

SOLAR THERMAL RANGE FOR CORRUGATED S/S PIPES

 *Made in Italy* 

Gross Price List 06/2012



MFC Quick Coupling System for Corrugated Stainless Steel Pipe

	DN12	€/kit	DN16	€/kit	DN20	€/kit
Corrugated Pipe Coupling 	MFC 5030 DN12 x DN12	42,80	MFC 5031 DN16 x DN16	47,50	MFC 5032 DN20 x DN20	68,80
Corrugated Pipe to Copper Pipe Coupling 	MFC 5050 - Cu15 DN12 x copper Ø 15	28,80	MFC 5051 - Cu15 DN16 x copper Ø 15	32,00		
	MFC 5050 - Cu18 DN12 x copper Ø 18	31,30	MFC 5051 - Cu18 DN16 x copper Ø 18	34,75	MFC 5052 - Cu18 DN20 x copper Ø 18	50,30
			MFC 5051 - Cu22 DN16 x copper Ø 22	34,75	MFC 5052 - Cu22 DN20 x copper Ø 22	50,30
Corrugated Pipe w. Spigot 	MFC 5060 - D15 DN12 x ØE 15	26,90	MFC 5061 - D15 DN16 x ØE 15	29,80	MFC 5062 - D15 DN20 x ØE 15	43,20
	MFC 5060 - D18 DN12 x ØE 18	28,80	MFC 5061 - D18 DN16 x ØE 18	32,00	MFC 5062 - D18 DN20 x ØE 18	46,35
			MFC 5061 - D22 DN16 x ØE 22	32,00	MFC 5062 - D22 DN20 x ØE 22	46,35
Corrugated Pipe - Male Thread 	MFC 5080 - 1/2" DN12 x 1/2" M	26,95	MFC 5081 - 1/2" DN16 x 1/2" M	29,95	MFC 5082 - 3/4" DN20 x 3/4" M	43,30
			MFC 5081 - 3/4" DN16 x 3/4" M	31,50	MFC 5082 - 1" DN20 x 1" M	43,30
Corrugated Pipe - Female Thread 	MFC 5090 - 1/2" DN12 x 1/2" F	26,00	MFC 5091 - 1/2" DN16 x 1/2" F	28,90	MFC 5092 - 3/4" DN20 x 3/4" F	42,05
	MFC 5090 - 3/4" DN12 x 3/4" F	27,70	MFC 5091 - 3/4" DN16 x 3/4" F	30,75	MFC 5092 - 1" DN20 x 1" F	44,60
Spare Clamping Ring Bag of 20 pcs. 	MFC 5000 - 2B Clamping Ring DN 12	20,70	MFC 5001 - 2B Clamping Ring DN 16	23,00	MFC 5002 - 2B Clamping Ring DN 20	30,00

Patent pending

Tested & approved by SPF Rapperswil - Switzerland
 Test Report Nr. J 144 CON



All prices mentioned are **GROSS** prices for a **KIT OF FOUR PIECES** in polybag, please ask for availability of other sizes. All items designed & manufactured in Italy.

MFC Quick Coupling System for Corrugated Stainless Steel Pipe


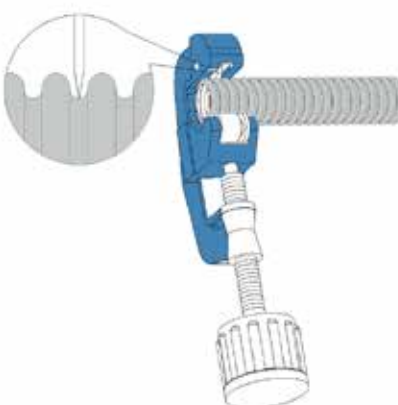
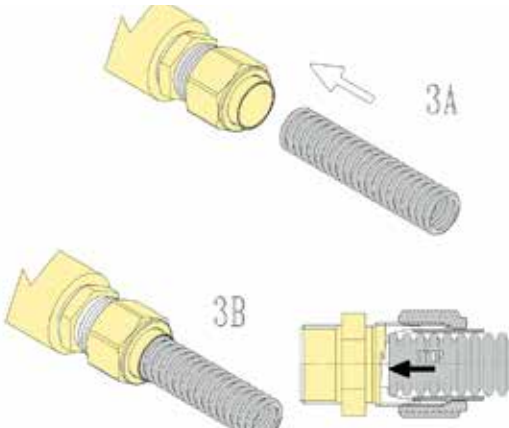
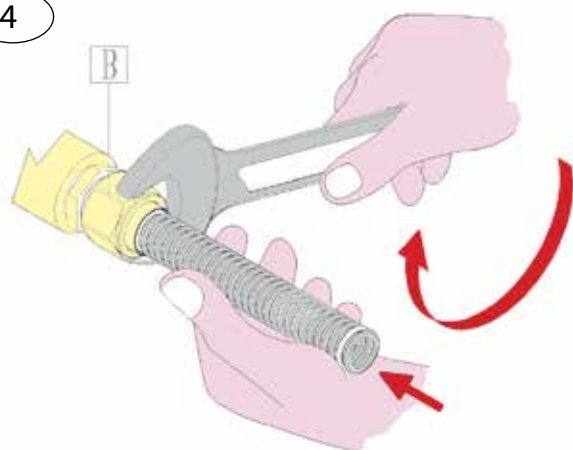
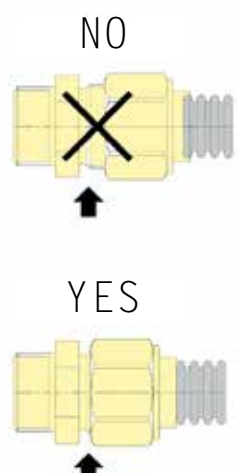
	DN25	€/kit	DN32	€/kit	DN40	€/kit
Corrugated Pipe Coupling 						
	MFC 5033 DN25 x DN25	123,10	MFC 5034 DN32 x DN32	267,75	MFC 5035 DN40 x DN40	337,75
Corrugated Pipe to Copper Pipe Coupling 	MFC 5053 - Cu18 DN25 x copper Ø 18	90,50	MFC 5054 - Cu28 DN32 x copper Ø 28	209,15	MFC 5055 - Cu35 DN40 x copper Ø 35	270,20
	MFC 5053 - Cu22 DN25 x copper Ø 22	90,50				
Corrugated Pipe w. Spigot 	MFC 5063 - D18 DN25 x ØE 18	82,90	MFC 5064 - D28 DN32 x ØE 28	190,10	MFC 5065 - D35 DN40 x ØE 35	249,95
	MFC 5063 - D22 DN25 x ØE 22	82,80				
Corrugated Pipe - Male Thread 	MFC 5083 - 1" DN25 x 1" M	77,50	MFC 5084 - 1 1/4" DN32 x 1 1/4" M	188,75	MFC 5085 - 1 1/2" DN40 x 1 1/2" M	262,75
	MFC 5083 - 1 1/4" DN25 x 1 1/4" M	80,65	MFC 5084 - 1 1/2" DN32 x 1 1/2" M	188,75	MFC 5085 - 2" DN40 x 2" M	262,75
Corrugated Pipe - Female Thread 	MFC 5093 - 1" DN25 x 1" F	75,30	MFC 5094 - 1 1/4" DN32 x 1 1/4" F	173,90	MFC 5095 - 1 1/2" DN40 x 1 1/2" F	236,45
	MFC 5093 - 1 1/4" DN25 x 1 1/4" F	79,80	MFC 5094 - 1 1/2" DN32 x 1 1/2" F	191,30	MFC 5095 - 2" DN40 x 2" F	260,10
Spare Clamping Ring Bag of 20 pcs. 						
	MFC 5003 - 2B Clamping Ring DN 25	54,00	MFC 5004 - 2B Clamping Ring DN 32	170,00	MFC 5005 - 2B Clamping Ring DN 40	210,00

Using our quick coupling system no additional fiber gaskets, tape or other tightening material is required. Please note that our quick coupling system may be adapted to most corrugated s/s pipes with parallel corrugation, in case of interest consult our head office.

All prices mentioned are **GROSS** prices for a **KIT OF FOUR PIECES** in polybag, please ask for availability of other sizes. All items designed & manufactured in Italy.

INSTRUCTIONS

MFC Quick Coupling System for Corrugated Stainless Steel Pipe

<p style="text-align: center; font-weight: bold;">1</p>  <p>1 - Fix the assembled coupling to its intended destination acting with an appropriate tool on hexagon A.</p>	<p style="text-align: center; font-weight: bold;">2</p>  <p>2 - Cut the corrugated pipe in a valley using a pipe cutter. NO HACKSAW !!</p>	<p style="text-align: center; font-weight: bold;">3</p>  <p>3 - When checked against burrs, slip the pipe end into the coupling. Make sure it reaches the bottom of the coupling.</p>
<p style="text-align: center; font-weight: bold;">4</p>  <p>4 -Tighten nut B by at least one turn holding the pipe to the bottom of the coupling so as to secure the pipe, then tighten the nut B with a spanner as far as possible.</p>	<p style="text-align: center; font-weight: bold;">5</p>  <p>5 - After correct fixing the thread is no longer visible.</p>	

No liability will be accepted in case of improper or incorrect use and / or installation. We reserve the right to change / modify / amend any of the features of our products at any given time

This new quick coupling system for corrugated stainless steel pipes is conceived for gasketless connection, thus saving time & tooling costs as well as periodical maintenance efforts.

High-temp resistance and long service life of the system are independently certified.

The clamping ring, being symmetrically designed, may be inserted both ways, so as to avoid mistakes. The system as such is reusable, requiring only a new clamping ring.

- DESCRIPTION OF MFC's QUICK COUPLING SYSTEM -

Here You'll find some more details about our new Quick Coupling System for Corrugated S/S Pipes.

Extremely simple with only three preassembled components, the system allows for massive time savings during installation operations.



One of the main complaints we often heard from some of our business partners is that with a number of existing quick coupling systems the end user is forced to purchase also the pipe from one particular source. With this challenge in mind we considered a great part of the stainless steel pipes with parallel corrugations for solar thermal applications currently available and designed our system so as to accomodate almost all of them.

However, in order to make sure the performance is warranted, we kindly ask You to let us know manufacturer and dimensions of the pipes You're intentioned to use with our system.



Additionally, as solar thermal technology is improving almost on a daily basis, we decided to expand our range including also DN12 as well as DN32 and DN40 (see image), in order to give as much flexibility as possible to the designer while dimensioning solar thermal equipment or whole installations.



Connection kit:
4 Nuts, brass, 4 pipe clips (s/s), 4 flat gaskets, suitable for use in solar thermal systems.

Art. N°	Pipe Size	Thread	Gross Price, € / each
MFC 2002	DN12	1/2"	€ 8,14
MFC 2000	DN16	3/4"	€ 10,56
MFC 2001	DN20	1"	€ 17,12
MFC 2003	DN25	1 1/4"	€ 24,87
MFC 2004	DN32	1 1/2"	Upon Request
MFC 2005	DN40	2"	Upon Request



Connection kit:
4 pipe clips (s/s), 4 flat gaskets, suitable for use in solar thermal systems.

Art. N°	Pipe Size	Thread	Gross Price, € / each
MFC 2082	DN12	1/2"	€ 2,57
MFC 2080	DN16	3/4"	€ 3,26
MFC 2081	DN20	1"	€ 4,39
MFC 2083	DN25	1 1/4"	€ 6,67
MFC 2084	DN32	1 1/2"	Upon Request
MFC 2085	DN40	2"	Upon Request



Elbow, solid forged brass, on side w. nut and compression ring for copper pipe. one side male thread with flat seat for corrugated s/s pipe.

Art. N°	Size	Gross Price, € / each
MFC 2023	1/2" x 15	€ 6,30
MFC 2020	3/4" x 15	€ 6,80
MFC 2026	1/2" x 18	€ 6,44
MFC 2025	3/4" x 18	€ 6,44
MFC 2024	1/2" x 22	€ 6,30
MFC 2021	3/4" x 22	€ 6,80
MFC 2022	1" x 22	€ 10,08



Tee, solid forged brass, male thread, flat seats for corrugated s/s pipe.

Art. N°	Size	Gross Price, € / each
MFC 2013	1/2" x 1/2" x 1/2"	€ 5,78
MFC 2010	3/4" x 1/2" x 3/4"	€ 6,34
MFC 2011	3/4" x 3/4" x 3/4"	€ 6,43
MFC 2012	1" x 1" x 1"	€ 10,82
MFC 2014	1" x 3/4" x 1"	€ 10,49
MFC 2015	1/2" x 1/2" x 3/4"	€ 6,34



Straight fitting, brass, two sides w. male thread and flat seats for corrugated s/s pipe; suitable for collector in - and outlet.

Art. N°	Size	Gross Price, € / each
MFC 2034	1/2" x 1/2"	€ 2,03
MFC 2031	3/4" x 3/4"	€ 3,07
MFC 2033	1" x 1"	€ 4,37
MFC 2036	1 1/4" x 1 1/4"	€ 8,67
MFC 2038	1 1/2" x 1 1/2"	€ 14,65
MFC 2039	2" x 2"	€ 22,56
MFC 2030	3/4" x 1/2"	€ 2,79
MFC 2032	1" x 3/4"	€ 4,58
MFC 2035	1 1/4" x 1"	€ 8,32
MFC 2037	1 1/4" x 3/4"	€ 8,32



Straight fitting, brass, one side w. nut and compression ring for copper pipe, one side w. male thread and flat seat for corrugated s/s pipe

Art. N°	Size	Gross Price, € / each
MFC 2053	1/2" x 15	€ 2,88
MFC 2050	3/4" x 15	€ 3,93
MFC 2056	1/2" x 18	€ 3,49
MFC 2055	3/4" x 18	€ 3,94
MFC 2054	1/2" x 22	€ 4,31
MFC 2051	3/4" x 22	€ 4,42
MFC 2052	1" x 22	€ 5,49



Reducing Nipple, brass with flat seat.

Art. N°	Size	Gross Price, € / each
MFC 2120	1/2" x 3/8"	€ 1,55
MFC 2121	3/4" x 1/2"	€ 2,03
MFC 2122	1" x 3/4"	€ 2,58
MFC 2123	1 1/4" x 1"	€ 4,20
MFC 2124	1 1/2" x 1"	€ 6,15
MFC 2125	1 1/2" x 1 1/4"	€ 4,95



Straight fitting, brass, 3/4" side w. male thread, O-Ring and flat seat for corrugated s/s pipe, flat seat on other side.

Art. N°	Size	Gross Price, € / each
MFC 2042	3/4" x 1/2"	€ 3,02
MFC 2040	3/4" x 3/4"	€ 3,41
MFC 2041	3/4" x 1"	€ 4,97
MFC 2043	1" x 1"	€ 6,20



End cap, brass.

Art. N°	Size	Gross Price, € / each
MFC 2110	1/2"	€ 0,54
MFC 2111	3/4"	€ 0,87
MFC 2112	1"	€ 1,50
MFC 2113	1 1/4"	€ 2,50



Copper pipe connection
Composed of body, two compression rings and two nuts.
Material: Brass CW614N/ CW617N.
More sizes available upon request

Art. N°	Size	Gross Price, € / each
MFC 2130	Nipple 10 x 10	€ 2,57
MFC 2131	Nipple 12 x 12	€ 2,57
MFC 2132	Nipple 15 x 15	€ 3,28
MFC 2133	Nipple 18 x 18	€ 5,66
MFC 2134	Nipple 22 x 22	€ 6,10
MFC 2135	Nipple 28 x 28	€ 8,70
MFC 2146	Elbow 22 x 18	€ 7,00



Soldering Nipple, brass:
one side f. cooper pipe, one side w. male thread and flat seat for corrugated s/s pipe.

Art. N°	Size	Gross Price, € / each
MFC 2061	Ø 15 x 1/2"	€ 2,23
MFC 2065	Ø 18 x 1/2"	€ 3,05
MFC 2064	Ø 18 x 3/4"	€ 3,47
MFC 2062	Ø 22 x 1/2"	€ 3,10
MFC 2063	Ø 22 x 3/4"	€ 3,55
MFC 2060	Ø 22 x 1"	€ 5,51
MFC 2066	Ø 18 x 1"	€ 5,51
MFC 2067	Ø 15 x 3/4"	€ 3,47



Automatic Air-Vent Valve
Solid forged brass body
Max temperature: 200°C
Max working pressure: 10 bar

Art. N°	Therad Size	Gross Price, € / each
MFC 3000	1/2"	€ 7,50



Shut Off Ball Valve
Solid forged brass, chrome plated body
Max temperature: 150°C
PN 40
Seals: PTFE

Art. N°	Size	Gross Price, € / each
MFC 3020	1/2" MF	€ 7,17
MFC 3021	3/4" MF	€ 10,19
MFC 3022	1" MF	€ 15,02
MFC 3030	1/2" FF	€ 6,63
MFC 3031	3/4" FF	€ 9,42
MFC 3032	1" FF	€ 14,09



Flexible S/S pipe w. soldered M or F fittings, mainly used for connecting flat plate collector arrays. Please let us know desired size & length and we'll be glad to submit our relevant offer.

Art. N°	Size	Gross Price, € / each
MFC 7012	DN 12	upon request
MFC 7016	DN 16	upon request
MFC 7020	DN 20	upon request
MFC 7025	DN 25	upon request
MFC 7032	DN 32	upon request
MFC 7040	DN 40	upon request



Termostatic Mixing Valve
Solid forged brass, (Dezincification-Resistant), chrome plated body
Max inflow temp.: 110°C
Seals: NBR

Art. N°	Size	Gross Price, € / each
MFC 3070	1/2" F	€ 63,68
MFC 3071	3/4" F	€ 63,68
MFC 3072	1" F	€ 65,61
MFC 3073	3/4" M	€ 72,81
MFC 3074	1" M	€ 72,81



Safety Valve for Solar Thermal Systems
Solid forged brass body
Seals: in EPDM
Max temperature: 120°C
4 or 6 bar relief pressure

Art. N°	Size	Gross Price, € / each
MFC 3060	1/2" F - 4 bar	€ 13,26
MFC 3061	1/2" F - 6 bar	€ 13,26
MFC 3062	1/2" M - 4 bar	€ 14,21
MFC 3063	1/2" M - 6 bar	€ 14,21



Drain and Filling Valve,
Solid brass forged body
Max temperature: 180°C
Max working pressure: 10 bar
Seals: Reinforced PTFE

Art. N°	Size	Gross Price, € / each
MFC 3040	1/2"	€ 5,91

The material employed for the a.m. items is

Forged Brass CW617N / CW602N acc.to UNI EN 12165,
Turned Brass CW614N acc. to UNI EN 12164-12168,

both suitable for use in solar thermal installations.

Please make sure components are used only in conditions not affecting their performance, i.e. consider carefully the actual environment where the component shall be installed.

Certainly we're at Yr service for any kind of question related to installation conditions, material performance and suitability.
No complaints will be taken into consideration because of poor design of the system, improper use and / or installation of our components.

MFC SOLAR PIPEWORK

Twin pipes in Stainless Steel AISI 316L with EPDM - insulation acc. to ASTM D 635 - ASTM C 177.

Outer protective sleeve in POLIOLEFINE, UV- resistant.

Silicone insulated probe wire.

GROSS PRICES, standard lengths of 10 - 15 - 20 - 25 mt.

MFC 4000 Twin Pipe DN 12 € / mt. 27,50

MFC 4010 Twin Pipe DN 16 € / mt. 28,70

MFC 4020 Twin Pipe DN 20 € / mt. 34,10

MFC 4030 Twin Pipe DN 25 € / mt. 42,60

Packaged in octagonal cardboard boxes 80 x 80 x 30 cms.

UPON REQUEST
DIFFERENT LENGTHS
MAY BE SUPPLIED.

All prices are intended for delivery EX Works 25065 Lumezzane (BS) - Italy



Hammering device
Heavy duty execution, includes two clamps for DN12-DN16-DN20-DN25.

Art. N°	Gross Price, € / each
MFC 6000	€ 149,50

Established in 1986, Messrs MFC S.r.l. started as a supplier of various OEM parts in forged and machined brass for many different applications.

With approx. 25 employees and 7 transfer machines we are in condition to satisfy demands for almost any kind of brass components, some of which may be seen on our website www.mfcsrl.it, where You'll find also our ISO9001:2008 certificates.

Standard available brass alloys include CW617N, CW602N (DZR), CW614N as well as lead-free brass; other alloys are available upon demand.

Based in one of the most important metalworking areas in Europe, we work in close co-operation with many sub-suppliers and are thus in condition to source valves, components, cast or turned parts, spares, surface treatments a.s.o.

In the meantime, being that solar thermal systems are becoming more and more popular throughout Europe and the World, we studied a range of solar thermal components suitable for most part of the currently available systems.

These often overlooked but still essential components were carefully and specifically designed in order to withstand thermal and mechanical stresses, so as to ensure the uninterrupted exploitation of the system itself. **All parts are manufactured in Italy**, material is brass acc. to . EN12164 - 12165 - 12168, suitable for use in solar thermal installations.

As everybody is trying to get into Photovoltaics and considering the financial aspects involved, one would say why address the issue of components for solar thermal systems ?

This question has some comparatively obvious answers, i.e., firstly, we prefer to offer our advice and co-operation in areas where as specialists in metal working our expertise is solid and well founded, so as to be in condition to get the best possible results, from the manufacturer down to the final consumer, who definitely will be happy with the solar thermal product he purchased.

Another key reason is that the conversion of solar irradiation directly into heat energy for e.g. domestic purposes is one of the less cost-intensive, i.e. cheapest, forms of renewable energy: as a matter of fact, the investment cost per kWh for solar thermal systems in domestic environments is merely a fraction of what a comparable PV - based system would require, not to mention the much lower operating costs.



Therefore, we're confident that in realising at our best what is within our scope of possibilities, and helping others, be they customers or final consumers, in achieving a change from burning non-renewable fossil fuels, we're actually giving a contribution, however small, towards the improvement of our own environment.

Yours sincerely,

MFC S.r.l.

Fulvio & Carlo Ponchiardi, Owners & Managing Directors

Founded in Lumezzane (Brescia) in 1986 by Mario Ponchiardi, with a previous background of 40 years experience as owner of a faucet production, he used to run the company with his sons Fulvio and Carlo.

MFC is originally a high precision machining company of brass, aluminium, zamac and special steel OEM parts according to customer's drawing and/or sample for almost any kind of industrial application.

Great flexibility and a continuous updating of machinery and technical innovations are the base of customer satisfaction for constant high quality and delivery service.



Our company received the quality certification according to UNI EN ISO 9001: 2008 .



Starting from Yr drawings and/or samples, we're in condition to engineer forging moulds, machining tools a.s.o. for Yr OEM parts, taking into account all details of the manufacturing process.

In co-operation with various specialized companies we are able to complete the machined parts with surface treatments (polishings, nickel or chrome plating) or minor assemblies (orings, nuts, screws, ...). With up to date equipment and well founded expertise we're able to machine forged or cast brass parts of up to almost 10 Kgs of weight, here a few exemples of rather demanding projects.



In case of need for any further info and / or RFQs we'll be glad to read / hear from You anytime.



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