



MCC Pex

Description

Area of application

MCC Pex is a complete plastic pipe installation system. It is a system consisting of the necessary pipes, fittings and tools that are matched. This is to ensure that the installation of MCC vehicle heating systems is easier, safer, more economical, and “environmental friendly” than ever before. The cornerstone of the MCC Pex system are the pipes made of PEX plastic and the unique Quick & Easy fitting technology, which makes installation easy and safe, and in less time.

MCC Pex Pipes

The MCC Pex pipes are made of PEX plastics, which is Crosslinked (X) Polyethylene (PE). This improves the high-temperature properties of the material and provides high cracking resistance and long-life shrinkage resistance. The MCC Pex pipe, produced since 1972, is a well-documented and thoroughly tested product. PEX pipes have almost twice the insulation ability as copper pipes. This means less heat loss and less assembly time (no add-on insulation).

Quick & Easy

Quick & Easy is a state-of-the-art, quick and safe pipe connection technique. It is specially developed for PEX pipe installations, where the inherent elasticity and qualities of the material allow it to recover its original shape after treatment.

The idea of the Quick & Easy method is to expand the pipe and immediately fit the pipe to the fitting. After a few seconds when the pipe has shrunk on the fitting, the connection is finished. Just thirty minutes later, shrinking of the pipe has completely stopped and the system can be pressure tested.



Environmental factors

Another great advantage of the MCC Pex system is its environmental friendliness. The environmental benefits are summarized below for each system component.

Pipe material

PEX plastic is environmentally acceptable, produced in a manufacturing process with low energy consumption. The material can be burnt without forming toxic gases.

Fitting material

Most of the MCC fitting components are made of polyether sulphone plastic. This is a considerably better alternative than brass in terms of environmental impact, while at the same time making the fitting lighter and less expensive.

Quick & Easy technology

The joining of pipes using the Quick & Easy method does not require any compounding substance or a high energy source.

Weight factor

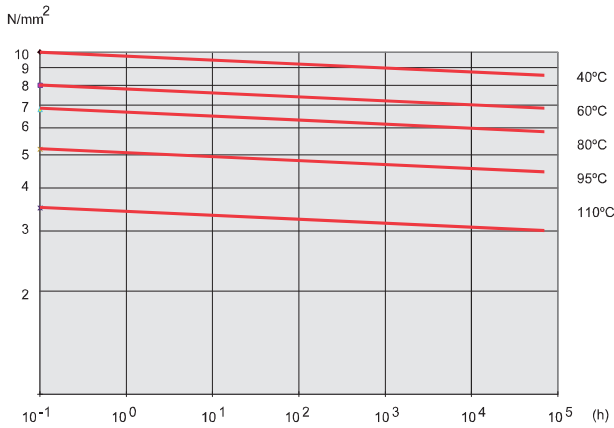
MCC Pex pipes weigh much less than conventional pipes. That translates into savings for the entire process: transport goods-assembly-bus life.

Technical data

Installation dimensions (mm)

MCC Pex 16	A=16 B=2.0	<p>B = wall thickness, mm</p> <p>A = outer diameter, mm</p>
MCC Pex 20	A=20 B=2.0	
MCC Pex 25	A=25 B=2.3	
MCC Pex 32	A=32 B=2.9	
MCC Pex 40	A=40 B=3.7	

The diagram below shows the strength properties of the material vs time for different operating temperatures.



Thermal properties

Operating temperature	-100 till +110°C	
Softening temperature	+133°C	
Coefficient of heat expansion	0,14 m/m°C	at 20°C
	0,205 m/m°C	at 100°C
Thermal conductivit	0,38 W/m°C	

Mechanical properties

Density	938 kg/m³	
Operating pressure	6 bar	at 90° C

Material

PEX-A Cross-Linked Polythene

Quick and easy mounting



1. Thread the support ring over the PEX pipe




2. Expand the PEX pipe with the hydraulic expanding tool





3. Insert the coupling. The MCC Pex pipe will shrink in a few seconds and make a tight, safe coupling. After one hour the PEX pipe is ready for the pressure test!


Products


MCC Pex Pipe & fittings


Description	Part no.
MCC Pex Pipes MCC Pex pipes are produced in straight lengths of 5 m or in 50 m coils MCC Pex 16 = 16mm outside dia. L = length	
MCC Pex 20 L = 5 m	12171
MCC Pex 25 L = 5 m	11463
MCC Pex 32 L = 5 m	11464
MCC Pex 40 L = 5 m	11465
MCC Pex 20 coil L = 50 m	12173
MCC Pex 25 coil L = 50 m	12066
MCC Pex 32 coil L = 50 m	12077
MCC Pex 40 coil L = 50 m	12354

Description	Part no.
QE-Rings QE-ring is used at every fitting end to provide additional strength. QE-ring 16 = 16 refers to the respective pipe size	
QE-ring 20	12478
QE-ring 25	11466
QE-ring 32	11467
QE-ring 40	11468

Description	Part no.
Connection fittings straight Connection fittings straight is used to join MCC Pex tubes QE16 = 16 refers to the respective pipe size.	
Connection straight QE20 plastic	12483
Connection straight QE25 plastic	12482
Connection straight QE32 plastic	12481
Connection straight QE40 plastic	12480


Description	Part no.
Connection fittings elbow QE16 = 16 refers to the respective pipe size.	
Connection elbow QE20 plastic	12486
Connection elbow QE25 plastic	12485
Connection elbow QE32 plastic	11482
Connection elbow QE40 plastic	11483


Description	Part no.
Reducing joints Reducing joints are used as an aFittingdapter from one MCC Pex dimension to another QE20x16 = respective pipe sizes	
Reducing QE25x20 plastic	13838
Reducing QE32x25 plastic	13837
Reducing QE40x32 plastic	13836


Description	Part no.
T-pipes QE16x16x16 = pipe sizes (16 end x 16 middle x 16 end)	
T-pipe QE20x20x20 plastic	12488
T-pipe QE20x16x20 plastic	12495
T-pipe QE20x16x16 plastic	12496
T-pipe QE20x20x16 plastic	12494
T-pipe QE20x25x20 plastic	12493
T-pipe QE25x3/4"x25 brass	11484
T-pipe QE25x16x16 plastic	17554
T-pipe QE25x16x25 plastic	17555
T-pipe QE25x20x16 plastic	17556
T-pipe QE25x20x20 plastic	17557
T-pipe QE25x25x20 plastic	17558
T-pipe QE25x25x25 plastic	11485
T-pipe QE25x16x25 plastic	12491
T-pipe QE25x16x20 plastic	12492
T-pipe QE25x20x25 plastic	12490
T-pipe QE25x32x25 plastic	11488
T-pipe QE32x20x25 plastic	17559
T-pipe QE32x20x32 plastic	17560
T-pipe QE32x25x20 plastic	17561
T-pipe QE32x25x25 plastic	11487
T-pipe QE32x25x32 plastic	17569
T-pipe QE32x32x32 plastic	11486
T-pipe QE32x40x32 plastic	17562
T-pipe QE40x20x32 plastic	17563
T-pipe QE40x20x40 plastic	17564
T-pipe QE40x25x32 plastic	17565
T-pipe QE40x25x40 plastic	17566
T-pipe QE40x32x32 plastic	17567
T-pipe QE40x32x40 plastic	17568
T-pipe QE40x40x40 plastic	11573

Products

MCC Pex Pipe & fittings


Description	Part no.
Adapter with male threads QE16 = 16 refers to the respective pipe size. G = straight pipe threads	
Adapter QE25xG3/4" male	11469
Adapter QE25xG1" male	17572
Adapter QE32xG1" male	11471
Adapter QE40xG1" male	12497
Adapter QE40xG1 1/4" male	11495
Adapter QE25xR3/4" female	11470
Adapter QE32xR1" female	11473

Description	Part no.
Adapter with hose tube end (SRÄ) QE16 = 16 refers to the respective pipe size. SRÄ 18 = refers to the respective hose size.	
Adapter QE25xSRÄ18	13920
Adapter QE25xSRÄ22	11474
Adapter QE25xSRÄ28	12383
Adapter QE32xSRÄ28	11475
Adapter QE40xSRÄ35	14154
Adapter QE40xSRÄ38	11574






Description	Part no.
Adapter with unthreaded internal surface Used for brazing to metal tubes QE16 = 16 refers to the respective pipe size. 15 female = inner diameter	
Adapter QE25x22 female	11476
Adapter QE25x28 female	18300
Adapter QE32x28 female	11477
Adapter QE40x35 female	12694

Description	Part no.
Adapter with swivel connection QE25 = 25 refers to the respective pipe size. R3/4 = conical 3/4 thread size	
Adapter QE25xR3/4" female swivel brass	11472

Tools & Accesories

Description	Part no.
Q&E ProPEX Accu Set 230V The tool will be supplied with a battery charger, 2 batteries, Molykote tool lubricant and operating manual in a black plastic carrying case, weight 8 kg. Technical Data Q&E ProPEX Accu tool: 14,4V 3,3 kg incl battery. Working capacity: Up to pipe size 40x3,7 mm (the tool manage 20 joints per battery charge at ambient temperature 20 °C). (Extra Accu for Propex: MCC nr. 18988)	
	18962

Expander heads

Description	Part no.
Tool Expansion machine M18	
	30-8003
Tool Expansion head 20 mm	
	30-8004
Tool Expansion head 25 mm	
	30-8005
Tool Expansion head 32 mm	
	30-8006
Tool Expansion head 40 mm	
	30-8007