

# **Special Equipment**

Solutions for every requirement.



#### Universal <u>For all types of hoses and fittings</u>.



#### Greaseless

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



### Engineered to last

 
 KS 6 I KS 8 I KS 10
 HMC 1-25 I HMC 1-30
 HM 245
 HM 380 I HM 480 HM 660 I HM 1200
 HMC 12-2000
 ITM 300



## KS 6 | KS 8 | KS 10 🕜 😲 🊭

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 compliant

KS 6, KS 8, KS 10

## Standard – Pressure Force Monitoring

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



Guality-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

## **Technical Data**



#### KS 6, KS 8, KS 10

Technical data	KS 6	KS 8	KS 10	Type of	dies
Crimp force (kN/Ton)	500/50	800/80	1 800/180	<a.< td=""><td></td></a.<>	
No grease: 20% less friction	1	1	1		PBK 239
Control	Control C.2	Control C.2	Control C.2	Ømm	-mm-
Max. crimping range	55 mm	139 mm	139 mm	12	3
Opening	+ 25 mm	+ 45 mm	+ 45 mm	14	3
Opening without dies	95 mm	190 mm	190 mm	10	4
Type of dies	PBK 239	PBK 237	PBK 237	22	4,5
Speed (mm/sec)				24	4,5
Close	12	7	3,5	26	4,5
Crimp	12	7	3,5	32	5
Open	30	IJ	U	36	5
Noise level	58 dBA	58 dBA	58 dBA	40	5
Drive	5,5 kW 3~VAC	5,5 kW 3~VAC	5,5 kW 3~VAC	44	5
Oil	80 L	80 L	80 L	47	5
				50	
				54	
Weight	4 / U kg	5/U kg	5/U kg	57	

- S	PBK 239	PBK 237
Ømm	-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



OC KS6/KS8 MVA

## Control C.2: Accessories



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Customized software

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Barcode scanner



UTS/UDL Data transfer

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ULS UNIFLEX label system Screen protector

## HMC 1-25 | HMC 1-30 | HM 245



HMC 1-25 | HMC 1-30



HMC 245

## novative design with C-shaped crimping

Compact dies for easy crimping of 90° elbow fittings
Radial workpiece insertion
High-level components and system solution
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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HMC 1-25 | HMC 1-30

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**





Sliding table with Radial insertion of workpieces, catering even to 90° bends. handle.





Double head system.

Constant axial centre when crimping jaws are closed.

<b>Туре of</b> (нмс 1-15 н нмс 1-30)	<b>dies</b> MC 1-25	Type of dies (HM 245)				
	239 - 38	-\$	239			
Ømm	-mm-	Ømm	-mm-			
6,8	38	6,8	50			
9	38	9	50			
10	38	10	50			
12	38	12	50			
14	38	14	60			
16	38	16	60			
17	38	17	60			
19	38	19	60			
20	38	20	60			
22	38	22	60			
24	38	24	60			
26	38	26	75			
28	38	28	75			
30	38	30	75			
31	38	31	75			
32	38	32	75			
34	38	34	75			
36	38	36	75			
38	38	38	75			
39	38	39	75			
40	38	40	75			
44	38	44	75			
47	38	47	75			
50	38	50	75			
54	38	54	75			
57	38	57	75			
62	38	62	75			

## Accessories



PTS Die marking

OC HM 3xx/HM 245 Sliding table with handle







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Control C.2: Accessories



ULS

Electronic caliper





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Barcode scanner

UNIFLEX label system Screen protector



PS.2 Double foot pedal

UTS/UDL Data transfer

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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.



HM 665

#### High-level components and system solutions

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 $% \left( {{{\left[ {{{\left[ {{{c_{1}}} \right]}} \right]}_{ij}}}} \right)$
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
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 compliant

## Standard

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101

HM 380 I HM 480 HM 660 | HM 1200



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

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 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%.

Special dies for forming tubes with square or round ends.

for you, please contact your local UNIFLEX salesperson.

being delivered to customers.

pressure value as an additional parameter.



**Option: PFC** 



#### Standard: PFM



Accessories: UTS/UDL

## Accessories



PTS Die marking



QDS 239 C

OC HM 3xx/HM 245



LUF



software



PS.2 Double foot pedal



RFID





DMS







Multistep included with Control C.2



Crimping by Pressure included with Control C.2

# The UNIFLEX PFM option revealed that 2% of all produced parts had defects, thus preventing these defective parts from

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

## Control C.2: Accessories



ULS



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UNIFLEX label system Screen protector

## HMC 12-2000



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.



HMC 12-2000

#### High-level components and system solutions

 $\ensuremath{\mathsf{HiLo}}$  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

Lateral reinforcement for optimised product quality

#### **Patented design**

New FEM calculation used

Tool can be removed separately

Stable, innovative

Slide bearing technology

Grease-free for extra cleanliness and prolonged service life

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

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Technical data	HMC 12-2000
Crimp force (ton)	20 000/2 000
No grease: 20% less friction	1
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	380
Crimping	Ø PB +50
Opening without dies	435 mm
Die type	247, 245, 237
Speed (mm/sec)	upon request,
Close/crimp/open	depends on power unit
L x W x H (mm)	2000 x 750 x 2 400
Weight of tool (kg)	1 5000

#### 715 HMC12-2000 D1=435 3 D2=335 D3=350 M00 D4=450 DS D5=330 L1=300 u 522

Type of	f dies	Type of	i dies	Type of	i dies
-\$	237 L	_	245	-\$	247
Ømm	-mm-	Ømm	-mm-	Ømm	-mm-
54	118	103	130	96	130
57	118	106	130	106	130
62	118	111	130	126	130
67	118	116	130	131	130
71	118	121	130	136	130
74	118	126	130	146	150
78	118	131	130	156	150
84	118	136	130	170	170
86	118	146	150	185	200
90	118	156	150	200	200
96	118	170	150	215	200
103	118	185	150	230	200
106	126	200	150	245	200
111	126			260	200
116	126			275	200
121	126			290	200
126	126			305	200
131	126				

103

D1 = Max. axial diameter 435 mm
D3 = Max. radial opening 350 mm
D4 = Max. flange diameter 450 mm
D5 = Diameter basic dies 330 mm
L1 = Wide basic dies 300 mm

## Control C.2: Accessories





Customized software





UTS/UDL Data transfer ULS 807.2 UNIFLEX label system Screen protector

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Barcode scanner



PS.2 Double foot

RFID







Crimping by Pressure included with Control C.2

## ITM 300 + Technical Data



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 shelf







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
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 • connectors
- 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

#### Clear visual display

Large product memory
Programmable product sequences
Network connection
LISB interfaces

Safety

CE compliant Makrolon® safety inspection panel

Safety unit with protective switch/EMERGENCY-STOP device



## Control C.2: Accessories



Customized software



807.2 Screen protector



Barcode scanner



888 074 Network printer



Accessories ITM 300

BCB CtrlC Barcode scanner



701 2200 Extension element 3000 mm



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