00	-2,78E+01	1,08E+01
Energy (net calorific value) [MJ]	4,44E+01	5,16E+01	1,09E+01	0,00E+00	-2,89E+01	1,08E+01
Energy ren. (net calorific value) [MJ]	5,55E+00	2,11E+00	4,74E+00	0,00E+00	-1,86E+00	5,60E-01
Water consumption [kg]	1,02E+01	6,91E+00	5,60E+00	0,00E+00	-2,94E+00	6,51E-01
Air pollution [m <sup>3</sup> ]	1,64E+02	3,99E+02	3,88E+01	0,00E+00	-3,31E+02	5,79E+01
Water pollution [m <sup>3</sup> ]	5,67E-01	4,04E-01	1,57E-01	0,00E+00	-1,64E-01	1,69E-01
Hazardous waste for disposal [kg]	5,48E-07	1,03E-07	4,46E-09	0,00E+00	-2,04E-08	4,62E-07
Disposed of non-hazardous waste [kg]	3,09E-02	4,79E-02	7,65E-03	0,00E+00	-2,63E-02	1,61E-03
Disposed of radioactive waste [kg]	1,49E-03	2,76E-04	1,62E-03	0,00E+00	-4,17E-04	1,33E-05

evaluated from CML 2001, April. 2015



### 1.3.56 MP-U-I 67-72 M8/10/1/2"

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242296	MP-U-I 67-72 M8/10/1/2"	10	1,833	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	3,175	4,191	0,636	0,000	-2,476	0,824
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	2,13E-14	8,81E-15	1,88E-14	0,00E+00	-6,46E-15	1,34E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	9,65E-03	8,58E-03	1,33E-03	0,00E+00	-6,88E-03	6,62E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,70E-03	8,47E-04	1,47E-04	0,00E+00	-6,47E-04	1,36E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,51E-03	1,24E-03	9,55E-05	0,00E+00	-1,01E-03	-1,84E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	7,86E-07	5,59E-07	2,11E-07	0,00E+00	-4,83E-08	6,47E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	4,28E+01	5,34E+01	7,16E+00	0,00E+00	-2,89E+01	1,12E+01
Energy (net calorific value) [MJ]	4,69E+01	5,43E+01	1,15E+01	0,00E+00	-3,00E+01	1,12E+01
Energy ren. (net calorific value) [MJ]	5,83E+00	2,21E+00	5,00E+00	0,00E+00	-1,97E+00	5,81E-01
Water consumption [kg]	1,08E+01	7,26E+00	5,92E+00	0,00E+00	-3,02E+00	6,75E-01
Air pollution [m <sup>3</sup> ]	1,72E+02	4,14E+02	4,09E+01	0,00E+00	-3,43E+02	6,01E+01
Water pollution [m <sup>3</sup> ]	6,00E-01	4,30E-01	1,65E-01	0,00E+00	-1,71E-01	1,76E-01
Hazardous waste for disposal [kg]	5,73E-07	1,10E-07	4,71E-09	0,00E+00	-2,12E-08	4,79E-07
Disposed of non-hazardous waste [kg]	3,28E-02	5,00E-02	8,07E-03	0,00E+00	-2,69E-02	1,67E-03
Disposed of radioactive waste [kg]	1,57E-03	2,91E-04	1,71E-03	0,00E+00	-4,48E-04	1,38E-05

evaluated from CML 2001, April. 2015

**1.3.57 MP-U-I 72-77 2 ½" M8/10/½"**

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242297	MP-U-I 72-77 2 ½" M8/10/½"	10	1,898	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	3,328	4,349	0,669	0,000	-2,542	0,853
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	2,24E-14	9,27E-15	1,98E-14	0,00E+00	-6,82E-15	1,38E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,00E-02	8,87E-03	1,40E-03	0,00E+00	-7,10E-03	6,86E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,77E-03	8,77E-04	1,55E-04	0,00E+00	-6,68E-04	1,40E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,56E-03	1,29E-03	1,00E-04	0,00E+00	-1,04E-03	-1,90E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	8,35E-07	5,98E-07	2,22E-07	0,00E+00	-5,16E-08	6,70E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	4,50E+01	5,59E+01	7,53E+00	0,00E+00	-3,00E+01	1,16E+01
Energy (net calorific value) [MJ]	4,93E+01	5,68E+01	1,21E+01	0,00E+00	-3,12E+01	1,16E+01
Energy ren. (net calorific value) [MJ]	6,10E+00	2,32E+00	5,26E+00	0,00E+00	-2,07E+00	6,02E-01
Water consumption [kg]	1,14E+01	7,59E+00	6,23E+00	0,00E+00	-3,11E+00	6,99E-01
Air pollution [m <sup>3</sup> ]	1,79E+02	4,28E+02	4,30E+01	0,00E+00	-3,54E+02	6,23E+01
Water pollution [m <sup>3</sup> ]	6,33E-01	4,55E-01	1,74E-01	0,00E+00	-1,78E-01	1,82E-01
Hazardous waste for disposal [kg]	5,97E-07	1,17E-07	4,95E-09	0,00E+00	-2,19E-08	4,97E-07
Disposed of non-hazardous waste [kg]	3,47E-02	5,20E-02	8,49E-03	0,00E+00	-2,75E-02	1,73E-03
Disposed of radioactive waste [kg]	1,64E-03	3,05E-04	1,80E-03	0,00E+00	-4,77E-04	1,43E-05

evaluated from CML 2001, April. 2015

1.3.58 MP-U-I 78-84 M8/10/1/2"

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242298	MP-U-I 78-84 M8/10/1/2"	10	1,993	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	3,552	4,576	0,716	0,000	-2,635	0,896
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	2,39E-14	9,95E-15	2,12E-14	0,00E+00	-7,35E-15	1,45E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,05E-02	9,28E-03	1,50E-03	0,00E+00	-7,43E-03	7,20E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,86E-03	9,20E-04	1,66E-04	0,00E+00	-6,99E-04	1,47E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,63E-03	1,35E-03	1,07E-04	0,00E+00	-1,09E-03	-2,00E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	9,07E-07	6,56E-07	2,37E-07	0,00E+00	-5,66E-08	7,04E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	4,82E+01	5,95E+01	8,05E+00	0,00E+00	-3,16E+01	1,22E+01
Energy (net calorific value) [MJ]	5,28E+01	6,05E+01	1,29E+01	0,00E+00	-3,29E+01	1,22E+01
Energy ren. (net calorific value) [MJ]	6,50E+00	2,47E+00	5,63E+00	0,00E+00	-2,22E+00	6,32E-01
Water consumption [kg]	1,23E+01	8,07E+00	6,67E+00	0,00E+00	-3,22E+00	7,34E-01
Air pollution [m <sup>3</sup> ]	1,90E+02	4,48E+02	4,61E+01	0,00E+00	-3,70E+02	6,54E+01
Water pollution [m <sup>3</sup> ]	6,79E-01	4,90E-01	1,86E-01	0,00E+00	-1,88E-01	1,91E-01
Hazardous waste for disposal [kg]	6,31E-07	1,28E-07	5,30E-09	0,00E+00	-2,30E-08	5,21E-07
Disposed of non-hazardous waste [kg]	3,75E-02	5,49E-02	9,09E-03	0,00E+00	-2,83E-02	1,82E-03
Disposed of radioactive waste [kg]	1,75E-03	3,26E-04	1,93E-03	0,00E+00	-5,19E-04	1,50E-05

evaluated from CML 2001, April. 2015

### 1.3.59 MP-U-I 84-90 3" M8/10/½"

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242299	MP-U-I 84-90 3" M8/10/½"	10	2,073	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	3,740	4,767	0,755	0,000	-2,714	0,931
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	2,52E-14	1,05E-14	2,24E-14	0,00E+00	-7,79E-15	1,51E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,10E-02	9,62E-03	1,58E-03	0,00E+00	-7,70E-03	7,49E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,94E-03	9,56E-04	1,75E-04	0,00E+00	-7,25E-04	1,53E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,69E-03	1,40E-03	1,13E-04	0,00E+00	-1,13E-03	-2,08E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	9,68E-07	7,05E-07	2,50E-07	0,00E+00	-6,07E-08	7,32E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	5,09E+01	6,26E+01	8,50E+00	0,00E+00	-3,29E+01	1,27E+01
Energy (net calorific value) [MJ]	5,57E+01	6,36E+01	1,36E+01	0,00E+00	-3,43E+01	1,27E+01
Energy ren. (net calorific value) [MJ]	6,84E+00	2,59E+00	5,94E+00	0,00E+00	-2,35E+00	6,57E-01
Water consumption [kg]	1,30E+01	8,48E+00	7,04E+00	0,00E+00	-3,32E+00	7,64E-01
Air pollution [m <sup>3</sup> ]	1,99E+02	4,65E+02	4,86E+01	0,00E+00	-3,83E+02	6,80E+01
Water pollution [m <sup>3</sup> ]	7,19E-01	5,20E-01	1,97E-01	0,00E+00	-1,97E-01	1,99E-01
Hazardous waste for disposal [kg]	6,60E-07	1,36E-07	5,60E-09	0,00E+00	-2,39E-08	5,42E-07
Disposed of non-hazardous waste [kg]	3,98E-02	5,73E-02	9,59E-03	0,00E+00	-2,90E-02	1,89E-03
Disposed of radioactive waste [kg]	1,84E-03	3,43E-04	2,03E-03	0,00E+00	-5,55E-04	1,56E-05

evaluated from CML 2001, April. 2015

### 1.3.60 MP-U-I 90-96 M8/10/1/2"

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242300	MP-U-I 90-96 M8/10/1/2"	10	2,153	Steel, Polymer

Environmental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	3,931	4,961	0,795	0,000	-2,792	0,967
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	2,66E-14	1,11E-14	2,35E-14	0,00E+00	-8,25E-15	1,57E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,14E-02	9,97E-03	1,66E-03	0,00E+00	-7,97E-03	7,78E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	2,02E-03	9,93E-04	1,84E-04	0,00E+00	-7,51E-04	1,59E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,76E-03	1,45E-03	1,19E-04	0,00E+00	-1,17E-03	-2,16E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,03E-06	7,56E-07	2,64E-07	0,00E+00	-6,50E-08	7,60E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	5,36E+01	6,58E+01	8,95E+00	0,00E+00	-3,42E+01	1,32E+01
Energy (net calorific value) [MJ]	5,86E+01	6,68E+01	1,43E+01	0,00E+00	-3,57E+01	1,32E+01
Energy ren. (net calorific value) [MJ]	7,18E+00	2,72E+00	6,26E+00	0,00E+00	-2,48E+00	6,83E-01
Water consumption [kg]	1,37E+01	8,89E+00	7,42E+00	0,00E+00	-3,42E+00	7,93E-01
Air pollution [m <sup>3</sup> ]	2,08E+02	4,82E+02	5,12E+01	0,00E+00	-3,96E+02	7,06E+01
Water pollution [m <sup>3</sup> ]	7,59E-01	5,51E-01	2,07E-01	0,00E+00	-2,05E-01	2,07E-01
Hazardous waste for disposal [kg]	6,89E-07	1,45E-07	5,89E-09	0,00E+00	-2,48E-08	5,63E-07
Disposed of non-hazardous waste [kg]	4,22E-02	5,98E-02	1,01E-02	0,00E+00	-2,97E-02	1,96E-03
Disposed of radioactive waste [kg]	1,93E-03	3,61E-04	2,14E-03	0,00E+00	-5,92E-04	1,62E-05

evaluated from CML 2001, April. 2015

### 1.3.61 MP-U-I 97-103 M8/10/1/2"

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242301	MP-U-I 97-103 M8/10/1/2"	10	2,652	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	4,585	6,007	1,007	0,000	-3,621	1,192
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	3,34E-14	1,26E-14	2,98E-14	0,00E+00	-9,17E-15	1,93E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,40E-02	1,23E-02	2,11E-03	0,00E+00	-9,98E-03	9,58E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	2,47E-03	1,21E-03	2,33E-04	0,00E+00	-9,39E-04	1,96E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-2,18E-03	1,80E-03	1,51E-04	0,00E+00	-1,47E-03	-2,66E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,17E-06	8,06E-07	3,34E-07	0,00E+00	-6,72E-08	9,36E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	6,18E+01	7,60E+01	1,13E+01	0,00E+00	-4,18E+01	1,62E+01
Energy (net calorific value) [MJ]	6,82E+01	7,72E+01	1,82E+01	0,00E+00	-4,34E+01	1,63E+01
Energy ren. (net calorific value) [MJ]	9,12E+00	3,16E+00	7,92E+00	0,00E+00	-2,80E+00	8,41E-01
Water consumption [kg]	1,64E+01	1,04E+01	9,36E+00	0,00E+00	-4,41E+00	9,77E-01
Air pollution [m <sup>3</sup> ]	2,53E+02	5,99E+02	6,48E+01	0,00E+00	-4,98E+02	8,70E+01
Water pollution [m <sup>3</sup> ]	8,91E-01	6,21E-01	2,62E-01	0,00E+00	-2,46E-01	2,54E-01
Hazardous waste for disposal [kg]	8,30E-07	1,60E-07	7,46E-09	0,00E+00	-3,07E-08	6,94E-07
Disposed of non-hazardous waste [kg]	4,83E-02	7,21E-02	1,28E-02	0,00E+00	-3,91E-02	2,42E-03
Disposed of radioactive waste [kg]	2,52E-03	4,17E-04	2,71E-03	0,00E+00	-6,31E-04	2,00E-05

evaluated from CML 2001, April. 2015

### 1.3.62 MP-U-I 103-109 M8/10/1/2"

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242302	MP-U-I 103-109 M8/10/1/2"	10	2,771	Steel, Polymer

Environmental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	4,877	6,285	1,063	0,000	-3,716	1,245
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	3,50E-14	1,33E-14	3,15E-14	0,00E+00	-9,92E-15	2,02E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,47E-02	1,29E-02	2,22E-03	0,00E+00	-1,04E-02	1,00E-02
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	2,59E-03	1,27E-03	2,46E-04	0,00E+00	-9,76E-04	2,05E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-2,26E-03	1,88E-03	1,60E-04	0,00E+00	-1,52E-03	-2,78E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,24E-06	8,67E-07	3,52E-07	0,00E+00	-7,49E-08	9,78E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	6,58E+01	8,07E+01	1,20E+01	0,00E+00	-4,38E+01	1,69E+01
Energy (net calorific value) [MJ]	7,26E+01	8,20E+01	1,92E+01	0,00E+00	-4,55E+01	1,70E+01
Energy ren. (net calorific value) [MJ]	9,56E+00	3,33E+00	8,36E+00	0,00E+00	-3,02E+00	8,79E-01
Water consumption [kg]	1,77E+01	1,13E+01	9,88E+00	0,00E+00	-4,54E+00	1,02E+00
Air pollution [m <sup>3</sup> ]	2,68E+02	6,25E+02	6,84E+01	0,00E+00	-5,17E+02	9,09E+01
Water pollution [m <sup>3</sup> ]	9,41E-01	6,58E-01	2,77E-01	0,00E+00	-2,60E-01	2,66E-01
Hazardous waste for disposal [kg]	8,71E-07	1,70E-07	7,88E-09	0,00E+00	-3,20E-08	7,25E-07
Disposed of non-hazardous waste [kg]	5,12E-02	7,53E-02	1,35E-02	0,00E+00	-4,01E-02	2,53E-03
Disposed of radioactive waste [kg]	2,63E-03	4,39E-04	2,86E-03	0,00E+00	-6,93E-04	2,09E-05

evaluated from CML 2001, April. 2015

### 1.3.63 MP-U-I 109-115 4" M8/10/½"

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242303	MP-U-I 109-115 4" M8/10/½"	10	2,863	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	5,080	6,501	1,108	0,000	-3,815	1,287
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	3,65E-14	1,39E-14	3,28E-14	0,00E+00	-1,04E-14	2,09E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,52E-02	1,33E-02	2,32E-03	0,00E+00	-1,07E-02	1,03E-02
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	2,68E-03	1,31E-03	2,56E-04	0,00E+00	-1,01E-03	2,12E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-2,33E-03	1,94E-03	1,66E-04	0,00E+00	-1,57E-03	-2,87E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,31E-06	9,18E-07	3,67E-07	0,00E+00	-7,92E-08	1,01E-07
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	6,87E+01	8,40E+01	1,25E+01	0,00E+00	-4,53E+01	1,75E+01
Energy (net calorific value) [MJ]	7,57E+01	8,53E+01	2,00E+01	0,00E+00	-4,71E+01	1,76E+01
Energy ren. (net calorific value) [MJ]	9,94E+00	3,47E+00	8,71E+00	0,00E+00	-3,15E+00	9,08E-01
Water consumption [kg]	1,85E+01	1,18E+01	1,03E+01	0,00E+00	-4,66E+00	1,05E+00
Air pollution [m <sup>3</sup> ]	2,78E+02	6,45E+02	7,13E+01	0,00E+00	-5,32E+02	9,39E+01
Water pollution [m <sup>3</sup> ]	9,83E-01	6,90E-01	2,88E-01	0,00E+00	-2,69E-01	2,75E-01
Hazardous waste for disposal [kg]	9,03E-07	1,79E-07	8,21E-09	0,00E+00	-3,31E-08	7,49E-07
Disposed of non-hazardous waste [kg]	5,37E-02	7,81E-02	1,41E-02	0,00E+00	-4,11E-02	2,61E-03
Disposed of radioactive waste [kg]	2,73E-03	4,58E-04	2,98E-03	0,00E+00	-7,30E-04	2,15E-05

evaluated from CML 2001, April. 2015



### 1.3.64 MP-U-I 115-121 M8/10/1/2"

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242304	MP-U-I 115-121 M8/10/1/2"	10	2,955	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	5,285	6,718	1,152	0,000	-3,914	1,328
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	3,80E-14	1,45E-14	3,41E-14	0,00E+00	-1,09E-14	2,15E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,57E-02	1,37E-02	2,41E-03	0,00E+00	-1,10E-02	1,07E-02
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	2,77E-03	1,35E-03	2,67E-04	0,00E+00	-1,04E-03	2,19E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-2,41E-03	2,00E-03	1,73E-04	0,00E+00	-1,61E-03	-2,96E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,37E-06	9,68E-07	3,82E-07	0,00E+00	-8,34E-08	1,04E-07
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	7,16E+01	8,73E+01	1,30E+01	0,00E+00	-4,68E+01	1,81E+01
Energy (net calorific value) [MJ]	7,89E+01	8,87E+01	2,08E+01	0,00E+00	-4,87E+01	1,81E+01
Energy ren. (net calorific value) [MJ]	1,03E+01	3,61E+00	9,06E+00	0,00E+00	-3,29E+00	9,37E-01
Water consumption [kg]	1,93E+01	1,22E+01	1,07E+01	0,00E+00	-4,78E+00	1,09E+00
Air pollution [m <sup>3</sup> ]	2,88E+02	6,65E+02	7,42E+01	0,00E+00	-5,48E+02	9,70E+01
Water pollution [m <sup>3</sup> ]	1,03E+00	7,22E-01	3,00E-01	0,00E+00	-2,79E-01	2,83E-01
Hazardous waste for disposal [kg]	9,36E-07	1,89E-07	8,54E-09	0,00E+00	-3,41E-08	7,73E-07
Disposed of non-hazardous waste [kg]	5,61E-02	8,08E-02	1,46E-02	0,00E+00	-4,20E-02	2,70E-03
Disposed of radioactive waste [kg]	2,84E-03	4,76E-04	3,10E-03	0,00E+00	-7,67E-04	2,22E-05

evaluated from CML 2001, April. 2015

### 1.3.65 MP-U-I 122-128 M8/10/1/2"

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242305	MP-U-I 122-128 M8/10/1/2"	10	3,062	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	5,522	6,971	1,205	0,000	-4,029	1,376
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	3,97E-14	1,52E-14	3,57E-14	0,00E+00	-1,14E-14	2,23E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,63E-02	1,41E-02	2,52E-03	0,00E+00	-1,14E-02	1,11E-02
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	2,87E-03	1,40E-03	2,79E-04	0,00E+00	-1,07E-03	2,26E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-2,49E-03	2,07E-03	1,81E-04	0,00E+00	-1,67E-03	-3,07E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,44E-06	1,03E-06	3,99E-07	0,00E+00	-8,83E-08	1,08E-07
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	7,49E+01	9,12E+01	1,36E+01	0,00E+00	-4,85E+01	1,87E+01
Energy (net calorific value) [MJ]	8,25E+01	9,26E+01	2,17E+01	0,00E+00	-5,06E+01	1,88E+01
Energy ren. (net calorific value) [MJ]	1,08E+01	3,77E+00	9,47E+00	0,00E+00	-3,45E+00	9,71E-01
Water consumption [kg]	2,02E+01	1,28E+01	1,12E+01	0,00E+00	-4,93E+00	1,13E+00
Air pollution [m <sup>3</sup> ]	3,00E+02	6,88E+02	7,76E+01	0,00E+00	-5,67E+02	1,00E+02
Water pollution [m <sup>3</sup> ]	1,08E+00	7,59E-01	3,13E-01	0,00E+00	-2,90E-01	2,94E-01
Hazardous waste for disposal [kg]	9,73E-07	1,99E-07	8,93E-09	0,00E+00	-3,53E-08	8,01E-07
Disposed of non-hazardous waste [kg]	5,90E-02	8,40E-02	1,53E-02	0,00E+00	-4,31E-02	2,79E-03
Disposed of radioactive waste [kg]	2,96E-03	4,98E-04	3,24E-03	0,00E+00	-8,10E-04	2,30E-05

evaluated from CML 2001, April. 2015

### 1.3.66 MP-U-I 129-135 M8/10/1/2"

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242306	MP-U-I 129-135 M8/10/1/2"	10	3,168	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	5,759	7,223	1,257	0,000	-4,144	1,424
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	4,14E-14	1,59E-14	3,72E-14	0,00E+00	-1,19E-14	2,31E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,69E-02	1,46E-02	2,63E-03	0,00E+00	-1,18E-02	1,14E-02
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	2,97E-03	1,45E-03	2,91E-04	0,00E+00	-1,11E-03	2,34E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-2,57E-03	2,14E-03	1,89E-04	0,00E+00	-1,72E-03	-3,18E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,52E-06	1,08E-06	4,16E-07	0,00E+00	-9,32E-08	1,12E-07
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	7,82E+01	9,50E+01	1,41E+01	0,00E+00	-5,03E+01	1,94E+01
Energy (net calorific value) [MJ]	8,62E+01	9,65E+01	2,27E+01	0,00E+00	-5,24E+01	1,94E+01
Energy ren. (net calorific value) [MJ]	1,12E+01	3,93E+00	9,88E+00	0,00E+00	-3,61E+00	1,01E+00
Water consumption [kg]	2,11E+01	1,33E+01	1,17E+01	0,00E+00	-5,07E+00	1,17E+00
Air pollution [m <sup>3</sup> ]	3,12E+02	7,12E+02	8,09E+01	0,00E+00	-5,85E+02	1,04E+02
Water pollution [m <sup>3</sup> ]	1,13E+00	7,96E-01	3,27E-01	0,00E+00	-3,01E-01	3,04E-01
Hazardous waste for disposal [kg]	1,01E-06	2,10E-07	9,31E-09	0,00E+00	-3,65E-08	8,29E-07
Disposed of non-hazardous waste [kg]	6,19E-02	8,72E-02	1,60E-02	0,00E+00	-4,42E-02	2,89E-03
Disposed of radioactive waste [kg]	3,08E-03	5,20E-04	3,38E-03	0,00E+00	-8,52E-04	2,38E-05

evaluated from CML 2001, April. 2015

### 1.3.67 MP-U-I 135-141 5" M8/10/½"

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2305371	MP-U-I 135-141 5" M8/10/½"	10	3,259	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	5,959	7,438	1,301	0,000	-4,244	1,465
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	4,29E-14	1,65E-14	3,85E-14	0,00E+00	-1,24E-14	2,38E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,74E-02	1,50E-02	2,72E-03	0,00E+00	-1,21E-02	1,18E-02
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	3,06E-03	1,49E-03	3,01E-04	0,00E+00	-1,14E-03	2,41E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-2,64E-03	2,20E-03	1,95E-04	0,00E+00	-1,77E-03	-3,27E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,58E-06	1,13E-06	4,31E-07	0,00E+00	-9,73E-08	1,15E-07
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	8,11E+01	9,83E+01	1,46E+01	0,00E+00	-5,18E+01	1,99E+01
Energy (net calorific value) [MJ]	8,93E+01	9,98E+01	2,35E+01	0,00E+00	-5,40E+01	2,00E+01
Energy ren. (net calorific value) [MJ]	1,16E+01	4,06E+00	1,02E+01	0,00E+00	-3,74E+00	1,03E+00
Water consumption [kg]	2,18E+01	1,37E+01	1,21E+01	0,00E+00	-5,19E+00	1,20E+00
Air pollution [m <sup>3</sup> ]	3,21E+02	7,31E+02	8,38E+01	0,00E+00	-6,01E+02	1,07E+02
Water pollution [m <sup>3</sup> ]	1,17E+00	8,27E-01	3,39E-01	0,00E+00	-3,11E-01	3,13E-01
Hazardous waste for disposal [kg]	1,04E-06	2,19E-07	9,64E-09	0,00E+00	-3,75E-08	8,52E-07
Disposed of non-hazardous waste [kg]	6,43E-02	8,99E-02	1,65E-02	0,00E+00	-4,51E-02	2,97E-03
Disposed of radioactive waste [kg]	3,18E-03	5,39E-04	3,50E-03	0,00E+00	-8,88E-04	2,45E-05

evaluated from CML 2001, April. 2015

### 1.3.68 MP-U-I 141-147 M8/10/1/2"

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2305372	MP-U-I 141-147 M8/10/1/2"	10	3,604	Steel, Polymer

Environmental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	6,491	8,165	1,446	0,000	-4,741	1,620
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	4,72E-14	1,76E-14	4,28E-14	0,00E+00	-1,34E-14	2,63E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,93E-02	1,67E-02	3,02E-03	0,00E+00	-1,34E-02	1,30E-02
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	3,38E-03	1,64E-03	3,35E-04	0,00E+00	-1,26E-03	2,67E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-2,92E-03	2,44E-03	2,17E-04	0,00E+00	-1,96E-03	-3,62E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,68E-06	1,18E-06	4,79E-07	0,00E+00	-1,04E-07	1,27E-07
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	8,77E+01	1,07E+02	1,63E+01	0,00E+00	-5,71E+01	2,20E+01
Energy (net calorific value) [MJ]	9,70E+01	1,08E+02	2,61E+01	0,00E+00	-5,95E+01	2,21E+01
Energy ren. (net calorific value) [MJ]	1,28E+01	4,38E+00	1,14E+01	0,00E+00	-4,05E+00	1,14E+00
Water consumption [kg]	2,44E+01	1,54E+01	1,34E+01	0,00E+00	-5,80E+00	1,33E+00
Air pollution [m <sup>3</sup> ]	3,57E+02	8,12E+02	9,31E+01	0,00E+00	-6,67E+02	1,18E+02
Water pollution [m <sup>3</sup> ]	1,26E+00	8,76E-01	3,76E-01	0,00E+00	-3,41E-01	3,46E-01
Hazardous waste for disposal [kg]	1,14E-06	2,29E-07	1,07E-08	0,00E+00	-4,16E-08	9,43E-07
Disposed of non-hazardous waste [kg]	6,86E-02	9,80E-02	1,84E-02	0,00E+00	-5,10E-02	3,29E-03
Disposed of radioactive waste [kg]	3,55E-03	5,77E-04	3,89E-03	0,00E+00	-9,51E-04	2,71E-05

evaluated from CML 2001, April. 2015

### 1.3.69 MP-U-I 147-153 M8/10/1/2"

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2305373	MP-U-I 147-153 M8/10/1/2"	10	3,703	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	6,703	8,396	1,494	0,000	-4,852	1,664
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	4,88E-14	1,82E-14	4,42E-14	0,00E+00	-1,39E-14	2,70E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,99E-02	1,71E-02	3,12E-03	0,00E+00	-1,38E-02	1,34E-02
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	3,48E-03	1,69E-03	3,46E-04	0,00E+00	-1,30E-03	2,74E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-3,00E-03	2,51E-03	2,24E-04	0,00E+00	-2,01E-03	-3,72E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,75E-06	1,23E-06	4,95E-07	0,00E+00	-1,08E-07	1,31E-07
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	9,07E+01	1,10E+02	1,68E+01	0,00E+00	-5,88E+01	2,26E+01
Energy (net calorific value) [MJ]	1,00E+02	1,12E+02	2,70E+01	0,00E+00	-6,12E+01	2,27E+01
Energy ren. (net calorific value) [MJ]	1,33E+01	4,52E+00	1,17E+01	0,00E+00	-4,19E+00	1,17E+00
Water consumption [kg]	2,52E+01	1,59E+01	1,39E+01	0,00E+00	-5,94E+00	1,36E+00
Air pollution [m <sup>3</sup> ]	3,67E+02	8,34E+02	9,62E+01	0,00E+00	-6,84E+02	1,22E+02
Water pollution [m <sup>3</sup> ]	1,30E+00	9,08E-01	3,89E-01	0,00E+00	-3,51E-01	3,55E-01
Hazardous waste for disposal [kg]	1,18E-06	2,38E-07	1,11E-08	0,00E+00	-4,27E-08	9,68E-07
Disposed of non-hazardous waste [kg]	7,12E-02	1,01E-01	1,90E-02	0,00E+00	-5,21E-02	3,38E-03
Disposed of radioactive waste [kg]	3,66E-03	5,96E-04	4,02E-03	0,00E+00	-9,88E-04	2,79E-05

evaluated from CML 2001, April. 2015

### 1.3.70 MP-U-I 154-160 M8/10/1/2"

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2305374	MP-U-I 154-160 M8/10/1/2"	10	3,818	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	6,949	8,665	1,550	0,000	-4,982	1,716
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	5,06E-14	1,89E-14	4,59E-14	0,00E+00	-1,44E-14	2,78E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	2,05E-02	1,76E-02	3,24E-03	0,00E+00	-1,42E-02	1,38E-02
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	3,59E-03	1,74E-03	3,58E-04	0,00E+00	-1,33E-03	2,82E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-3,09E-03	2,58E-03	2,33E-04	0,00E+00	-2,07E-03	-3,83E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,82E-06	1,29E-06	5,13E-07	0,00E+00	-1,13E-07	1,35E-07
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	9,42E+01	1,14E+02	1,75E+01	0,00E+00	-6,06E+01	2,33E+01
Energy (net calorific value) [MJ]	1,04E+02	1,16E+02	2,80E+01	0,00E+00	-6,32E+01	2,34E+01
Energy ren. (net calorific value) [MJ]	1,37E+01	4,69E+00	1,22E+01	0,00E+00	-4,36E+00	1,21E+00
Water consumption [kg]	2,61E+01	1,64E+01	1,44E+01	0,00E+00	-6,10E+00	1,41E+00
Air pollution [m <sup>3</sup> ]	3,80E+02	8,59E+02	9,98E+01	0,00E+00	-7,05E+02	1,25E+02
Water pollution [m <sup>3</sup> ]	1,35E+00	9,46E-01	4,03E-01	0,00E+00	-3,63E-01	3,66E-01
Hazardous waste for disposal [kg]	1,22E-06	2,49E-07	1,15E-08	0,00E+00	-4,40E-08	9,99E-07
Disposed of non-hazardous waste [kg]	7,41E-02	1,04E-01	1,97E-02	0,00E+00	-5,34E-02	3,48E-03
Disposed of radioactive waste [kg]	3,79E-03	6,19E-04	4,17E-03	0,00E+00	-1,03E-03	2,87E-05

evaluated from CML 2001, April. 2015

### 1.3.71 MP-U-I 160-166 6" M8/10/½"

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2305375	MP-U-I 160-166 6" M8/10/½"	10	3,917	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	7,161	8,896	1,597	0,000	-5,093	1,760
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	5,22E-14	1,95E-14	4,73E-14	0,00E+00	-1,49E-14	2,85E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	2,10E-02	1,81E-02	3,34E-03	0,00E+00	-1,45E-02	1,41E-02
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	3,68E-03	1,78E-03	3,69E-04	0,00E+00	-1,37E-03	2,90E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-3,16E-03	2,65E-03	2,40E-04	0,00E+00	-2,12E-03	-3,93E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,89E-06	1,34E-06	5,29E-07	0,00E+00	-1,17E-07	1,38E-07
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	9,72E+01	1,17E+02	1,80E+01	0,00E+00	-6,22E+01	2,39E+01
Energy (net calorific value) [MJ]	1,07E+02	1,19E+02	2,88E+01	0,00E+00	-6,49E+01	2,40E+01
Energy ren. (net calorific value) [MJ]	1,41E+01	4,83E+00	1,26E+01	0,00E+00	-4,49E+00	1,24E+00
Water consumption [kg]	2,69E+01	1,69E+01	1,49E+01	0,00E+00	-6,24E+00	1,44E+00
Air pollution [m <sup>3</sup> ]	3,90E+02	8,81E+02	1,03E+02	0,00E+00	-7,22E+02	1,29E+02
Water pollution [m <sup>3</sup> ]	1,40E+00	9,79E-01	4,16E-01	0,00E+00	-3,73E-01	3,76E-01
Hazardous waste for disposal [kg]	1,25E-06	2,58E-07	1,18E-08	0,00E+00	-4,51E-08	1,02E-06
Disposed of non-hazardous waste [kg]	7,66E-02	1,07E-01	2,03E-02	0,00E+00	-5,44E-02	3,57E-03
Disposed of radioactive waste [kg]	3,90E-03	6,38E-04	4,30E-03	0,00E+00	-1,07E-03	2,95E-05

evaluated from CML 2001, April. 2015



### 1.3.72 MP-U-I 164-170 M8/10<sup>1</sup>/<sub>2</sub>

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2305376	MP-U-I 164-170 M8/10 <sup>1</sup> / <sub>2</sub> "	10	3,983	Steel, Polymer

Environmental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	7,302	9,051	1,629	0,000	-5,169	1,790
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	5,32E-14	2,00E-14	4,82E-14	0,00E+00	-1,52E-14	2,90E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	2,14E-02	1,84E-02	3,41E-03	0,00E+00	-1,48E-02	1,44E-02
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	3,75E-03	1,81E-03	3,77E-04	0,00E+00	-1,39E-03	2,95E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-3,22E-03	2,69E-03	2,45E-04	0,00E+00	-2,16E-03	-4,00E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,93E-06	1,37E-06	5,40E-07	0,00E+00	-1,20E-07	1,41E-07
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	9,91E+01	1,20E+02	1,83E+01	0,00E+00	-6,33E+01	2,43E+01
Energy (net calorific value) [MJ]	1,09E+02	1,22E+02	2,94E+01	0,00E+00	-6,61E+01	2,44E+01
Energy ren. (net calorific value) [MJ]	1,44E+01	4,93E+00	1,28E+01	0,00E+00	-4,59E+00	1,26E+00
Water consumption [kg]	2,75E+01	1,72E+01	1,52E+01	0,00E+00	-6,33E+00	1,47E+00
Air pollution [m <sup>3</sup> ]	3,97E+02	8,95E+02	1,05E+02	0,00E+00	-7,33E+02	1,31E+02
Water pollution [m <sup>3</sup> ]	1,43E+00	1,00E+00	4,24E-01	0,00E+00	-3,80E-01	3,82E-01
Hazardous waste for disposal [kg]	1,27E-06	2,64E-07	1,21E-08	0,00E+00	-4,59E-08	1,04E-06
Disposed of non-hazardous waste [kg]	7,83E-02	1,09E-01	2,07E-02	0,00E+00	-5,52E-02	3,63E-03
Disposed of radioactive waste [kg]	3,98E-03	6,51E-04	4,39E-03	0,00E+00	-1,09E-03	3,00E-05

evaluated from CML 2001, April. 2015

### 1.3.73 MP-GA 1/2" (M16)

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2244773	MP-GA 1/2" (M16)	20	0,703	Steel, Polymer, Cardboard

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	5,618	6,646	1,293	0,000	-3,632	1,311
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	4,20E-14	1,55E-14	3,83E-14	0,00E+00	-1,20E-14	2,13E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,59E-02	1,33E-02	2,71E-03	0,00E+00	-1,07E-02	1,05E-02
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> -eq.]	2,77E-03	1,32E-03	2,99E-04	0,00E+00	-1,01E-03	2,16E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-2,33E-03	1,96E-03	1,94E-04	0,00E+00	-1,55E-03	-2,93E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,56E-06	1,13E-06	4,29E-07	0,00E+00	-9,89E-08	1,03E-07
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	7,69E+01	9,12E+01	1,46E+01	0,00E+00	-4,67E+01	1,78E+01
Energy (net calorific value) [MJ]	8,50E+01	9,27E+01	2,33E+01	0,00E+00	-4,89E+01	1,79E+01
Energy ren. (net calorific value) [MJ]	1,13E+01	3,74E+00	1,02E+01	0,00E+00	-3,58E+00	9,25E-01
Water consumption [kg]	2,19E+01	1,32E+01	1,20E+01	0,00E+00	-4,46E+00	1,07E+00
Air pollution [m <sup>3</sup> ]	3,02E+02	6,52E+02	8,33E+01	0,00E+00	-5,29E+02	9,57E+01
Water pollution [m <sup>3</sup> ]	1,12E+00	7,87E-01	3,37E-01	0,00E+00	-2,84E-01	2,80E-01
Hazardous waste for disposal [kg]	9,52E-07	2,13E-07	9,58E-09	0,00E+00	-3,35E-08	7,63E-07
Disposed of non-hazardous waste [kg]	6,21E-02	8,10E-02	1,64E-02	0,00E+00	-3,80E-02	2,66E-03
Disposed of radioactive waste [kg]	3,12E-03	4,98E-04	3,48E-03	0,00E+00	-8,85E-04	2,20E-05

evaluated from CML 2001, April. 2015

### 1.3.74 MP-U-I 9-13 1/8" M8/10/O16

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242308	MP-U-I 9-13 1/8" M8/10/O16	25	1,057	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	1,552	2,505	0,136	0,000	-1,564	0,475
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	5,87E-15	4,73E-15	4,03E-15	0,00E+00	-2,96E-15	7,70E-17
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	5,22E-03	5,20E-03	2,84E-04	0,00E+00	-4,09E-03	3,82E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	9,47E-04	5,17E-04	3,14E-05	0,00E+00	-3,83E-04	7,82E-04
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-9,23E-04	7,22E-04	2,04E-05	0,00E+00	-6,05E-04	-1,06E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	2,89E-07	2,24E-07	4,51E-08	0,00E+00	-1,81E-08	3,73E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	2,07E+01	2,91E+01	1,52E+00	0,00E+00	-1,64E+01	6,46E+00
Energy (net calorific value) [MJ]	2,16E+01	2,96E+01	2,45E+00	0,00E+00	-1,68E+01	6,48E+00
Energy ren. (net calorific value) [MJ]	1,71E+00	1,24E+00	1,07E+00	0,00E+00	-9,36E-01	3,35E-01
Water consumption [kg]	2,80E+00	3,03E+00	1,28E+00	0,00E+00	-1,90E+00	3,89E-01
Air pollution [m <sup>3</sup> ]	7,88E+01	2,40E+02	8,72E+00	0,00E+00	-2,05E+02	3,47E+01
Water pollution [m <sup>3</sup> ]	2,53E-01	2,09E-01	3,54E-02	0,00E+00	-9,35E-02	1,01E-01
Hazardous waste for disposal [kg]	3,13E-07	4,76E-08	1,01E-09	0,00E+00	-1,23E-08	2,76E-07
Disposed of non-hazardous waste [kg]	1,40E-02	2,89E-02	1,73E-03	0,00E+00	-1,76E-02	9,64E-04
Disposed of radioactive waste [kg]	3,52E-04	1,60E-04	3,66E-04	0,00E+00	-1,83E-04	7,96E-06

evaluated from CML 2001, April. 2015

### 1.3.75 MP-U-I 13-17 1/4" M8/10/O16

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242309	MP-U-I 13-17 1/4" M8/10/O16	25	1,115	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	1,693	2,658	0,150	0,000	-1,616	0,501
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	6,42E-15	5,21E-15	4,44E-15	0,00E+00	-3,31E-15	8,12E-17
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	5,52E-03	5,47E-03	3,13E-04	0,00E+00	-4,28E-03	4,03E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> -eq.]	1,00E-03	5,46E-04	3,47E-05	0,00E+00	-4,02E-04	8,25E-04
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-9,69E-04	7,59E-04	2,24E-05	0,00E+00	-6,32E-04	-1,12E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	3,32E-07	2,65E-07	4,97E-08	0,00E+00	-2,15E-08	3,94E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	2,27E+01	3,16E+01	1,68E+00	0,00E+00	-1,74E+01	6,81E+00
Energy (net calorific value) [MJ]	2,38E+01	3,21E+01	2,69E+00	0,00E+00	-1,79E+01	6,83E+00
Energy ren. (net calorific value) [MJ]	1,84E+00	1,34E+00	1,18E+00	0,00E+00	-1,04E+00	3,54E-01
Water consumption [kg]	3,15E+00	3,29E+00	1,42E+00	0,00E+00	-1,96E+00	4,11E-01
Air pollution [m <sup>3</sup> ]	8,42E+01	2,52E+02	9,61E+00	0,00E+00	-2,14E+02	3,66E+01
Water pollution [m <sup>3</sup> ]	2,80E-01	2,34E-01	3,90E-02	0,00E+00	-9,99E-02	1,07E-01
Hazardous waste for disposal [kg]	3,34E-07	5,47E-08	1,11E-09	0,00E+00	-1,30E-08	2,92E-07
Disposed of non-hazardous waste [kg]	1,57E-02	3,08E-02	1,91E-03	0,00E+00	-1,80E-02	1,02E-03
Disposed of radioactive waste [kg]	3,76E-04	1,75E-04	4,04E-04	0,00E+00	-2,12E-04	8,39E-06

evaluated from CML 2001, April. 2015

### 1.3.76 MP-U-I 17-21 3/8" M8/10/O16

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242310	MP-U-I 17-21 3/8" M8/10/O16	25	1,193	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	1,883	2,863	0,169	0,000	-1,684	0,536
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	7,17E-15	5,87E-15	5,01E-15	0,00E+00	-3,80E-15	8,69E-17
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	5,94E-03	5,82E-03	3,53E-04	0,00E+00	-4,54E-03	4,31E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,08E-03	5,84E-04	3,90E-05	0,00E+00	-4,26E-04	8,82E-04
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,03E-03	8,08E-04	2,52E-05	0,00E+00	-6,69E-04	-1,20E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	3,92E-07	3,20E-07	5,60E-08	0,00E+00	-2,62E-08	4,21E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	2,55E+01	3,50E+01	1,89E+00	0,00E+00	-1,87E+01	7,29E+00
Energy (net calorific value) [MJ]	2,66E+01	3,56E+01	3,03E+00	0,00E+00	-1,93E+01	7,31E+00
Energy ren. (net calorific value) [MJ]	2,02E+00	1,49E+00	1,33E+00	0,00E+00	-1,17E+00	3,78E-01
Water consumption [kg]	3,63E+00	3,64E+00	1,60E+00	0,00E+00	-2,05E+00	4,39E-01
Air pollution [m <sup>3</sup> ]	9,17E+01	2,69E+02	1,08E+01	0,00E+00	-2,27E+02	3,91E+01
Water pollution [m <sup>3</sup> ]	3,17E-01	2,67E-01	4,39E-02	0,00E+00	-1,09E-01	1,14E-01
Hazardous waste for disposal [kg]	3,64E-07	6,44E-08	1,25E-09	0,00E+00	-1,38E-08	3,12E-07
Disposed of non-hazardous waste [kg]	1,80E-02	3,33E-02	2,15E-03	0,00E+00	-1,86E-02	1,09E-03
Disposed of radioactive waste [kg]	4,08E-04	1,95E-04	4,55E-04	0,00E+00	-2,51E-04	8,98E-06

evaluated from CML 2001, April. 2015

### 1.3.77 MP-U-I 21-25 1/2" M8/10/O16

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242311	MP-U-I 21-25 1/2" M8/10/O16	25	1,300	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	2,172	3,153	0,198	0,000	-1,764	0,584
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	8,32E-15	6,88E-15	5,89E-15	0,00E+00	-4,55E-15	9,48E-17
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	6,53E-03	6,30E-03	4,15E-04	0,00E+00	-4,89E-03	4,70E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> -eq.]	1,19E-03	6,38E-04	4,59E-05	0,00E+00	-4,59E-04	9,62E-04
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,12E-03	8,75E-04	2,97E-05	0,00E+00	-7,17E-04	-1,30E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	4,85E-07	4,07E-07	6,59E-08	0,00E+00	-3,37E-08	4,59E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	2,98E+01	4,01E+01	2,22E+00	0,00E+00	-2,05E+01	7,95E+00
Energy (net calorific value) [MJ]	3,10E+01	4,08E+01	3,57E+00	0,00E+00	-2,13E+01	7,97E+00
Energy ren. (net calorific value) [MJ]	2,29E+00	1,70E+00	1,57E+00	0,00E+00	-1,39E+00	4,12E-01
Water consumption [kg]	4,39E+00	4,18E+00	1,89E+00	0,00E+00	-2,15E+00	4,79E-01
Air pollution [m <sup>3</sup> ]	1,03E+02	2,91E+02	1,27E+01	0,00E+00	-2,43E+02	4,27E+01
Water pollution [m <sup>3</sup> ]	3,74E-01	3,19E-01	5,17E-02	0,00E+00	-1,21E-01	1,25E-01
Hazardous waste for disposal [kg]	4,06E-07	7,96E-08	1,47E-09	0,00E+00	-1,50E-08	3,40E-07
Disposed of non-hazardous waste [kg]	2,16E-02	3,70E-02	2,53E-03	0,00E+00	-1,91E-02	1,19E-03
Disposed of radioactive waste [kg]	4,56E-04	2,24E-04	5,36E-04	0,00E+00	-3,14E-04	9,79E-06

evaluated from CML 2001, April. 2015

1.3.78 MP-U-I 25-29 3/4" M8/10/O16

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242312	MP-U-I 25-29 3/4" M8/10/O16	25	1,411	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	2,479	3,453	0,231	0,000	-1,839	0,634
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	9,56E-15	7,95E-15	6,86E-15	0,00E+00	-5,36E-15	1,03E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	7,13E-03	6,79E-03	4,83E-04	0,00E+00	-5,23E-03	5,10E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> -eq.]	1,30E-03	6,92E-04	5,34E-05	0,00E+00	-4,93E-04	1,04E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,20E-03	9,43E-04	3,45E-05	0,00E+00	-7,65E-04	-1,42E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	5,87E-07	5,02E-07	7,67E-08	0,00E+00	-4,20E-08	4,98E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	3,44E+01	4,56E+01	2,57E+00	0,00E+00	-2,24E+01	8,62E+00
Energy (net calorific value) [MJ]	3,57E+01	4,63E+01	4,15E+00	0,00E+00	-2,34E+01	8,65E+00
Energy ren. (net calorific value) [MJ]	2,58E+00	1,92E+00	1,82E+00	0,00E+00	-1,61E+00	4,47E-01
Water consumption [kg]	5,23E+00	4,75E+00	2,21E+00	0,00E+00	-2,25E+00	5,20E-01
Air pollution [m <sup>3</sup> ]	1,14E+02	3,13E+02	1,48E+01	0,00E+00	-2,60E+02	4,63E+01
Water pollution [m <sup>3</sup> ]	4,35E-01	3,74E-01	6,02E-02	0,00E+00	-1,34E-01	1,35E-01
Hazardous waste for disposal [kg]	4,50E-07	9,60E-08	1,71E-09	0,00E+00	-1,62E-08	3,69E-07
Disposed of non-hazardous waste [kg]	2,55E-02	4,09E-02	2,95E-03	0,00E+00	-1,96E-02	1,29E-03
Disposed of radioactive waste [kg]	5,07E-04	2,56E-04	6,24E-04	0,00E+00	-3,83E-04	1,06E-05

evaluated from CML 2001, April. 2015

### 1.3.79 MP-U-I 29-33 M8/10/O16

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242313	MP-U-I 29-33 M8/10/O16	25	1,510	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	2,776	3,717	0,260	0,000	-1,879	0,679
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	1,05E-14	8,82E-15	7,74E-15	0,00E+00	-6,20E-15	1,10E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	7,74E-03	7,27E-03	5,45E-04	0,00E+00	-5,52E-03	5,45E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,40E-03	7,42E-04	6,03E-05	0,00E+00	-5,21E-04	1,12E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,27E-03	1,01E-03	3,89E-05	0,00E+00	-8,05E-04	-1,51E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	6,70E-07	5,82E-07	8,65E-08	0,00E+00	-5,12E-08	5,33E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	3,87E+01	5,07E+01	2,91E+00	0,00E+00	-2,42E+01	9,23E+00
Energy (net calorific value) [MJ]	4,02E+01	5,16E+01	4,68E+00	0,00E+00	-2,53E+01	9,26E+00
Energy ren. (net calorific value) [MJ]	2,80E+00	2,11E+00	2,06E+00	0,00E+00	-1,85E+00	4,79E-01
Water consumption [kg]	6,33E+00	5,59E+00	2,49E+00	0,00E+00	-2,31E+00	5,56E-01
Air pollution [m <sup>3</sup> ]	1,26E+02	3,34E+02	1,67E+01	0,00E+00	-2,74E+02	4,96E+01
Water pollution [m <sup>3</sup> ]	4,85E-01	4,19E-01	6,79E-02	0,00E+00	-1,47E-01	1,45E-01
Hazardous waste for disposal [kg]	4,89E-07	1,09E-07	1,93E-09	0,00E+00	-1,73E-08	3,95E-07
Disposed of non-hazardous waste [kg]	2,88E-02	4,39E-02	3,33E-03	0,00E+00	-1,99E-02	1,38E-03
Disposed of radioactive waste [kg]	5,40E-04	2,81E-04	7,04E-04	0,00E+00	-4,56E-04	1,14E-05

evaluated from CML 2001, April. 2015



### 1.3.80 MP-U-I 33-37 1" M8/10/O16

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242314	MP-U-I 33-37 1" M8/10/O16	25	1,597	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	3,016	3,953	0,285	0,000	-1,940	0,718
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	1,14E-14	9,65E-15	8,49E-15	0,00E+00	-6,83E-15	1,16E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	8,22E-03	7,65E-03	5,97E-04	0,00E+00	-5,80E-03	5,77E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> -eq.]	1,48E-03	7,85E-04	6,61E-05	0,00E+00	-5,48E-04	1,18E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,34E-03	1,06E-03	4,27E-05	0,00E+00	-8,44E-04	-1,60E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	7,49E-07	6,56E-07	9,49E-08	0,00E+00	-5,76E-08	5,64E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	4,23E+01	5,50E+01	3,18E+00	0,00E+00	-2,57E+01	9,76E+00
Energy (net calorific value) [MJ]	4,39E+01	5,59E+01	5,13E+00	0,00E+00	-2,69E+01	9,79E+00
Energy ren. (net calorific value) [MJ]	3,02E+00	2,29E+00	2,25E+00	0,00E+00	-2,03E+00	5,07E-01
Water consumption [kg]	6,98E+00	6,04E+00	2,73E+00	0,00E+00	-2,39E+00	5,88E-01
Air pollution [m <sup>3</sup> ]	1,35E+02	3,52E+02	1,83E+01	0,00E+00	-2,87E+02	5,24E+01
Water pollution [m <sup>3</sup> ]	5,32E-01	4,62E-01	7,44E-02	0,00E+00	-1,57E-01	1,53E-01
Hazardous waste for disposal [kg]	5,23E-07	1,22E-07	2,12E-09	0,00E+00	-1,83E-08	4,18E-07
Disposed of non-hazardous waste [kg]	3,18E-02	4,70E-02	3,65E-03	0,00E+00	-2,03E-02	1,46E-03
Disposed of radioactive waste [kg]	5,80E-04	3,05E-04	7,72E-04	0,00E+00	-5,10E-04	1,20E-05

evaluated from CML 2001, April. 2015

### 1.3.81 MP-U-I 37-42 M8/10/O16

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242315	MP-U-I 37-42 M8/10/O16	25	1,727	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	3,332	4,291	0,322	0,000	-2,058	0,776
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	1,28E-14	1,07E-14	9,59E-15	0,00E+00	-7,62E-15	1,26E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	8,92E-03	8,24E-03	6,75E-04	0,00E+00	-6,23E-03	6,24E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,61E-03	8,48E-04	7,47E-05	0,00E+00	-5,90E-04	1,28E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,44E-03	1,15E-03	4,82E-05	0,00E+00	-9,06E-04	-1,73E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	8,48E-07	7,45E-07	1,07E-07	0,00E+00	-6,52E-08	6,10E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	4,69E+01	6,06E+01	3,59E+00	0,00E+00	-2,78E+01	1,06E+01
Energy (net calorific value) [MJ]	4,86E+01	6,16E+01	5,79E+00	0,00E+00	-2,93E+01	1,06E+01
Energy ren. (net calorific value) [MJ]	3,36E+00	2,52E+00	2,55E+00	0,00E+00	-2,25E+00	5,48E-01
Water consumption [kg]	7,83E+00	6,64E+00	3,09E+00	0,00E+00	-2,54E+00	6,36E-01
Air pollution [m <sup>3</sup> ]	1,48E+02	3,79E+02	2,07E+01	0,00E+00	-3,08E+02	5,67E+01
Water pollution [m <sup>3</sup> ]	5,95E-01	5,17E-01	8,41E-02	0,00E+00	-1,72E-01	1,66E-01
Hazardous waste for disposal [kg]	5,72E-07	1,38E-07	2,39E-09	0,00E+00	-1,97E-08	4,52E-07
Disposed of non-hazardous waste [kg]	3,57E-02	5,12E-02	4,13E-03	0,00E+00	-2,12E-02	1,58E-03
Disposed of radioactive waste [kg]	6,49E-04	3,38E-04	8,72E-04	0,00E+00	-5,74E-04	1,30E-05

evaluated from CML 2001, April. 2015

### 1.3.82 MP-U-I 42-47 1 ¼" M8/10/O16

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242316	MP-U-I 42-47 1 ¼" M8/10/O16	25	1,829	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	3,618	4,568	0,352	0,000	-2,124	0,822
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	1,40E-14	1,17E-14	1,05E-14	0,00E+00	-8,37E-15	1,33E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	9,48E-03	8,69E-03	7,38E-04	0,00E+00	-6,55E-03	6,61E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,71E-03	8,99E-04	8,17E-05	0,00E+00	-6,20E-04	1,35E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,52E-03	1,21E-03	5,27E-05	0,00E+00	-9,50E-04	-1,83E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	9,43E-07	8,34E-07	1,17E-07	0,00E+00	-7,29E-08	6,46E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	5,11E+01	6,56E+01	3,93E+00	0,00E+00	-2,96E+01	1,12E+01
Energy (net calorific value) [MJ]	5,30E+01	6,67E+01	6,33E+00	0,00E+00	-3,12E+01	1,12E+01
Energy ren. (net calorific value) [MJ]	3,63E+00	2,73E+00	2,79E+00	0,00E+00	-2,47E+00	5,80E-01
Water consumption [kg]	8,61E+00	7,18E+00	3,38E+00	0,00E+00	-2,62E+00	6,74E-01
Air pollution [m <sup>3</sup> ]	1,59E+02	4,00E+02	2,26E+01	0,00E+00	-3,24E+02	6,00E+01
Water pollution [m <sup>3</sup> ]	6,52E-01	5,68E-01	9,19E-02	0,00E+00	-1,84E-01	1,75E-01
Hazardous waste for disposal [kg]	6,13E-07	1,53E-07	2,61E-09	0,00E+00	-2,09E-08	4,78E-07
Disposed of non-hazardous waste [kg]	3,93E-02	5,48E-02	4,51E-03	0,00E+00	-2,16E-02	1,67E-03
Disposed of radioactive waste [kg]	6,96E-04	3,67E-04	9,54E-04	0,00E+00	-6,38E-04	1,38E-05

evaluated from CML 2001, April. 2015

### 1.3.83 MP-U-I 47-52 1 ½" M8/10/O16

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242317	MP-U-I 47-52 1 ½" M8/10/O16	25	1,940	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	3,926	4,869	0,385	0,000	-2,199	0,872
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	1,52E-14	1,28E-14	1,15E-14	0,00E+00	-9,18E-15	1,41E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,01E-02	9,18E-03	8,06E-04	0,00E+00	-6,90E-03	7,01E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,82E-03	9,53E-04	8,92E-05	0,00E+00	-6,54E-04	1,43E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,61E-03	1,28E-03	5,75E-05	0,00E+00	-9,98E-04	-1,95E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,04E-06	9,29E-07	1,28E-07	0,00E+00	-8,12E-08	6,85E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	5,57E+01	7,11E+01	4,29E+00	0,00E+00	-3,15E+01	1,19E+01
Energy (net calorific value) [MJ]	5,77E+01	7,22E+01	6,91E+00	0,00E+00	-3,33E+01	1,19E+01
Energy ren. (net calorific value) [MJ]	3,92E+00	2,95E+00	3,04E+00	0,00E+00	-2,69E+00	6,15E-01
Water consumption [kg]	9,45E+00	7,76E+00	3,70E+00	0,00E+00	-2,72E+00	7,15E-01
Air pollution [m <sup>3</sup> ]	1,70E+02	4,22E+02	2,47E+01	0,00E+00	-3,40E+02	6,36E+01
Water pollution [m <sup>3</sup> ]	7,13E-01	6,24E-01	1,00E-01	0,00E+00	-1,97E-01	1,86E-01
Hazardous waste for disposal [kg]	6,58E-07	1,70E-07	2,85E-09	0,00E+00	-2,21E-08	5,07E-07
Disposed of non-hazardous waste [kg]	4,32E-02	5,86E-02	4,93E-03	0,00E+00	-2,21E-02	1,77E-03
Disposed of radioactive waste [kg]	7,48E-04	3,98E-04	1,04E-03	0,00E+00	-7,07E-04	1,46E-05

evaluated from CML 2001, April. 2015

### 1.3.84 MP-U-I 52-57 M8/10/O16

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242318	MP-U-I 52-57 M8/10/O16	25	2,049	Steel, Polymer

Environmental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	4,225	5,164	0,416	0,000	-2,276	0,921
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	1,64E-14	1,38E-14	1,24E-14	0,00E+00	-9,97E-15	1,49E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,07E-02	9,66E-03	8,71E-04	0,00E+00	-7,24E-03	7,40E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> -eq.]	1,93E-03	1,01E-03	9,64E-05	0,00E+00	-6,87E-04	1,52E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,69E-03	1,34E-03	6,22E-05	0,00E+00	-1,05E-03	-2,06E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,14E-06	1,02E-06	1,38E-07	0,00E+00	-8,91E-08	7,23E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	6,02E+01	7,64E+01	4,63E+00	0,00E+00	-3,34E+01	1,25E+01
Energy (net calorific value) [MJ]	6,23E+01	7,76E+01	7,47E+00	0,00E+00	-3,53E+01	1,26E+01
Energy ren. (net calorific value) [MJ]	4,19E+00	3,17E+00	3,29E+00	0,00E+00	-2,92E+00	6,50E-01
Water consumption [kg]	1,03E+01	8,32E+00	4,00E+00	0,00E+00	-2,82E+00	7,55E-01
Air pollution [m <sup>3</sup> ]	1,81E+02	4,44E+02	2,67E+01	0,00E+00	-3,57E+02	6,72E+01
Water pollution [m <sup>3</sup> ]	7,73E-01	6,77E-01	1,09E-01	0,00E+00	-2,10E-01	1,97E-01
Hazardous waste for disposal [kg]	7,01E-07	1,85E-07	3,08E-09	0,00E+00	-2,33E-08	5,36E-07
Disposed of non-hazardous waste [kg]	4,70E-02	6,24E-02	5,33E-03	0,00E+00	-2,26E-02	1,87E-03
Disposed of radioactive waste [kg]	7,98E-04	4,29E-04	1,13E-03	0,00E+00	-7,73E-04	1,54E-05

evaluated from CML 2001, April. 2015

### 1.3.85 MP-U-I 57-62 2" M8/10/O16

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242319	MP-U-I 57-62 2" M8/10/O16	10	0,869	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	1,841	2,198	0,181	0,000	-0,930	0,391
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	7,02E-15	5,98E-15	5,40E-15	0,00E+00	-4,42E-15	6,33E-17
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	4,58E-03	4,10E-03	3,80E-04	0,00E+00	-3,04E-03	3,14E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	8,24E-04	4,28E-04	4,21E-05	0,00E+00	-2,89E-04	6,43E-04
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-7,12E-04	5,71E-04	2,71E-05	0,00E+00	-4,38E-04	-8,72E-04
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	5,00E-07	4,49E-07	6,04E-08	0,00E+00	-4,04E-08	3,07E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	2,62E+01	3,31E+01	2,02E+00	0,00E+00	-1,42E+01	5,31E+00
Energy (net calorific value) [MJ]	2,72E+01	3,37E+01	3,26E+00	0,00E+00	-1,51E+01	5,33E+00
Energy ren. (net calorific value) [MJ]	1,79E+00	1,37E+00	1,44E+00	0,00E+00	-1,29E+00	2,76E-01
Water consumption [kg]	4,66E+00	3,75E+00	1,75E+00	0,00E+00	-1,16E+00	3,20E-01
Air pollution [m <sup>3</sup> ]	7,87E+01	1,88E+02	1,16E+01	0,00E+00	-1,50E+02	2,85E+01
Water pollution [m <sup>3</sup> ]	3,34E-01	2,94E-01	4,73E-02	0,00E+00	-9,04E-02	8,34E-02
Hazardous waste for disposal [kg]	3,00E-07	8,09E-08	1,35E-09	0,00E+00	-9,85E-09	2,27E-07
Disposed of non-hazardous waste [kg]	2,04E-02	2,65E-02	2,33E-03	0,00E+00	-9,18E-03	7,93E-04
Disposed of radioactive waste [kg]	3,36E-04	1,84E-04	4,91E-04	0,00E+00	-3,47E-04	6,54E-06

evaluated from CML 2001, April. 2015

### 1.3.86 MP-U-I 62-67 M8/10/O16

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242320	MP-U-I 62-67 M8/10/O16	10	1,423	Steel, Polymer

Environmental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	2,673	3,238	0,595	0,000	-1,799	0,640
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	1,93E-14	7,24E-15	1,76E-14	0,00E+00	-5,69E-15	1,04E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	7,71E-03	6,56E-03	1,24E-03	0,00E+00	-5,23E-03	5,14E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,34E-03	6,47E-04	1,38E-04	0,00E+00	-4,93E-04	1,05E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,14E-03	9,63E-04	8,93E-05	0,00E+00	-7,64E-04	-1,43E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	7,10E-07	5,09E-07	1,97E-07	0,00E+00	-4,63E-08	5,02E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	3,64E+01	4,37E+01	6,70E+00	0,00E+00	-2,27E+01	8,70E+00
Energy (net calorific value) [MJ]	4,01E+01	4,44E+01	1,07E+01	0,00E+00	-2,38E+01	8,73E+00
Energy ren. (net calorific value) [MJ]	5,21E+00	1,78E+00	4,68E+00	0,00E+00	-1,70E+00	4,51E-01
Water consumption [kg]	1,03E+01	6,45E+00	5,53E+00	0,00E+00	-2,21E+00	5,24E-01
Air pollution [m <sup>3</sup> ]	1,45E+02	3,19E+02	3,83E+01	0,00E+00	-2,60E+02	4,67E+01
Water pollution [m <sup>3</sup> ]	5,19E-01	3,65E-01	1,55E-01	0,00E+00	-1,37E-01	1,37E-01
Hazardous waste for disposal [kg]	4,57E-07	9,72E-08	4,41E-09	0,00E+00	-1,64E-08	3,72E-07
Disposed of non-hazardous waste [kg]	2,86E-02	3,90E-02	7,55E-03	0,00E+00	-1,92E-02	1,30E-03
Disposed of radioactive waste [kg]	1,43E-03	2,35E-04	1,60E-03	0,00E+00	-4,14E-04	1,07E-05

evaluated from CML 2001, April. 2015

### 1.3.87 MP-U-I 67-72 M8/10/O16

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242321	MP-U-I 67-72 M8/10/O16	10	1,490	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	2,834	3,400	0,628	0,000	-1,864	0,670
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	2,04E-14	7,74E-15	1,86E-14	0,00E+00	-6,07E-15	1,09E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	8,09E-03	6,85E-03	1,31E-03	0,00E+00	-5,46E-03	5,38E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,41E-03	6,78E-04	1,45E-04	0,00E+00	-5,15E-04	1,10E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,19E-03	1,01E-03	9,43E-05	0,00E+00	-7,96E-04	-1,50E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	7,63E-07	5,52E-07	2,08E-07	0,00E+00	-4,99E-08	5,26E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	3,87E+01	4,63E+01	7,08E+00	0,00E+00	-2,38E+01	9,11E+00
Energy (net calorific value) [MJ]	4,26E+01	4,71E+01	1,13E+01	0,00E+00	-2,49E+01	9,14E+00
Energy ren. (net calorific value) [MJ]	5,49E+00	1,89E+00	4,94E+00	0,00E+00	-1,81E+00	4,73E-01
Water consumption [kg]	1,09E+01	6,80E+00	5,85E+00	0,00E+00	-2,29E+00	5,49E-01
Air pollution [m <sup>3</sup> ]	1,52E+02	3,34E+02	4,05E+01	0,00E+00	-2,71E+02	4,89E+01
Water pollution [m <sup>3</sup> ]	5,53E-01	3,91E-01	1,63E-01	0,00E+00	-1,45E-01	1,43E-01
Hazardous waste for disposal [kg]	4,82E-07	1,05E-07	4,66E-09	0,00E+00	-1,71E-08	3,90E-07
Disposed of non-hazardous waste [kg]	3,06E-02	4,11E-02	7,98E-03	0,00E+00	-1,98E-02	1,36E-03
Disposed of radioactive waste [kg]	1,51E-03	2,50E-04	1,69E-03	0,00E+00	-4,45E-04	1,12E-05

evaluated from CML 2001, April. 2015



### 1.3.88 MP-U-I 72-77 2 ½" M8/10/O16

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242322	MP-U-I 72-77 2 ½" M8/10/O16	10	1,556	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	2,987	3,557	0,661	0,000	-1,930	0,699
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	2,14E-14	8,20E-15	1,96E-14	0,00E+00	-6,43E-15	1,13E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	8,45E-03	7,13E-03	1,38E-03	0,00E+00	-5,68E-03	5,62E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,47E-03	7,08E-04	1,53E-04	0,00E+00	-5,37E-04	1,15E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,24E-03	1,05E-03	9,92E-05	0,00E+00	-8,29E-04	-1,56E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	8,12E-07	5,91E-07	2,19E-07	0,00E+00	-5,32E-08	5,49E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	4,09E+01	4,88E+01	7,44E+00	0,00E+00	-2,49E+01	9,51E+00
Energy (net calorific value) [MJ]	4,50E+01	4,96E+01	1,19E+01	0,00E+00	-2,61E+01	9,54E+00
Energy ren. (net calorific value) [MJ]	5,77E+00	1,99E+00	5,20E+00	0,00E+00	-1,92E+00	4,94E-01
Water consumption [kg]	1,15E+01	7,13E+00	6,16E+00	0,00E+00	-2,37E+00	5,73E-01
Air pollution [m <sup>3</sup> ]	1,60E+02	3,48E+02	4,25E+01	0,00E+00	-2,82E+02	5,11E+01
Water pollution [m <sup>3</sup> ]	5,85E-01	4,15E-01	1,72E-01	0,00E+00	-1,52E-01	1,49E-01
Hazardous waste for disposal [kg]	5,06E-07	1,12E-07	4,90E-09	0,00E+00	-1,79E-08	4,07E-07
Disposed of non-hazardous waste [kg]	3,25E-02	4,31E-02	8,39E-03	0,00E+00	-2,04E-02	1,42E-03
Disposed of radioactive waste [kg]	1,58E-03	2,64E-04	1,78E-03	0,00E+00	-4,74E-04	1,17E-05

evaluated from CML 2001, April. 2015

### 1.3.89 MP-U-I 78-84 M8/10/O16

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242323	MP-U-I 78-84 M8/10/O16	10	1,650	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	3,211	3,784	0,708	0,000	-2,023	0,742
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	2,30E-14	8,88E-15	2,10E-14	0,00E+00	-6,96E-15	1,20E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	8,98E-03	7,55E-03	1,48E-03	0,00E+00	-6,01E-03	5,96E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,57E-03	7,51E-04	1,64E-04	0,00E+00	-5,67E-04	1,22E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,31E-03	1,11E-03	1,06E-04	0,00E+00	-8,75E-04	-1,66E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	8,84E-07	6,49E-07	2,35E-07	0,00E+00	-5,82E-08	5,83E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	4,40E+01	5,25E+01	7,97E+00	0,00E+00	-2,65E+01	1,01E+01
Energy (net calorific value) [MJ]	4,84E+01	5,33E+01	1,28E+01	0,00E+00	-2,78E+01	1,01E+01
Energy ren. (net calorific value) [MJ]	6,17E+00	2,14E+00	5,57E+00	0,00E+00	-2,07E+00	5,24E-01
Water consumption [kg]	1,23E+01	7,62E+00	6,60E+00	0,00E+00	-2,49E+00	6,08E-01
Air pollution [m <sup>3</sup> ]	1,70E+02	3,68E+02	4,56E+01	0,00E+00	-2,98E+02	5,42E+01
Water pollution [m <sup>3</sup> ]	6,32E-01	4,51E-01	1,84E-01	0,00E+00	-1,62E-01	1,58E-01
Hazardous waste for disposal [kg]	5,40E-07	1,22E-07	5,25E-09	0,00E+00	-1,89E-08	4,32E-07
Disposed of non-hazardous waste [kg]	3,53E-02	4,60E-02	8,99E-03	0,00E+00	-2,12E-02	1,51E-03
Disposed of radioactive waste [kg]	1,69E-03	2,85E-04	1,91E-03	0,00E+00	-5,17E-04	1,24E-05

evaluated from CML 2001, April. 2015

### 1.3.90 MP-U-I 84-90 3" M8/10/O16

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242324	MP-U-I 84-90 3" M8/10/O16	10	1,730	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	3,399	3,975	0,748	0,000	-2,102	0,777
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	2,43E-14	9,45E-15	2,21E-14	0,00E+00	-7,40E-15	1,26E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	9,42E-03	7,89E-03	1,56E-03	0,00E+00	-6,28E-03	6,25E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,65E-03	7,87E-04	1,73E-04	0,00E+00	-5,93E-04	1,28E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,38E-03	1,16E-03	1,12E-04	0,00E+00	-9,14E-04	-1,74E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	9,45E-07	6,98E-07	2,48E-07	0,00E+00	-6,24E-08	6,11E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	4,67E+01	5,55E+01	8,41E+00	0,00E+00	-2,78E+01	1,06E+01
Energy (net calorific value) [MJ]	5,13E+01	5,64E+01	1,35E+01	0,00E+00	-2,92E+01	1,06E+01
Energy ren. (net calorific value) [MJ]	6,50E+00	2,27E+00	5,88E+00	0,00E+00	-2,20E+00	5,49E-01
Water consumption [kg]	1,30E+01	8,02E+00	6,97E+00	0,00E+00	-2,59E+00	6,37E-01
Air pollution [m <sup>3</sup> ]	1,79E+02	3,85E+02	4,81E+01	0,00E+00	-3,11E+02	5,68E+01
Water pollution [m <sup>3</sup> ]	6,71E-01	4,81E-01	1,95E-01	0,00E+00	-1,70E-01	1,66E-01
Hazardous waste for disposal [kg]	5,69E-07	1,31E-07	5,54E-09	0,00E+00	-1,98E-08	4,52E-07
Disposed of non-hazardous waste [kg]	3,76E-02	4,84E-02	9,49E-03	0,00E+00	-2,19E-02	1,58E-03
Disposed of radioactive waste [kg]	1,78E-03	3,02E-04	2,01E-03	0,00E+00	-5,53E-04	1,30E-05

evaluated from CML 2001, April. 2015

### 1.3.91 MP-U-I 90-96 M8/10/O16

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242325	MP-U-I 90-96 M8/10/O16	10	1,810	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	3,590	4,169	0,788	0,000	-2,180	0,813
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	2,56E-14	1,00E-14	2,33E-14	0,00E+00	-7,86E-15	1,32E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	9,87E-03	8,24E-03	1,65E-03	0,00E+00	-6,55E-03	6,54E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	1,72E-03	8,23E-04	1,82E-04	0,00E+00	-6,19E-04	1,34E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,44E-03	1,21E-03	1,18E-04	0,00E+00	-9,53E-04	-1,82E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,01E-06	7,48E-07	2,61E-07	0,00E+00	-6,67E-08	6,39E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	4,95E+01	5,87E+01	8,86E+00	0,00E+00	-2,91E+01	1,11E+01
Energy (net calorific value) [MJ]	5,43E+01	5,96E+01	1,42E+01	0,00E+00	-3,06E+01	1,11E+01
Energy ren. (net calorific value) [MJ]	6,84E+00	2,40E+00	6,20E+00	0,00E+00	-2,33E+00	5,74E-01
Water consumption [kg]	1,38E+01	8,44E+00	7,35E+00	0,00E+00	-2,68E+00	6,67E-01
Air pollution [m <sup>3</sup> ]	1,88E+02	4,02E+02	5,07E+01	0,00E+00	-3,24E+02	5,94E+01
Water pollution [m <sup>3</sup> ]	7,11E-01	5,12E-01	2,05E-01	0,00E+00	-1,79E-01	1,74E-01
Hazardous waste for disposal [kg]	5,98E-07	1,40E-07	5,84E-09	0,00E+00	-2,07E-08	4,73E-07
Disposed of non-hazardous waste [kg]	4,00E-02	5,09E-02	1,00E-02	0,00E+00	-2,26E-02	1,65E-03
Disposed of radioactive waste [kg]	1,87E-03	3,20E-04	2,12E-03	0,00E+00	-5,89E-04	1,36E-05

evaluated from CML 2001, April. 2015

### 1.3.92 MP-U-I 97-103 M8/10/O16

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242326	MP-U-I 97-103 M8/10/O16	10	2,310	Steel, Polymer

Environmental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	4,244	5,215	0,999	0,000	-3,008	1,038
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	3,25E-14	1,15E-14	2,96E-14	0,00E+00	-8,78E-15	1,68E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,24E-02	1,06E-02	2,09E-03	0,00E+00	-8,56E-03	8,34E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	2,18E-03	1,04E-03	2,31E-04	0,00E+00	-8,07E-04	1,71E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,86E-03	1,56E-03	1,50E-04	0,00E+00	-1,25E-03	-2,32E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,14E-06	7,99E-07	3,31E-07	0,00E+00	-6,89E-08	8,15E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	5,76E+01	6,89E+01	1,13E+01	0,00E+00	-3,67E+01	1,41E+01
Energy (net calorific value) [MJ]	6,39E+01	7,00E+01	1,80E+01	0,00E+00	-3,83E+01	1,42E+01
Energy ren. (net calorific value) [MJ]	8,78E+00	2,84E+00	7,86E+00	0,00E+00	-2,65E+00	7,33E-01
Water consumption [kg]	1,64E+01	9,97E+00	9,29E+00	0,00E+00	-3,68E+00	8,51E-01
Air pollution [m <sup>3</sup> ]	2,34E+02	5,19E+02	6,44E+01	0,00E+00	-4,26E+02	7,58E+01
Water pollution [m <sup>3</sup> ]	8,43E-01	5,82E-01	2,60E-01	0,00E+00	-2,20E-01	2,22E-01
Hazardous waste for disposal [kg]	7,39E-07	1,54E-07	7,40E-09	0,00E+00	-2,66E-08	6,04E-07
Disposed of non-hazardous waste [kg]	4,61E-02	6,32E-02	1,27E-02	0,00E+00	-3,20E-02	2,11E-03
Disposed of radioactive waste [kg]	2,46E-03	3,76E-04	2,69E-03	0,00E+00	-6,29E-04	1,74E-05

evaluated from CML 2001, April. 2015

### 1.3.93 MP-U-I 103-109 M8/10/O16

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242327	MP-U-I 103-109 M8/10/O16	10	2,429	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	4,535	5,493	1,055	0,000	-3,104	1,091
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	3,41E-14	1,22E-14	3,12E-14	0,00E+00	-9,53E-15	1,77E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,32E-02	1,11E-02	2,21E-03	0,00E+00	-8,96E-03	8,77E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	2,29E-03	1,10E-03	2,44E-04	0,00E+00	-8,44E-04	1,80E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-1,94E-03	1,64E-03	1,58E-04	0,00E+00	-1,31E-03	-2,44E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,22E-06	8,60E-07	3,50E-07	0,00E+00	-7,66E-08	8,57E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	6,16E+01	7,36E+01	1,19E+01	0,00E+00	-3,87E+01	1,48E+01
Energy (net calorific value) [MJ]	6,83E+01	7,48E+01	1,90E+01	0,00E+00	-4,04E+01	1,49E+01
Energy ren. (net calorific value) [MJ]	9,22E+00	3,01E+00	8,30E+00	0,00E+00	-2,86E+00	7,70E-01
Water consumption [kg]	1,78E+01	1,09E+01	9,81E+00	0,00E+00	-3,81E+00	8,95E-01
Air pollution [m <sup>3</sup> ]	2,48E+02	5,45E+02	6,80E+01	0,00E+00	-4,45E+02	7,97E+01
Water pollution [m <sup>3</sup> ]	8,93E-01	6,19E-01	2,75E-01	0,00E+00	-2,33E-01	2,33E-01
Hazardous waste for disposal [kg]	7,80E-07	1,65E-07	7,82E-09	0,00E+00	-2,79E-08	6,35E-07
Disposed of non-hazardous waste [kg]	4,90E-02	6,64E-02	1,34E-02	0,00E+00	-3,30E-02	2,22E-03
Disposed of radioactive waste [kg]	2,57E-03	3,98E-04	2,84E-03	0,00E+00	-6,91E-04	1,83E-05

evaluated from CML 2001, April. 2015

### 1.3.94 MP-U-I 109-115 4" M8/10/O16

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242328	MP-U-I 109-115 4" M8/10/O16	10	2,520	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	4,739	5,709	1,100	0,000	-3,203	1,133
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	3,56E-14	1,28E-14	3,26E-14	0,00E+00	-1,00E-14	1,84E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,37E-02	1,15E-02	2,30E-03	0,00E+00	-9,28E-03	9,10E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> -eq.]	2,38E-03	1,14E-03	2,54E-04	0,00E+00	-8,75E-04	1,86E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-2,02E-03	1,70E-03	1,65E-04	0,00E+00	-1,35E-03	-2,53E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,28E-06	9,10E-07	3,64E-07	0,00E+00	-8,08E-08	8,90E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	6,45E+01	7,69E+01	1,24E+01	0,00E+00	-4,02E+01	1,54E+01
Energy (net calorific value) [MJ]	7,14E+01	7,81E+01	1,98E+01	0,00E+00	-4,20E+01	1,55E+01
Energy ren. (net calorific value) [MJ]	9,60E+00	3,15E+00	8,65E+00	0,00E+00	-3,00E+00	7,99E-01
Water consumption [kg]	1,86E+01	1,13E+01	1,02E+01	0,00E+00	-3,93E+00	9,28E-01
Air pollution [m <sup>3</sup> ]	2,58E+02	5,65E+02	7,08E+01	0,00E+00	-4,61E+02	8,27E+01
Water pollution [m <sup>3</sup> ]	9,36E-01	6,51E-01	2,86E-01	0,00E+00	-2,43E-01	2,42E-01
Hazardous waste for disposal [kg]	8,12E-07	1,74E-07	8,15E-09	0,00E+00	-2,90E-08	6,59E-07
Disposed of non-hazardous waste [kg]	5,15E-02	6,92E-02	1,40E-02	0,00E+00	-3,40E-02	2,30E-03
Disposed of radioactive waste [kg]	2,67E-03	4,17E-04	2,96E-03	0,00E+00	-7,27E-04	1,90E-05

evaluated from CML 2001, April. 2015

### 1.3.95 MP-U-I 115-121 M8/10/O16

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242329	MP-U-I 115-121 M8/10/O16	10	2,612	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	4,943	5,926	1,145	0,000	-3,301	1,174
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	3,71E-14	1,35E-14	3,39E-14	0,00E+00	-1,05E-14	1,90E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,42E-02	1,19E-02	2,39E-03	0,00E+00	-9,60E-03	9,43E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	2,47E-03	1,18E-03	2,65E-04	0,00E+00	-9,05E-04	1,93E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-2,09E-03	1,76E-03	1,72E-04	0,00E+00	-1,40E-03	-2,62E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,35E-06	9,60E-07	3,79E-07	0,00E+00	-8,50E-08	9,22E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	6,74E+01	8,02E+01	1,29E+01	0,00E+00	-4,17E+01	1,60E+01
Energy (net calorific value) [MJ]	7,46E+01	8,15E+01	2,07E+01	0,00E+00	-4,36E+01	1,60E+01
Energy ren. (net calorific value) [MJ]	9,98E+00	3,28E+00	9,00E+00	0,00E+00	-3,13E+00	8,29E-01
Water consumption [kg]	1,93E+01	1,18E+01	1,07E+01	0,00E+00	-4,05E+00	9,62E-01
Air pollution [m <sup>3</sup> ]	2,68E+02	5,85E+02	7,37E+01	0,00E+00	-4,76E+02	8,57E+01
Water pollution [m <sup>3</sup> ]	9,78E-01	6,82E-01	2,98E-01	0,00E+00	-2,52E-01	2,51E-01
Hazardous waste for disposal [kg]	8,45E-07	1,83E-07	8,48E-09	0,00E+00	-3,00E-08	6,83E-07
Disposed of non-hazardous waste [kg]	5,39E-02	7,19E-02	1,45E-02	0,00E+00	-3,49E-02	2,38E-03
Disposed of radioactive waste [kg]	2,77E-03	4,36E-04	3,08E-03	0,00E+00	-7,64E-04	1,97E-05

evaluated from CML 2001, April. 2015



### 1.3.96 MP-U-I 122-128 M8/10/O16

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242330	MP-U-I 122-128 M8/10/O16	10	2,719	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	5,181	6,179	1,197	0,000	-3,417	1,222
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	3,88E-14	1,42E-14	3,54E-14	0,00E+00	-1,10E-14	1,98E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,48E-02	1,24E-02	2,50E-03	0,00E+00	-9,97E-03	9,82E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	2,58E-03	1,23E-03	2,77E-04	0,00E+00	-9,41E-04	2,01E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-2,17E-03	1,83E-03	1,80E-04	0,00E+00	-1,45E-03	-2,73E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,42E-06	1,02E-06	3,97E-07	0,00E+00	-8,99E-08	9,60E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	7,07E+01	8,41E+01	1,35E+01	0,00E+00	-4,35E+01	1,66E+01
Energy (net calorific value) [MJ]	7,82E+01	8,54E+01	2,16E+01	0,00E+00	-4,55E+01	1,67E+01
Energy ren. (net calorific value) [MJ]	1,04E+01	3,44E+00	9,41E+00	0,00E+00	-3,29E+00	8,62E-01
Water consumption [kg]	2,02E+01	1,23E+01	1,11E+01	0,00E+00	-4,19E+00	1,00E+00
Air pollution [m <sup>3</sup> ]	2,80E+02	6,09E+02	7,71E+01	0,00E+00	-4,95E+02	8,92E+01
Water pollution [m <sup>3</sup> ]	1,03E+00	7,19E-01	3,11E-01	0,00E+00	-2,64E-01	2,61E-01
Hazardous waste for disposal [kg]	8,83E-07	1,94E-07	8,87E-09	0,00E+00	-3,12E-08	7,11E-07
Disposed of non-hazardous waste [kg]	5,68E-02	7,51E-02	1,52E-02	0,00E+00	-3,60E-02	2,48E-03
Disposed of radioactive waste [kg]	2,89E-03	4,57E-04	3,22E-03	0,00E+00	-8,07E-04	2,05E-05

evaluated from CML 2001, April. 2015

### 1.3.97 MP-U-I 129-135 M8/10/O16

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2242331	MP-U-I 129-135 M8/10/O16	10	2,826	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	5,418	6,431	1,249	0,000	-3,532	1,270
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	4,05E-14	1,49E-14	3,70E-14	0,00E+00	-1,16E-14	2,06E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,53E-02	1,29E-02	2,61E-03	0,00E+00	-1,03E-02	1,02E-02
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> -eq.]	2,68E-03	1,28E-03	2,89E-04	0,00E+00	-9,76E-04	2,09E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-2,25E-03	1,90E-03	1,87E-04	0,00E+00	-1,51E-03	-2,83E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,50E-06	1,08E-06	4,14E-07	0,00E+00	-9,48E-08	9,98E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	7,41E+01	8,80E+01	1,41E+01	0,00E+00	-4,52E+01	1,73E+01
Energy (net calorific value) [MJ]	8,19E+01	8,94E+01	2,25E+01	0,00E+00	-4,73E+01	1,73E+01
Energy ren. (net calorific value) [MJ]	1,09E+01	3,60E+00	9,82E+00	0,00E+00	-3,45E+00	8,96E-01
Water consumption [kg]	2,11E+01	1,28E+01	1,16E+01	0,00E+00	-4,33E+00	1,04E+00
Air pollution [m <sup>3</sup> ]	2,92E+02	6,32E+02	8,04E+01	0,00E+00	-5,13E+02	9,27E+01
Water pollution [m <sup>3</sup> ]	1,08E+00	7,56E-01	3,25E-01	0,00E+00	-2,75E-01	2,71E-01
Hazardous waste for disposal [kg]	9,20E-07	2,04E-07	9,26E-09	0,00E+00	-3,24E-08	7,39E-07
Disposed of non-hazardous waste [kg]	5,97E-02	7,83E-02	1,59E-02	0,00E+00	-3,71E-02	2,58E-03
Disposed of radioactive waste [kg]	3,01E-03	4,79E-04	3,36E-03	0,00E+00	-8,49E-04	2,13E-05

evaluated from CML 2001, April. 2015

### 1.3.98 MP-U-I 135-141 5" M8/10/O16

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2305377	MP-U-I 135-141 5" M8/10/O16	10	2,917	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	5,618	6,646	1,293	0,000	-3,632	1,311
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	4,20E-14	1,55E-14	3,83E-14	0,00E+00	-1,20E-14	2,13E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,59E-02	1,33E-02	2,71E-03	0,00E+00	-1,07E-02	1,05E-02
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	2,77E-03	1,32E-03	2,99E-04	0,00E+00	-1,01E-03	2,16E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-2,33E-03	1,96E-03	1,94E-04	0,00E+00	-1,55E-03	-2,93E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,56E-06	1,13E-06	4,29E-07	0,00E+00	-9,89E-08	1,03E-07
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	7,69E+01	9,12E+01	1,46E+01	0,00E+00	-4,67E+01	1,78E+01
Energy (net calorific value) [MJ]	8,50E+01	9,27E+01	2,33E+01	0,00E+00	-4,89E+01	1,79E+01
Energy ren. (net calorific value) [MJ]	1,13E+01	3,74E+00	1,02E+01	0,00E+00	-3,58E+00	9,25E-01
Water consumption [kg]	2,19E+01	1,32E+01	1,20E+01	0,00E+00	-4,46E+00	1,07E+00
Air pollution [m <sup>3</sup> ]	3,02E+02	6,52E+02	8,33E+01	0,00E+00	-5,29E+02	9,57E+01
Water pollution [m <sup>3</sup> ]	1,12E+00	7,87E-01	3,37E-01	0,00E+00	-2,84E-01	2,80E-01
Hazardous waste for disposal [kg]	9,52E-07	2,13E-07	9,58E-09	0,00E+00	-3,35E-08	7,63E-07
Disposed of non-hazardous waste [kg]	6,21E-02	8,10E-02	1,64E-02	0,00E+00	-3,80E-02	2,66E-03
Disposed of radioactive waste [kg]	3,12E-03	4,98E-04	3,48E-03	0,00E+00	-8,85E-04	2,20E-05

evaluated from CML 2001, April. 2015

### 1.3.99 MP-U-I 141-147 M8/10/O16

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2305378	MP-U-I 141-147 M8/10/O16	10	3,262	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	6,149	7,373	1,439	0,000	-4,129	1,466
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	4,63E-14	1,65E-14	4,26E-14	0,00E+00	-1,30E-14	2,38E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,77E-02	1,49E-02	3,01E-03	0,00E+00	-1,20E-02	1,18E-02
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	3,09E-03	1,47E-03	3,33E-04	0,00E+00	-1,13E-03	2,41E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-2,60E-03	2,21E-03	2,16E-04	0,00E+00	-1,75E-03	-3,27E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,66E-06	1,17E-06	4,77E-07	0,00E+00	-1,06E-07	1,15E-07
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	8,36E+01	9,95E+01	1,62E+01	0,00E+00	-5,21E+01	1,99E+01
Energy (net calorific value) [MJ]	9,27E+01	1,01E+02	2,60E+01	0,00E+00	-5,44E+01	2,00E+01
Energy ren. (net calorific value) [MJ]	1,25E+01	4,06E+00	1,13E+01	0,00E+00	-3,90E+00	1,03E+00
Water consumption [kg]	2,45E+01	1,50E+01	1,34E+01	0,00E+00	-5,07E+00	1,20E+00
Air pollution [m <sup>3</sup> ]	3,37E+02	7,33E+02	9,26E+01	0,00E+00	-5,95E+02	1,07E+02
Water pollution [m <sup>3</sup> ]	1,21E+00	8,37E-01	3,74E-01	0,00E+00	-3,15E-01	3,13E-01
Hazardous waste for disposal [kg]	1,05E-06	2,24E-07	1,07E-08	0,00E+00	-3,75E-08	8,53E-07
Disposed of non-hazardous waste [kg]	6,64E-02	8,91E-02	1,83E-02	0,00E+00	-4,39E-02	2,98E-03
Disposed of radioactive waste [kg]	3,49E-03	5,36E-04	3,87E-03	0,00E+00	-9,48E-04	2,45E-05

evaluated from CML 2001, April. 2015

**1.3.100 MP-U-I 147-153 M8/10/O16**

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2305379	MP-U-I 147-153 M8/10/O16	10	3,360	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	6,361	7,604	1,486	0,000	-4,239	1,510
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	4,79E-14	1,71E-14	4,40E-14	0,00E+00	-1,35E-14	2,45E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,83E-02	1,54E-02	3,11E-03	0,00E+00	-1,23E-02	1,21E-02
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> -eq.]	3,18E-03	1,52E-03	3,44E-04	0,00E+00	-1,16E-03	2,49E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-2,68E-03	2,27E-03	2,23E-04	0,00E+00	-1,80E-03	-3,37E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,72E-06	1,22E-06	4,92E-07	0,00E+00	-1,10E-07	1,19E-07
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	8,66E+01	1,03E+02	1,67E+01	0,00E+00	-5,37E+01	2,05E+01
Energy (net calorific value) [MJ]	9,59E+01	1,05E+02	2,68E+01	0,00E+00	-5,61E+01	2,06E+01
Energy ren. (net calorific value) [MJ]	1,29E+01	4,20E+00	1,17E+01	0,00E+00	-4,04E+00	1,07E+00
Water consumption [kg]	2,53E+01	1,54E+01	1,38E+01	0,00E+00	-5,21E+00	1,24E+00
Air pollution [m <sup>3</sup> ]	3,47E+02	7,54E+02	9,57E+01	0,00E+00	-6,13E+02	1,10E+02
Water pollution [m <sup>3</sup> ]	1,25E+00	8,69E-01	3,87E-01	0,00E+00	-3,25E-01	3,22E-01
Hazardous waste for disposal [kg]	1,08E-06	2,33E-07	1,10E-08	0,00E+00	-3,86E-08	8,79E-07
Disposed of non-hazardous waste [kg]	6,90E-02	9,20E-02	1,89E-02	0,00E+00	-4,50E-02	3,07E-03
Disposed of radioactive waste [kg]	3,60E-03	5,55E-04	4,00E-03	0,00E+00	-9,85E-04	2,53E-05

evaluated from CML 2001, April. 2015

1.3.101 MP-U-I 154-160 M8/10/O16

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2305380	MP-U-I 154-160 M8/10/O16	10	3,476	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	6,608	7,873	1,542	0,000	-4,370	1,562
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	4,97E-14	1,78E-14	4,56E-14	0,00E+00	-1,40E-14	2,53E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,89E-02	1,59E-02	3,22E-03	0,00E+00	-1,28E-02	1,26E-02
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> -eq.]	3,29E-03	1,57E-03	3,57E-04	0,00E+00	-1,20E-03	2,57E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-2,77E-03	2,35E-03	2,31E-04	0,00E+00	-1,86E-03	-3,49E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,80E-06	1,28E-06	5,11E-07	0,00E+00	-1,15E-07	1,23E-07
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	9,00E+01	1,07E+02	1,74E+01	0,00E+00	-5,55E+01	2,12E+01
Energy (net calorific value) [MJ]	9,97E+01	1,09E+02	2,78E+01	0,00E+00	-5,81E+01	2,13E+01
Energy ren. (net calorific value) [MJ]	1,34E+01	4,37E+00	1,21E+01	0,00E+00	-4,20E+00	1,10E+00
Water consumption [kg]	2,62E+01	1,60E+01	1,43E+01	0,00E+00	-5,37E+00	1,28E+00
Air pollution [m <sup>3</sup> ]	3,60E+02	7,79E+02	9,93E+01	0,00E+00	-6,33E+02	1,14E+02
Water pollution [m <sup>3</sup> ]	1,30E+00	9,07E-01	4,01E-01	0,00E+00	-3,37E-01	3,33E-01
Hazardous waste for disposal [kg]	1,12E-06	2,44E-07	1,14E-08	0,00E+00	-3,99E-08	9,09E-07
Disposed of non-hazardous waste [kg]	7,19E-02	9,54E-02	1,96E-02	0,00E+00	-4,63E-02	3,17E-03
Disposed of radioactive waste [kg]	3,73E-03	5,78E-04	4,15E-03	0,00E+00	-1,03E-03	2,62E-05

evaluated from CML 2001, April. 2015

1.3.102 MP-U-I 160-166 6" M8/10/O16

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2305381	MP-U-I 160-166 6" M8/10/O16	10	3,574	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	6,819	8,104	1,590	0,000	-4,481	1,606
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	5,13E-14	1,85E-14	4,70E-14	0,00E+00	-1,45E-14	2,60E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,95E-02	1,63E-02	3,32E-03	0,00E+00	-1,31E-02	1,29E-02
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> -eq.]	3,39E-03	1,61E-03	3,68E-04	0,00E+00	-1,24E-03	2,64E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-2,85E-03	2,41E-03	2,39E-04	0,00E+00	-1,91E-03	-3,59E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,86E-06	1,33E-06	5,27E-07	0,00E+00	-1,19E-07	1,26E-07
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	9,30E+01	1,10E+02	1,79E+01	0,00E+00	-5,71E+01	2,18E+01
Energy (net calorific value) [MJ]	1,03E+02	1,12E+02	2,87E+01	0,00E+00	-5,98E+01	2,19E+01
Energy ren. (net calorific value) [MJ]	1,38E+01	4,51E+00	1,25E+01	0,00E+00	-4,34E+00	1,13E+00
Water consumption [kg]	2,70E+01	1,64E+01	1,48E+01	0,00E+00	-5,50E+00	1,32E+00
Air pollution [m <sup>3</sup> ]	3,70E+02	8,01E+02	1,02E+02	0,00E+00	-6,50E+02	1,17E+02
Water pollution [m <sup>3</sup> ]	1,35E+00	9,39E-01	4,14E-01	0,00E+00	-3,47E-01	3,43E-01
Hazardous waste for disposal [kg]	1,16E-06	2,53E-07	1,18E-08	0,00E+00	-4,10E-08	9,35E-07
Disposed of non-hazardous waste [kg]	7,44E-02	9,83E-02	2,02E-02	0,00E+00	-4,73E-02	3,26E-03
Disposed of radioactive waste [kg]	3,84E-03	5,97E-04	4,28E-03	0,00E+00	-1,06E-03	2,69E-05

evaluated from CML 2001, April. 2015

1.3.103 MP-U-I 164-170 M8/10/O16

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2305382	MP-U-I 164-170 M8/10/O16	10	3,641	Steel, Polymer

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	6,960	8,259	1,621	0,000	-4,556	1,636
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	5,23E-14	1,89E-14	4,80E-14	0,00E+00	-1,48E-14	2,65E-16
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	1,98E-02	1,66E-02	3,39E-03	0,00E+00	-1,33E-02	1,32E-02
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> -eq.]	3,45E-03	1,64E-03	3,75E-04	0,00E+00	-1,26E-03	2,69E-03
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-2,90E-03	2,46E-03	2,43E-04	0,00E+00	-1,95E-03	-3,65E-03
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	1,91E-06	1,36E-06	5,37E-07	0,00E+00	-1,22E-07	1,29E-07
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	9,50E+01	1,13E+02	1,83E+01	0,00E+00	-5,82E+01	2,23E+01
Energy (net calorific value) [MJ]	1,05E+02	1,15E+02	2,92E+01	0,00E+00	-6,10E+01	2,23E+01
Energy ren. (net calorific value) [MJ]	1,41E+01	4,60E+00	1,28E+01	0,00E+00	-4,43E+00	1,15E+00
Water consumption [kg]	2,76E+01	1,67E+01	1,51E+01	0,00E+00	-5,60E+00	1,34E+00
Air pollution [m <sup>3</sup> ]	3,78E+02	8,15E+02	1,04E+02	0,00E+00	-6,62E+02	1,19E+02
Water pollution [m <sup>3</sup> ]	1,38E+00	9,61E-01	4,22E-01	0,00E+00	-3,54E-01	3,49E-01
Hazardous waste for disposal [kg]	1,18E-06	2,59E-07	1,20E-08	0,00E+00	-4,18E-08	9,52E-07
Disposed of non-hazardous waste [kg]	7,61E-02	1,00E-01	2,06E-02	0,00E+00	-4,81E-02	3,32E-03
Disposed of radioactive waste [kg]	3,91E-03	6,10E-04	4,37E-03	0,00E+00	-1,09E-03	2,74E-05

evaluated from CML 2001, April. 2015



1.3.104 MP-GA M16 (M16)

IT- Number	Product name	Pcs. per Sales pack	Weight [kg]	Material
2244772	MP-GA M16 (M16)	20	0,522	Steel, Polymer, Cardboard

Enviromental impact category	Total	Raw material	Production	Use	End of life	Transportation
Global Warming Potential (GWP 100 years) [kg CO <sub>2</sub> -eq.]	0,515	1,153	0,011	0,000	-0,884	0,235
Ozone Depletion Potential (ODP, catalytic) [kg R11-eq.]	3,43E-13	3,43E-13	3,32E-16	0,00E+00	-6,80E-16	3,81E-17
Acidification Potential (AP) [kg SO <sub>2</sub> -eq.]	2,40E-03	2,59E-03	2,35E-05	0,00E+00	-2,10E-03	1,89E-03
Eutrication Potential (EP) [kg (PO <sub>4</sub> ) <sup>3-</sup> eq.]	4,56E-04	2,62E-04	2,60E-06	0,00E+00	-1,94E-04	3,86E-04
Photochemical Oxidant Potential (POCP) [kg Ethene-eq.]	-4,84E-04	3,52E-04	1,69E-06	0,00E+00	-3,14E-04	-5,24E-04
Abiotic Depletion Potential non-Fossil Resources (ADPE) [kg Sb-eq.]	4,37E-08	2,02E-08	3,72E-09	0,00E+00	1,35E-09	1,84E-08
Abiotic Depletion Potential Fossil Fuels (ADPF) [MJ]	6,33E+00	1,06E+01	1,27E-01	0,00E+00	-7,61E+00	3,19E+00
Energy (net calorific value) [MJ]	6,55E+00	1,08E+01	2,03E-01	0,00E+00	-7,64E+00	3,20E+00
Energy ren. (net calorific value) [MJ]	8,95E-01	8,98E-01	8,83E-02	0,00E+00	-2,56E-01	1,66E-01
Water consumption [kg]	1,29E-01	8,73E-01	1,02E-01	0,00E+00	-1,04E+00	1,92E-01
Air pollution [m <sup>3</sup> ]	3,04E+01	1,18E+02	7,18E-01	0,00E+00	-1,06E+02	1,71E+01
Water pollution [m <sup>3</sup> ]	8,42E-02	7,11E-02	2,93E-03	0,00E+00	-3,99E-02	5,01E-02
Hazardous waste for disposal [kg]	1,46E-07	1,58E-08	8,28E-11	0,00E+00	-6,05E-09	1,37E-07
Disposed of non-hazardous waste [kg]	4,61E-03	1,37E-02	1,42E-04	0,00E+00	-9,73E-03	4,77E-04
Disposed of radioactive waste [kg]	8,72E-05	6,69E-05	3,02E-05	0,00E+00	-1,38E-05	3,93E-06

evaluated from CML 2001, April. 2015