



HYDRAULIC HOSES, COUPLINGS & EQUIPMENT

THE WORLD OF MACHINES



INNOVATION

Grease-free means a safer, cleaner working environment

Gates self-assembly machinery high productivity wherever you need it



Gates self-assembly machinery can cut your maintenance costs, boost productivity and outperform others thanks to our focus on design, innovation and top-quality materials. The range covers all your needs from workshops to mobile service operations and even on-site field crimping. Our self-assembly machinery programme gives you:

Lower maintenance costs from grease-free machines

Gates self-assembly machinery cuts your maintenance costs by running grease free. Gates crimpers come with a unique, self-lubricating slide bearing system that cuts out metal-to-metal abrasion between master dies and the crimper head and cuts friction by 20%. This also means your working environment is cleaner. Less dirt and debris means you can benefit from reduced downtime and a lower total cost of ownership.

Reliable high performance from quality materials

Every hose assembly is a Gates ambassador. It's our reputation in action. We are the world's most trusted brand name in fluid power transmission because we pay meticulous attention to quality standards in all crimping, cutting and marking applications and conduct extensive quality testing before shipment. Our superior product quality and optimal claims-handling procedure keep your systems and operations running smoothly.

Easy-to-use products improve productivity

It's true. That's why all Gates applications for crimping, cutting and marking are designed to ensure fast, comfortable handling. In our electrical-driven crimpers, a standard built-in storage rack lets you choose dies quickly, and die sets are easy-to-reach and organised logically. Field service crimping devices are portable and come with a detachable die storage case, solid and durable handles and resistant rubber protection layers. Customers tell us our ergonomic design is highly valued both for its contribution to higher productivity figures and its fast approval by local Health and Safety Executives.





The Gates range of self-assembly machinery covers all your needs from workshops to mobile service operations and even on-site field crimping.

Gates self-assembly machinery gives you quality, high performance and a premium-quality image



SELF-ASSEMBLY MACHINERY

Workshop

In the Gates workshop, safe, fast and efficient assembly of hydraulic hoses and couplings is made simple. All machines are custom-designed to work with a well-defined range of Gates hoses and couplings allowing production of factory-quality assemblies fully complying with European Directives and the most stringent international standards.

No matter what your workshop needs, whether you are a starter, a professional, or a full-service workshop, Gates has the right product offering for you.



	Cutting	Marking	Crimping
	MKX 50	MSX 50	MCX 50
Full service 2"			
	MKX 30	MSX 50	MCX 30
Professional service up to 1.1/4"			
	MKX 25	MSX 50	MCX 25
Starter up to 1"			




Mobile service

A Gates hose assembly is much more than the sum of its components. It is the combined result of a rigorous test regime and of a tightly controlled manufacturing process, both at Gates and at the point of assembly.

To reduce the risk of premature failure due to variations in the assembly process, Gates has developed a special proposition for mobile service operations allowing them to benefit from the simplified and superior Global range of no-skive hoses and couplings.

Thanks to the Gates Integrated System, mobile service operators can offer their customers the superior quality and performance which make the world's most trusted hose assemblies.



	Cutting	Marking	Crimping
	MKX 25	MSX 50	MCX 30
Professional service up to 1.1/4"			
	MKX 25	MSX 50	MCX 25
Starter up to 1"			

SELF-ASSEMBLY MACHINERY

Field service

In the field, every minute counts. In today's environment, equipment, whether it be agricultural, construction or mining, simply cannot afford unnecessary downtime. That's why Gates has developed a range of small, portable and easy-to-use crimpers specifically designed for end-users on site.

Since these simple, lightweight machines are designed as part of the Gates Integrated System, end-users are assured of factory-quality no-skive assemblies – even in the field!



	MCX 20	
<i>No-skive spiral hose up to 1"</i>		
	MC 1001 manual	MC 1001 air operated
<i>Wire-braid hose up to 1"</i>		

Crimping machines: overview

MC 1001

Lightweight, portable crimper designed for reliability in field service. Comes with separate box, designed to contain complete set of dies. The pneumatic version has a foot-operated air pump. Crimps no-skive MegaCrimp® couplings for wire-braid hose up to 1”.



Ref: 7480-19164: manual machine



Ref: 7480-19165: air operated machine

MCX 20

Powerful, lightweight, portable hand-operated crimper, ideal for field service operations. Comes with separate box, designed to contain complete set of dies. Crimps no-skive GlobalSpiral™ couplings up to 1” and no-skive MegaCrimp® couplings for wire-braid hose up to 1.1/4”.



Ref: 7480-19181

Crimping machines: overview

MCX 25

Compact crimper for low-volume production. Ideal as starter machine or for small workshops. Crimps no-skive GlobalSpiral™ couplings up to 1" and no-skive MegaCrimp® couplings for wire-braid hose up to 1.1/4". Equipped with a die set storage rack allowing for logically organised die storage within easy reach of the operator, thus speeding up die selection and assembly. Also available for mobile service with DC power pack.



Ref: 7480-19184: 3 phase / 7480-19183: 1 phase / 7480-19182: 12V

MCX 30

Compact, operator-friendly machine to crimp the complete Gates range up to 1.1/4". Optional foot pedal to enable hands-free operation. Equipped with a die set storage rack allowing for logically organised die storage within easy reach of the operator, thus speeding up die selection and assembly. Also available for mobile service with DC power pack.



Ref: 7480-19187: 3 phase / 7480-19186: 1 phase / 7480-19185: 12V

MCX 50

Full-range crimper (up to 2" six spiral wire hose) for the professional workshop. Optional foot pedal to enable hands-free operation. Equipped with a die set storage rack allowing for logically organised die storage within easy reach of the operator, thus speeding up die selection and assembly.



Ref: 7480-19188: 3 phase

Crimping machines: accessories

Quick die change

The universal quick die change allows fast and easy change of dies without risk of damage to the die sets. The transparent shield of the quick die change allows you to quickly and safely position die sets into the master dies of the crimper head. A single press of the closing button is enough to lock the dies safely in place and rapidly produce a perfect hose assembly. When buying an electrical crimper, the QDC that goes together with the respective machine will be included in the package.



Ref: 7480-19194: QDC MCX 25 7480-19195: QDC MCX 50
7480-19200: QDC MCX 30

Marking dies

To facilitate compliance with the European Machinery Directive, which insists that finished assemblies are marked with the manufacturer's name and the manufacturing date code, a range of marking dies is now available for the MCX 50, MCX 30, MCX 25 and MCX 20 machines.



Please contact Gates for order information.

MCX-matic electronic control

For workshop professionals who want to automate their assembly production and limit the chance for micrometer setting mistakes, MCX-matic electronic control is available. This built-in feature with pressure force display eliminates manual gauge setting and controls the maximum pressure needed for your requested crimp diameter.



Ref: 7480-19196

e-Crimp: online crimp settings in seconds

You no longer need to search through a stockpile of cd-roms to find the correct crimp settings. Go to www.gates.com/europe/e-crimp and use our fast sign-up procedure to obtain correct crimp settings in seconds! After logging in, you can access the Crimp Data Sheets, sorted by machine type. Select your machine type and print out an up-to-date sheet with accurate crimp data information or download the pdf documents to your desktop or mobile devices. Regular e-mails from our engineers keep you up to date about the newest crimp settings in the market.



Crimping machines: technical specifications

Crimpers		MC 1001		MCX 20	
		manual	pneumatic	manual	
power supply		--	7bar/100psi	--	
maximum capacity	WB	1"	1"	1.1/4"	
	4SW	--	--	1"	
	6SW	--	--	--	
crimping force (ton)		27	27	90	
motor (kW)		--	--	--	
die set		MC1000-Dxx	MC1000-Dxx	263-Dxx	
cycle time (sec)		--	--	--	
die storage		box	box	box	
dimensions (mm)	H	460	460	370	
	W	280	280	450	
	L	390	390	470	
weight (kg)		24	22	35	
product number		7480-19164	7480-19165	7480-19181	
options	marking dies	--	--	x***	
	quick die change	--	--	--	
	MCX-matic control	--	--	--	
	back stop	--	--	--	
	foot pedal	--	standard	--	

	MCX 25			MCX 30			MCX 50
	DC	1 phase	3 phase	DC	1 phase	3 phase	3 phase
	12V	220V	380V	12V	220V	380V	380V
	1.1/4"	1.1/4"	1.1/4"	1.1/4"	1.1/4"	1.1/4"	2"
	1"	1"	1"	1.1/4"	1.1/4"	1.1/4"	2"
	--	--	--	1.1/4"	1.1/4"	1.1/4"	2"
	130	130	130	180	180	180	280
	1.8	2.2	3	1.8	2.2	3	5.5
	239-Dxx	239-Dxx	239-Dxx	239-Dxx	239-Dxx	239-Dxx	239*/237-Dxx
	39	39	19	41	41	20	18
	rack	rack	rack	rack	rack	rack	rack
	550	790	790	550	790	790	1400
	475	600	600	475	600	600	580
	395	550	550	395	550	550	610
	115	160	160	125	170	170	410
	7480-19182	7480-19183	7480-19184	7480-19185	7480-19186	7480-19187	7480-19188
	x**	x**	x**	x**	x**	x**	x**
	x	x	x	x	x	x	x
	--	--	--	--	--	--	x
	--	--	--	--	--	--	7480-19198
	--	--	--	--	--	--	7480-19199

* only with intermediate dies
** marking die in type 239 only up to 239-D37
*** marking die in type 263 only up to 263-D35

Cutting machines: overview

MKX 25

Compact cutting machine, perfectly suitable for the small workshop. Cuts up to 1.1/4" four spiral wire hose.



Ref: 7480-19190: 1 phase / 7480-19189: 12V

MKX 30

Robust cutter for all types of workshops. Cuts up to 1.1/4" six spiral wire hose.



Ref: 7480-19191: 3 phase

MKX 50

A heavy-duty pneumatic hose cutter allowing quick and reliable production across all hose size ranges. Cuts up to 2" six spiral wire hose. For workshop professionals who want to further enhance their set-up and improve the ease-of-use, we have a complete kit available including also a machine table and air compressor.



Ref: 7480-19192: 3 phase / 7480-19197: 3 phase with compressor kit

Cutting machines: technical specifications

Cutters		MKX 25		MKX 30	MKX 50
		DC	1 phase	3 phase	3 phase
power supply		12V	220V	380V	380V
maximum capacity	WB	1.1/4	1.1/4"	1.1/4"	2"
	4SW	1.1/4"	1.1/4"	1.1/4"	2"
	6SW	--	--	1.1/4"	2"
motor (kW)		2.0	2.2	3.0	4.6
brake motor		--	--	x	x
suction connection (mm)		40	40	80	60
cutting blade		250x2.5x40	200x1.6x30	275x3x30	400x4x30
dimensions (mm)	H	365	540	300	478
	W	567	510	440	677
	L	470	400	540	868
weight (kg)		29	20	50	130
product number		7480-19189	7480-19190	7480-19191	7480-19192



Tools

Marking machine

This hand-operated marking machine is a precise, compact service-free bench unit for Gates ferrules, one-piece and two-piece fittings. The MSX 50 is equipped with a hand wheel to adjust the character setting to the ferrule for the requested marking depth. The slot in the character holder allows for easy character placement. Please contact Gates for order info on the required characters.



Ref: 7480-19193

MegaCrimp® vernier caliper

A handy tool which measures finished outside diameters. Special design for easy measuring of the finished diameters on -4, -5 and -6 MegaCrimp®. Comes in a solid case.



Ref: 7369-0322

MegaCrimp® insertion tool

The MegaCrimp® coupling insertion tool offers an easy way to confirm the right insertion depth for all Gates wire-braid hydraulic hoses. It also verifies the squareness of cut!



Ref: 7482-1342

Rotational table

Rotational table ideal for the unwinding of hose coils.



Ref: 7480-19135

Die selection matrix

-size	Hose					Coupling	Die	MC 1001	MCX 20	MCX 25	MCX 30	MCX 50
								MC1000-Dxx	263-Dxx	239-Dxx	239-Dxx	239*/237-Dxx
-4	M6K	M5K	M4K	M3K		G	D21	x	x	x	x	x
	CM2T	G2	G1	G1H	GTH	G	D21	x	x	x	x	x
			TH8	TH7	ACR	G	D21	x	x	x	x	x
-5	2JC	1JC	GP80+	GP60	GP40	G	D21	x	x	x	x	x
		M5K	M4K	M3K		G	D22	x	x	x	x	x
	CM2T	G2	G1		GTH	G	D22	x	x	x	x	x
-6				TH7		G	D22	x	x	x	x	x
	2JC	1JC	GP80+	GP60	GP40	G	D22	x	x	x	x	x
		M5K	M4K	M3K		G	D22	x	x	x	x	x
-8	CM2T	G2	G1	G1H	GTH	G	D22	x	x	x	x	x
			TH8	TH7	ACR	G	D22	x	x	x	x	x
	2JC	1JC	GP80+	GP60	GP40	G	D22	x	x	x	x	x
	EFG6K	EFG5K	EFG4K			GS	D33		x	x	x	x
-10		M5K	M4K	M3K		G	D33	x	x	x	x	x
	CM2T	G2	G1	G1H	GTH	G	D33	x	x	x	x	x
			TH8	TH7	ACR	G	D33	x	x	x	x	x
-12	2JC	1JC	GP80+	GP60	GP40	G	D33	x	x	x	x	x
		EFG6K	EFG5K	EFG4K			GS	D33		x	x	x
			M4K	M3K		G	D34	x	x	x	x	x
-16	CM2T	G2	G1	G1H	GTH	G	D34	x	x	x	x	x
					ACR	G	D34	x	x	x	x	x
			GP80+	GP60	GP40	G	D34	x	x	x	x	x
	EFG6K	EFG5K	EFG4K			GS	D35		x	x	x	x
-20			M4K	M3K		G	D35	x	x	x	x	x
	CM2T	G2	G1	G1H	GTH	G	D35	x	x	x	x	x
		GMV	TH8	TH7	ACR	G	D35	x	x	x	x	x
-24			GP80+	GP60	GP40	G	D35	x	x	x	x	x
		EFG6K	EFG5K	EFG4K			GS	D35		x	x	x
				M3K		G	D37	x	x	x	x	x
-32	CM2T	G2	G1	G1H	GTH	G	D37	x	x	x	x	x
		GMV	TH8	TH7	ACR	G	D37	x	x	x	x	x
			GP80+	GP60	GP40	G	D37	x	x	x	x	x
	EFG6K	EFG5K	EFG4K			GS	D37		x	x	x	x
-40						G	D39		x	x	x	x
		G2	G1	G1H		G	D39		x	x	x	x
		GMV			ACR	G	D39		x	x	x	x
-48			GP80+	GP40		G	D39		x	x	x	x
			EFG4K	EFG3K		GS	D39				x	x
		EFG6K	EFG5K			GS	D310				x	x
-56						GSP	D310					x
		G2	G1	G1H		GSP	D310					x
		GMV			ACR	GSP	D310					x
-64			GP80+	GP40		GSP	D310					x
				EFG3K		GSP	D311					x
		EFG6K	EFG5K			GSH	D311					x
-72						GSP	D312					x
		G2	G1	G1H		GSP	D312					x
		GMV			ACR	GSP	D312					x
-80			GP80+			GSP	D312					x
				EFG3K		GSP	D313					x
			EFG5K			GSH	D314					x

wire braid reinforcement

4 spiral wire reinforcement

6 spiral wire reinforcement

* only with intermediate dies

New services from Gates that put you on guard against hose problems and potential failures

Sentry™ Services – Web-based application for hose assembly tracking and management incorporating data depository for Sentry™ IQ and Sentry™ ID.

Sentry™ IQ

Prevent breakdowns before they happen

To improve uptime and productivity and cut operating costs our engineers have developed a system that warns of impending hose failure. Called Hose Diagnostic and Monitoring System, or Sentry™ IQ, it gives equipment operators early warning of hose problems and potential failures.

What it does and how it works

This new predictive-maintenance technology from Gates monitors pressure and temperature in a hydraulic hose to gauge the remaining hose life. At the heart of the system is an Electronic Control Unit (ECU) that's programmed to watch for signs of trouble in the hoses you're monitoring.

It can monitor up to four sensors located in different areas of the hose system and each sensor can monitor up to six different hoses in that area. Every hose monitored can be of a different construction and operate at a different pressure.



Sentry™ IQ is like a daily inspection of the hose from the inside out. By estimating how close a hose is to the end of its life and, when appropriate, issuing a warning, Sentry™ IQ tells maintenance technicians before it fails. It's ideal for equipment where hose failures can cause you expensive downtime, compromise safety and need costly repair and clean up.

Easy to monitor – wherever you are

Sentry™ IQ keeps you up to date with hose conditions in three different ways. It stores all data in the ECU, even when powered off you can read the data about fault conditions on-site:

- From the LED display;
- From a direct computer link;
- Through a remote transmitter.

The technology is suitable for both new OEM designs and aftermarket applications.



Sentry™ ID

We have another pro-active maintenance tool in the Hose Sentry™ range – using Radio Frequency Identification. We call it Sentry™ ID and it lets you quickly identify and track your hose assemblies.

What it does and how it works

Collecting and noting down hose assembly details in the field can be a difficult, time-consuming and expensive task, especially for remote equipment or in harsh conditions.

Sentry™ ID technology lets you store hose assembly information on flexible, plasticised ID tags. These high-radio-frequency tags enable maintenance technicians to electronically read and identify the exact hose needed when the time comes for testing or replacement. The tags not only speed turnaround but give you valuable information on hose performance and inventory to guide future hose assembly selection.



Gates Sentry™ IQ and Sentry™ ID – the smart way to prevent equipment breakdowns before they happen

