

# **Special Equipment**

Solutions for every requirement.



#### Universal

For all types of hoses and fittings.



### Greaseless

Slide bearings on the crimp tool improve efficiency up to 20%, reduce friction and help keep the tool free of contaminants.



Environment friendly

Engineered to last.



KS 6 | KS 8 | KS 10



HMC 1-25 I HMC 1-30



HM 245







HMC 12-2000











The UNIFLEX KS 6, KS 8 and KS 10 are designed for precision crimping and calibration.



**High-level components and system solutions** 

#### Slide bearing technology

Grease-free for extra cleanliness and prolonged service life

Maximised productivity at very low operating costs

Chips brush off easily, minimising tool wear

Clean machining area

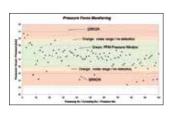
Reduces crimping force loss by up to 20%

High process stability and reproducible accuracy

**CE** complian

### Standard - Pressure Force Monitoring

# PFM – Standard on all machines with Control C.2



Quality-enhancing option for series production. With PFM, the upper and lower pressure limits can be set by adjusting the tolerance values obtained from test pressing.

Pressures outside these limits are output as errors. It is possible to let the machine switch off at a fixed upper or lower limit, thereby obtaining a higher process safety.

This way you can display and record combinations of incorrect hose and fittings, skipped work stage, such as skiving of the hose or a poorly positioned hose-fitting connection. Achieve integrated quality control without any additional effort.

### **Standard**



PS Double foot pedal

We reserve the right to make technical changes without notice. Options are machine parts that can only be ordered while buying the machine



KS 6, KS 8, KS 10

Technical data	KS 6	KS 8	KS 10
Crimp force (kN/Ton)	500/50	800/80	1 800/180
No grease: 20% less friction	✓	1	1
Control	Control C.2	Control C.2	Control C.2
Max. crimping range	55 mm	139 mm	139 mm
Opening	+25 mm	+45 mm	+45 mm
Opening without dies	95 mm	190 mm	190 mm
Type of dies	PBK 239	PBK 237	PBK 237
Speed (mm/sec) Close Crimp Open	12 12 30	7 7 15	3,5 3,5 6
Noise level	58 dBA	58 dBA	58 dBA
Drive	5,5 kW 3 VAC	5,5 kW 3 VAC	5,5 kW 3 VAC
Oil	80 L	80 L	80 L
L x W x H (mm)	1 000 x 1 000 x 1 700	1 000 x 1 000 x 1 700	1 000 x 1 000 x 1 700
Weight	470 kg	570 kg	570 kg

Type of dies			
\$	PBK 239	PBK 237	
Ø mm	mm	mm	
12	3	3	
14	3	3	
16	4	4	
19	4	4	
22	4,5	4,5	
24	4,5	4,5	
26	4,5	4,5	
28	4,5	4,5	
32	5	5	
36	5	5	
40	5	5	
44	5	5	
47	5	5	
50		5	
54		5	
57		5	
62		5	
67		5	
71		5	
74		5	
78		5	
84		5	
86		5	
90		5	
96		5	
103		5	
106		5	

### Accessories

### Control C.2: Accessories



OC KS6/KS8 MVA



Customized software



Electronic caliper



Calibration mandrel





UTS/UDL Data transfer





807.2 UNIFLEX label system Screen protector

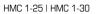






Press designed specifically for the production of automotive hoses. A good example for such a tailor-made solution is the HMC 1-25, HMC 1-30 and HM 245 with C-shaped crimping tool designed for radial insertion of complex hose lines. This special press is an ergonomically designed, low-noise machine that requires no lubrication. It has been specifically devised for the production of hoses for the automotive industry, offering outstanding press forces and precision. With PFC and other optional features, you can adjust the press force to process materials that are easily damaged, producing strong and lasting connections without any need for gluing, screwing or welding.







HMC 245

### Innovative design with C-shaped crimping tools

Compact dies for easy crimping of  $90^{\circ}$  elbow fittings

Radial workpiece insertion

#### High-level components and system solutions

Quality pumps designed for low-noise operation

#### Slide bearing technology

Optimised productivity with minimum maintenance costs

Reduces crimping force loss by up to 20%

Grease-free for extra cleanliness and prolonged service life

No greasy dirt deposits

#### **New Control C user interface**

Touch control screen

Programmable crimp dimensions and pressure measurement

Large product memory for efficient production management

HID compliant

**CE** compliant

### **Package**

HMC 1-25 | HMC 1-30

Package = Machine

+ PB Ø 17, 20, 24, 28, 32, 40, 44, 50

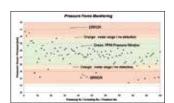
HM 245

Package = Machine

+ PB Ø 17, 20, 24, 28, 32, 40, 44, 50

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This way you can display and record combinations of incorrect hose and fittings, skipped work stage, such as skiving of the hose or a poorly positioned hose-fitting connection. Achieve integrated quality control without any additional effort.

### **Technical Data**





HMC 1-25 | HMC 1-30

HM 245

Technical data	HMC 1-25	HMC 1-30	HM 245
Crimp force (kN/Ton)	250/25	300/30	750/75
No grease: 20% less friction	1	1	1
Control	Control C.2	Control C.2	Control C.2
SAE R 12* 1 piece fitting			1"
SAE R 12* 2 piece fitting			3/4"
Industry	1"	1"	1"
Max. crimping range	70 mm	70 mm	70 mm
Radial opening			75 mm
Opening without dies	90 mm	90 mm	105 mm
Type of dies	239	239	239
Speed (mm/sec) Close Crimp Open	30 5 50	30 5 50	27 5 30
Noise level	< 80 dBA	< 80 dBA	53 dBA
Drive	4 kW	4 kW	4,0 kW
Oil	100 L	100 L	100 L
L x W x H (mm)	650 x 590 x 1 700	650 x 590 x 1 700	1 020 x 950 x 1 450
Weight	320 kg	320 kg	610 kg

\* According to the fitting.

### **Additional Information**





Radial insertion of workpieces, catering even to 90° bends.

Sliding table with handle.





when crimping jaws

Double head system.

are closed.

\$	239 - 38
Ømm	mm
6,8	38
9	38
10	38
12	38
14	38
16	38
17	38
19	38
20	38
22	38
24	38
26	38
28	38
30	38
31	38
32	38
34	38
36	38
38	38
39	38
40	38
44	38
47	38
50	38
54	38
57	38
62	38

# Type of dies (HM 245)

-\$	239
Ø mm	mm
6,8	50
9	50
10	50
12	50
14	60
16	60
17	60
19	60
20	60
22	60
24	60
26	75
28	75
30	75
31	75
32	75
34	75
36	75
38	75
39	75
40	75
44	75
47	75
50	75
54	75
57	75
62	75

### Accessories



PTS Die marking



OC HM 3xx/HM 245



Sliding table with handle



Customized software



Control C.2: Accessories

Electronic caliper



Calibration mandrel



Barcode scanner





PS.2 Double foot pedal



UTS/UDL Data transfer



ULS



807.2 UNIFLEX label system Screen protector

Our production crimper models HM 380, HM 480, HM 495, HM 660, HM 665 and HM 1200 are ideal for the crimping of insulators, cables, steel ropes and reinforcing steel elements.



#### High-level components and system solutions

 $\mbox{HiLo}$  cylinder - for enhanced power without extra heat/risk of overheating

Compact ergonomic design

Large basic jaws suitable for the crimping of virtually any fitting type

Lateral reinforcement for optimised product quality

Low-noise operation thanks to special pumps

#### Fixed 6-o'clock die

For force-free and accurate workpiece positioning

Enhanced productivity

Improved workplace safety and less stress for operating personnel  $% \left( 1\right) =\left( 1\right) \left( 1\right) \left$ 

#### Slide bearing technology

Grease-free for extra cleanliness and prolonged service life

Maximised productivity at very low operating costs

Chips brush off easily, minimising tool wear

Hoses remain grease-free

- Ideal for hoses designed for the food or pharmaceutical industry
- Reduced tool wear

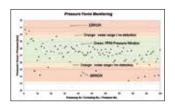
Reduces crimping force loss by up to 20%

High process stability and reproducible accuracy

#### CE complian

### Standard

# PFM – Standard on all machines with Control C.2



Quality-enhancing option for series production. With PFM, the upper and lower pressure limits can be set by adjusting the tolerance values obtained from test pressing.

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HM 380 I HM 480 HM 660 I HM 1200











(Cooper-) Cable

**Rebar fasteners** 

Insulator

Heater

Aircon hose

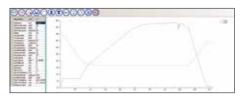






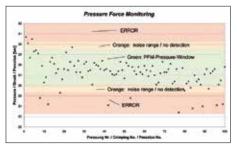


Special dies for forming tubes with square or round ends.



**Option: PFC** 

PFC (Pressure Force Control) makes it possible to crimp pressure-sensitive work pieces, such as fiberglass insulators, resulting in a stable connection that will endure extreme forces. PFC is based on the adjustability of the applied crimp force to take into account the individual material characteristics. This secures the highest quality of your products without having to glue, screw or weld! It is a special demand for a machine crimping with PFC. To find the ideal crimper for you, please contact your local UNIFLEX salesperson.



Standard: PFM

PFM gives you the option to achieve a substantial quality improvement - for a comparatively small investment of time and money. Here is how it works: After each crimp process with the PFM-Option the reached crimp value is shown. From these measures, the start values for the upper or lower pressure limit can be determined. During each crimp process, the permanently measured crimp value is compared to the entered limits. If this exceeds the set limits, an error message  $\frac{1}{2}$ is shown. At the end of the crimp process, it is tested once more if the minimal pressure has been reached. In the case of an error, the operator has the option to check the workpiece thoroughly and to correct any sources of the error. During a detailed examination with the PFM-option, the quality of a production process was increased from 97.8% to 99.7%. The UNIFLEX PFM option revealed that 2% of all produced parts had defects, thus preventing these defective parts from being delivered to customers.



Accessories: UTS/UDL

UTS enables a comfortable article entry via a PC. The data can be entered in a set MS Excel-sheet and be transferred with UTS to the Control C.2. Therefore, it is possible to compare the data from a number of machines, provide documentation and backup in one go. All crimpings can be documented with UTS, especially with the PFM option, which saves the pressure value as an additional parameter.

### **Accessories**

### Control C.2: Accessories



PTS Die marking



OC HM 3xx/HM 245



QDS 239 C LUF



Customized software

PS.2 Double foot

nedal



Electronic caliper





DMS



Calibration mandrel Barcode scanner



ULS UNIFLEX label system Screen protector



TA (A) Depth stop



807.2



Multistep included with Control C.2



Crimping by Pressure included with Control C.2







Stability, innovation and crimping force characterize the new UNIFLEX HMC 12-2000 crimper.

This machine is not only able to crimp the biggest hoses ever for a UNIFLEX machine, it is also the most compact one for mobile work in UNIFLEX history. The HMC 12-2000 is the most solid built C-crimper of the 2000 ton category due to its integrated powerbooster for high crimping forces. After a long period of research and development in the field of FEM, this machine outshines all others of its category. UNIFLEX defines new crimping techniques and focuses on the highest quality and user-friendliness as well as on advanced materials.



#### High-level components and system solution

HiLo cylinder - for enhanced power without extra heat/risk of overheating

Compact ergonomic design provides ergonomic work and mobile usage for fixed pieces

Large basic jaws suitable for the crimping of virtually any fitting type  $% \left\{ \left( 1\right) \right\} =\left\{ \left( 1\right)$ 

Lateral reinforcement for optimised product quality

#### **Patented design**

New FEM calculation used

Tool can be removed separately

Stable, innovative

Low maintenance

#### Slide bearing technology

Grease-free for extra cleanliness and prolonged service life

Maximised productivity at very low operating costs

Hoses remain grease-free

- Ideal for hoses designed for the food or pharmaceutical industry

- Reduced tool wear

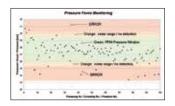
Reduces crimping force loss by up to 20%

High process stability and reproducible accuracy

**CE** compliant

### **Standard**

PFM – Standard on all machines with Control C.2



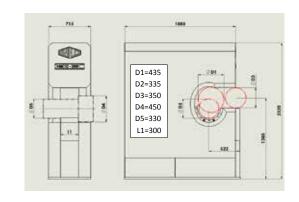
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HMC 12-2000



Technical data	HMC 12-2000
Crimp force (ton)	20 000/2 000
No grease: 20% less friction	✓
Control	Control C.2
SAE R15 4SH 1 piece	3"
SAE R15 4SH 2 pieces	3"
Industry	12"
90° bow	3"
Max. crimp range (mm) with basic dies Crimping	380 Ø PB +50
Opening without dies	435 mm
Die type	247, 245, 237
Speed (mm/sec) Close/crimp/open	upon request, depends on power unit
L x W x H (mm)	2 000 x 750 x 2 400
Weight of tool (kg)	1 5000

Type of dies		
\$	237 L	
Ø mm	mm	
54	118	
57	118	
62	118	
67	118	
71	118	
74	118	
78	118	
84	118	
86	118	
90	118	
96	118	
103	118	
106	126	
111	126	
116	126	
121	126	
126	126	
131	126	

Type of	f dies	Type of	f dies
Ď.	245	\$	247
Ømm	mm	Ø mm	mm
103	130	96	130
106	130	106	130
111	130	126	130
116	130	131	130
121	130	136	130
126	130	146	150
131	130	156	150
136	130	170	170
146	150	185	200
156	150	200	200
170	150	215	200
185	150	230	200
200	150	245	200
		260	200
		275	200
		290	200
		305	200

# More technical data according to the graphic above D1 = Max. axial diameter 435 mm

DT = Max. axial diameter 435 mi

D3 = Max. radial opening 350 mm

D4 = Max. flange diameter 450 mm

D5 = Diameter basic dies 330 mmL1 = Wide basic dies 300 mm

### Control C.2: Accessories



Customized



DMS UTS/UDL Data transfer



Electronic caliper



Calibration mandrel



Barcode scanner



ULS 807.2 UNIFLEX label system Screen protector



PS.2 Double foot



RFID



Multistep included with Control C.2



Crimping by Pressure included with Control C.2



The ITM 300 is a drawing bench designed for the testing of insulators. As safety comes first, insulators must meet stringent safety standards - even under extreme loads. To ensure that they meet these requirements, UNIFLEX has designed a sturdy, special drawing bench for insulator testing.



Swivelling notebook



Designed for easy setup and tooling



Technical data	ITM 200
Technical data	ITM 300
Tension force (kN/t)	300/30
Piston stroke	500 mm
Force transfer	Computer-controlled servo-hydraulic
Control	Control C.2 + Touch
Noise emission	53 dBA
Max. insulator diameter	250 mm
Max. testing length with basic unit	540 mm
Additional testing length with extension element	3 000 mm (Accessory)
L x W x H test unit	3 000 x 780 x 1 670
L x W x H aggregate	1 000 x 1 200 x 1 700
Weight of test unit	1 400 kg
Weight of extension element	1 100 kg
Weight of aggregate	230 kg
Notebook shelf	Swivelling mechanism for extra space
Voltance	
Voltages	
ITM 300_MVA 230V-480 V, 50/60 Hz 3 Ph	other ratings available on request



#### Tensile test bench for composite insulator testing

- 3 different test schedules: routine proof testing, failure load test and 96-hour time test.
- Silent hydraulic screw pump
- Clamping heads with roller device
- Clamping heads with functional clevis to adapt several insulator
- Buckling resistant base frame: optimized for minimal elasticity
- Modular base frame base element with 2 or 3 windows for visual control extension (optional)
- Cover opening 90° (crane loading possible)
- Height-adjustable insulator shelf

### Insulator table with adjustable height

Easy tooling for increased productivity

Requires minimal maintenance

#### **Ergonomic design**

Easy tooling for increased productivity

Low-noise hydraulic pump for stress-free working

Insulator table with adjustable height

#### Siemens industrial colour touch panel

Clear visual display

Large product memory

Programmable product sequences

Network connection

USB interfaces

CE compliant

Makrolon® safety inspection panel

Safety unit with protective switch/EMERGENCY-STOP device

### Control C.2: Accessories



Customized software



Barcode scanner

Data transfer



807.2 Screen protector

### **Accessories ITM 300**



888 074 Network printer



BCR CtrlC Barcode scanner



701 2200 Extension element 3000 mm



701.050. 701.051. 701.052, 701.053 Fork head connector with bolts (insulators)