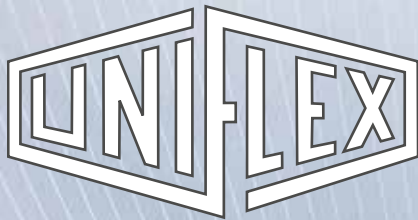


# Main Catalog

The Best Return on Investment



since 1972



UNIFLEX hose crimpers with the proven IPC Control system are setting standards for quality, cost effectiveness and ergonomic operations.

# UNIFLEX: 50 years on the road to the future

## Innovation and sustainability in hose processing

UNIFLEX-Hydraulik GmbH was founded in Frankfurt am Main in 1972. Thanks to the pioneering innovations and the extraordinary product quality, the flourishing company rapidly developed into one of the worldwide leading suppliers of machines for the production of hose assemblies.

Today, after 50 years, UNIFLEX is a supplier par excellence as regards to the production of hose assemblies – ranging from workshop equipment to the production plant. Hose crimpers, hose cutting machines, perforating devices, skiving machines, embossing devices, test systems, software and cleaning devices, which are just as innovative as they are reliable and long-lasting, were and still are developed in close cooperation with leading hose assembly prefabricators and users all over the world and distributed globally.

## Customer requirements with a focus on technology and services

UNIFLEX-Hydraulik GmbH has been developing, producing and distributing innovative systems for the production and processing of hydraulic hose assemblies for 50 years. The company with its branches and subsidiaries in America and Asia is a supplier to the entire world market. More than 85% of the UNIFLEX products are exported, inter alia, to market leaders like Caterpillar, Gates and Parker.



Service and development at the parent company at Karben

# The machine manufacturing plant

## Utmost care for highest quality

At UNIFLEX, there are no production lines and there is no mass production. The hose crimpers and all other devices and machines are produced in line with classical manufacturing processes, by hand and mostly only to order.

Therefore, every crimper is really a unique “**Made in Germany**” product carefully assembled by well-trained skilled staff.

This is why custom-made products and customized variants are always feasible.

UNIFLEX-Hydraulik GmbH based in Karben near Frankfurt



## Innovation and up-to-date quality

Building on the innovative lead as a result of the development of the slide bearing technology 50 years ago, UNIFLEX has relentlessly strived for further, practice-based development and innovation of sustainable and ergonomic machines for the production and repair of hoses.



## The difference: The unique slide bearing technology

In contrast to lubricated crimpers, UNIFLEX crimpers function with nearly no friction loss at all. This reduces the maintenance operations to a minimum, because “crimping without lubricating” is cleaner and less labour-intensive. Furthermore, UNIFLEX machines are known for optimum work results, a reliable **Return on Investment** and maximum ergonomics. A comprehensive range of accessories makes operations with the different devices even simpler.

## Two-year manufacturer's warranty

Right from the beginning, UNIFLEX has been offering a two-year warranty for the functions and materials of all devices and will continue to do so in future.

# Digitalisation

## The networking of men and machines

Everybody is talking about digital transformation, and UNIFLEX takes action – for a long time already. In order to be able to offer all UNIFLEX customers innovative, computer-controlled devices, the company has developed the **UNIFLEX Wireless Management System (UWMS)** subsequent to the Control.2 system that has proved its worth from the day it was launched.

This innovative software can be used to save product data on a server and to consistently update all supplements. Via the Internet, users can then download an app to their smart phone or tablet and subsequently send the crimp order by Bluetooth directly to the hose crimper.



## The advantages:

- **Current crimp data keep the customers and users up to date.**
- **All data of the installed hydraulic crimpers (e.g., number of crimping operations, details about what has been crimped, plus the data recorded during the crimping process) can be retrieved at any time.**
- **Entry of series numbers enables users to compile stable tracing systems and systems for repeat orders.**
- **Data analyses and reports, such as market assessments, can be compiled with ease.**



# Content

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Nipple Inserter, Pin Prick,  
Skiving Machines



Page 93-104  
Test Benches &  
Cleaning Machines



Page 105-112  
Special Equipment



Page 113-115  
Training – UX Inside



## We want to be the partner who supports all customers with “half a century of experience”.

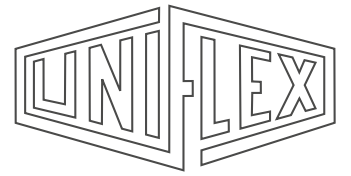
This philosophy drives us to meet the highest customer expectations as regards to quality and service, to continually enhance our internal processes and to design them with greater transparency for all. Our impetus is the will to create solutions. Therefore, we listen and cooperate as a prudent partner to ensure our quality and service are unparalleled.

Hence, staff members at UNIFLEX are especially motivated, because they are ambitious to have satisfied customers.



**“We are only satisfied when our customers` customers are satisfied.”**

Patrick Sticker  
Managing Director / President



# Service Crimpers

Compact, universal and powerful.



# Content



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(S 3 | S 4)



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SH 4  
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SH 7 (S 7)



Page 20-21  
SC 6 | SC 6 S  
(S 6 | S 6 S)



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SH 6  
(S 6 L)



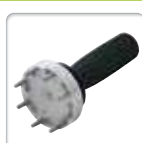
Page 24-25  
SH 10 | SH 10 XL  
(S 10 Ecoline | S 10 XL)



Page 26-27  
SC 12 i



Page 28  
Packages and  
Accessories



# Service Crimpers



## Greaseless

- Slide bearings on the crimp tool improve efficiency up to 20%, reduce friction and help keep the tool free of contaminants
- No greasing improves cleanliness of machine
- Prolongs the machine's lifetime
- Maximum productivity with very low maintenance costs
- No risk of prematurely damaging the crimping head
- End product can be used in sanitary applications without cleaning
- 20% more capability for crimping stronger or more difficult couplings versus our competition's equivalent crimpers
- Consistently accurate crimp result



## Universal

- For all types of hoses and fittings



## Ecoline

- Value driven solution for less frequent use



## Ergonomic

- Free access for fast loading of the tool
- Compact design fits in any workshop and is ideal for on-site service
- Large opening travel for easy crimping of elbow fittings without removing the dies



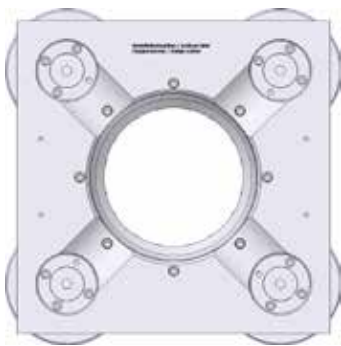
## Environment friendly

- Energy efficient and durable

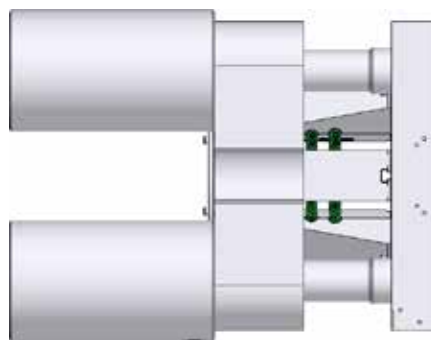
# UNIFLEX changes the names of some products for a better understanding.

(The old product names can be found in brackets after the new product names)

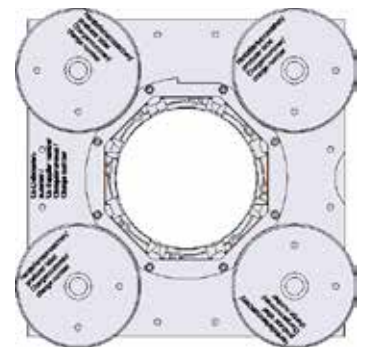
## SC = Press tool with Cylinder



Front view

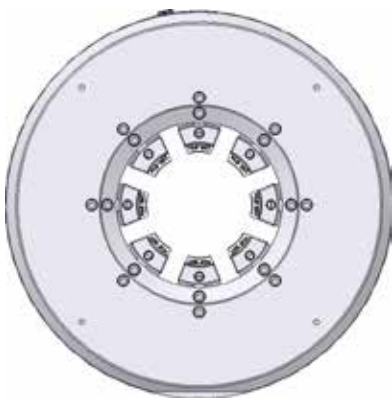


Side view

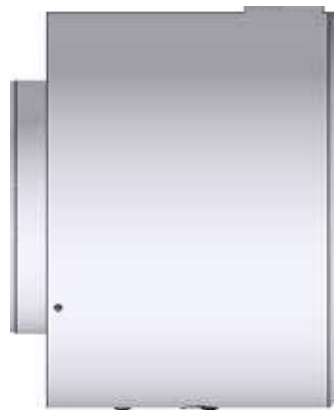


Rear view

## SH = Hollow piston press tool



Front view



Side view



Rear view

	SC	SH
No greasing	★ ★ ★	★ ★ ★
Low maintenance	★ ★ ★	★ ★
Compact	★ ★	★ ★ ★
Light weight	★ ★	★ ★ ★
Accessibility of the workpiece	★ ★ ★	★ ★
Dirt-sensitivity	★ ★ ★	★
Sustainable	★ ★ ★	★ ★
Good value	★ ★	★ ★ ★
Well suited for	Workshop	Mobile
Factory warranty in years	3	2



Next-generation crimper for low pressure hose assemblies. Two-in-one solution with integrated die sets O5 and O15 for DN 03-16. With the SL 3-16 M, UNIFLEX innovates the existing crimper: Two integrated die sets in one tool. No more lost time changing the die. Just change the handle and you are already crimping the other size. No risk of losing dies, no dirty hands, no "time lost". With the built-in handle, you can easily carry it anywhere.

SL 3-32 M and SL 3-75 complete the range with large opening travel up to 3".



SL 3-16 M



SL 3-32 M



SL 3-75\_A (PUU not included)





SL 3-16 M



SL 3-32 M

SL 3-75

Technical Data	SL 3-16 M	SL 3-32 M	SL 3-75
Crimp force (kN/Ton)	30/3	200/20	500/50
Opening travel (mm/inch)	+31.7/+1.24	+36.7/+1.44	+55/+2.16
Industrial	5/8**	1 1/4 **	3**
Opening without dies (mm/inch)	38.6 / 1.52	88 / 3.46	115 / 5.52
Type of dies	150	263	239
Master dies length (mm/inch)	10/0.39	68/2.68	75/2.95
L x W x H (mm)	340 x 143 x 780	216 x 165 x 348	420 x 520 x 550
Weight	20 kg	28 kg	88 kg

\*\* With master dies.

Dies 150: 6.9 mm and 14.9 mm.

Type of dies		Type of dies	
	<b>263</b>		<b>239</b>
Ø mm	mm	Ø mm	mm
6.8	40	6.8	50
9	75	9	50
12	75	10	50
14	75	12	50
17	75	14	60
20	75	16	60
24	75	17	60
28	75	19	60
32	75	20	60
36	75	22	60
40	75	24	60
44	75	26	75
47	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

## Description



2 sets of dies integrated,  
no dies set change!  
(Only for SL3-16M)

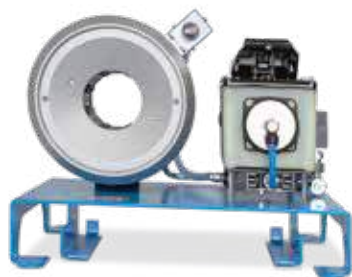


Must workshops and mobile service teams do without the power and reliability of large stationary crimpers? UNIFLEX's answer is a definite "no". Our compact, multi-purpose workshop crimpers prove that the advantages of the legendary slide bearing technology can also be used in light-weight, inexpensive equipment that will fit into almost any vehicle and workshop.

The SH 2 series models offer an optimal force-to-weight ratio of 1" 4 SP at a weight of 29 kg, a large opening stroke up to 22 mm (0.87") and a maximum pressing range up to 63 mm (2.48").



SH 2 MH 2




SH 2 P



SH 2 A



SH 2 M H2	SH 2 M Ecoline	SH 2 P	SH 2 A	SH 2 LA
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Technical Data	SH 2 M H2	SH 2 M Ecoline	SH 2 P	SH 2 A	SH 2 LA	Type of dies																												
Crimp force (kN/Ton)	900/90	900/90	770/77	900/90	450/45	 <b>263</b> <table border="1"> <thead> <tr> <th>Ø mm</th> <th>mm</th> </tr> </thead> <tbody> <tr><td>6.8</td><td>40</td></tr> <tr><td>9</td><td>75</td></tr> <tr><td>12</td><td>75</td></tr> <tr><td>14</td><td>75</td></tr> <tr><td>17</td><td>75</td></tr> <tr><td>20</td><td>75</td></tr> <tr><td>24</td><td>75</td></tr> <tr><td>28</td><td>75</td></tr> <tr><td>32</td><td>75</td></tr> <tr><td>36</td><td>75</td></tr> <tr><td>40</td><td>75</td></tr> <tr><td>44</td><td>75</td></tr> <tr><td>47</td><td>75</td></tr> </tbody> </table>	Ø mm	mm	6.8	40	9	75	12	75	14	75	17	75	20	75	24	75	28	75	32	75	36	75	40	75	44	75	47	75
Ø mm	mm																																	
6.8	40																																	
9	75																																	
12	75																																	
14	75																																	
17	75																																	
20	75																																	
24	75																																	
28	75																																	
32	75																																	
36	75																																	
40	75																																	
44	75																																	
47	75																																	
No grease: 20% less friction	✓	✓	✓	✓	✓																													
SAE R 12/4SP* 1 piece fitting	1¼"	1¼"	1¼"	1¼"	¾"																													
SAE R 15/4SH* 2 piece fitting	1"	1"	1"	1"	⅝"																													
Industrial	1¼"	1¼"	1¼"	1¼"	1¼"																													
90° Elbows	1"	1"	1"	1"	1"																													
Max. Crimp range** (mm/inch)	63 / 2.48	63 / 2.48	63 / 2.48	63 / 2.48	63 / 2.48																													
Opening (mm/inch)	+22 / +19.06	+22 / +19.06	+22 / +19.06	+22 / +19.06	+22 / +19.06																													
Opening without dies (mm/inch)	77 / 3.03	77 / 3.03	77 / 3.03	77 / 3.03	77 / 3.03																													
Master dies length (mm/inch)	75 / 2.95	75 / 2.95	75 / 2.95	75 / 2.95	75 / 2.95																													
Type of dies	263	263	263	263	263																													
Speed (mm/sec)																																		
Close	-	-	0.9	5.8	2.4																													
Crimp	-	-	0.9	0.6	0.2																													
Drive	Manual	Manual	Pneumatic ***	1 VAC	1 VAC																													
Oil	0.75 l	0.75 l	2 l	1.5 l	1.5 l																													
L x W x H (mm)	500 x 420 x 440	216 x 165 x 348	380 x 400 x 310	450 x 450 x 350	450 x 450 x 450																													
Weight	32 kg	29 kg	33 kg	41 kg	56 kg																													



SH = Hollow piston press tool

\* According to the fitting. \*\* With master dies. \*\*\* 7 bar/98 psi.

Packages page 28 / Accessories and options page 56

## Description



On SH 2 models, an optical signal is given when the crimp measure is reached. The electric and pneumatic variants have an automatic stop function.



Telescopic hand-lever available. Included with SH 2 M machines.



New standard by SH 2 MH and SH 2 M Ecoline with special pump. (The low pressure delivery volume is around three times higher than the standard.) 32/3 cc instead of 11/3 cc



PUM 0.8/3.2-700 bar. The mobile high pressure unit achieves 700 bar: a real magic box!



SH 2 DC



As the unrivaled classic in the 1" field, with its narrow, innovative construction, high level of user friendliness, versatility and long service life, the HM 200 sets the unbeatable standard for quality and cost effectiveness. Its compact construction allows for ergonomic working. The use of different die sets allows pressing of all types of fittings, and the proven greaseless slide bearing technology reduces maintenance costs. The Ecoline model is hydraulically controlled and has a separate tank to save space in workshops.



HM 200



HM 200 Ecoline




PUU (optional)



HM 200

HM 200 Ecoline

Technical Data	HM 200	HM 200 Ecoline
Crimp force (kN/Ton)	1,300/130	1,300/130
No grease: 20% less friction	✓	✓
Control	Control A	Control A
SAE R 12/4SP* 1 piece fitting	1½"	1½"
SAE R 15/4SH* 2 piece fitting	1"	1"
SAE R 12/4SP* 2 piece fitting	1¼"	1¼"
Industrial	2"	2"
90° Elbows	1½"	1½"
Max. Crimp range (mm/inch)	70 / 2.76	70 / 2.76
Opening (mm/inch)	+30 / +1.18	+30 / +1.18
Opening without dies (mm/inch)	100 / 3.94	100 / 3.94
Master dies length (mm/inch)	75 / 2.95	75 / 2.95
Type of dies	239	239
Speed (mm/sec)		
Close	3.5	3.5
Crimp	3.5	3.5
Open	5.9	5.9
Noise level	69 dBA	69 dBA
Drive	3 kW 3 VAC	3 kW 3 VAC
Oil	40 l	40 l (DC 4 l)
L x W x H (mm)	800 x 530 x 630	420 x 535 x 520
Power Unit L x W x H (mm)	-	300 x 450 x 560
Weight	140 kg	92 kg (without power unit), 130 kg (with die package)
<b>Options</b>		
12 VDC/24 VDC	-	✓
1 VAC	✓	2.2 kW
Control C.2/IPC	✓	-

Type of dies	
	
<b>239</b>	
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



SC = Press tool with Cylinder

\* According to the fitting.  
Packages page 28 / Accessories and options page 56

## Description



The micrometer allows you to easily set the crimping diameter.



The large opening stroke allows you to pass 90° fittings without changing the crimp dies.



The 12 VDC/24 VDC units offer space- and weight-saving application options, e.g. for fitting service trucks.  
L x W x H (mm)  
441 x 291 x 296; 21 kg



A box with master dies is available in a package.



For mobile applications the HM 200 is also ideally suitable.



Due to their narrow and innovative construction, high level of user friendliness and long service life, the SC 3 and SC 4 set new standards for quality and cost effectiveness. Their compact construction allows for ergonomic working. The use of long master dies allows you to crimp 90° elbow fittings up to 1 ¼" for SC 3 and 1 ½" for SC 4, with the tried and tested greaseless slide bearing technology, which reduces maintenance costs and increases the product quality.

Because the 4-cylinder technology keeps press waste away from the die, UNIFLEX offers a 3-year warranty for the SC 3 and SC 4 series.



SC 3 Ecoline



SC 4 Ecoline



SC 4 C.2



SC 3 Ecoline

SC 4 Ecoline

SC 4 C.2

Technical Data	SC 3 Ecoline	SC 4 Ecoline	SC 4 C.2
Crimp force (kN/Ton)	1,200/120	1,800/180	1,800/180
No grease: 20% less friction	✓	✓	✓
Control	Control A	Control A	Control C.2 + Touch
SAE R 12/4SP* 1 piece fitting	1½"	2"	2"
SAE R 15/4SH* 2 piece fitting	1"	1¼"	1¼"
SAE R 12/4SP* 2 piece fitting	1¼"	2"	2"
Industrial	2"	2"	2"
90° Elbows	1½"	1½"	1½"
Max. Crimp range (mm/inch)	70 / 2.76	70 / 2.76	70 / 2.76
Opening (mm/inch)	+35 / +1.38	+35 / +1.38	+35 / +1.38
Opening without dies (mm/inch)	105 / 4.13	105 / 4.13	105 / 4.13
Master dies length (mm/inch)	100 / 3.94	100 / 3.94	100 / 3.94
Type of dies	239-xx-Ø	239 - xx	239 - xx
Speed (mm/sec)			
Close	4.0	2.7	2.7
Crimp	4.0	2.7	2.7
Open	6.5	4.7	4.7
Noise level	69 dBA	69 dBA	69 dBA
Drive	3 kW 3 VAC	3 kW 3 VAC	3 kW 3 VAC
Oil	35 l	35 l	35 l
L x W x H (mm)	592 x 545 x 672	592 x 545 x 672	720 x 600 x 672
Weight	150 kg	160 kg	203 kg
<b>Options</b>			
12 VDC/24 VDC	✓	✓	-
1 VAC	✓	✓	✓
Control IPC	✓	-	✓

Type of dies	
Ø mm	mm
6.8	65
9	65
10	65
12	65
14	65
16	65
17	65
19	65
20	65
22	65
24	65
26	65
28	80
30	80
31	80
32	80
34	80
36	80
38	80
39	80
40	80
44	80
47	100
50	100
54	100
57	100
62	100



SC = Press tool with Cylinder

\* According to the fitting.  
Packages page 28 / Accessories and options page 56

## Description



The SC 3- and SC 4-series is fitted with the clean slide bearing technology.



The SC 3- and SC 4-series can be used to crimp short 90° elbow fittings with a long drop. This is impossible for other conventional machines.



With the double pin connection, it is possible to crimp on the front and rear sides.



The 12 VDC/24 VDC units offer space- and weight-saving application options, e.g. for fitting service trucks.  
L x W x H (mm)  
441 x 291 x 296; 21 kg



PB 239-MD-Ø 70  
Closing Pin for Master dies  
SC 4  
(Ø 70 mm)



Due to its narrow and innovative construction, high level of user friendliness and long service life, the SH 4 sets new standards for quality and cost effectiveness. Its very compact design despite a high pressing force and a weight of only 110 kg allows ergonomic operation even on mobile jobs. The long base jaws enable pressing up to 1½" 4 SP, the proven greaseless slide bearing technology reduces maintenance costs and increases production quality.



SH 4 Mobileline






SH 4 Ecoline

SH 4 Mobileline

Technical Data	SH 4 Ecoline	SH 4 Mobileline
Crimp force (kN/Ton)	1,800/180	1,800/180
No grease: 20% less friction	✓	✓
Control	Control A	Control A
SAE R 12/4SP* 1 piece fitting	2"	2"
SAE R 15/4SH* 2 piece fitting	1¼"	1¼"
SAE R 12/4SP* 2 piece fitting	2"	2"
Industrial	2"	2"
90° Elbows	1¼"	1¼"
Max. Crimp range (mm/inch)	70 / 2.76	70 / 2.76
Opening (mm/inch)	+27 / +1.06	+27 / +1.06
Opening without dies (mm/inch)	97 / 3.82	97 / 3.82
Master dies length (mm/inch)	110 / 4.33	110 / 4.33
Type of dies	239-xx-Ø	239-xx-Ø
Speed (mm/sec)		
Close	2.0	0.7
Crimp	2.0	0.7
Open	7.6	3.0
Noise level	69 dBA	69 dBA
Drive	3 kW 3 VAC	1,8 kW 1 VAC
Oil	35 l	4 l
L x W x H (mm)	600 x 550 x 630	430 x 370 x 440
Weight	150 kg	110 kg (without power unit)
<b>Options</b>		
12 VDC/24 VDC	-	✓
1 VAC	✓	✓
Control C.2/IPC	✓	-

Type of dies	
 239-xx-Ø-yy	
Ø mm	mm
6.8	65
9	65
10	65
12	65
14	65
16	65
17	65
19	65
20	65
22	65
24	65
26	65
28	80
30	80
31	80
32	80
34	80
36	80
38	80
39	80
40	80
44	80
47	100
50	100
54	100
57	100
62	100



SH = Hollow piston press tool

\* According to the fitting.  
 Packages page 28 / Accessories and options page 56

## Description



The 12 VDC/24 VDC units offer space- and weight-saving application options, e.g. for fitting service trucks.  
 L x W x H (mm)  
 441 x 291 x 296; 21 kg



PB 239-MD-Ø 70  
 Closing Pin for Master dies SH 4.  
 (Ø 70 mm)



For mobile applications the SH 4 Mobileline is also ideally suitable.



Due to its narrow, innovative construction, high level of user friendliness, and long service life, the SH 7 sets the standard for quality and cost effectiveness. Balanced weight (2" / 77 kg) and compact engineered design make the SH 7 perfect for workshops and on-site service as well as a service or reserve press for quick use. The proven greaseless slide bearing technology with quick-change system reduces maintenance costs, extends service life and increases accuracy.



SH 7



Quick insertion of the jaws



SH 7 with closed dies and QDC





SH 7

SH 7 S



Technical Data	SH 7	SH 7 S
Crimp force (kN/Ton)	2,400/240	3,200/320
No grease: 20% less friction	✓	✓
Control	Control A	Control A
SAE R 15*/4SH 1 piece fitting	2"	2"
4SH* 2 piece fitting	2"	2"
SAE R 15* 2 piece fitting	1½"	1½"
Industrial	2"	2"
90° Elbows	1½"	1½"
Max. Crimp range (mm/inch)	82 / 3.23	82 / 3.23
Opening (mm/inch)	+24 / +0.94	+24 / +0.94
Opening without dies (mm/inch)	110 / 4.33	110 / 4.33
Master dies length (mm/inch)	90 / 3.54	90 / 3.54
Type of dies	239 - xx/265	239 - xx/265
Speed (mm/sec)		
Close	Manuell	Manuell
Crimp	0.42	0.42
Open	Manuell	Manuell
Noise level	70 dBA	70 dBA
Drive	0.75 kW 3 VAC	0.75 kW 3 VAC
Oil	2.3 l	2.3 l
L x W x H (mm)	430 x 367 x 682	430 x 367 x 682
Options	77 kg	77 kg
<b>Options</b>		
12 VDC/24 VDC	✓	✓
1 Phase	✓	✓
Control IPC	-	-

Type of dies		Type of dies	
 <b>239-xx-Ø-yy</b>		 <b>265</b>	
Ø mm	mm	Ø mm	mm
6.8	65	54	100
9	65	57	100
10	65	62	100
12	65	67	100
14	65	71	100
16	65	74	100
17	65		
19	65		
20	65		
22	65		
24	65		
26	65		
28	80		
30	80		
31	80		
32	80		
34	80		
36	80		
38	80		
39	80		
40	80		
44	80		
47	100		
50	100		
54	100		
57	100		
62	100		



SH = Hollow piston press tool

\* According to the fitting.  
Packages page 28 / Accessories and options page 56

## Description



The micrometer allows you to easily set the crimping dimensions.



The machine is pre-positioned manually.



The lightest mobile 2"-service crimping machine. Also available in 12 VDC/24 VDC.



265.2 Turntable



With its slim, innovative design, high user-friendliness, versatility and long service life, the SC 6 series with its 4-cylinder technology sets standards for quality and economy. Its very compact design, despite the large opening travel, allows ergonomic working. The long base jaws enable the SC 6 to crimp short 90° fittings up to 2" 4 SP, and the SC 6 S up to 2" R 15. The proven greaseless slide bearing technology reduces maintenance costs, extends service life and increases accuracy. Because the 4-cylinder technology keeps press waste away from the dies, UNIFLEX offers a 3-year warranty for the SC 6 and SC 6 S series.



SC 6



SC 6 Ecoline C.2



SC 6 Ecoline



SC 6 Ecoline      SC 6      SC 6 S Ecoline      SC 6 S

Technical Data	SC 6 Ecoline	SC 6	SC 6 S Ecoline	SC 6 S
Crimp force (kN/Ton)	2,000/200	2,000/200	2,800/280	2,800/280
No grease: 20% less friction	✓	✓	✓	✓
Control	Control A	Control A	Control A	Control A
SAE R 15*/4SH 1 piece fitting	2"	2"	2"	2"
4 SH* 2 piece fitting	2"	2"	2"	2"
SAE R 15* 2 piece fitting	1½"	1½"	2"	2"
Industrial	3"	3"	3"	3"
90° Elbows	2"	2"	2"	2"
Crimp range (mm/inch)	102 / 4.02	102 / 4.02	102 / 4.02	102 / 4.02
Opening (mm/inch)	+45 / +1.77	+45 / +1.77	+45 / +1.77	+45 / +1.77
Opening without dies (mm/inch)	147 / 5.78	147 / 5.78	147 / 5.78	147 / 5.78
Master dies length (mm/inch)	110 / 4.33	110 / 4.33	110 / 4.33	110 / 4.33
Type of dies	239 - xx/266 **	239 - xx/266 **	239 - xx/266 **	239 - xx/266 **
Speed (mm/sec)				
Close	4.9	9.7	3.0	6
Crimp	2.3	2.2	1.4	1.4
Open	8.2	16	5.3	13.3
Noise level	69 dBA	67 dBA	69 dBA	67 dBA
Drive	4 kW 3 VAC	4 kW 3 VAC	4 kW 3 VAC	4 kW 3 VAC
Oil	50 l	70 l	50 l	70 l
L x W x H (mm)	700 x 600 x 735	745 x 600 x 1360	700 x 600 x 735	745 x 600 x 1,360
Weight	275 kg	375 kg	315 kg	415 kg
<b>Options</b>				
12 VDC/24 VDC	✓	-	✓	-
1 Phase	✓	✓	✓	✓
Control C.2/IPC	✓	✓	✓	✓

Type of dies		
Ø mm	mm	mm
239-xx-Ø-yy 266		
6.8	65	
9	65	
10	65	
12	65	
14	65	
16	65	
17	65	
19	65	
20	65	
22	65	
24	65	
26	65	
28	80	
30	80	
31	80	
32	80	
34	80	
36	80	
38	80	
39	80	
40	80	
44	80	
47	100	
50	100	
54	100	
57	100	
62	100	110
67		110
71		110
74		110
78		110
84		110
86		110
92		110
94		110

\* According to the fitting.      \*\* Without intermediate dies.  
 Packages page 28 / Accessories and options page 56

## Description



The S 6 series can be used to crimp short 90° elbow fittings with a long drop. This is impossible for other conventional machines.



SC = Press tool with Cylinder



Due to their narrow and innovative construction, high level of user friendliness and long service life, the SH 6 series set new standards for quality and cost effectiveness. Their large opening +43 mm ( + 1.69") and light weight 172 kg make it the perfect machine for mobile application up to 2" 4 SP and 3" return line.

The use of long master dies allows you to crimp 90° elbow fittings up to 2" with the tried and tested greaseless slide bearing technology, which reduces maintenance costs and increases the product quality.



SH 6 Ecoline



SH 6 Mobileline



SH 6 Ecoline	SH 6 Mobileline	SH 6 S Ecoline	SH 6 S Mobileline
--------------	-----------------	----------------	-------------------

Technical Data	SH 6 Ecoline	SH 6 Mobileline	SH 6 S Ecoline	SH 6 S Mobileline
Crimp force (kN/Ton)	2,400/240	2,400/240	2,800/280	2,800/280
No grease: 20% less friction	✓	✓	✓	✓
Control	Control A	Control A	Control A	Control A
SAE R 15*/4SH 1 piece fitting	2"	2"	2"	2"
4 SH* 2 piece fitting	2"	2"	2"	2"
SAE R 15* 2 piece fitting	1½"	1½"	2"	2"
Industrial	3"	3"	3"	3"
90° Elbows	2"	2"	2"	2"
Crimp range (mm/inch)	102 / 4.02	102 / 4.02	102 / 4.02	102 / 4.02
Opening (mm/inch)	+43 / +1.69	+43 / +1.69	+43 / +1.69	+43 / +1.69
Opening without dies (mm/inch)	145 / 5.71	145 / 5.71	145 / 5.71	145 / 5.71
Master dies length (mm/inch)	110 / 4.33	110 / 4.33	110 / 4.33	110 / 4.33
Type of dies	239 - xx/266 **	239 - xx/266 **	239 - xx/266 **	239 - xx/266 **
Speed (mm/sec)				
Close	30/1.8	10/0.5	30/1.8	10/0.5
Crimp	1.8	0.5	1.8	0.5
Open	10.6/30	3/30	10.6/30	3/30
Noise level	69 dBA	69 dBA	69 dBA	69 dBA
Drive	3 kW 3 VAC	1.8 kW 1 VAC	3 kW 3 VAC	1.8 kW 1 VAC
Oil	35 l	4 l	35 l	4 l
L x W x H (mm)	600 x 550 x 750	505 x 430 x 490	709 x 613 x 691	505 x 621 x 573
Weight	196 kg	172 kg	206 kg	182 kg
<b>Options</b>				
12 VDC/24 VDC	-	✓	-	✓
1 Phase	✓	✓	✓	✓
Control C.2/IPC	✓	-	✓	-

Type of dies		
239-xx-Ø-yy 266		
Ø mm	mm	mm
6.8	65	
9	65	
10	65	
12	65	
14	65	
16	65	
17	65	
19	65	
20	65	
22	65	
24	65	
26	65	
28	80	
30	80	
31	80	
32	80	
34	80	
36	80	
38	80	
39	80	
40	80	
44	80	
47	100	
50	100	
54	100	
57	100	
62	100	110
67		110
71		110
74		110
78		110
84		110
86		110
92		110
94		110

\* According to the fitting. \*\* Intermediate dies not required.  
 Packages page 28 / Accessories and options page 56

## Description



The 12 VDC/24 VDC units offer space- and weight-saving application options, e.g. for fitting service trucks.



SH = Hollow piston press tool



Due to their narrow and innovative construction, high level of user friendliness and long service life, the SH 10 and SH 10 XL set new standards for quality and cost effectiveness. Their large opening, + 45 mm (+ 1.77") for SH 10 and +61 mm (+ 2.40") for S 10 XL, fits industrial hoses with large flanges.

The use of long master dies allows you to crimp 90° elbow fittings up to 2" with the tried and tested greaseless slide bearing technology, which reduces maintenance costs and increases the product quality.



SH 10 XL



SH 10 Ecoline



SH 10 C.2





SH 10 Ecoline

SH 10

SH 10 XL Ecoline

SH 10 XL

Technical Data	SH 10 Ecoline	SH 10	SH 10 XL Ecoline	SH 10 XL
Crimp force (kN / Ton)	2,800/280	2,800/280	2,800/280	2,800/280
No grease: 20% less friction	✓	✓	✓	✓
Control	Control A	Control A	Control A	Control A
SAE R 15*/4SH 1 piece fitting	2"	2"	2"	2"
4 SH* 2 piece fitting	2"	2"	2"	2"
SAE R 15* 2 piece fitting	2"	2"	2"	2"
Industrial	4"	4"	4"	4"
90° Elbows	2"	2"	2"	2"
Max. Crimp range (mm/inch)	145 / 5.70	145 / 5.70	145 / 5.70	145 / 5.70
Opening (mm/inch)	+45 / +1.77	+45 / +1.77	+61 / +2.40	+61 / +2.40
Opening without dies (mm/inch)	190 / 7.48	190 / 7.48	200 / 7.87	200 / 7.87
Master dies length (mm/inch)	126 / 4.96	126 / 4.96	126 / 4.96	126 / 4.96
Type of dies	239 - xx/237 L **	239 - xx/237 L **	239-xx-Ø/237 L **	239-xx-Ø/237 L **
Speed (mm/sec)				
Close	4.8	6.1	30/6.0	30/6.0
Crimp	2.3	1.7	1.4	1.4
Open	7.9	10.3	30/17	30/17
Noise level	70 dBA	67 dBA	67 dBA	70 dBA
Drive	4 kW 3 VAC	5.5 kW 3 VAC	4 kW 3 VAC	5.5 kW 3 VAC
Oil	70 l	70 l	70 l	70 l
L x W x H (mm)	700 x 600 x 845	690 x 600 x 1.400	700 x 600 x 845	690 x 600 x 1,400
Weight	372 kg	390 kg	390 kg	430 kg
<b>Options</b>				
Control C.2/IPC	✓	✓	✓	✓
1 Phase	✓	✓	✓	✓
12 VDC/24 VDC	✓	-	✓	-

Type of dies		Type of dies	
Ø mm	mm	Ø mm	mm
239-xx-Ø-yy		237 L	
6.8	65	54	118
9	65	57	118
10	65	62	118
12	65	67	118
14	65	71	118
16	65	74	118
17	65	78	118
19	65	84	118
20	65	86	118
22	65	90	118
24	65	96	118
26	65	103	118
28	80	106	126
30	80	111	126
31	80	116	126
32	80	121	126
34	80	126	126
36	80	131	126
38	80	135	126
39	80	137	126
40	80		
44	80		
47	100		
50	100		
54	100		
57	100		
62	100		



SH = Hollow piston press tool

\* According to the fitting. \*\* Intermediate dies not required.  
 Packages page 28 / Accessories and options page 56

## Description



The SH 10 and SH 10 XL-series is fitted with the clean slide bearing technology.



The SH 10 XL offers a large opening travel of up to 61 mm.



ICC – Industrial (hose) Crimp Calculator (with C.2 and IPC controller)

Automatically calculate your crimp diameter directly from your hose and fitting measurement based on compression. Includes the official agreed, tested and approved industrial hose crimp calculator/Interface with fitting and ferrule data from Mario, PT, Campbell and Dixon.



With a 370-ton crimping force, the new SC 12 i is the most powerful workshop crimper for R15 industrial hoses up to 3" and high pressure hoses up to 1". With its large opening and a maximum crimping range of up to 139 mm (5.47"), the SC 12 i also crimps 4" Camlock industrial fittings and even 90° fittings with ease.

The compact design allows direct access from all sides, which is particularly important when crimping short workpieces. Three versions of the SC 12 i are available, with a micrometer, Control C.2 or IPC. Like all UNIFLEX crimpers, the SC 12 i features the legendary UNIFLEX slide bearing technology for maximum cleanliness and consistent operations as well as low maintenance requirements and a full 3-year manufacturer's warranty.



SC 12 i C.2



SC 12 i C.2



SC 12 i C.2



SC 12 i A

SC 12 i C.2

Technical Data	SC 12 i A <b>NEW</b>	SC 12 i C.2 <b>NEW</b>
Crimp force (kN/Ton)	3,700/370	3,700/370
No grease: 20% less friction	✓	✓
Control	Control A	Control C.2
SAE R 15*/4SH 1 piece fitting	3"	3"
4 SH* 2 piece fitting	3"	3"
SAE R 15* 2 piece fitting	3"	3"
Industrial	4"	4"
90° Elbows	2"	2"
Max. Crimp range (mm/inch)	145 / 5.71	145 / 5.71
Opening (mm/inch)	+61 / +2.40	+61 / +2.40
Opening without dies (mm/inch)	206 / 8.11	206 / 8.11
Master dies length (mm/inch)	126 / 4.96	126 / 4.96
Type of dies	239 / 237L	239 / 237L
Speed (mm/sec)		
Close	30/4.9	30/4.9
Crimp	1.4	1.4
Open	30/8.6	30/8.6
Noise level	< 70 dBA	< 70 dBA
Drive	5.5 kW 3 VAC	5.5 kW 3 VAC
Oil	85 L	85 L
L x W x H (mm)	690 x 750 x 1,470	690 x 750 x 1,470
Weight	553 kg	555 kg
<b>Options</b>		
12 VDC/24 VDC	✓	-
1 Phase	✓	-
Control C.2/IPC	✓	✓

Type of dies

239-xx-β-yy	
Ø mm	mm
6.8	65
9	65
10	65
12	65
14	65
16	65
17	65
19	65
20	65
22	65
24	65
26	65
28	80
30	80
31	80
32	80
34	80
36	80
38	80
39	80
40	80
44	80
47	100
50	100
54	100
57	100
62	100

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
135	126
137	126



SC = Press tool with Cylinder

\* According to the fitting. \*\* Intermediate dies not required.  
 Packages page 28 / Accessories and options page 56

Description



The micrometer allows you to set crimp dimensions to set. (Control A)





The SC 12 series can be used to crimp short 90° elbow fittings with a long drop. This is impossible for other conventional machines.



ICC – Industrial (hose) Crimp Calculator (with C.2 and IPC controller)  
 Automatically calculate your crimp diameter directly from your hose and fitting measurement based on compression. Includes the official agreed, tested and approved industrial hose crimp calculator/Interface with fitting and ferrule data from Mario, PT, Campbell and Dixon.

## Packages

		QDS 263 B		
SH 2 M Ecoline				Package: Machine + PB Ø 14, 17, 20, 24 + QDS 26X B
SH 2 M H2, SH 2 P, SH 2 A, SH 2 LA				Package: Machine + PB Ø 14, 17, 20, 24, 28, 32, 40 + QDS 26X B
		QDS 239 B	QDC 239.5	
HM 200, SC 3, SH 4				Package: Machine + PB Ø 17, 20, 24, 28, 32, 40, 44, 50 + QDS 239 B + QDC 239.5
SC 4				Package: Machine + PB Ø 17, 20, 24, 28, 32, 40, 47, 54, 62 + QDS 239 B + QDC 239.5
SH 7, SC 6, SH 6, SH 6 S				Package: Machine + PB 17, 20, 24, 28, 32, 40, 44, 50, 57, 71 + 265.239 L + QDS 239 B + QDC 239.5
SH 10 i, SH 10 i XL				Package: Machine + PB Ø 17, 20, 24, 28, 32, 40, 44, 50, 57, 71 + 237.239.2L2 + QDS 239 B + QDC 239.5
SC 12 i				Package: Machine + PB Ø 17, 20, 24, 28, 32, 40, 44, 50, 57, 71 + 237.239.2L2 + QDS 239 B + QDC 239.5

### PUM 0.8/3.2-700 bar...

The mobile high-pressure power unit manages 700 bar: a real magic box!

UNIFLEX mobile hydraulic power packs are popular worldwide due to their high performance, robustness and compact dimensions. With an innovative high-pressure power unit, UNIFLEX now offers a practical accessory, namely an ingeniously simple external power tool: with a standard cordless screwdriver (min. 25 Nm drive torque), manual workshop presses for 1" hoses (4SH/R15) can be driven hydraulically.



### ... with SH 2 Ecoline and cordless screwdriver

Nominal pressure	70 MPa (700 bar)
Adjustable pressure relief valve	up to 700 bar manually adjustable
Drive	All commercially available cordless screwdrivers (min. 25Nm)
Temperature range	10°C to +35°C
Shoulder strap	✓
Oil tank volume	2.5 l
Pressure gauge measuring connection	✓
Delivery rate	3.2 L/min Low pressure up to 5 MPa (50 bar) 0.8 L/min High pressure above 5 MPa (50 bar)
L x W x H (mm)	L x W x H (mm) 245 x 170 x 220
Weight	8.5 kg with oil



# Less than 0.0021€ per crimping operation\*

The slide bearing technology at UNIFLEX is so economical.



## Witnesses:

One of many customer machines from 1993 with over 16 million crimping operations.



## \* That pays off for you!

A change of plain bearings, oil, springs and a revision every 2 years costs, at a life cycle of 23 years, about 14 000 euros. Added at a machine price of 20 000 € you have 34 000 € total costs for 16,000,000 crimping operations.

**That's just 0.0021 € per crimping operation.**

## In comparison

The slide bearing technology takes only 2 minutes per week for service to remove the deposits. For lubricated machines you need 7 minutes to put in the lubricant.

## Maximum productivity! Low operating costs!

Bearing machines hardly lose production time at weekly service. We are talking about 200 hours with a lifetime of 10 years.

## Slide bearing technology is more environmentally friendly than lubricated machines

Our slide bearing technology reduces crimp force loss up to 20% through less friction between the moving parts of the machine. This leads to less energy consumption up to 20%.

## Dirt-free slide bearing technology

- The process and repeat accuracy is stabilized since no grease-dirt-mix penetrates into seals and dies.
- Loose Oxid scale does not settle in grease— as a result no tool wear.
- A grease-free hose line is ideal for use in the food and pharmaceutical industries.
- No dirty hands when changing the dies.



Machine still in use after 20 years

## The Best Return on Investment

Our technology offers the Best Return on Investment! Not only compared to lubricated crimpers, but also with other investments.

For example, consider the automotive sector. How often do you go to the workshop and how much do you pay for a kilometer? In the automotive industry one speaks of 0.70 € / km!

## Slide bearings:

So low under cost, that a better and preventive service on the machine is possible.

## Lubricant-free means:

Simple change of the bearing plates and the machine functions again almost like new.

## When should the slide bearings be exchanged?

It is difficult to say how often the slide bearings should be exchanged, since this depends on many factors. The number of crimping operations, the pressure applied as well as the type and amount of material chips of the individual hoses and fixings.

### Our recommendation:

- For production = 1 shift = 1x per year
- For workshop = every 3 to 5 years



Sliding bearing in condition after ca. 900.000 crimping operations

## How to extend the service life of a slide bearing?

You can extend the service life time of a slide bearing by regularly vacuuming away the dry chips, e.g., by means of a workshop vacuum, instead of blowing them off with compressed air.

## When is a complete technological obsolescence recommended?

For production workshops, we recommend a technological obsolescence every 3 years, for repair shops 5 - 10 years are sufficient.

## Thank you for reading our article.

If you have any questions regarding slide bearing prices, please contact our sales team: [sales@uniflex.de](mailto:sales@uniflex.de)

For questions regarding a complete overhaul our service is at your disposal: [service@uniflex.de](mailto:service@uniflex.de)

In case of a complete overhaul, please send us the serial no. and pictures or videos via

**WhatsApp: +49 152 03540155**

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61184 Karben / Germany



# The best Return on Investment



## Profitability, sustainability and climate protection with a different approach:

It's logical: Whoever wants to work economically and wishes to save money takes a look at the expenses. But, whoever wishes to be smarter when saving money not only looks at the acquisition price, but also the operating costs and the service life of their investments.

The success story of UNIFLEX started with the invention of the slide bearing technology 50 years ago – and now, another chapter is being opened: the next 50 years of UNIFLEX. It is true, the slide bearing technology makes UNIFLEX machines a little more expensive than comparable crimpers with costly grease lubrication, but UNIFLEX machines are much more **sustainable because they last longer and are cost-favourable when you consider the energy consumption and maintenance requirements; moreover, they ensure a better CO<sub>2</sub> balance.**

The slide bearing technology reduces the loss of crimp force by up to 20% – due to the reduced friction between the moving parts of the machine. This lowers energy consumption by up to 20%. Another advantage is the cleanliness during the operations for the user, the workpiece and the machine.

## Sustainability pays off

Hydraulic crimpers with slide bearing technology from UNIFLEX are offering a Return on Investment that is second to none.

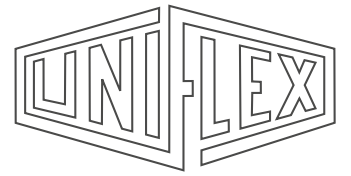
- The cost of exchanging slide bearings, oil, springs as well as a refurbish every 2 years for a life cycle of 23 years amounts to approximately € 14,000. Added to a machine price of € 20,000, this results in total costs of € 34,000 for 16,000,000 crimping processes.
- Furthermore, the slide bearing technology requires only 2 minutes of service per week to remove deposits. Lubricated machines require about 7 minutes in addition to the cleaning process to regrease with the lubricant.

**As a result, the cost per crimping process decreases to an incredible € 0.0021!**



**That's what climate protection looks like: A machine still in operation after more than 25 years and more than 16,000,000 crimping processes.**





# Production Crimpers

Innovative, productive and durable.



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HM 1200



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IPC



Page 56-57  
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and Options



# Production Crimpers



## Greaseless

- Slide bearings on the crimp tool improve efficiency up to 20%, reduce friction and help keep the tool free of contaminants
- No greasing improves cleanliness of machine
- Prolongs the machine's lifetime
- Maximum productivity with very low maintenance costs
- No risk of prematurely damaging the crimping head
- End product can be used in sanitary applications without cleaning
- 20% more capability for crimping stronger or more difficult couplings versus our competition's equivalent crimpers
- Consistently accurate crimp result



## Universal

- For all types of hoses and fittings



## Fixed 6-o'clock Die

- Stationary bottom die for efficient positioning of the product



## Low Noise

- Very quiet hydraulic system



## Ergonomic

- Ease of operator use for maximum productivity



## Environment friendly

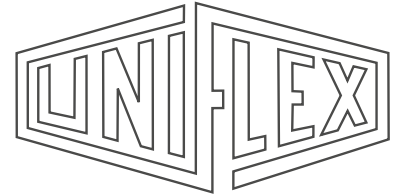
- Engineered to last





Since 1972

The Best Return on Investment



# INCLUDED!

## The best cost of ownership

With our global branches, quality UNIFLEX products and service are available almost anywhere. Customers worldwide have discovered how UNIFLEX products improve production, safety and profitability of their workplace.

Long die sets and ultra rigid tool:

**higher crimp tolerances included**

Slide bearing technology: **maintenance free included**

Hylo cylinder: **saves energy included**

6-o'clock die sets, thin construction and noiseless pump:

**ergonomic included**

Machine designed with high tolerance:

**accurate crimp and longevity included**

2 year warranty: **peace of mind included**

## Everything you need is already included

Advanced control parameters in addition to the usual parameters are included:

- Crimping by pressure
- Pressure Force Monitoring
- Multistep crimping
- Data Logging

We are happy when the customers of our customers are satisfied!



### Protect our Environment

Long-lasting equipment contributes to the reduction of CO<sub>2</sub>



HM 325 | HM 375 | HM 380

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made in Germany



Due to its narrow and innovative construction, high level of user friendliness, and long service life, the HM 3 H sets new standards for quality and cost effectiveness. With its compact construction, it allows easy, uncomplicated, and “rapid” crimping. The intuitive UNIFLEX Software on the convenient Control C.2 Touch completes the HM 3 H and ensures product quality.




HM 3 H



HM 3 H

Technical data	HM 3 H
Crimp force (kN/Ton)	750/75
No grease: 20% less friction	✓
Control	Control C.2 + Touch
SAE R 12 /4SP* 2 piece fitting	1"
4 SH 2 piece fitting*	¾"
SAE R 15 2 piece fitting*	¾"
Industrial	2"
90° Elbows	1½"
Max. Crimp range	70 mm / 2.75"
Opening	+35 mm / +1.38"
Opening without dies	105 mm / 4.13"
Master dies length	100 mm / 3.94"
Type of dies	239-xx-Ø-yy
Speed (mm/sec)	
Close	8.3
Crimp	8.3
Open	13.8
Noise level	53 dBA
Drive	5.5 kW 3 VAC
Oil	50 l
L x W x H (mm)	720 x 600 x 672
Weight	193 kg
<b>Options</b>	
Control IPC	✓

Type of dies



Ø mm	mm
6.8	65
9	65
10	65
12	65
14	65
16	65
17	65
19	65
20	65
22	65
24	65
26	65
28	80
30	80
31	80
32	80
34	80
36	80
38	80
39	80
40	80
44	80
47	100
50	100
54	100
57	100
62	100



SC = Press tool with Cylinder

\* According to the fitting.  
Control page 44 / Accessories and options page 56

Description



A 90° elbow with long ending is no problem for the UNIFLEX HM 3 H. While our competition still searches, we have the solution.



With the new two-hole system, insertion of the dies from both sides is simplified and offers the possibility of selecting two different position (back and front) depending on the type of type of press jaw. The HM 3 H is compact and offers good accessibility.

- Package:  
Machine  
+ PB Ø 17, 20, 24, 28, 32, 40, 44, 50  
+ QDC 239 5  
+ QDS 239 B  
+ Control C.2



Due to their narrow, innovative construction, high level of user friendliness, and long service life, the HM 222 and HM 225 set the standard for quality and cost effectiveness. Their unrivaled accessibility makes ergonomic working possible in production and series manufacturing. The tried and tested greaseless slide bearing technology reduces maintenance costs, and the strong crimping force of up to 1350 /1600 kN.



HM 222



Special machine  
HM 225 with special recess



HM 222 C.2



HM 222 C.2



HM 225 C.2



HM 222



HM 225

Technical data	HM 222 <span style="color: blue; font-weight: bold;">NEW</span>	HM 225
Crimp force (kN/Ton)	1,350/135	1,600/160
No grease: 20% less friction	✓	✓
Control	Control C.2 + Touch	Control C.2 + Touch
SAE R 15/4SH* 1 piece fitting	1¼"	1¼"
4 SH* 2 piece fitting	1"	1¼"
SAE R 15* 2 piece fitting	1"	1¼"
Industrial*	2"	2"
90° Elbows*	1½"	1½"
Max. Crimp range	70 mm / 2.75"	70 mm / 2.75"
Opening	+35 mm / +1.38"	+40 mm / +1.57"
Opening without dies	105 mm / 4.13"	110 mm / 4.33"
Master dies length	75 mm / 2.95"	90 mm / 3.54"
Type of dies	239	239 -xx-θ-yy
Speed (mm/sec) **		
Close	10	19
Crimp	5/10	1.5/3
Open	10	19
Noise level	53 dBA	53 dBA
Drive	5.5 kW 3 VAC	4 kW 3 VAC
Oil	80 l	80 l
L x W x H (mm)	645 x 560 x 1,450	645 x 560 x 1,470
Weight	310 kg	470 kg
<b>Options</b>		
Control IPC	✓	✓

Type of dies		Type of dies	
	<b>239</b>		<b>239-xx-θ-yy</b>
Ø mm	mm	Ø mm	mm
6.8	50	6.8	65
9	50	9	65
10	50	10	65
12	50	12	65
14	60	14	65
16	60	16	65
17	60	17	65
19	60	19	65
20	60	20	65
22	60	22	65
24	60	24	65
26	75	26	65
28	75	28	80
30	75	30	80
31	75	31	80
32	75	32	80
34	75	34	80
36	75	36	80
38	75	38	80
39	75	39	80
40	75	40	80
44	75	44	80
47	75	47 ***	100
50	75	50 ***	100
54	75	54 ***	100
57	75	57 ***	100
62	75	62 ***	100

\* According to the fitting.  
 \*\* Standard: Half power twice faster included.  
 \*\*\* Outside master dies length, consult UNIFLEX.  
 Control page 44 / Accessories and options page 56

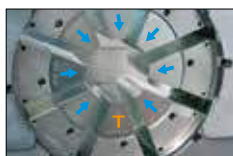
## Description



The clear Control C.2 and the optional UTS software provide complete documentation of production data.



The compact, narrow and ergonomic construction makes working on both sides possible.



The fixed 6- o'clock die makes safe and low-force positioning of the workpiece possible.

Package HM 222:  
 Machine  
 + PB Ø 17, 20, 24, 28, 32, 40, 44, 50  
 + QDS 239 B + QDC 239.5  
 + Control C.2

Package HM 225:  
 Machine  
 + PB Ø 17, 20, 24, 28, 32, 40, 47, 54, 62  
 + QDS 239 B + QDC 239.5  
 + Control C.2

As reliable classic machines, the HM 3xx/HM 400 series unites all the outstanding properties of a production crimper. They are compact, powerful and make ergonomic working possible. Combining a convincingly solid construction with a high level of user friendliness, and long service life, the HM 3xx/HM 400 series sets a new standard for quality and cost effectiveness.



HM 375 | HM 380 H



HM 400



HM 400



HM 375 | HM 380 H



HM 400



Technical data	HM 375	HM 380 H	HM 400
Crimp force (kN/Ton)	3,150/315	3,400/340	3,750/375
No grease: 20% less friction	✓	✓	✓
Control	Control C.2 + Touch	Control C.2 + Touch	Control C.2 + Touch
SAE R 15/4SH* 1 piece fitting	3"	3"	3"
SAE R 15/4SH* 2 piece fitting	2½"	3"	3"
Industrial*	4"	4"	6"
90° Elbows*	3"	3"	3"
Max. Crimp range ** (mm/inch)	165 / 6.50	165 / 6.50	190 / 7.48
Opening (mm/inch)	+70 / +0.28	+70 / +0.28	+130 / +5.12
Opening without dies (mm/inch)	215 / 8.46	215 / 8.46	300 / 11.8
Master dies length (mm/inch)	126 / 4.96	126 / 4.96	150 / 5.91
Type of dies	237 L/239-xx	237 L/239-xx	554/239-xx
Speed (mm/sec)			
Close	23	29	18
Crimp	1.4	1.9	1.4
Open	33	44	20
Noise level	62 dBA	62 dBA	62 dBA
Drive	4 kW 3 VAC	5.5 kW 3 VAC	5.5 kW 3 VAC
Oil	100 l	100 l	260 l
L x W x H (mm)	1,200 x 600 x 1,700	1,200 x 600 x 1,700	1,500 x 630 x 1,800
Weight	750 kg	750 kg	1,400 kg
CGS (Conicity Guard System)	✓	✓	-
HiDS (High Pressure Pump Dynamic Suction)	✓	✓	✓
<b>Options</b>			
Control IPC	✓	✓	✓

\* According to the fitting.

\*\* With master dies.

Control page 44 / Accessories and options page 56

Type of dies		Type of dies		Type of dies	
239-xx-Ø-yy		237 L		554	
Ø mm	mm	Ø mm	mm	Ø mm	mm
6.8	65	54	118	57	120
9	65	57	118	62	120
10	65	62	118	67	120
12	65	67	118	71	120
14	65	71	118	74	120
16	65	74	118	78	120
17	65	78	118	84	120
19	65	84	118	86	120
20	65	86	118	90	120
22	65	90	118	96	120
24	65	96	118	103	120
26	65	103	118	106	150
28	80	106	126	111	150
30	80	111	126	116	150
31	80	116	126	121	150
32	80	121	126	126	150
34	80	126	126	131	150
36	80	131	126	136	150
38	80	135	126	146	150
39	80	137	126	156	150
40	80				
44	80				
47	100				
50	100				
54	100				
57	100				
62	100				

## Description



Due to the long master dies, you can crimp virtually all types of fittings.



The fixed 6- o'clock die makes safe and low-force positioning of the workpiece possible.



ICC – Industrial (hose) Crimp Calculator (with C.2 and IPC controller)

Automatically calculate your crimp diameter directly from your hose and fitting measurement based on compression. Includes the official agreed, tested and approved industrial hose crimp calculator/Interface with fitting and ferrule data from Mario, PT, Campbell and Dixon.

Package HM 375 / HM 380:

- Machine
- + PB Ø 17, 20, 24, 28, 32, 40, 44, 50, 57, 71
- + 237.239.2L2
- + GDC 239.5
- + QDS 239 B
- + Control C.2

Package HM 400:

- Machine
- + PB Ø 17, 20, 24, 28, 32, 40, 44, 50, 57, 71
- + 554.239L
- + GDC 239.5
- + QDS 239 B
- + Control C.2

Due to their compact, all-round accessible construction, high level of user friendliness, and long service life, the HM 450, HM 480 and HM 495 set the standard for quality and cost effectiveness. The crimpers' particularly large opening stroke and the use of long master dies allow you to crimp all types of fittings and up to 12" industrial hoses.



HM 480



HM 450

HM 480 | HM 495





HM 450



HM 480 | HM 495



Technical data	HM 450	HM 480	HM 495
Crimp force (kN/Ton)	4,000/400	4,800/480	6,000/600
No grease: 20% less friction	✓	✓	✓
Control	Control C.2 + Touch	Control C.2 + Touch	Control C.2 + Touch
SAE R 15/4SH* 1 piece fitting	3"	3"	3"
SAE R 15/4SH* 2 piece fitting	3"	3"	3"
Industrial	6" (12") **	8" (12") **	8" (12") **
90° Elbows	3"	3"	3"
Max. Crimp range (mm/inch)	310 / 12.20	310 / 12.20	310 / 12.20
Opening (mm/inch)	+130 / +5.12	+150 / +5.91	+150 / +5.91
Opening without dies (mm/inch)	360 / 14.17	380 / 14.96	380 / 14.96
Master dies length (mm/inch)	150 / 5.91	150 / 5.91	150 / 5.91
Type of dies	245/237L/239-xx-Ø-yy	245/237L/239-xx-Ø-yy	245/237L/239-xx-Ø-yy
Speed (mm/sec)			
Close	18	18	18
Crimp	1.4	1.3	1
Open	20	20	20
Noise level	62 dBA	62 dBA	62 dBA
Drive	5.5 kW 3 VAC	5.5 kW 3 VAC	5.5 kW 3 VAC
Oil	300 l	300 l	300 l
L x W x H (mm)	1,590 x 730 x 1,972	1,590 x 730 x 2,015	1,590 x 730 x 2,076
Weight	1,900 kg	2,400 kg	2,600 kg
HiDS (High Pressure Pump Dynamic Suction)	✓	✓	✓
<b>Options</b>			
Control IPC	✓	✓	✓

Type of dies		Type of dies	
239-xx-Ø-yy		237 L/245	
Ø mm	mm	Ø mm	mm
6.8	65	54	118
9	65	57	118
10	65	62	118
12	65	67	118
14	65	71	118
16	65	74	118
17	65	78	118
19	65	84	118
20	65	86	118
22	65	90	118
24	65	96	118
26	65	103	118/130
28	80	106	126/130
30	80	111	126/130
31	80	116	126/130
32	80	121	126/130
34	80	126	126/130
36	80	131	126/130
38	80	135	126
39	80	136	130
40	80	137	126
44	80	146	150
47	100	156	150
50	100	170	150
54	100	185	150
57	100	200	150
62	100	230*	230
		265*	220
		275*	220
		305*	254

\* Special dies (reduced opening).

\*\* Pipe fittings without flange.

Control page 44 / Accessories and options page 56

## Description



Due to the long master dies, you can crimp virtually all types of fittings.



The machines are very compact and narrow for a better work environment.



ICC – Industrial (hose) Crimp Calculator (with C.2 and IPC controller)

Automatically calculate your crimp diameter directly from your hose and fitting measurement based on compression. Includes the official agreed, tested and approved industrial hose crimp calculator/Interface with fitting and ferrule data from Mario, PT, Campbell and Dixon.

Package HM 4xx:

- Machine
- + PB Ø 17, 20, 24, 28, 32, 40, 44, 50, 57, 71
- + 237, 239, 2L2 + 245, 237L
- + GDC 239.5 + GDS 239 B
- + Control C.2

With their distinctive construction and high crimping force of up to 12000 kN, the HM 660, HM 665 and HM 1200 are some of UNIFLEX's powerhouses. They set the standard for quality and cost effectiveness. Using one of these models, you can easily crimp up to 12" industrial hoses (according to the fitting).



HM 665



HM 660 | HM 1200



HM 665



HM 660 | HM 1200



HM 665

Technical data	HM 660	HM 665	HM 1200
Crimp force (kN/Ton)	8,000/800	6,000/600	12,000/1,200
No grease: 20% less friction	✓	✓	✓
Control	Control C.2 + Touch	Control C.2 + Touch	Control C.2 + Touch
SAE R 15/4SH* 1 piece fitting	3"	3"	3"
SAE R 15/4SH* 2 piece fitting	3"	3"	3"
Industrial	10"	12"/16**	10"
90° Elbows	3"	3"	3"
Max. Crimp range** (mm/inch)	325 / 12.80	450 / 17.72	325 / 12.80
Opening (mm/inch)	+120 / +4.72	+180 / +7.09	+120 / +4.72
Opening without dies (mm/inch)	395 / 15.55	580 / 22.83	395 / 15.55
Master dies length (mm/inch)	200 / 7.88	250 / 9.84	200 / 7.88
Type of dies	246/237L/239-xx-Ø-yy	298/247/245/ 237L/239-xx-Ø-yy	246/237L/239-xx-Ø-yy
Speed (mm/sec)			
Close	15	17	11
Crimp	2	0.9	1.5
Open	15	25	11
Noise level	69 dBA	69 dBA	69 dBA
Drive	18.5 kW 3 VAC	5.5 kW 3 VAC	18.5 kW 3 VAC
Oil	300 l	400 l	300 l
L x W x H (mm)   Machine	1,400 x 1,050 x 2,470	1,800 x 970 x 2,400	1,400 x 1,130 x 2,660
L x W x H (mm)   Power Unit	700 x 1,160 x 1,360	integriert	1,100 x 1,300 x 1,500
Weight	4,200 kg + 450 kg	5,200 kg	4,480 kg + 450 kg
HiDS (High Pressure Pump Dynamic Suction)	✓	✓	✓
<b>Options</b>			
Control IPC	✓	✓	✓

\* Layflat hoses with special dies.

\*\* According to the fitting.

Control page 44 / Accessories and options page 56

Type of dies	Type of dies	Type of dies	Type of dies
<b>239-xx-Ø-yy</b> 	<b>237 L 246</b> 	<b>298</b> 	<b>246</b> 
Ø mm    mm	Ø mm    mm	Ø mm    mm	Ø mm    mm
6.8    65	54    118	200    250	121    150
9    65	57    118	220    250	136    130
10    65	62    118	240    250	146    150
12    65	67    118	260    250	156    150
14    65	71    118	280    250	170    170
16    65	74    118	300    250	185    200
17    65	78    118	320    250	200    200
19    65	84    118	340    250	215    200
20    65	86    118	360    250	230    200
22    65	90    118	380    250	245    200
24    65	96    118		
26    65	103    118		
28    80	106    126		
30    80	111    126		
31    80	116    126		
32    80	121    126		
34    80	126    126		
36    80	131    126		
38    80	135    126		
39    80	136    150		
40    80	137    126		
44    80	146    150		
47    100	156    150		
50    100	170    170		
54    100	185    200		
57    100	200    200		
62    100	215    200		
	230    200		
	245    200		
	260    200		

Type of dies
<b>245</b> 
Ø mm    mm
103    130
106    130
111    130
116    130
121    130
126    130
131    130
136    130
146    150
156    150
170    150
185    150
200    150

## Description



Due to the long master dies, you can crimp virtually all types of fittings.



The fixed 6- o'clock die makes safe and low-force positioning of the workpiece possible.



The machines are very compact and narrow for a better work environment.



ICC – Industrial (hose) Crimp Calculator (with C.2 and IPC controller)

Automatically calculate your crimp diameter directly from your hose and fitting measurement based on compression.

Includes the official agreed, tested and approved industrial hose crimp calculator/Interface with fitting and ferrule data from Mario, PT, Campbell and Dixon.

# Control C.2 / IPC

The CONTROL C.2 and new controller IPC with its intuitive operation for UNIFLEX crimpers, test benches and several more products has a colour touch display. The new menus (Quick-Start-Menu and Production Menu) as well as the possibility to individualize each and every menu and application will make your work much easier. Everything can be controlled via HID, i.e. via Windows devices. In addition, you can record, monitor and assure the quality of your product and how the machine works via the PFM option.



Control C.2 with screen protection option 807.2  
HMI mit 7" Widescreen-Touch-Panel

interfaces:

- Ethernet RJ45
- USB
- Serieller Port (COM)
- Profinet
- Profibus



IPC

## Production management for serial production, production in line with your own processes

- Endless item memory increases productivity and consistency
- Item data easily searchable for faster set up of the next part. Data set filtering for faster production
- Data sets can be read in via scanner
- Scanner menus can be linked to your production data set
- Intuitive operation

## Service via network

- Simple organization of changes, maintenance and management of production data sets
- Central order management from the desktop saves time and money
- Windows based

## Upload and download data

- Easily upload and download data using HID-compliant devices, such as external database, scanners, USB flash drive, Vernier calipers or remotely via the Internet

Industrial PC with 12" touch panel  
integrated RFID reader

interfaces:

- Ethernet RJ45
- USB 3.1
- serial port (COM)
- Profinet
- Profibus
- CAN bus

Start the machine and its control:

### START Language



Language selection, other languages available upon request.

### Units



Configuration units.

Different users are possible:

### LOGIN User Login



Factory settings via user details and password with functionality assignments and user rights.

### MENU Login by menu



Quick menu and production menu.

After Login, you have the choice: Quick Menu or Production Menu.

### QUICK MENU



Input of the crimping dimensions, correction value and crimping dies (automatic).

### PRODUCTION MENU



Four choices for selecting compression parameters quickly and easily. Selection menu includes pressing by dimension, by pressure, stored parameters in integrated database in the controller, or by use of a barcode scanner.

## PRODUCTION MENU

- (1) Crimping by dimension (parameter)
- (2) By pressure (parameter)
- (3) Via the integrated database
- (4) Barcode scanner



Easily input crimping dimensions, correction value, hold time, aperture diameter, pre-selection of counter and crimping dies (automatic).



Easily input pressure, hold time, aperture diameter, pre-selection counter and crimping dies.

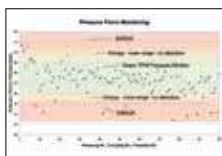


Search for and create articles numerically or alpha-numerically. Articles can be easily selected using the "Quick Search Menu".



Scan article data via barcode. (accessories)

## Inclusive: 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.



Multistep



UDL (UNIFLEX) data logging



ICC – Industrial (hose) Crimp Calculator (with C.2 and IPC controller)

Automatically calculate your crimp diameter directly from your hose and fitting measurement based on compression. Includes the official agreed, tested and approved industrial hose crimp calculator/Interface with fitting and ferrule data from Mario, PT, Campbell and Dixon.

## CONTROL IPC



## START MENU



## INFO - CONVERSIONS, 2 COUNTERS - SERVICE, CONTACT



## WORKSHOP MODE - QUICK START



Input of crimping diameter, correction values and die set (automatic).

## QDC - CALL PRESS JAW CHANGE POSITION AND SUGGESTED PRESS DIES SET

## CRIMPING BY DIMENSION MODE

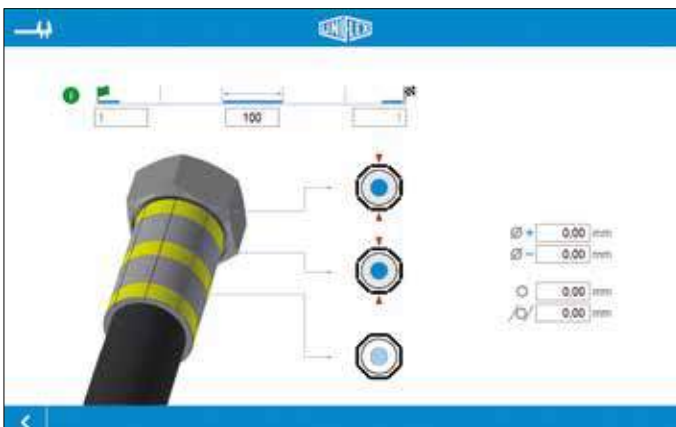


Input of pressing dimension, correction values, dwell time, opening diameter, preset number and dies set (automatic).

## CRIMPING BY PRESSURE MODE

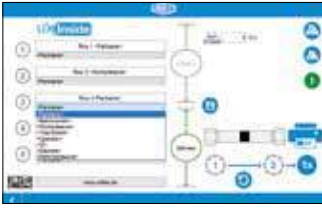
Input of pressure, holding time, opening diameter, preset number and dies set.

## CALIPER



With the caliper, the forming results can be checked, including a freely selectable tolerance range. To do this, measure the workpiece at the point indicated by the red triangle.

## LABEL



With the label printer and the UNIFLEX Label System ULS, a label can be printed automatic for each workpiece.

## MULTISTEP



With interval forming, it is possible to perform a forming operation in several stages.

## CMK



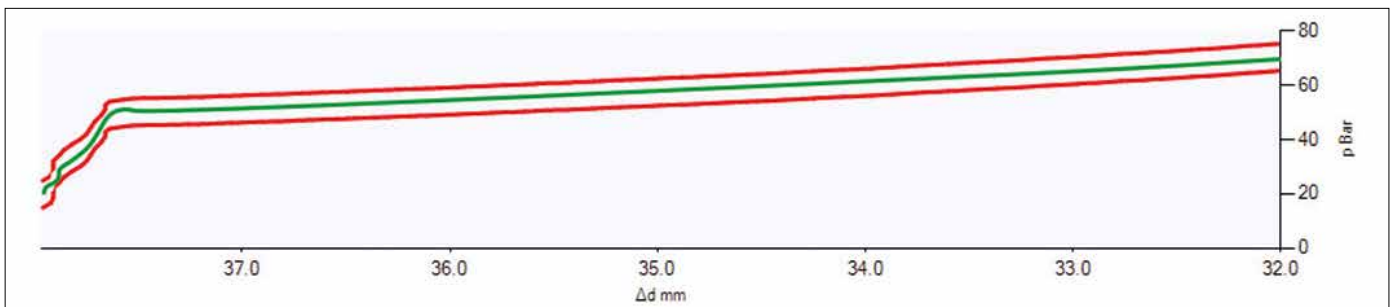
The machine capability index (CMK) describes the ability of the machine to meet the specified requirements. With the CMK function in the control, it is possible to set the characteristic values of the machine capability.



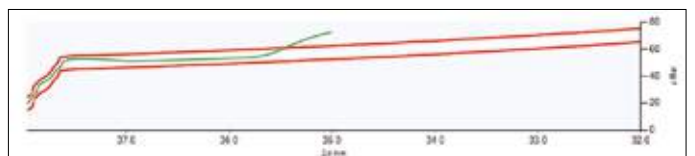
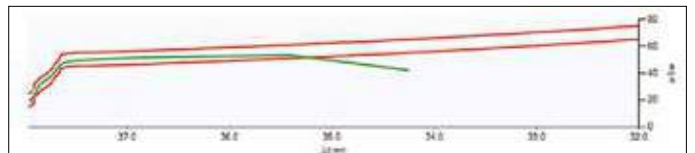
## PFM



The PFM function enables forming to a defined pressure/diameter with monitoring of the minimum and maximum pressure/diameter. Enter the forming diameter. The forming diameter is the diameter to which the tool moves. The workpiece is permanently monitored during pressing every millisecond.



Every millisecond the monitoring system compares the crimping pressure and if there is an anomaly, it stops the crimping instantly. The functionality allows to detect repeated crimping, non adapted dies sets, non conforming crimping parts (non conforming ferrules, inserts, hoses), non conforming skiving and also non conforming insertion of the parts. All these data are recorded and can be reviewed at any time.



## COMPARE CHARTS



In addition, diagrams of the data sets can be called up here directly from the pressed workpieces.

## JOB-MODE



With the job mode, it is possible to bring several transformations from different data sets, which are deposited in the database, into one work order.

## QUEUE MODE



## QUEUE SETTING



The queue mode executes individual press data records stored in a database one after the other during production managed from the server.

## IoT - INTERNET OF THINGS



IoT menu



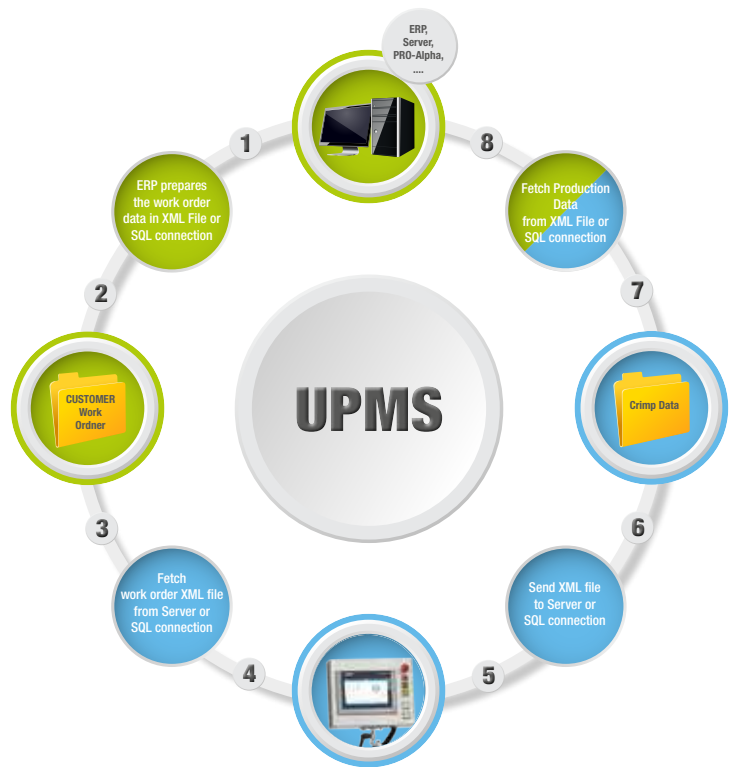
File path setting  
(Part table, Job folder, Queue folder)



In the log file overview, stored press parameters are displayed.



Network settings



## USB



Loading the data from the USB

## RFID



The RFID reader enables automatic logon to the machine with an RFID chip.

## UNIT OF MEASUREMENT SETTING



The currently set unit of measurement is displayed in green. Tapping a key sets the corresponding unit of measurement.

## LANGUAGE SETTING



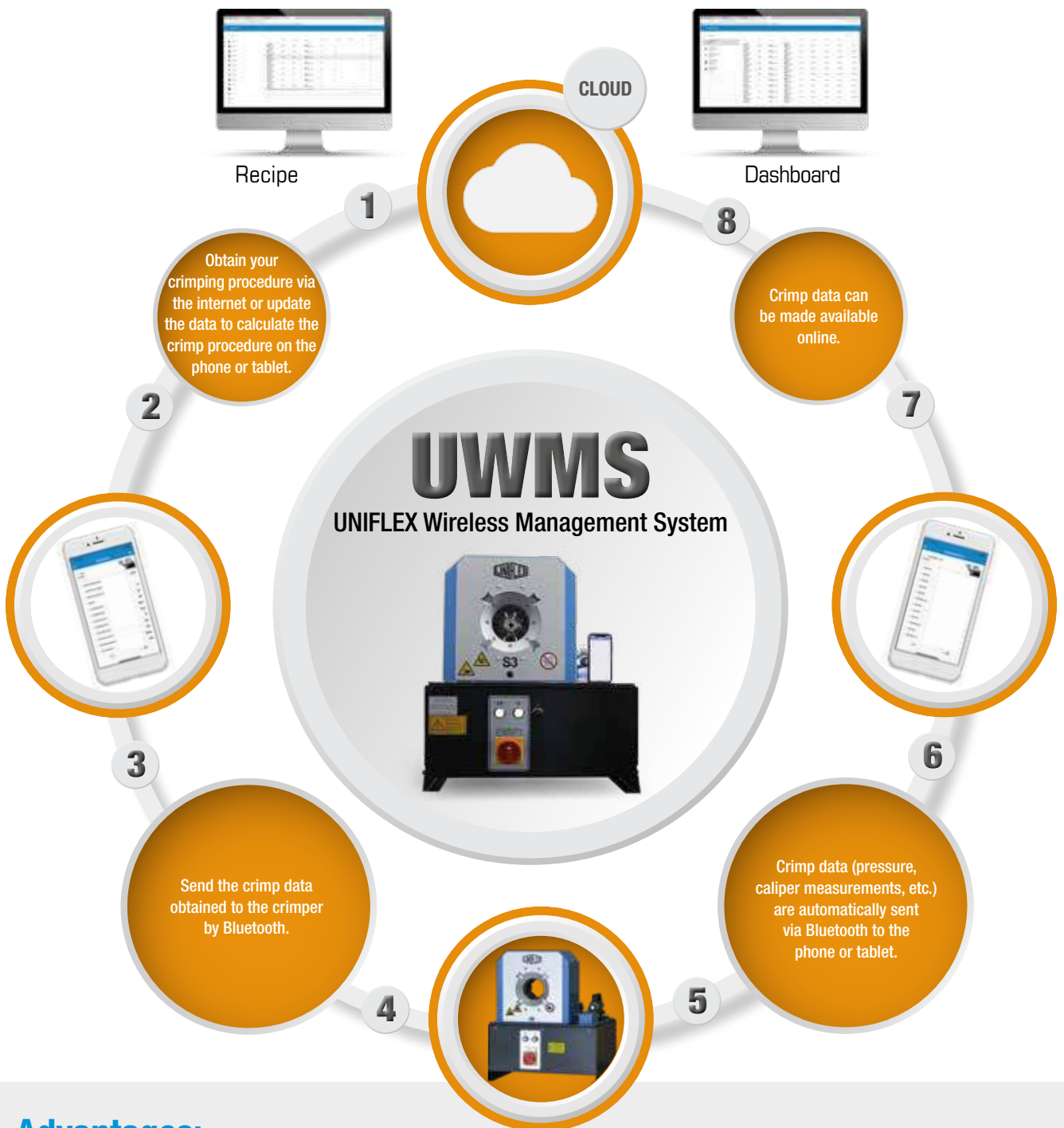




## UNIFLEX Wireless Management System (UWMS)

UWMS (UNIFLEX wireless management system) allows you to put your crimping procedure on a server and keep this information up to date. Customers can access the information via an app on a phone or tablet connected to the internet and send it to the crimper by Bluetooth. All you need to do is change the dies. Crimp data and measurement information, such as the date, time, and the assembly serial number are automatically sent to your server or tablet via Bluetooth and are then available online.

## UX crimp



### Advantages:

- Keep customers up to date with the latest crimping specifications.
- Obtain valuable information about your crimper (No. of crimping operations, crimping specifications, crimping data)
- Use serial numbers to build traceability and reorder systems.
- Evaluate your market (what you sell, where you sell)

# Accessories for Control C.2 / IPC

Order number:

Calb CtrlC C.2 (software + hardware)



Calibrating your machine is simple using digital measurement via the software and the calibration mandrel.

Order number: Kit 800.610 + 800.606/Caliper Ctrl C 3 inch

or Kit 800.610 + 800.609/Caliper Ctrl C 4 inch



Measuring point menu with foot mouse/Vernier caliper (3 or 4"): Quality testing using calipers and foot mouse (as OK button). With the digital calipers, you can also check the crimping dimensions for conicity and ovality (number of measurement points). The pictogram-driven menu control guides you through the entire process.

Order number:

TA(A)

PS.2 Double

807.2



Depth stop



Double foot pedal



Screen protection

807.112



Extension cable Unimatic B, E, C.2, length 1700 mm

Order number: 807.602



Touch panel with 1800 mm supply cable.  
(Controller can be placed on the left side)

Order number:

BCR Ctrl C.2

800.610



Barcode scanner



Foot mouse for controller interaction



RFID CTRCC

IPC

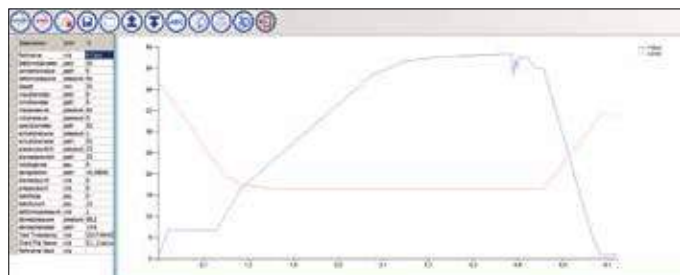


Display protection foil 807.867  
Storage tray kit 807.872



## Options

PFC Pressure Force Control



The UNIFLEX PFC (Pressure Force Control) option offers two ways to stop a compression – based on the distance travelled or the applied force, as happens with PFC. Stopping a compression stroke due to applied force can meet certain application requirements, specifically those where material behavior must be taken into account. This also makes it possible to press brittle materials, such as fibre glass. Many industry-leading glass insulator producers are already using PFC profitably.

PFC provides readings of pressing power and pressing position at any time during the pressing process. These measurements are displayed and analysed graphically. On the basis of just a few test pressings, you will learn exactly how to have the machine produce the perfect final assembly. This process can then be repeated by setting the pressing force, the rate the force increases and the precise time to switch to stop. By saving these values to the controller, you can improve productivity through shorter set up time and consistent quality can be achieved, thereby dramatically increasing customer satisfaction and profitability.

## Other options:

DMS (Strain Gauges)



Option for HM 3xx crimping machines.

Force measurement directly applied to the master dies. One or more sensors are installed according to the application and precision requested. This achieves a more precise crimping force and avoids variations due to the hydraulic system or friction. Advantages include faster detection of the insertion depth of the fitting, variations in the material, and hose tolerance. The position of the fitting can also be defined to reduce conicity.

ULS.2-C

ULS.2-APP for Tablet or PC



ULS  
(UNIFLEX Label-System)



Tablet/iPhone Not provided.

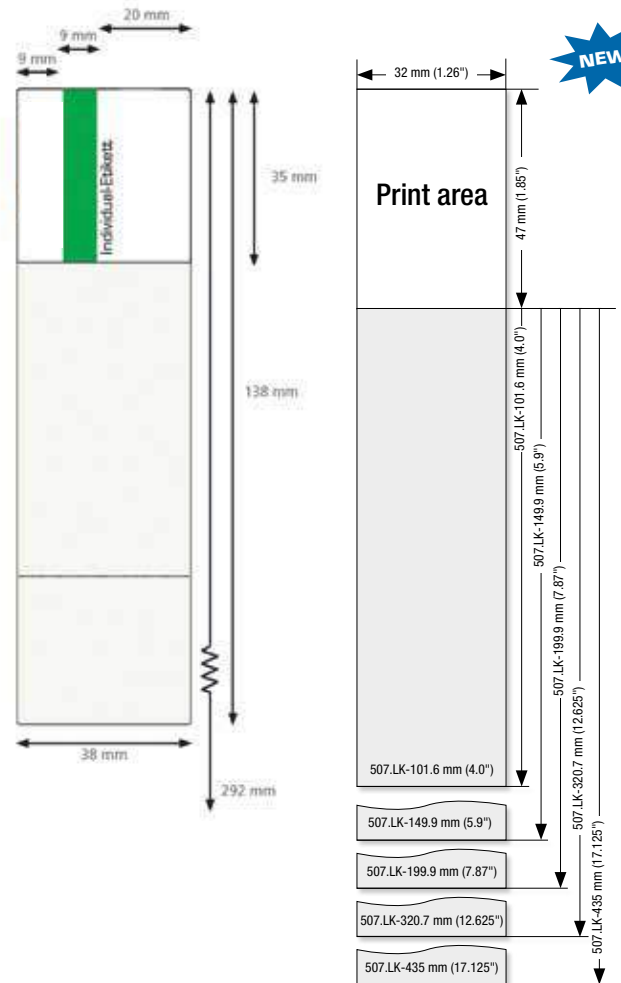
### Advantages of Hose assembly Management

Benefits of labels and what they can tell the user:

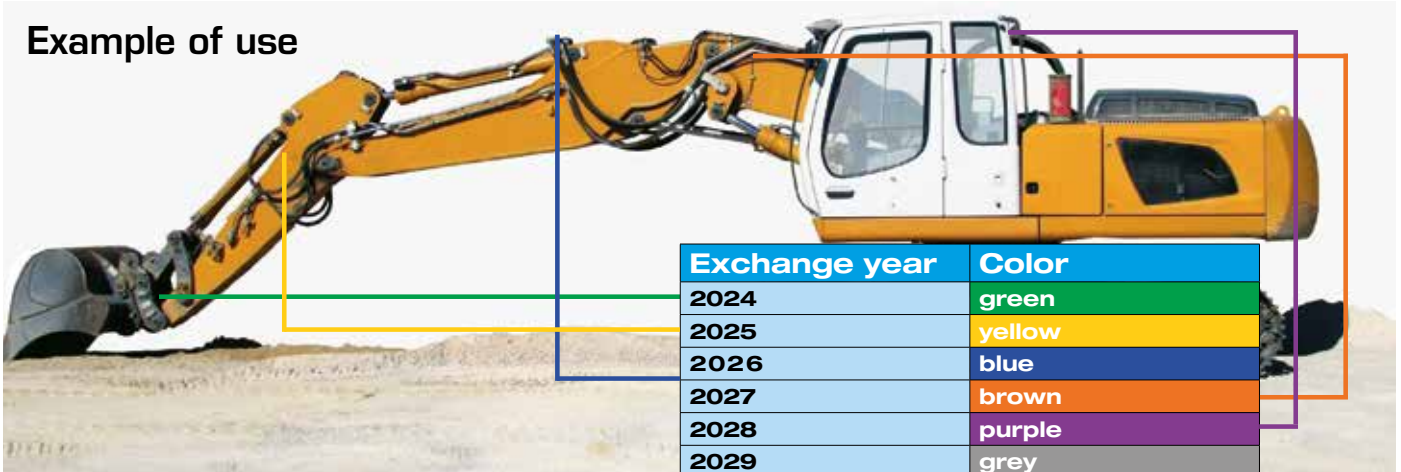
- Which components need to be replaced and when
- The date of the exchange
- The potential hazards of the machine
- The plan for preventive maintenance
- Minimizes cost of maintenance
- Avoids equipment failures and long downtimes
- Publicity for your company

### UNIFLEX Labeling System – ULS Ecoline

Part numbers ULS ECOLINE					
Pos.	Article	Inhalt	Part No.		
1	Printer		ULS.2-C ULS.2-APP	to integrate with our control to use on mobile phone or tablet with an APP	
2	Color ribbon for Printer	Cassette with labels, white (black) (74 meters)	888.469		
3	Banderole	5000 pieces		Material	
		Color bars	Banderole 138 mm	Banderole 292 mm	- Transparent preprinted oil- and acid-resistant banderole - High-performance vinyl - Strongly adhesive, permanent - Specifically designed for the surface of rubber and thermoplastic hose
		green	507.1_CP	507.1_XL_CP	
		yellow	507.2_CP	507.2_XL_CP	
		blue	507.3_CP	507.3_XL_CP	
		brown	507.4_CP	507.4_XL_CP	
		purple	507.5_CP	507.5_XL_CP	
		grey	507.6_CP	507.6_XL_CP	



### Example of use



Exchange year	Color
2024	green
2025	yellow
2026	blue
2027	brown
2028	purple
2029	grey

# IoT

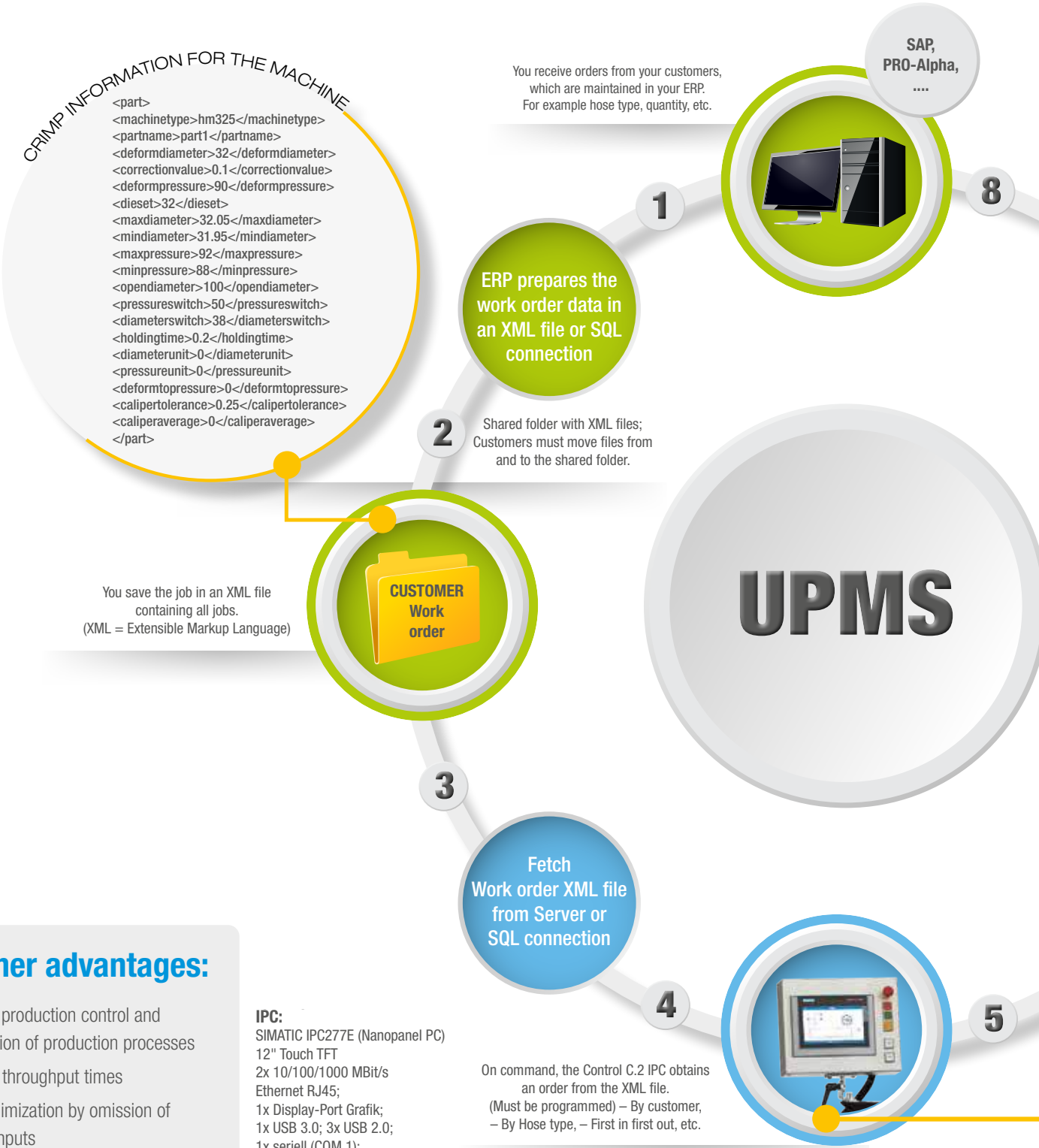
Internet of Things



## UNIFLEX Paperless Management System (UPMS)

UNIFLEX has developed a complete Paperless Management for easily sending data directly from your ERP to a dashboard.

This allows you to manage all your machines by giving them working orders and retrieving production information from each machine. This gives you the flexibility to organize your production machine by machine (For example: the cutter can cut all hose sizes installed for customers, while



CRIMP INFORMATION FOR THE MACHINE

```
<part>
<machinetype>hm325</machinetype>
<partname>part1</partname>
<deformdiameter>32</deformdiameter>
<correctionvalue>0.1</correctionvalue>
<deformpressure>90</deformpressure>
<dieset>32</dieset>
<maxdiameter>32.05</maxdiameter>
<mindiameter>31.95</mindiameter>
<maxpressure>92</maxpressure>
<minpressure>88</minpressure>
<opendiameter>100</opendiameter>
<pressureswitch>50</pressureswitch>
<diameterswitch>38</diameterswitch>
<holdingtime>0.2</holdingtime>
<diameterunit>0</diameterunit>
<pressureunit>0</pressureunit>
<deformtopressure>0</deformtopressure>
<calipertolerance>0.25</calipertolerance>
<caliperaverage>0</caliperaverage>
</part>
```

You receive orders from your customers, which are maintained in your ERP. For example hose type, quantity, etc.

ERP prepares the work order data in an XML file or SQL connection

Shared folder with XML files; Customers must move files from and to the shared folder.

You save the job in an XML file containing all jobs. (XML = Extensible Markup Language)



Fetch Work order XML file from Server or SQL connection



On command, the Control C.2 IPC obtains an order from the XML file. (Must be programmed) – By customer, – By Hose type, – First in first out, etc.

### Customer advantages:

- Targeted production control and optimization of production processes
- Reduced throughput times
- Error minimization by omission of manual inputs
- Traceability of production data
- Statistical evaluation of production data

**IPC:**  
 SIMATIC IPC277E (Nanopanel PC)  
 12" Touch TFT  
 2x 10/100/1000 MBit/s Ethernet RJ45;  
 1x Display-Port Grafik;  
 1x USB 3.0; 3x USB 2.0;  
 1x seriell (COM 1);  
 CFAST-Slot;  
 Celeron N2807 (2C/2T)  
 4 GB RAM  
 Windows 10

at the same time you can decide to crimp according to individual orders and test the kitting order with the test bench. The System returns all the relevant quality information you need to make sure your product is made to specifications. Stored data can be used not only for traceability but also for analyzing your productivity. This will optimize your production processes, reduce your administrative tasks and improve your quality control.

- Customer's Work Element
- UNIFLEX Work Element

Fetch Production Data from XML file or SQL connection

7

Your ERP can then import the data from the XML file and import it into your system.



6


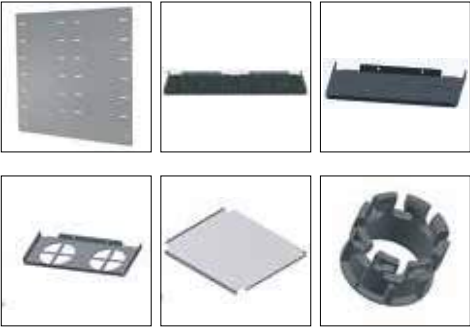













The crimper sends all crimp data to the new XML file. (Diameter, pressure, holding time, ...)  
The crimper adds a record for each crimp. It contains all settings as well as the reached pressure, the achievable measure, counter, date and customized values.

Send XML file to Server or SQL connection

The machine tells the operator which dies to install and then crimping can start. (Visualization of the used parts and additional order details is possible)



# Die Storage and Accessories

Item number + Description		Usage: Machine/Accessories	Option
<b>TU</b> Work Bench capable of supporting up to 800 kg		suitable for: universal	
<b>TU-QDS F Basic</b> Basic with screws		suitable for: Universal work bench TU	
<b>TU-QDS FXL Shelf</b> Variable with screws		suitable for: TU-QDS F Basic	
<b>TU-QDS F Shelf</b> Variable with screws		suitable for: TU-QDS F Basic QDS-S.2 single row QDS-S-2 double row	
<b>TU-QDS F 239I</b> 3 pieces in set		suitable for: TU-QDS FXL Shelf TU-QDS F Shelf	
<b>TU-QDS F Shelf PB280</b> for PB 280		suitable for: TU-QDS F Basic QDS-S.2 single row QDS-S-2 double row	
<b>QDS-S.2 single row</b> Basic Support		suitable for: HM 220.3 HM 225.3 HM 222	
<b>QDS-S-2 double row</b> Basic Support		suitable for: HM3xx.2 S6.3A+C S8.2/S8.3 S10.2/S10.3 HM245.4	
<b>QDS 237.239S RAL5012</b> Basic Support with TU-QDS 239i		passend zu: HM3xx ab Bj.2010, HM3xx.2 S6.3 S8.2/S8.3 S10.2/S10.3 HM 245.2/HM 245.3/HM 245.4	

Item number + Description		Usage: Machine/Accessories
<b>QDS 239 S</b> Basic Support with TU-QDS 239i		suitable for: Machine SC 6, SH 10, SC 12, HM 2xx und HM 3 XX
<b>QDS 280 B RAL 7021</b> For 9 Set PB 280		suitable for: PB 280
<b>QDS 239 B RAL 7021</b> For 9 Set PB 239		suitable for: Type of dies PB 239
<b>QDS 239 R</b> For 9 set PB 239		suitable for: Type of dies PB 239
<b>QDS 239 C/T</b> Wheeled support for 24 set PB 239		suitable for: PB 239
<b>Oil-cooler</b> Reduce heat, increase permanent tolerances.		suitable for: Production crimpers
<b>QDS-HD</b> For large industrial dies.		suitable for: PB 245 PB 554 PB 237
<b>Machine trolley</b> Wheeled support 777.1 L x W x H (mm): 1720 x 660 x 200 Weight: 75 kg Load Weight: 800 Kg		suitable for: HM 3xx, HM 220/225, HM 245, S6/S8/10 EM 115

# Accessories and Options

Item number + Description		Usage: Machine/Accessories
<p><b>OCS 10 retro</b></p> <p>Camera system – the alternative to the mirror, for a better sight line adjustment.</p>		<p>suitable for: HM 2XX, HM 3XX, 4XX und 6XX, HM 1200</p>
<p><b>TU-Rack 18-PB239</b></p> <p>Workbench for miscellaneous machines includes die storage.</p>		<p>suitable for: Service Crimpers Type of dies PB 239</p>
<p><b>Mirror/SHS</b></p> <p>Allows the operator to watch the correct position of the part to be crimped behind the machine.</p>		<p>suitable for: all crimpers SC, SH, HM 2XX, HM 3XX</p>
<p><b>LUF</b></p> <p>Light for the rear side of the machine.</p>		<p>suitable for: all machines</p>
<p><b>TA</b></p> <p>To position the fitting inside the head and/or to activate the crimp cycle automatically.</p>		<p>suitable for: all machines, except S2 and S7</p>
<p><b>QDC 239.5</b></p> <p>Dies quick change-tool for easy jaw change PB 239.</p>		<p>suitable for: all machines with type of dies PB 239</p>
<p><b>265.2 Turntable</b></p>		<p>suitable for: SH 7</p>
<p><b>PS Double foot pedal</b></p>		<p>suitable for: SC 6, SC 6 S, SC 6 Ecoline, SH 10, SH 10 xl, SC 12 i (not for Ecoline-Models)</p>
<p><b>Cable DC GK 205</b></p> <p>Length 5 m</p>		<p>suitable for: HM 200, SC 3, SH 6, SH 6 S (only for DC versions)</p>
<p><b>PUM 0.8/3.2-700 BAR</b></p>		<p>suitable for: SH 2</p>



**Item number  
+ Description**

**PTS SYSTEM**

Marking and crimping in one step according to DIN 20066, EN 853, EN 854, EN 856, EN 857.

PTS 52: character 4,0 x 2,0 mm/  
marking depth ca. 0,3 - 0,5 mm

PTS 32: character 3,0 x 1,5 mm/  
marking depth ca. 0,3 mm



**Number of characters**

P 200, 202, 204, 213, 261, 265  
always 10 each

P 262 /263  
Ø 14 - 32 = 17 each

P 239  
Ø 14 - 24 = 12 each  
Ø 26 - 50 = 17 each

P 239L or P239-xx-Øyy  
Ø 14 - 22 = 14 each  
Ø 24 - 40 = 15 each  
Ø 44 - 50 = 10 each

P 232L  
Ø 17 - 20 = 21 each  
Ø 24 - 28 = 22 each  
Ø 32 - 44 = 24 each  
Ø 47 - 62 = 10 each  
Ø 67 - 90 = 11 each

P 237L  
Ø 54 - 67 = 24 each  
Ø 71 - 121 = 11 each

P 266L  
Ø 54 - 78 = 10 each

P 554-xxx-  
Ø 57 - 103 = 24 each  
Ø 106 - 121 = 12 each

**Usage:  
Machine/Accessories**

Dies	Ø mm
261	14 - 47
263	14 - 32
265	54 - 71
266 L	54 - 78
239/239 L	14 - 50
232 L	14 - 90
237 L	54 - 121
554/246 L	on request

**Angle scale**

238.11 (HM 3xx) double side  
239.18 and 255.12  
239.21 (HM 220/HM 222) 2 side  
255.14 (HM 225) 2 side



suitable for:  
HM 220, 222,  
HM 225  
HM 3xx

**UMAT | Mobile Working Station**



Layout example

L x W x H (mm): 800 x 1200 x 755  
Weight 160 kg  
Drawers L x W x H (mm):  
2 = 564 x 572 x 50  
2 = 564 x 572 x 100  
Load Weight Drawers: 75 kg

Accessories  
TU-QDS F SHELF  
TU-QDS F 239I  
TU-QDS SHELF PB280



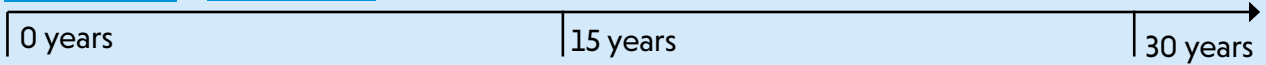
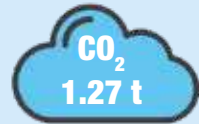
## How can you save more than 70 % of CO<sub>2</sub>? By reducing the weight and increasing the life cycle.

Good engineering and a low energy consumption of 4 kW (competitors: > 5.5 kW) and a long-life design are the OPTIMUM for our future!

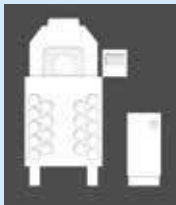


0.75 t once in 30 years x 1.7 = 1.275 t of CO<sub>2</sub> \*

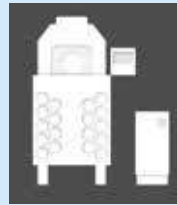
UNIFLEX  
approx. 0,75 t



1,2 t twice in 30 years = 2.4 x 1.7 = 4.08 t of CO<sub>2</sub>

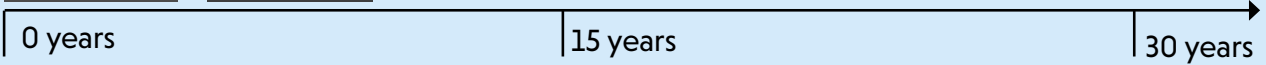


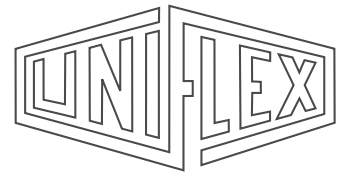
Competitors  
approx. >1.2 t



Competitors  
approx. >1.2 t

CO<sub>2</sub>  
4.08 t





# Cutting Machines

Clean cutting, safe handling.



# Content



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EM 6 | EM 8



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EM 115 | EM 120



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EMI 150 | EMI 200



Page 72  
UPG 10



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USC 10 | USC 20 |  
USC 30



Page 74-75  
UVC 50 FSD |  
UVC 100 FSD



Page 76-77  
Accessories  
and Options



# Cutting Machines



## Universal

- For all types of hoses and fittings



## Ecoline

- Value driven solution for less frequent use



## Energy efficient

- Less energy consumption with the same performance



## Special Brake Motor

- A safety feature meeting DIN CE standards requiring the cutting blade to stop turning in 10 seconds



## Special Cutting Motor

- Higher forces are achieved using a bigger shaft



## Test-proven Cutting Blades

- Cutting blades are made out of test-proven material



## Environment friendly

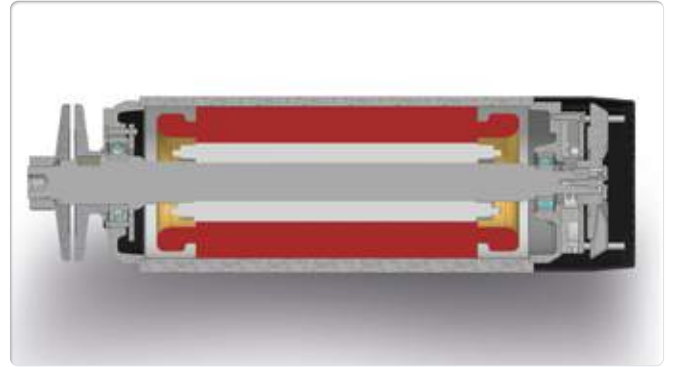
- Engineered to last

# Special Features

**Brake Motor**



**Massive Motor Design**



→ **Cutting Blades  
German Engineering**





UNIFLEX hose cutting machines have been a synonym for the highest precision and robustness for many decades. The solid and compact tools distinguish themselves by their safe and high-quality cutting function. A distinct property is the positioning of the extraordinarily sharp cutting blades close to the powerful motors. This significantly reduces vibration – which is one of the reasons for extreme durability and low maintenance costs.



EM 3



EM 3 Ecoline



HM 200 DC + EM 3 DC



EM 1

EM 1 S



EM 3

EM 3 Ecoline

EM 3 DC

Technical Data	EM 1	EM 1 SB	EM 1 S	EM 3	EM 3 Ecoline	EM 3 DC
Production SAE R 13 & SAE R 15	-	-	-	¾"	-	-
Workshop SAE R 13 & SAE R 15	-	1"	1"	1¼"	1"	1¼"
SAE R 12	⅝"	1¼"	1¼"	1¼"	1¼"	1¼"
Industrial	1¼"	1¼"	1¼"	2"	1¼"	2"
Max. outside	Ø 45 mm	Ø 52 mm	Ø 52 mm	Ø 80 mm	Ø 52 mm	Ø 60 mm
Noise level	90 dBA	90 dBA	80 dBA	95 dBA	95 dBA	93 dBA
Brake motor	-	-	-	✓	-	-
Suction connection	-	Ø 30 mm	-	Ø 80 mm	Ø 40 mm	Ø 40 mm
Drive	1.2 kW 1 VAC	Battery	1.2 kW 1 VAC	3 kW 3 VAC	1.8kW 1 VAC	12 V/24 V 2.0/3.2 kW
Cutting blade (mm)	TM 190x2.0x30 TM 190x2.0x15,875	TM C 160x2.5x20	TM C 160x2.5x20	TM 275x3x30	TM G 200x1.6x25.4	TM 250x2x40Z
L x W x H (mm)	300 x 340 x 310	400 x 300 x 415	300 x 340 x 310	540 x 440 x 300	400 x 510 x 540	550 x 365 x 410
Weight	8 kg	7,5 kg	8 kg	50 kg	20 kg	29 kg
<b>Accessories</b>						
TU Table	✓	✓	✓	✓	✓	✓
Suction device *	-	✓	-	✓	✓	✓
UVC 36 Adapter	-	777.150	-	777.056	777.153	777.153
UVC 50 Adapter	-	518.7010	-	518.7014	518.7010	518.7010
Hose measuring tool UMS 4	-	-	-	✓	✓	-
Foot for UMS 4 (840 mm height)	-	-	-	✓	✓	-
Hose guide 2,000 mm (UHG 14)	-	-	-	✓	✓	-

\* Adapter needed.

Suction & filter device page 74 / Options and accessories page 76

## Description



Tested high-quality cutting blade, secured with a metal sheet.



Guide pins ensure straight cuts.



Blades  
TM = plain  
TM G = slotted  
TM C = coated



High-quality cutting blades:  
TM C, TM G und TM.



TM C  
Lasts 7 times longer, cuts twice as fast, generates less smoke, less debris in the hose and less heat.  
Reduces the risk of separation of the rubber from the wire.

## Cutting blades



UNIFLEX hose cutting machines have been a synonym for the highest precision and robustness for many decades. The solid and compact tools distinguish themselves by their safe and high-quality cutting function. A distinct property is the positioning of the extraordinarily sharp cutting blades close to the powerful motors. This significantly reduces vibration – which is one of the reasons for extreme durability and low maintenance costs.



EM 4



EM 4 DC





EM 4

EM 4 DC

Technical Data	EM 4	EM 4 DC
Production SAE R 13 & SAE R 15	1¼"	–
Workshop SAE R 13 & SAE R 15	1½"	1¼"
SAE R 12	2"	1½"
Industrial	2"	2"
Max. outside	Ø 80 mm	Ø 75 mm
Noise level	80 dBA	93 dBA
Brake motor	✓	–
Suction connection	Ø 80 mm	Ø 40 mm
Drive	3 kW 3 VAC	2.0 kW 12VDC
Cutting blade (mm)	TM C 275 x 3 x 30	TM C 250 x 2 x 40
L x W x H (mm)	700 x 510 x 700	740 x 365 x 610
Weight	60 kg	29 kg
<b>Accessories</b>		
Bench	✓	✓
Suction device	✓	✓
UVC 36 Adapter	777.056	777.153
UVC 50 Adapter	518.7014	518.7010
Hose measuring tool UMS 4	✓	✓
Foot for UMS 4 (840 mm height)	✓	–
Hose guide 2000 mm (UHG 14)	✓	–

Suction & filter device page 74 / Options and accessories page 76

### Description



Guide pins ensure straight cuts.



Blades  
TM = plain  
TM G = slotted  
TM C = coated

### Cutting blades



High-quality cutting blades:  
TM C, TM G und TM.



TM C  
Lasts 7 times longer, cuts twice as fast, generates less smoke, less debris in the hose and less heat.  
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UNIFLEX hose cutting machines have been a synonym for the highest precision and robustness for many decades. The solid and compact tools distinguish themselves by their safe and high-quality cutting function. A distinct property is the positioning of the extraordinarily sharp cutting blades close to the powerful motors. This significantly reduces vibration – which is one of the reasons for extreme durability and low maintenance costs.



EM 6 M



EM 8 M



EM 8 P



EM 6 DC

EM 6 M

EM 6 P

EM 6 Ecoline



EM 8 M

EM 8 P

Technical Data	EM 6 DC	EM 6 M	EM 6 P	EM 6 Ecoline	EM 8 M	EM 8 P
Production SAE R 13 & SAE R 15	–	1¼"	1¼"	–	1½"	1½"
Workshop SAE R 13 & SAE R 15	2"	2"	2"	2"	2"	2"
SAE R 12	2"	2"	2½"	2"	2½"	2½"
Industrial	2"	3"	3"	2"	4"	4"
Max. outside	Ø 75 mm	Ø 95 mm	Ø 95 mm	Ø 80 mm	Ø 120 mm	Ø 120 mm
Feed	manual	manual	pneumatic	manual	manual	pneumatic
Noise level	93 dBA	80 dBA	80 dBA	95 dBA	85 dBA	85 dBA
Brake motor	–	✓	✓	–	✓	✓
Suction connection	Ø 40 mm	Ø 60 mm	Ø 60 mm	Ø 80 mm	Ø 60 mm	Ø 60 mm
Drive	3.2 kW : 24 VDC	4.6 kW 3 VAC	4.6 kW 3 VAC	2.4 kW 1 VAC	4.6 kW 3 VAC	4.6 kW 3 VAC
Cutting blade (mm)	TM C 250 x 2 x 40	TM C 350 x 3 x 30	TM C 350 x 3 x 30	TM C 275 x 3 x 25,4	TM C 400 x 4 x 30	TM C 400 x 4 x 30
L x W x H (mm)	740 x 365 x 610	745 x 690 x 430	820 x 785 x 755	700 x 510 x 700	983 x 760 x 875	983 x 760 x 540
Weight	29 kg	75 kg	110 kg	45 kg	122 kg	140 kg
<b>Accessories</b>						
Bench	✓	✓	✓	✓	✓	✓
Suction device	✓	✓	✓	✓	✓	✓
UVC 36 Adapter	777.153	777.055	777.055	777.056	777.055	777.055
UVC 50 Adapter	518.7010	518.7012	518.7012	518.7014	518.7012	518.7012
Hose guide (UHG 14)	–	✓	✓	✓	✓	✓
Counter	–	329.1	Standard	–	323.1	323.1

Suction & filter device page 74 / Options and accessories page 76

## Description



Guide pins ensure straight cuts.



Blades  
TM = plain  
TM G = slotted  
TM C = coated



329.1 (for EM 6 M)  
323.1 (for EM 8)



High-quality cutting blades:  
TM C, TM G und TM.



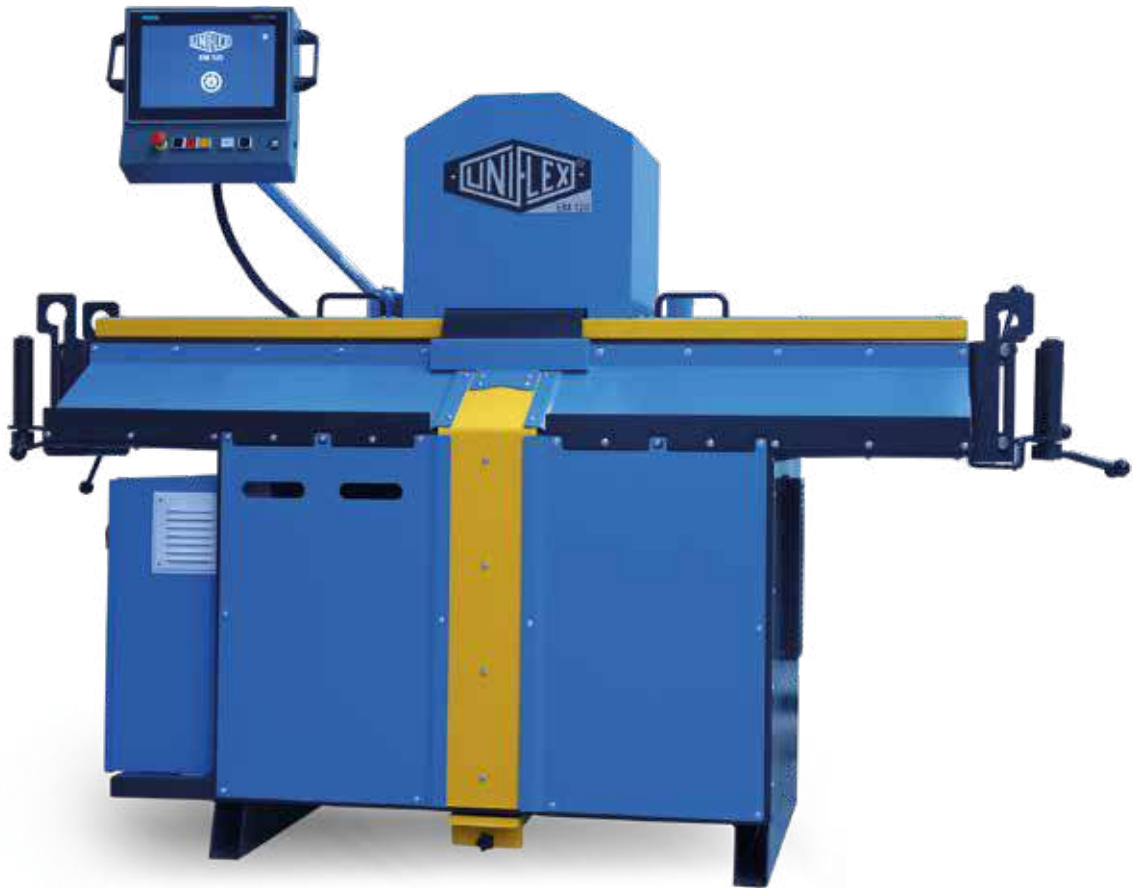
TM C  
Lasts 7 times longer, cuts twice as fast, generates less smoke, less debris in the hose and less heat.  
Reduces the risk of separation of the rubber from the wire.

## Cutting blades



The EM 115 and EM 120 are highly productive cutting machines. These machines are best suited for high volume manufacturing of 2" hoses along with workshop capability for 3" high pressure hoses and 4" industrial hoses.

The new UNIFLEX EM 120 is a hose-cutting machine for hydraulic and industrial hoses with outside diameters up to 135 mm. The EM 120 is the first fully electric cutting machine. The hose is pre-bent and clamped while the blade is moving up through the hose. Via IPC for Industry 4.0 or IoT, the operator just needs to type in the diameter and the machine sets itself and adapts the speed via sensors. This results in an optimized straight cut without tearing marks. UNIFLEX recommends the use of the suction and filter device UVC 100 while using the EM 120.



EM 120



EM 115



EM 115



EM 120



Technical Data	EM 115	EM 120
Production SAE R 13 & SAE R 15	2"	3"
Workshop SAE R 13 & SAE R 15	3"	4"
SAE R 12	3"	4"
Industrial	3"	4"
Max. outside	Ø 125 mm	Ø 135 mm
Feed	pneumatic	electric
Noise level	80 dBA	80 dBA
Brake motor	✓	✓
Suction connection	Ø 100 mm	Ø 100 mm
Drive	7.5 kW 3 VAC	7.5 kW 3 VAC
Cutting blade (mm)	TM C 520x4x40	TM C 520 x 4 x 40
L x W x H (mm)	1,210 x 650 x 1,650	2,024 x 1,025 x 1,600
Weight	245 kg	350 kg
<b>Options</b>		
Suction device	UVC 50 / UVC 100	UVC 50 / UVC 100
Hose guide (UHG 14)	✓	✓
UVC 50 Adapter	518.7016	518.7016

Suction & filter device page 74 / Options and accessories page 76

## Description

## Cutting blades



Lateral guide rolls for guiding and positioning of the hose, for a better cutting quality (EM 115)



Various bending points selectable for straighter cuts and relief of pinch on the blade.



Exchangeable guide (two sizes) for optimum positioning of different hose sizes. (Only: EM 115)



Guide for perfectly centering hoses. (EM 115)



High-quality cutting blades: TM C, TM G and TM.



TM C  
Lasts 7 times longer, cuts twice as fast, generates less smoke, less debris in the hose and less heat.  
Reduces the risk of separation of the rubber from the wire.



The new EMI 150 and EMI 200 industrial hose cutting machines from UNIFLEX are available for cutting of up to 6" hoses (EMI 150) and up to 8" hoses (EMI 200). Their compact dimensions and robust design make these cutting machines well suited for small workshops as well as bigger production areas. The machines have wheels, so they can easily be moved to the hose instead of carrying heavy hoses around the workshop. Both devices are equipped with the specially coated TM C cutting blade, which substantially reduces the force required and the wear during cutting.

Each machine comes with a 2-year warranty for the best return on investment.



EMI 150 / EMI 200



EMI 150 / EMI 200



EMI 150

EMI 200

Technical Data	EMI 150	EMI 200
Production SAE R 13 & SAE R 15	3"	3"
Industrial	6" non spiral hoses (5" spiral or concrete hoses)	8" non spiral hoses (6" spiral or concrete hoses)
Max. outside	Ø 195 mm	Ø 250 mm
Feed	manual	manual
Noise level	90 dBA	90 dBA
Brake motor	✓	✓
Suction connection	✓ (Ø 102 mm)	✓ (Ø 102 mm)
Drive	7.5 kW 3 VAC	7.5 kW 3 VAC
Cutting blade (mm)	TMC 520 x 4 x 40	TMC 600 x 6 x 40
L x W x H (mm)	1,000 x 1,140 x 1,460	1,070 x 1,620 x 1,570
Weight	215 kg	240 kg
<b>Options</b>		
Suction device	✓	✓
UVC 50 Adapter	518.7016	518.7016

Suction & filter device page 74 / Options and accessories page 76

## Cutting blades



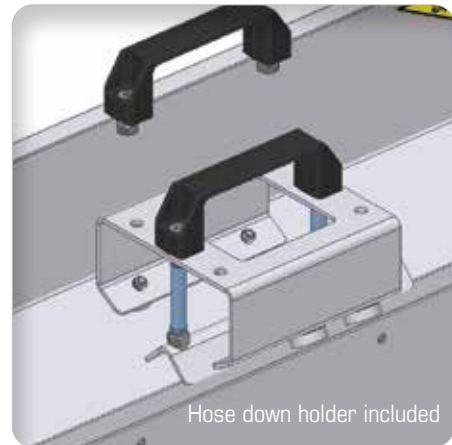
High-quality cutting blades:  
TM C, TM G und TM.

**TM C**

Lasts 7 times longer, cuts twice as fast, generates less smoke, less debris in the hose and less heat.

Reduces the risk of separation of the rubber from the wire.

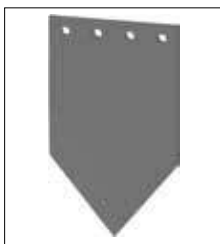
Cutting thick industrial hoses like a hot knife through butter is not very easy, even if the hoses are not metal-reinforced. Therefore, UNIFLEX has developed a special cutting machine for extremely fast, simple and clean cuts of hoses up to a diameter of 2" with a pneumatically driven and razor-sharp guillotine. Safety and protection at the workplace and ergonomics are a matter of course for this UNIFLEX machine – as is the 2-year manufacturer's warranty.



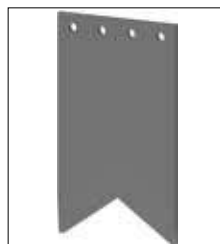
UPG 10

Technical Data	UPG 10
Guillotine for industrial hoses without steel wire	up to 3" (max. OD: 90 mm/3.45")
L x W x H (mm)	1,810 x 325 x 800
Weight	56 kg
Noise level	70 dBA
Air pressure	7 bar
Minimum cut length	20 mm (0.78")
2 Guide Pins for smaller size	17.5 + 22.5 mm (0.698" + 0.88")

## Description



334.001.3: V-shaped knife.  
Standard blade for the UPG 10  
Universal knife, usable for most thin-walled industrial hose assemblies with/without plastic spiral. Not suitable for hoses with steel reinforcement



334.033.4:  $\Lambda$ -fine knife.  
Accessories UPG 10.  
For very soft hose assemblies with thicker wall thickness, e.g. rubber hose assemblies. Not suitable for hoses with steel reinforcement



334.034.4: V-shaped knife (sloping).  
Accessory UPG 10.  
For hose assemblies without spiral with thin to thick wall thickness. Prevents deformation of the hose line during cutting = very straight cut.





The USC 10, USC 20 and USC 30 from UNIFLEX are unique planetary cutting machines designed to cut corrugated metal and PTFE hoses. With the new accessory 325.7, the machines can now even cut hoses with a diameter as small as 6 mm without flaring! Without the accessory, the minimum cutting depth was 10 mm. The USC 10 thus guarantees perfect results along an extended size spectrum (up to 51 mm): virtually scrap-free cutting without reworking, highly efficient as the hoses are instantly ready for further machining such as crimping or welding.



USC 10 | USC 20 | USC 30

Technical Data	USC 10	USC 20	USC 30
Cutting blade (mm)	TM PC 200 x 2 x 25.4	TM PC 250 x 2 x 25.4	TM PC 350 x 3 x 32
Wire braid	0 - 2"	2" - 4"	4" - 6"
Hose diameter	Ø 3/8" - 2" (DN 10-51)	Ø 2" - 4" (DN 50-100)	Ø 4" - 6" (DN 100-150)
Max. rotation wire forming blade	7,200 rpm	7,200 rpm	4,100 rpm
Max. rotation trimming	60 rpm	60 rpm	30 rpm
Drive	4.6 kW 3 VAC	4.6 kW 3 VAC	5 kW 3 VAC
Air pressure	6 bar	6 bar	6 bar
Noise level	85 dBA	85 dBA	85 dBA
Working high (mm)	1,020	1,100	1,045
L x W x H (mm)	730 x 670 x 1,400	730 x 770 x 1,500	900 x 1,250 x 1,520
Weight	245 kg	340 kg	580 kg
Control Siemens S7	✓	✓	✓
Article memory	✓	✓	✓
Feed	pneumatic	pneumatic	pneumatic
Suction device	Standard	Standard	Standard
<b>Options</b>			
Hose guide (UHG 14)	✓	✓	✓

## Description



Conventional machine

USC

**Planetary cutting machine** for corrugated metal hoses and PTFE hoses.

The unique procedure enables quick and neat cutting of corrugated metal and PTFE hoses without flaring the other stainless steel braid.

- Eliminates flaring
- No more trimming
- Easily slip the ferrule into position
- Reduces assembly injuries
- Improves production efficiency
- Touch panel with memory (optional 5.7" display)
- Quick and easy set up
- Allows broader application range to now include PFTE hose



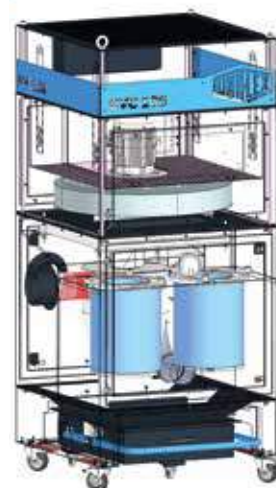
The UNIFLEX hose cutters make clean cuts – but the generation of dust, fumes and odors is inevitable. Therefore, UNIFLEX has developed the UVC 100 suction and filter device for up to three hose cutting machines simultaneously and the UVC 50 for service workshops. A balanced compromise between the volume flow and the negative pressure keeps the air clean during the cutting of hydraulic hose assemblies and protects the operators from fine particles. The multi-step exhaust air purification runs with a spark stop function, cyclone filter technology for the pre-separation of coarse particles, particle filter for dust, HEPA filter for fine particles and carbon filter for odor neutralization – and all that with a 2-year UNIFLEX manufacturer's warranty.



UVC 100 FSD



UVC 50 FSD



UVC 100 FSD



NEW



NEW



UVC 50 FSD



UVC 100 FSD

Technical Data	UVC 50 FSD	UVC 100 FSD
Max. volume flow	700 m³/h	1440 m³/h
Max. vacuum	3,250 Pa	4,600 Pa
Main-filter surface	5 m²	10 m²
Drive power	3.0 kW	3.0 kW
Intake voltage	400 Multivoltage	400 Multivoltage
Intake diameter	Ø80 mm*	Ø100 - Ø160 mm (Ø160 mm recommended)**
Dust collection container width	10 l	12 l
Noise level	69 dBA	69 dBA
L x W x H (mm)	1,180 x 730 x 820	950 x 950 x 2,060
Weight	215 kg	500 kg

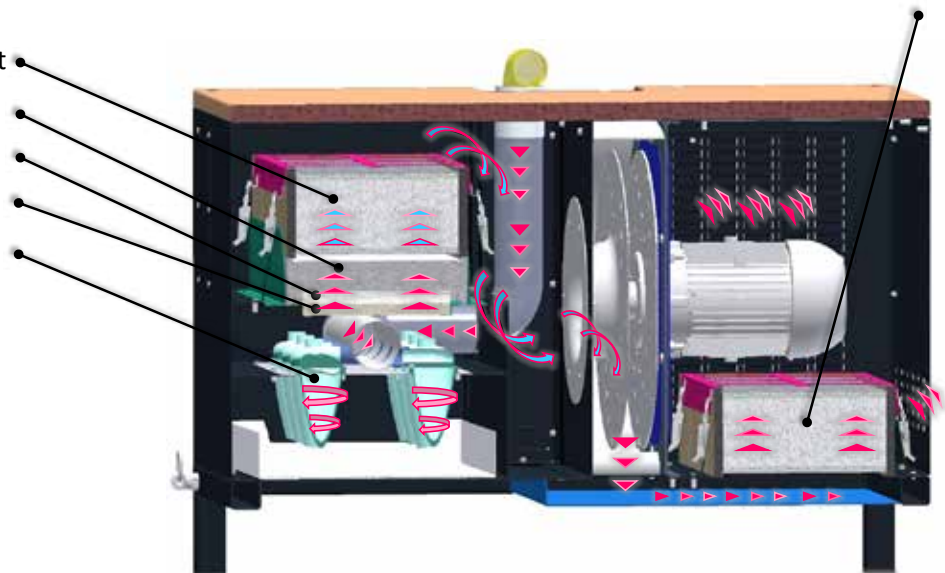
\* Delivered without adapter

\*\* Delivered with 3 adapters 160 mm, 125 mm and 100 mm

## Description UVC 50 FSD

- 1. Activated carbon filter unit
- Class H13 HEPA micro filter
- Filter fleece class M
- PPI- foam filter
- Cyclone filter-technology

2. Activated carbon filter unit





### UWT 2 vs (optional UMS 4 + 514.1)

Electric driven hose coiling reel with foot pedal for easy winding and unwinding of hoses up to 1¼" optional with length measuring device incl. foot stand.

RPM per Pedal

0 to 61 RPM

mandrel adjustment minimum  $\varnothing$  330

maximum  $\varnothing$  730 mm

Maximum Load 80 kg

L x W x H 800 x 900 x 1 600 mm

Weight 70 kg



### UMS 4 + 514.1 (floor stand)

Hose measuring tool up to 1¼", 01 OD  $\varnothing$  65 mm can be mounted in front of the cutter or on a hose coiler.

Measures up to 999,99 m

tolerant 2 - 7%

L x W x H 250 x 260 x 120 mm

Weight 5 kg

Metric unit only



### UHG 14 + UHG 14 ext

UHG 14 Hose guide 2 000 mm and  
UHG 14 ext. extension guide 1 000 mm  
for all cutting machines



### 329.1 (for EM 6 M) | 323.1 (for EM 8)

Resettable cutting counter



#### UAT 4

Hose winder for storing hoses

Ø 1200 mm

L x W x H 820 mm x 900 mm x 1600 mm

Max. load 80 kg

Weight 70 kg

Center pin set up

Smallest Ø 277,5 mm

Biggest Ø 577,5 mm



#### 513.1 (Accessories)

Plate for USH 4

#### USH 4-5

Hose winder for the easy storage of your hydraulic hoses, up to seven levels.

cage-Ø outside/inside 820/760 mm

external dimension 1000 mm

level high 310 mm

Cage ultimate load 80 kg

513.1:

Plate with fixing bolts

USH 4-5 Height 1 650 mm



#### URU 2

URU 2 with accessories roller kit 408.2

max. width: 500 mm, max. Ø: 85-1000 mm



#### 778.2

Wheel option for TU

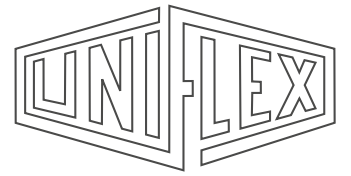
#### TU

Workbench for miscellaneous machines

(84 x 71 x 75 cm)

Max. load: 800 kg





Marking-, Bending Machines,  
Nipple Inserter, Pin Prick,  
Skiving Machines



# Content



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# Marking-, Bending Machines, Nipple Inserter, Pin Prick, and Skiving Machines



## Universal

- For all types of hoses and fittings



## Ecoline

- Value driven solution for less frequent use



## Simultaneous Internal & External Skiving

- Simultaneous internal and external skiving in one operation



The UNE 10 and UNE 115 are high-performance tools for production and the workshop. These machines now permit fittings up to 3" to be inserted or extracted. Due to its innovative rapid tool sled, the insertion of 90 degree, 45 degree or straight fittings without changing tools is now simple and quick with the UNE 115.



UNE 10



UNE 115

Technical Data	UNE 10	Technical Data	UNE 115
Max. nipple insertion (OD fitting, straight or elbow)	< 2*	Working range	< 3*
Force	5.1 kN (6 bar)	Pistonsub	200 mm
Piston stroke	100 mm	Hose max. outside	Ø 120 mm
L x W x H (mm)	600 x 810 x 310	Compressed air connection	8 bar
Weight	35 kg	Insertion force	8 kN (8 bar)
Pneumatic air supply	7 bar/100 psi	Clamping force	8 kN (8 bar)
		Control	Foot pedal and two-hand release
		L x W x H (mm)	625 x 1,185 x 320
		Weight	100 kg
		Pneumatic air supply	7 bar/100 psi

\* According to the manufacturer.

## Description



Preloading Safety control coupled to foot pedal.



Secure clamping unit.



Axially adjustable clamping unit - prevents bending of small hose dimensions.



Use of marked hoses improves safety. The UIM 10 is a low-cost insert marking tool for up to 2" hoses. The marking can be repeated exactly. In order to assure skiving of the proper length or that the fitting is inserted properly. You can mark up to 700 hoses in an hour. This means you can manually mark hoses three times faster with a lot more precision.



## UIM 10

Technical Data	UIM 10
Working range	2" (up to DN50)
Marking depth	10 - 150 mm
Production time max.	700/h
Air pressure	5 bar (72.5 PSI)
L x W x H	330 x 190 x 313 mm
Weight	4.5 kg



Stamp Pad:	Cartridges:	Solvent:
515.027.4	515.1 White 515.1 Black 515.1 Red 515.1 Yellow 515.1 Blue	515.1 Solvent

## Description



Mark hoses precisely and quickly with the UIM 10.



UNIFLEX insert – marking tool (ferrule position marking increases productivity and improves safety in hose sizes up to 2").

The UBM 6-20 M is a universal bending device for steel pipes up to 20 mm OD. It comes with a set of 9 bending rolls for common applications.

An integrated scale for angle detection helps you to reach the required pipe dimension in only one work step. The telescopic lever keeps the operator's forces low when bending rigid pipes.

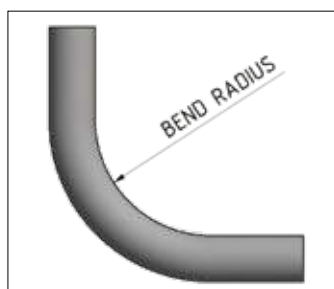


UBM 6-20 M

Technical Data	UBM 6-20 M
Working range	OD Ø 6-20 mm
Bending radius	19-40 mm
Tube wall thickness	2.5 mm (EN 10305)
Drive	manual
L x W x H	870 x 170 x 130 mm
Weight	15 kg

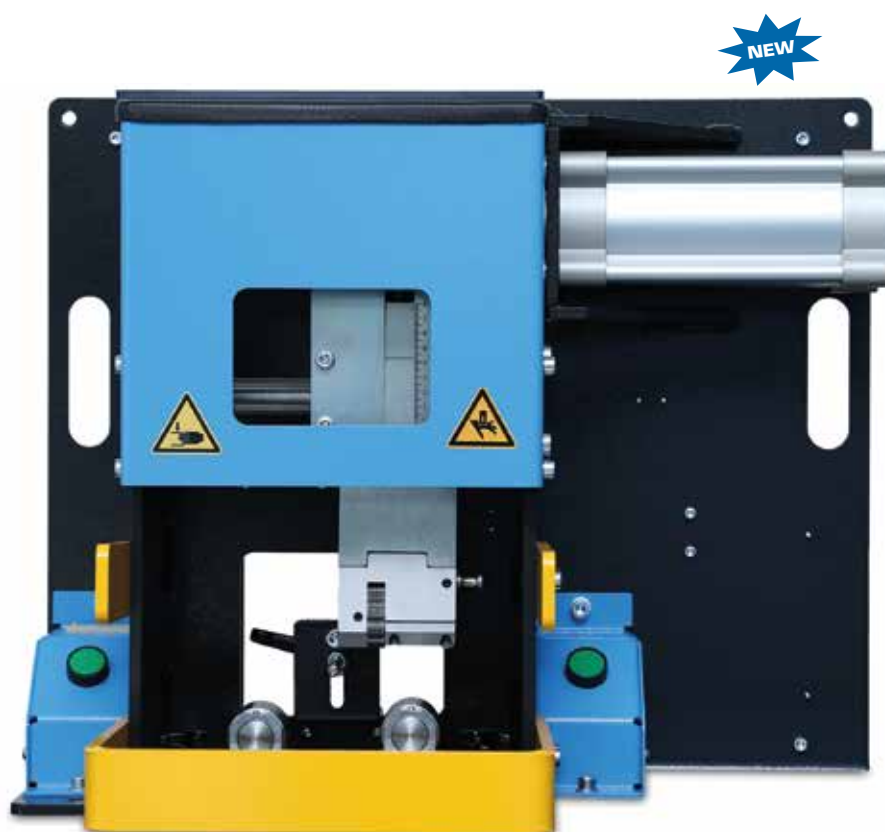
Bendings rolls included	Tube Ø outside (mm)	Bending radius (mm)
121.010.3	6	R19
024.3	8	R19
011.3	10	R21
025.3	12	R21
012.3	14	R22
013.3	15	R28
014.3	16	R30
015.3	18	R35
016.3	20	R40

## Description





The UNIFLEX marking tool UP 10 Ecoline/UP 15 has a compact table construction. The European safety regulations DIN20066-2012-10, EN853, 854, 856, 857 stipulate that hose lines have to be marked indelibly with the manufacturer code, the assembling date and the max. pressure, e.g., XX\_YY/MM\_330 bar. This embossing will also allow you to indicate who produced the hose line and when. This is helpful information in the case of warranty claim. The new and compact UNIFLEX marking tool UP 10 Ecoline is a precise and easy-to-handle tool. The robust technology and low maintenance make it a perfect machine for mobile operations or workshops.



UP 15 P



UP 10 Ecoline



UP 15



UP 10 Ecoline



UP 15 / UP 15 Ecoline



UP 15 P

Technical Data	UP 10 Ecoline	UP 15 / UP 15 Ecoline	UP 15 P <span style="color: blue; font-weight: bold;">NEW</span>
Marking area	Ø 12 - 80 mm	Ø 11.5 - 90 mm	Ø 11.5 - 90 mm
Marking depth	~ 0.5 mm	~ 0.5 mm	~ 0.5 mm
Insertable steel type	25 pieces	26 pieces*	26 pieces*
Drive	Manual	Manual	Pneumatic 7 Bar (100 psi)
L x W x H	285 x 265 x 410 mm	272 x 200 x 750 mm	600 x 454 x 500 mm
Weight	10 kg	28 kg	80 kg

Marking depth depends on the adjustment of the marking roll.

\* Depending on the type holder.

\*\* Not for 1 piece fitting.

UP 10 Package:  
UP 10 Ecoline + UPTS 10

UP 15 Package:  
UP15 mit 508.1003.3  
UPTS 100

UP 15 Ecoline Package:  
UP15 mit 508.1002.3  
UPTS 100

UP 15 PBHC Package:  
UP 15 + UPTS 100  
506.050.3  
506.080

**UP 10 Ecoline Package:**

**UPTS 10**

Marking Type Set

Letters: 1 x A, B, I, N, R, S, /, 2 x P, 10 x space,  
4 x letter of own choice  
4 mm high/2.5 mm width

Numbers: 6 x 1; 5 x 2,3,4,5; 4 x 6; 3 x 7,8,9; 4 x 0  
wild character 1 x 504.033.4 (5-fold) +  
504.034.4 (10-fold)

Neutral: Brush, Tweezers, Mirror

**UP 15 Package:**

**UPTS 100**

Marking Type Set

Letters: 1 x A, B, I, N, R, S, /, 2x P, 10x space,  
4x letter of own choice  
3 mm high/2 mm width

Numbers: 6 x 1; 5 x 2,3,4,5; 4 x 6; 3 x 7,8,9; 4 x 0

Neutral: Brush, Tweezers, Mirror

Description



504.003  
Additional type holder for UP 10 Ecoline. Simple change between different markings. 25 types.



508.1003.3 (10 types in one row)  
508.1001.3 (17 types distributed on 2 rows)



508.7001  
Counter for UP 15



508.1002.3  
(26 types, 13 each row)

# POP-LOCK Workshop (Hose retention system)



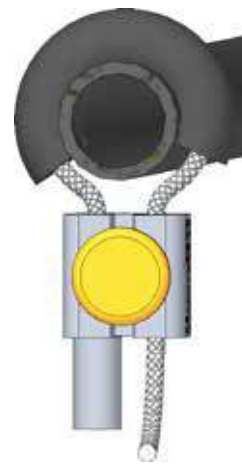
POP-LOCK Workshop „hose retention system“ and Pop-Lock Kit for mobile application.

Hose assemblies must be designed in such a way that in case of failure, hazards caused by whipping of the hose assembly can be avoided with suitable protective measures.

UNIFLEX offers with the POP-LOCK Workshop „hose retention system“ a solution that meets the requirements of various standards and regulations. The system is designed so that it can be used in three sizes for all common nominal diameters and different lengths. The Pop-Lock system offers special advantages for mobile use, it is easy to install, easily recognizable by the color differences. Can be installed even without disassembling the already installed hose assembly and easy assembled with standard tools.



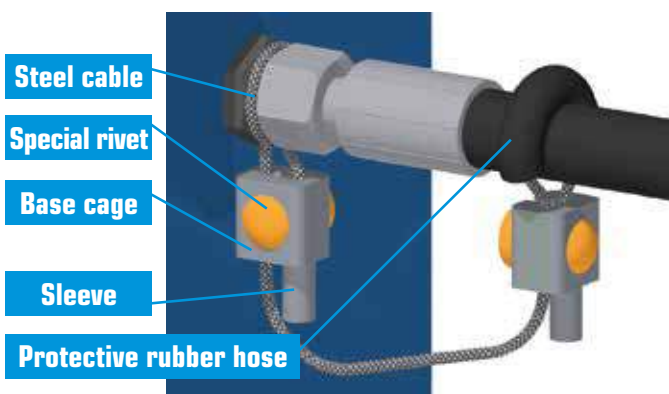
- Steel cable coil  
50 meters  
1500.082 Ø3  
1500.083 Ø4  
1500.084 Ø5
- Base cage  
100 pieces  
1500.100 Ø3  
1500.101 Ø4  
1500.102 Ø5
- Sleeve  
100 pieces  
1500.103 Ø3  
1500.104 Ø4  
1500.105 Ø5
- Special rivet  
100 pieces  
1500.106
- Protective rubber  
hose  
100 pieces  
1500.107



## POP-Lock Refill-Kit

- 1500.1019 for POP-LOCK DN5-16 (50 sets)
- 1500.1020 for POP-LOCK DN20-32 (50 sets)
- 1500.1021 for POP-LOCK DN40-50 (50 sets)

## Component assembling overview



## Other advantages:

- Stainless steel
- UV resistant, as completely metallic
- Oil and dirt resistant
- Secured against slipping by a blind rivet

## Ready-to-Go KIT

- POP-LOCK KIT Ø3-500
- POP-LOCK KIT Ø4-750
- POP-LOCK KIT Ø5-1000

Include: Steel cable crimped on both sides with sleeves, 2x Protective rubber hose, 2x base cage and 2x rivet



## Tools

- POP-LOCK Tool-Kit 1500.1022
- 777.917 Rivet gun (1 piece)
- 777.918 Wire rope cutter (1 piece)
- 777.902 Single hook (1 piece)
- 777.903 Double hook (2 pieces)
- 778.007 Cut protection gloves





The use of gas hoses (e.g., compressed air, nitrate, etc.) requires perforating the outer layer. With low effort, the PR 10, PR 12, and PR 14 make perforating the outer layer of hoses easy. The established UNIFLEX quality gives you a precision tool to work with hoses up to an outer diameter of 100 mm.



PR 10



PR 12



PR 14

Technical Data	PR 10	PR 12	PR 14
Working range	Ø 8 - 45 mm	Ø 8 - 55 mm	Ø 30 - 100 mm
Pin-Prick Wheels	4	3	6
L x W x H (mm)	290 x 150 x 330	270 x 200 x 400	400 x 265 x 565
Weight	~ 8 kg	~ 22 kg	~ 58 kg

### Pin Prick Dies:

Use your crimper to perforate hose lines.



Machine	PR PB	Hose Ø (0 - max. OD)	PR PB Intermediate die set
SC 6	PR PB 266 P	0 - 43 mm	./.
SC 6 ECOLINE	PR PB 266 P	0 - 45 mm	./.
HM290	PR PB 232 F	0 - 68 mm	./.
HM502	PR PB 232 F	0 - 70 mm	554.232 L
S8/S10	PR PB 237 G	0 - 45 mm	./.
S8 XL / S10 XL	PR PB 237 G	0 - 61 mm	./.
HM 325	PR PB 237 G	0 - 70 mm	./.
HM 375	PR PB 237 G	0 - 70 mm	./.
HM 380	PR PB 237 G	0 - 70 mm	./.
HM 400	PR PB 554 H	0 - 130 mm	./.
HM 420	PR PB 237 G	0 - 50 mm	245.237L
HM 480	PR PB 237 G	0 - 150 mm	245.237 L
HM 485	PR PB 237 G	0 - 130 mm	245.237 L
HM 660	PR PB 237 G	0 - 120 mm	246.237 L
HM 1200	PR PB 237 G	0 - 120 mm	246.237 L
HM 665	PR PB 237 G	0 - 120 mm	298.237 L

## Description



Constant prick depth



Side view



Prick Wheels

### Double Prick Wheels

- Straight perforation
- No twisting of hoses

### Adjustments

- Perfect hose guidance and centration
- Optimal adjustment of hose dimensions

### Compact construction

- With minimum space requirements
- Mobile usage possible



With the USM 2 and USM 10, you make the optimal hose preparation for the fitting assembly. The machines are characterized by user-friendly operation, and the convenient foot switch for USM 10 control during the skiving process. The USM 2 and USM 10 skive internally from 5/8" to 2" and externally from 3/16" to 2".

The USM 10 S skiving machine has the fastest change-over time due to preset tools and simple locking pins. The USM 10 S skives internally from 5/8" up to 2" and externally from 3/16" to 2" dies, making the system the perfect solution.



USM 10 S  
With TU Table and tooling storage (USM 10 S TU package).



USM 2



USM 10





USM 2



USM 10 Ecoline

USM 10

USM 10 S

Technical Data	USM 2	USM 10 Ecoline	USM 10	USM 10 S
Internal skiving	5/8" – 2"	5/8" – 2"	5/8" – 2"	5/8" – 2"
External skiving	3/16" – 2"	3/16" – 2"	3/16" – 2"	3/16" – 2"
Drive	Manual	0.37 kW (1~)	0.37 kW (3~)	0.37 kW (3~)
Type of application	Mobil	Workshop	Workshop	Workshop
Noise level	-	60 dBA	60 dBA	60 dBA
L x W x H (mm)	338 x 465 x 445	440 x 440 x 545	440 x 440 x 545	440 x 440 x 545
Weight	28 kg	50 kg	50 kg	51.5 kg
Tool revolution	-	110 rpm	110 rpm	110 rpm
<b>Options</b>				
Bench	✓	✓	✓	✓
SSG	✓	✓	✓	✓

**Packages**

USM 2	+ External skiving mandrel (PJ_EXB 250- DN 05, 06, 08, 10, 12, 16, 19, 25, 31,38, 51) + Internal skiving tool (UIS.2 DN 16, 19, 25, 31, 38, 51)
USM 10 ecoline/USM 10	+ External skiving mandrel (PJ_EXB 250- 05, 06, 08, 10, 12, 16, 19, 25, 31,38, 51) + Internal skiving tool (UIS.2 DN 16, 19, 25, 31, 38, 51)
USM 10 S	with preset tools for fast and easy tool change with 11 external skiving tools (UES.3 - 05, 06, 08, 10, 12, 16, 19, 25, 31, 38, 51) + 313.1 (Set mit 6 Dornen - UIS.3- 16, 19, 25, 31, 38, 51) + tool rack (PJ_RKSTLS)
USM 10 S TU	+ TU same as USM 10 S package, additional: Machine and tool rack mounted on the UNIFLEX table TU

**Description**



Easy exchange of skiving tool using a locking pin on USM 10 S.



Skiving mandrels are manually adjustable.



Safety switch for riskless operation.



Easy adjustment of the skiving tool.



Blade adjustments for skiving depth need only to be made once for each hose dimension on the USM 10 S.



1 tool on the USM 10 Ecoline for all dimensions.



Internal and external skiving - efficient and clean!

The USM 100, USM 125 and USM 150 are machines that prepare hoses for assembly, and skiving can be done both internally and externally simultaneously. The USM 125 and USM 150 are stable machines for skiving up to 4" and 5" hydraulic and industrial hoses.



USM 150



USM 125



USM 100



USM 100



USM 125



USM 150

Technical Data	USM 100	USM 125	USM 150
Internal skiving	3/4" – 2 1/2"	5/8" – 4"	2" – 5"
External skiving	1/4" – 2"	5/8" – 4"	2" – 5"
Drive	1.2/1.8 kW (3~VAC)	3.3 kW (3~VAC), 7 Bar (100 psi)	4.4 kW (3~VAC), 7 bar (100 psi)
Type of application	Production	Production	Production
Noise level	60 dBA	< 70 dBA	60 dBA
L x W x H (mm)	780 x 620 x 550	1,600 x 570 x 1,600	2,545 x 810 x 1,500
Weight	70 kg	450 kg	700 kg
Tool revolution	392 rpm/592 rpm	94 rpm	94 rpm
Accessories			
SSG	Standard	✓	✓
TU Table	✓	-	-

USM 100	
Internal Skiving	UIT 20, UIT 25, UIT 32, UIT 40, UIT 50, UIT 12, UIT 60
External Skiving	UOP 06, UOP 08, UOP 10, UOP 12, UOP 16, UOP 20, UOP 25, UOP 32, UOP 40, UOP 50
External skiving tools	UOT 06 – 50, UOT 60

USM 125	
Internal Skiving	UIS 125.2 – DN 16, DN 19, DN 25, DN 31, DN 38, DN 51, DN 63, DN 76, DN 89, DN 100
External Skiving	UES 125.2 – DN 16, DN 19, DN 25, DN 31, DN 38, DN 51, DN 63, DN 76, DN 89, DN 100

USM 150	
Internal Skiving	UIS 150 – DN 31, DN 38, DN 51, DN 63, DN 76, DN 89, DN 100, DN 125
External Skiving	UES 150 – DN 31, DN 38, DN 51, DN 63, DN 76, DN 89, DN 100, DN 125

## Description



The SSG slitting tool shortens skiving chips up to 2".



Double skiving tool with hose.



Clamping and guiding unit with wheels for up to 5"-hoses.

## Besides the innovative products, the consultations, solutions and service are convincing.

Our consistently high expectations require a high level of reliability and quality. Based on our certification according to DIN ISO 9001 in June 2008, we are committed to not only take all measures required to maintain the high standard of UNIFLEX, but also to continue to improve them.



### Key aspects of UNIFLEX's high standards:

#### Variability

The UNIFLEX hose crimpers are based on a modular design. As a result, the most diverse variants can be produced for nearly all requirements and desired applications. Market observations and customer demand analyses determine the development of new modules and models.

#### Reliability

UNIFLEX hose crimpers are designed for years and years of functionality. Precision and quality of all products are setting the standards – on an international basis. Documented feedback from customers makes it possible to design and implement optimizations for operations and availability.

#### Innovation

Based on dialogue with customers, UNIFLEX is consistently improving existing products – from practice for practice. The needs of the market, innovative technical possibilities and extensive basic in-house research are continuously incorporated into new, pioneering developments in the field of hose processing.

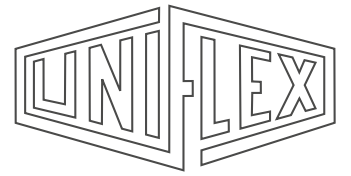
#### Service

At UNIFLEX, 50 years of knowledge and experience are forever being refined and passed on to customers. The UNIFLEX team excels in personal product guidance and customer service and provides qualified services, including training measures, logistics, test presentations and demonstrations. This enables users of UNIFLEX hydraulic crimpers to concentrate on their key business – the production of hose assemblies with the best machines available on the market.

#### User Orientation

Constant interactions with customers offer the possibility of using practical experience as to handling and operation, safety and ergonomics in the development of series.





# Test Benches & Cleaning Machines

Reliable, clean and eco-friendly.



# Content



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**P 320 | P 350**



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**Control IPC.P**



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**RG 2 | RG 10**



# Test Benches & Cleaning Machines



## Universal

- For all types of hoses and fittings



## Ecoline

- Value driven solution for less frequent use



## Integrated Tank

- Fast filling and automatic pressure release of tested parts

# Special Features



P 160



P 180



P 250



P 260



P 320



P 350

## Quality and Safety

Fully enclosed test chamber.

Also suitable for static pressure testing of various hydraulic components such as valves, hydraulic cylinders, housings, quick-release couplings, etc.

Safety switch - when the hood is opened, all pressure is automatically released within 1/10 second.

Hood with gas springs and transparent Makrolon® safety pane.

Environmentally friendly test medium (water-oil emulsion).

Easy and safe to operate.

Test bench can be retrofitted with extension element (P 160).

Logging software/printer available as optional equipment at UPP (P 160 / P 180) or IPC (P 180) Option.

Compressed air filter with condenser.

## Innovative Technology for fast Processing

Parts to be tested (hose lines) can be inserted quickly by means of our Steck-O-System or hand clamping (P 180 optional) and without any time-consuming preparation or modifications to the tank.

Fast filling and automatic pressure release of tested parts.

## CE compliant

Weight-loading gas-spring cover.

Makrolon safety screens.

Safety valve in test chamber.

Guard locking at P 180.

## Quality and Safety

Fully enclosed test chamber.

Quick filling and automatic venting of the test pieces.

Simplest and trouble-free handling.

Change between automatic and manual setup mode.

High test capacity provides fast payback.

## Innovative Technology for fast Processing

Time-saving product parameter memory.

Proper documentation and controlling.

## CE compliant

Gas pressure spring at P 250.

Pneumatically operated door on P 260.

## Quality and Safety

Fully enclosed test chamber.

Quick filling and automatic venting of the test pieces.

Simplest and trouble-free handling.

Change between automatic and manual setup mode.

High test capacity provides fast payback.

## Innovative Technology for fast Processing

Proper documentation and controlling.

## CE compliant

Guard locking at P 320 and safety sensor system at P 350.



Hose lines that cannot withstand the high pressure for which they are designed can cause serious damage, resulting in high costs - often higher than the price of a test bench. Why take a risk that can be easily avoided?

By testing the quality of your products, you opt for safety. The P 160 and P 180 workshop test benches allow for the efficient and safe final inspection and testing of hose lines. They are easy to operate and quickly become part of your routine procedures.



P 180 with pallets 1,200 x 800



P 160



P 180 IPC + hand clamping





P 160 Ecoline

P 160



P 180

Technical Data	P 160 Ecoline	P 160	P 180 <span style="float: right;">NEW</span>
Test pressure	150 - 1,300 bar / 2,175 - 18,850 psi	150 - 1,300 bar / 2,175 - 18,850 psi	150 - 1,500 bar / 2,175 - 21,750 psi
Drive	oscillating intensifier	oscillating intensifier	oscillating intensifier
Flow	1.1 l/min	1.1 l/min	3.5 l/min
Capacity	7 bar, 20 NI/min	7 bar, 20 NI/min	7.5 bar, 100 NI/min
Tank dimensions mm (Zoll)	1,200 x 600 x 250 (47 x 23.6 x 9.8)	1,590 x 795 x 370 (62.6 x 31.3 x 14.6)	2,395 x 825 x 400 (94 x 33 x 15.4)
Test bench dimensions mm (Zoll)	1,400 x 600 x 1,200 (55 x 23.6 x 47.2)	2,210 x 950 x 1,325 (87 x 37.4 x 52.2)	2,916 x 1,020 x 1,200 (113.6 x 43.7 x 47)
Reservoir capacity	33 l	100 l	180 l
Colour	RAL 5012 Blau	RAL 5012 Blau, RAL 7021 Grau	RAL 5012 Blau, RAL 7021 Grau
Weight	120 kg empty	210 kg empty	600 kg empty
Noise level	72 dBA	72 dBA	72 dBA
Test medium	Water-oil emulsion EM-CO 18kg	Water-oil emulsion EM-CO 18kg	Water-oil emulsion EM-CO 18kg
<b>Accessories</b>			
Suction filter	✓	✓	✓
Air preparation unit	✓	✓	✓
Steck-O-Adapter (s-series only)	DN 4/6/8/10/12/ G 1/2" 405.901	DN 4/6/8/10/12/ G 1/2" 405.901	DN 4/6/8/10/12/ G 1/2" 414.902
Steck-O-Adapter (s-series only)	R 1/4"/ 3/8"/ 1/2"/ 3/4"/ G 1/2" 405.902	R 1/4"/ 3/8"/ 1/2"/ 3/4"/ G 1/2" 405.902	R 1/4"/ 3/8"/ 1/2"/ 3/4"/ G 1/2" 405.902
<b>Options</b>			
Alternative drive only with pre filling pum 405.904/405.914	-	0.38 kW, 400V 50Hz 3Ph	-
High pressure * (Steck-O-System not available)	-	150 - 3,000 bar / 2,175 - 43,500 psi	150 - 3,000 bar / 2,175 - 43,500 psi
Low pressure *	-	20 - 1,300 bar / 290 - 18,850 psi	20 - 1,500 bar / 290 - 21,750 psi
IPC	-	-	✓
UPP	✓	✓	✓
Hand clamping	-	-	✓ (2 lines)

\* Only one of the two options possible.

## Description



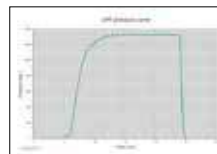
P 160 / P 180 are also available in stainless steel.



P 160 extension element  
407.3150:  
total chamber length  
3,600 mm (141.7")  
  
407.3250:  
total chamber length  
4,400 mm (173.22")



UPP Pressure Sensor for test benches.



UPP Pressure graph



4 Steck-O-Adapter 405.6.



The P 250 / P 260 Test Bench with Control IPC are new modular test benches that can be adapted to your needs. They offer the possibility to test with the Steck-o, Hand or Hydraulic quick cone system. You can also install a Euro Pallet inside for the P 250 / P 260. The Chamber also accepts a non-end extension if you prefer to test a hose lengthwise (only P 250). The controller offers all parameters for a fully automatic test, with visualization of the pressure and may other features but also connectivity to your server or other machine in line with industry 4.0. or IoT.



P 250 with one hand clamping



P 260 with four hand clampings



P 250



P 260

Technical Data	P 250	P 260 <span style="color: blue; font-weight: bold;">NEW</span>
Test pressure	150 - 1,500 bar / 2,175 - 21,750 psi	150 - 1,500 bar / 2,175 - 21,750 psi
Control	IPC	IPC
Drive	oscillating intensifier	oscillating intensifier
Flow (effective)	7.5 l/min	7.5 l/min
Capacity	7 bar, 100 NI/min	7 bar, 100 NI/min
Anticorrosion additive	Water-oil emulsion EM-CO 18kg	Water-oil emulsion EM-CO 18kg
Tank dimensions mm (Zoll)	2,194 x 890 x 470 mm (86" x 35" x 18.5")	2,194 x 890 x 1,100 mm (86" x 35" x 43.3")
Test bench dimensions mm (Zoll)	2,700 x 1,450 x 1,550 mm (106" x 57" x 61")	2,700 x 1,450 x 2,100 mm (106" x 57" x 82.7")
Reservoir capacity	120 l	120 l
Loading	250 kg	250 kg
Weight	570 kg	900 kg
Noise level	75 dBA	75 dBA
Capacity electric	3 VAC	3 VAC
Steck-O	✓	✓
<b>Options</b>		
High pressure	150 - 3,000 bar / 2,175 - 43,500 psi	150 - 4,500 bar / 2,175 - 65,250 psi
Low pressure	20 - 1,500 bar / 290 - 21,750 psi	20 - 1,500 bar / 290 - 21,750 psi
Stainless steel tank optional	✓ Standard kein VA	–
Extended version on request L x W x H mm (Zoll) Weight	2,220 x 1,000 x 1,400 (87.4" x 39.4" x 55.11") 420 kg	–
VA	✓	✓
Hand clamping	4 Lines	4 Lines

Steck-O up to 1.500 bar / Hand or hydraulic clamping up to 3.000 bar

**P 250:**

**Steck-O adapter and screw connection:**

- 1 x Steck-O up to 1500 bar: 414.1000
- 4 x Steck-O up to 1500 bar: 414.1012
- 1 x Screw connection up to 3000 bar: 414.1008
- 4 x Screw connection up to 3000 bar: 414.1013

**P 250:**

**Fast clamping system:**

- 1 x Hand clamping up to 1500 bar: 414.1002
- 3 x Hand clamping up to 1500 bar: 414.1032
- 1 x Hand clamping up to 3000 bar: 414.1005
- 3 x Hand clamping up to 3000 bar: 414.1035

**P 260:**

**Steck-O adapter and screw connection:**

- 1 x Steck-O up to 1500 bar: 415.1100
- 4 x Steck-O up to 1500 bar: 415.1104
- 1 x Screw connection up to 4500 bar: 415.1181
- 4 x Screw connection up to 4500 bar: 415.1184

**P 260:**

**Fast clamping system:**

- 1 x Hand clamping up to 1500 bar: 415.1121
- 4 x Hand clamping up to 1500 bar: 415.1124
- 1 x Hand clamping up to 3000 bar: 415.1151
- 4 x Hand clamping up to 3000 bar: 415.1154

## Description



Axially adjustable quick-change system with adjustable rotating head.



Sealing tips for hand clamping.



Extension of quick system to 2 lines.



Barcode Scanner BCR CTR2C-Kit



With the P 320 and P 350, you can perform precision tests of hoses of up to 2 500 mm in length and with pressures up to 1 000 bar. For the P 320, you can choose between automated and manual setup mode with a pressure up to 4 500 bar as an option. Our P 320 and P 350 have an extra-large test chamber that offers you the space you need to meet any challenge.

Pallets with hoses as well as large, heavy hose coils can be easily supplied to the chamber by forklift. Hose samples are connected easily with adapter hose and quick connection to pressure ports. The P 320 also has a hand clamping option.



P 320



P 320



P 320 with UPP



P 350 with Container



P 320



P 350

Technical Data	P 320	P 350
Test pressure	150 - 1,500 bar / 2,175 - 21,750 psi	150 - 1,000 bar / 2,175 - 14,500 psi
Control	Manual	IPC
Drive	Diaphragm pump + intensifier	Diaphragm pump + intensifier
Flow (effective)	12.5 l/min	12.5 l/min
Tank dimensions closed (L x W x H) mm (Zoll)	External: 2,270 x 1,420 x 2,525 (63.3" x 49.6" x 83.8") Internal: 1,607 x 1,260 x 2,130 (89.4" x 55.9" x 99.4")	P 350 Container: External: 2,100 x 2,170 x 2,650 mm (76.8" x 76.8" x 86.6") Internal: 1,950 x 1,950 x 2,200 mm (82.7" x 85.4" x 104.3")
Aggregate dimensions	– (integrated)	850 x 1,390 x 810 mm
Reservoir capacity	150 l	P 350 Container: 1,040 l
Colour	RAL 5012 blue/RAL 7021 grey	RAL 5012 blue/RAL 7021 grey/RAL 9002 rey-white
Weight of tank	P 350 Container: 650 kg	P 350 Container: 650 kg
Weight of power unit	–	210 kg
Noise level	75 dBA	75 dBA
Max. hose length	depending on Ø, several meters on coil possible	depending on Ø, several meters on coil possible
Test medium	Water-oil emulsion EM-CO 18kg	Water-oil emulsion EM-CO 18kg
<b>Accessories</b>		
Pressure + return filter	✓	✓
Air preparation unit	✓	✓
Hand clamping	✓ (1 piece)	–
<b>Options</b>		
Second chambers are possible	–	–
IPC	✓	Standard
Low pressure	20 - 1,500 bar / 290 - 21,750 psi	20 - 1,000 bar / 290 - 14,500 psi
High pressure	150 - 4,500 bar / 2,175 - 65,250 psi	–

**P 320:**

**Steck-o Adapter and Screw Connection:**

- 1 x Steck-O up to 1,500 bar: 416.1101
- 1 x Screw connection up to 4,500 bar: 416.1181

**P 320:**

**Fast clamping system:**

- 1 x Hand clamping up to 1500 bar: 416.1121
- 1 x Hand clamping up to 3000 bar: 416.1151

Description



P 320 Laptop (UPP)



P 320 Interior

## CONTROL IPC.P



Industrial PC with 12" touch panel interfaces:  
 Ethernet RJ45  
 USB 3.1  
 serial port (COM)  
 Profinet  
 ProfiBus  
 CAN bus

## START SCREEN



- Individual Test
- First time set-up
- Serial test

## INDIVIDUAL TEST

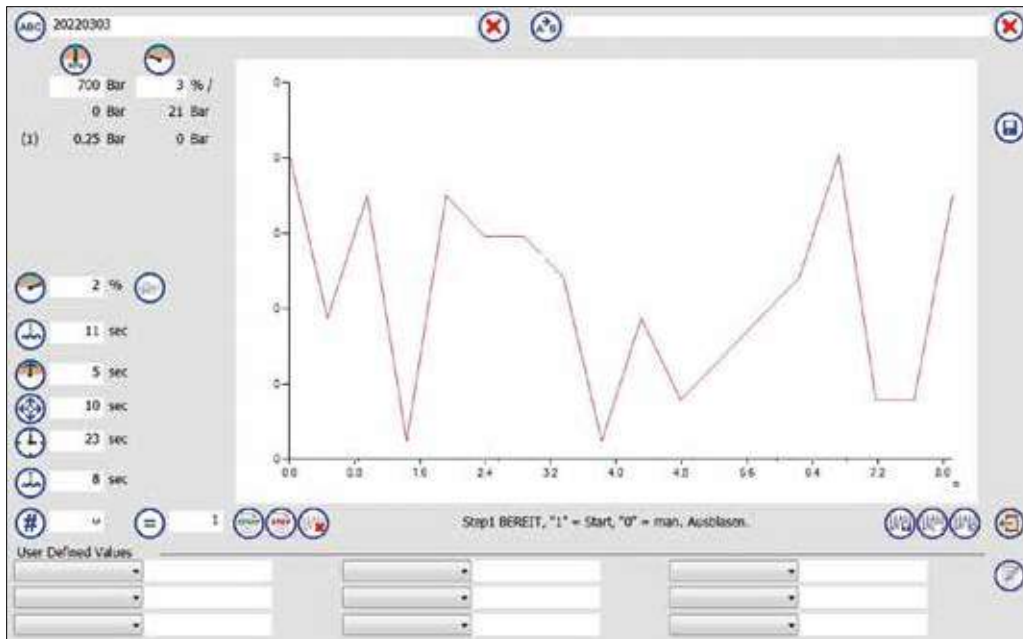


This screen is activated to specify the settings for a hose test in the "Individual test" mode. In this operation mode, the log files are always saved automatically, the complete test is continuously logged.

## FIRST TIME SET-UP



In the set-up mode, the required settings for a new type of test object can be identified by not specifying any times but individually switching over to each individual step and recording the duration of the steps.



In the menu you can step the following parameters:

- Pressure (Bar/ PSI)** – the test pressure is the basis for the pressure adjusted by the test stand during the test.
- Test tolerance (%)** – the maximum permissible pressure drop in percent of the test pressure.
- Filling time (sec)** – when a test is started, the entire system is flooded with the test medium for the time entered.
- Residual time (sec)** – the time during which the test stand will stabilise pressure control.
- Test time (sec)** – the test time is the duration of the test.
- Blowing time (sec)** – the test medium is discharged from the system using compressed air for the time entered for the entire system.

## SERIAL TEST



The series test is used for testing of hoses from the database and is particularly advantageous for large quantities. Series testing can be performed in simple mode with reduced setting options or in detail mode with full functionality.

## LOAD DATA RECORD USING A SCANNER (OPTION)



Scan the barcode using the scanner, or enter the barcode text manually. The scanned barcode is interpreted as the name of a data record.

## OPERATIONAL MODE



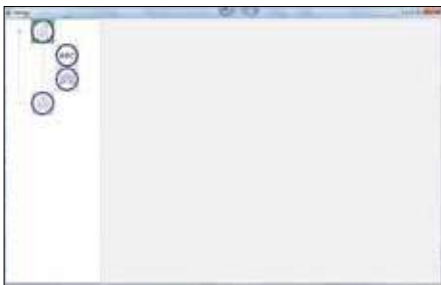
In the simple mode, an item can be uploaded from the database and the quantity can be selected; other settings cannot be made. The log file is recorded and, if selected, saved automatically.

## DATA BANK MODE



The user interface shows the database as a list of data records including names and test data. The requested data record is selected by a touch and is then highlighted blue.

## LOG SETTINGS



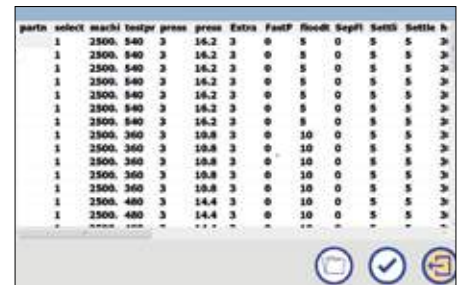
The relevant settings may be selected here in the tree menu.

## ARTICLE DATABASE



The data records of the article database can be edited externally and then transferred back onto the control. To do this, first load the data from the control onto a USB storage medium and, after processing, load them back onto the control.

## ACTIVATE SAVED LOG FILES



Displays the currently set log file overview. A log file may be selected and loaded to display or print it. The table lists all logs saved at the set storage location. All test-relevant data is shown. By scrolling to the right, other columns may be displayed. A log file is marked for opening by touching any cell in the line.

## PRINTER AND LOG TEMPLATE EDITOR

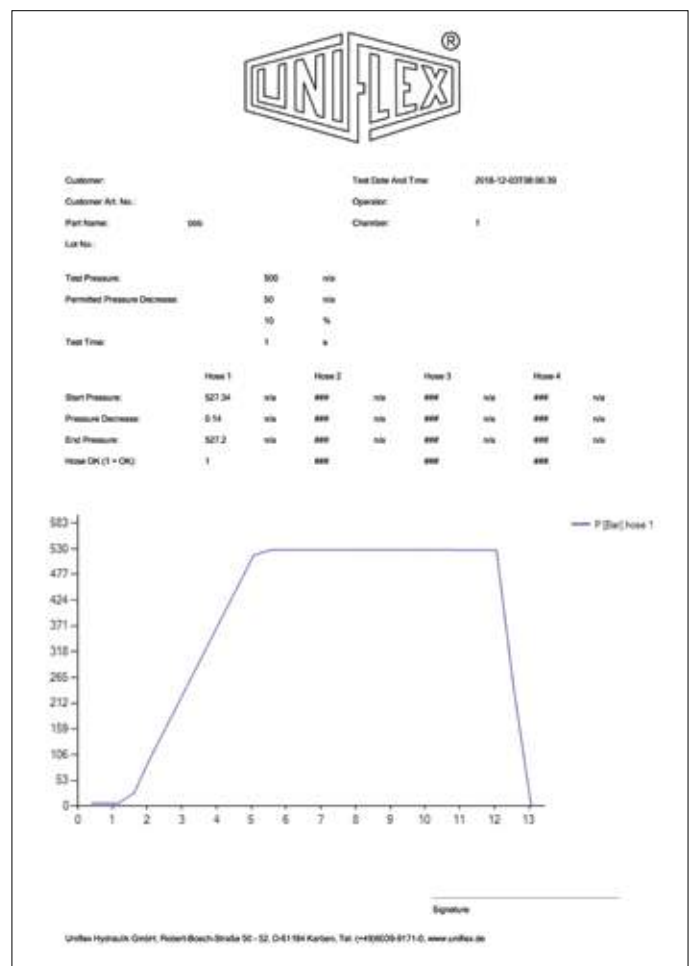


New log templates may be created or existing log templates may be edited here. The log template editor is opened by using the pre-set log template and the current user-defined values.

## USER-DEFINED VALUES



User-defined values may be created and saved for each item specifically and in any number. These values are not used by the control unit, but saved in the log file and may be printed in the record as well as shown and edited in the detail view. Examples for possible user-defined values are: Operator, Charge, Customer Item Number, etc.



## MACHINE SETTINGS



The machine settings area is password protected. After the user has logged in, all screens may be opened one after the other.

## USB STORAGE MEDIUM



The USB sockets are located in the test stand casing and are marked appropriately. The precise location is shown in the operating Instructions of the relevant unit and/or test stand.

## UNITS



The currently set unit is shown at the top. Select the appropriate unit by touching the button.

## LANGUAGE



The currently set language is shown at the top. Select the appropriate language by touching the flag.



UNIFLEX cleaning machines effectively remove residue and scale from hose cutting, crimping and press fitting.



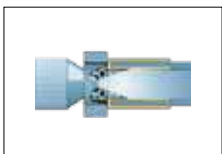
RG 2



RG 10

Technical Data	RG 2	RG 10
Drive	Diaphragm pump, 7 bar Air	Diaphragm pump, 7 bar Air
Maximum flow rate	25 l/min	180 l/min
Pressure filter	3 µm	10 µm
Air filter	5 µm	5 µm
Max. air consumption	100 NI/min	250 NI/min
Working range	up to 1¼" ID	up to 2" ID
Max. length, depending on bore size	2,5 m/8 feet	20 m/65 feet
Tank capacity	38 l	215 l
Working area	350 x 750	800 x 1,600
Cleaning agent	Non-toxic and corrosion-free emulsion, water based.	Non-toxic and corrosion-free emulsion, water based.
L x W x H (mm)	960 x 435 x 940	2000 x 840 x 1,050
Weight (empty)	55 kg	160 kg
<b>Accessories</b>		
Hakupur 21,5 l - RG 2 + RG 10 - concentrated cleaning agent		
PJ_30.10.76 - RG 10 - Pressure filter cartridge 5 µm		
PJ_30.10.60 - RG 10 - Pressure filter cartridge 10 µm		
600.4 - RG 2 - Filter cartridge 5 µm		
<b>Options</b>		
VA	-	✓

## Description



UNIFLEX cleaning machines effectively remove residue and scale from hose cutting, crimping and press fitting.

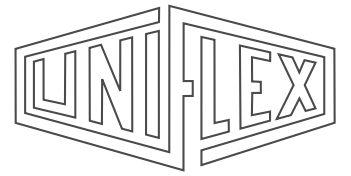


## Accessories



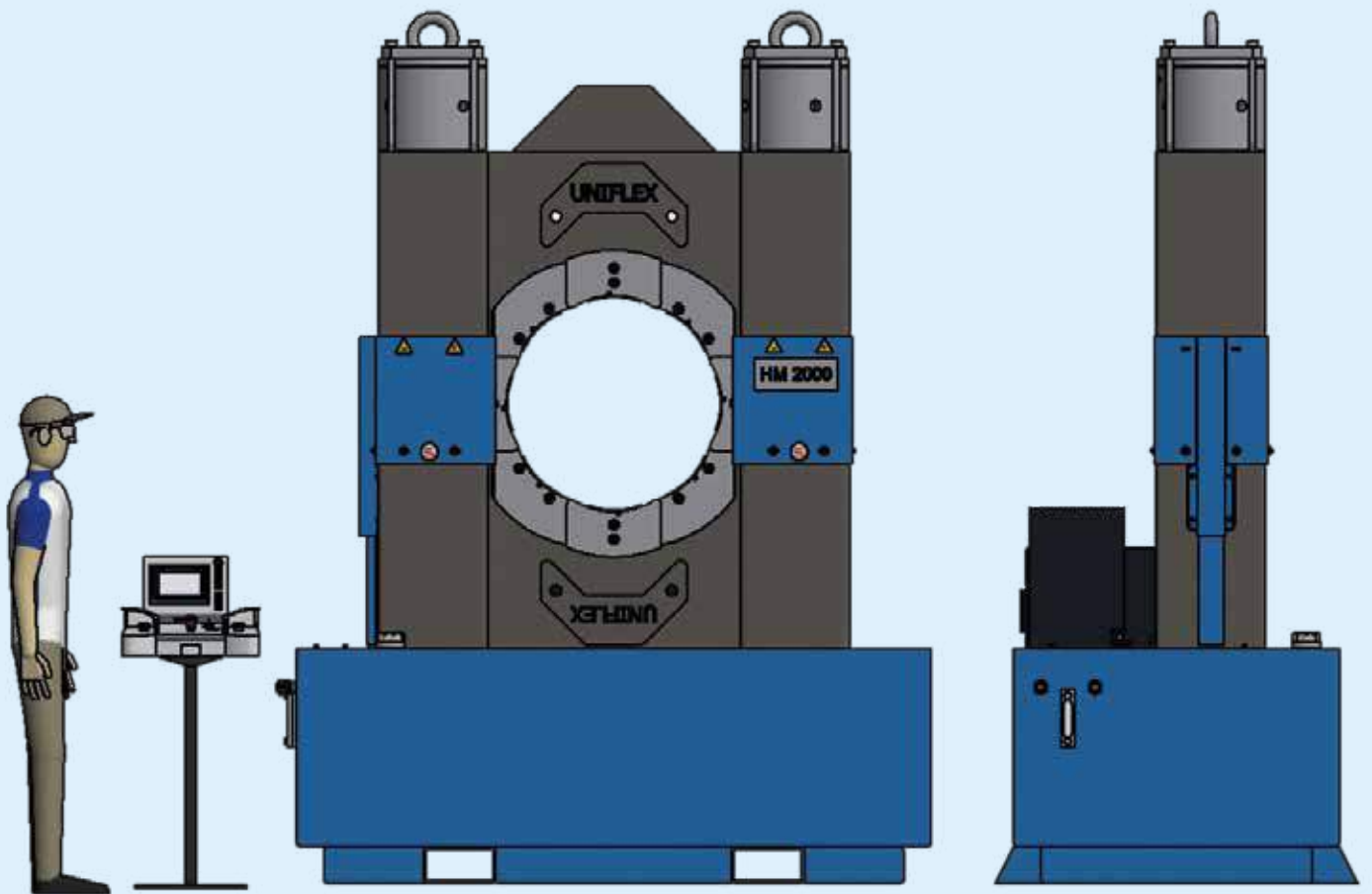
Roller kit 408.2





# Special Equipment

Solutions for every requirement.



# Content



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Page 109  
HM 380 | HM 480 |  
HM 660 | HM 1200



Page 110-111  
HMC 1-30 | HM 245



Page 112  
HMC 5-200 |  
HMC 12-2000



# Special Equipment



## 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
- No greasing improves cleanliness of machine
- Prolongs the machine's lifetime
- Maximum productivity with very low maintenance costs
- No risk of prematurely damaging the crimping head
- End product can be used in sanitary applications without cleaning
- 20% more capability for crimping stronger or more difficult couplings versus our competition's equivalent crimpers
- Consistently accurate crimp result



## Environment friendly

- Engineered to last

# Special applications





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



KS 6, KS 8, KS 10

Technical Data	KS 6 <b>NEW</b>	KS 8	KS 10
Crimp force (kN/Ton)	500/50	800/80	1,800/180
No grease: 20% less friction	✓	✓	✓
Control	Control C.2	Control C.2	Control C.2
Max. Crimp range	55 mm	139 mm	139 mm
Opening	+27.5 mm	+45 mm	+45 mm
Opening without dies	91.5 mm	190 mm	190 mm
Type of dies	PBK 266	PBK 237	PBK 237
Speed (mm/sec)			
Close	12	7	3.5
Crimp	12	7	3.5
Open	30	15	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	
Ø mm	mm
6.8	3
8	3
9	3
10	3
11	3
12	3
14	4
16	4
17	4
19	4
20	4.5
22	4.5
24	4.5
25	4.5
28	5
30	5
32	5
34	5
36	5
39	5
40	5
44	5
47	5

Type of dies	
Ø mm	mm
12	3
14	3
16	4
19	4
22	4.5
24	4.5
26	4.5
28	4.5
32	5
36	5
40	5
44	5
47	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



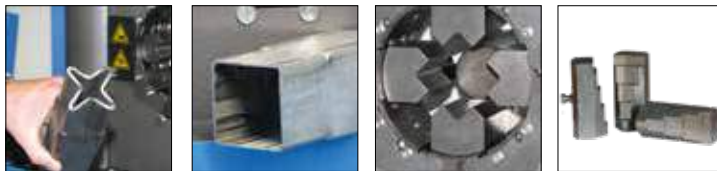
Our production crimper models HM 380, HM 480, HM 660, HM 665 and HM 1200 are ideal for the crimping of insulators, cables, steel ropes and reinforcing steel elements.



HM 380 | HM 480 | HM 660 | HM 1200



**(Cooper-) Cable    Rebar fasteners    Insulator    Heater    Aircon hose**

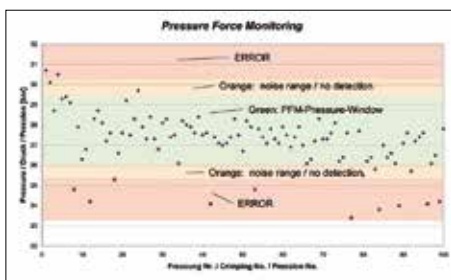


**Special dies for forming tubes with square or round ends.**



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.

**Option: PFC**



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%. The UNIFLEX PFM option revealed that 2% of all produced parts had defects, thus preventing these defective parts from being delivered to customers.

**Standard: PFM**



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: UTS/UDL**



Press designed specifically for the production of automotive hoses. A good example for such a tailor-made solution is the 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 1-30



HMC 245



HMC 1-30



HM 245

Technical Data	HMC 1-30	HM 245
Crimp force (kN/Ton)	300/30	750/75
No grease: 20% less friction	✓	✓
Control	Control C.2	Control C.2
SAE R 12* 1 piece fitting		1"
SAE R 12* 2 piece fitting		3/4"
Industrial	1"	1"
Max. Crimp range	70 mm	70 mm
Opening without dies	90 mm	100 mm
Type of dies	239-38	239
Speed (mm/sec)		
Close	30	27
Crimp	5	5
Open	50	30
Noise level	< 80 dBA	53 dBA
Drive	4 kW	4 kW
Oil	80 l	100 l
L x W x H (mm)	650 x 590 x 1,700	1.020 x 950 x 1,450
Weight	320 kg	610 kg

\* According to the fitting.

Type of dies		Type of dies (HM 245)	
	<b>239 - 38</b>		<b>239</b>
Ø mm	mm	Ø mm	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

## Description



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



Sliding table with handle.



Double head system.



Constant axial centre when crimping jaws are closed.



Stability, innovation and crimping force characterize the UNIFLEX HMC 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. The new comer HMC 5-200 complete the range of open head crimper with 200 ton and 4" capacity. UNIFLEX defines new crimping techniques and focuses on the highest quality and user-friendliness as well as on advanced materials.



HMC 5-200

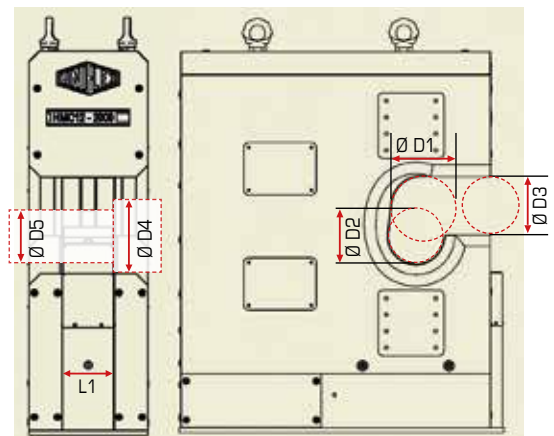
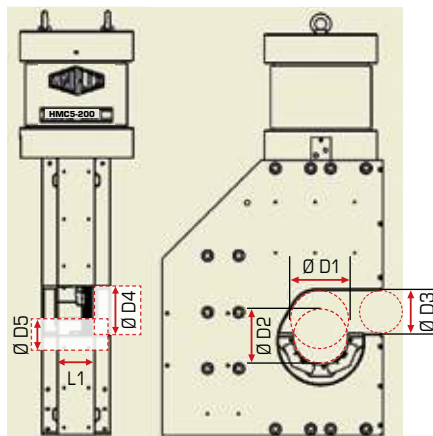


HMC 12-2000

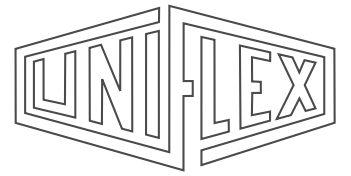
Technical Data	HMC 5-200	HMC 12-2000
Crimp force (kN/Ton)	2,000/200	20,000/2,000
No grease: 20% less friction	✓	✓
Control	Control C.2/IPC	Control C.2/IPC
SAE R15 4SH 1 piece fitting	2"	3"
SAE R15 4SH 2 piece fitting	1½"	3"
Industrial	5"	12"
90° Elbows	4"	3"
Max. Crimp range (mm) with master dies Crimping	175 Ø PB +30mm	380 Ø PB +50
Opening without dies	210 mm	435 mm
Die type	237, 239	247, 245, 237 L
Speed (mm/sec) Close/Crimp/Open	upon request, depends on power unit	upon request, depends on power unit
Oil	100 liter	- - -
L x W x H (mm)	1,100 x 810 x 1,750	2,000 x 750 x 2,400
Weight of tool (kg)	1,650	15,000

\* According to the fitting.

More technical data according to the adjacent image	HMC 5-200	HMC 12-2000
D1 = Max. axial diameter	210 mm	435 mm
D2 = Maximum workpiece raw-diameter	195 mm	335 mm
D3 = Max. radial opening	155 mm	350 mm
D4 = Max. flange diameter	300 mm	450 mm
D5 = Diameter basic dies	145 mm	330 mm
L1 = Wide basic dies	126 mm	300 mm







# Training – UX Inside



# Assembling Hose and Fittings with Safety as Priority No. 1



## TRAINING CONCEPT

Advanced training is an important investment in the future of a company in order to maintain or enhance quality and safety. As a supplier of machinery for production of hose assemblies, we are continuously extending our product range to meet the requirements of the market. Furthermore, we supply the appropriate material to our customers and we offer training courses, which qualify for production of hose assemblies meeting the high requirements regarding safety and quality. First-Class skilled personnel with expert know-how provide decisive competitive advantages. The production of hose assemblies with the best machines available on the global market ensures quality and safety.

## TRAINING

### Interesting to know

In 2016, we commissioned a market study showing the following interesting results:

Many manufacturers of hose assemblies are using targeted training and practical training for the advanced training of their employees.

But only approximately 23% of the employees of those companies are qualified regarding hoses, even though 76.3% of all customers suppose that their supplier has properly trained personnel!

93.2% of all customers expect technical recommendations from their hose supplier.

42.5% of the customers believe that sales growth is associated with the requirement to train the customers regarding quality.

23.7% have a vocational education in hydraulics or fluid technology.

Only 10.2% believe that training is not the decisive factor for purchasing a machine, only the price.

## 1. HOSE ASSEMBLING

### Theory and practice

#### Target Group

Manufacturers of hydraulic hose assemblies, using UNIFLEX machinery for production. Employees of the hose assembly department, quality control, maintenance and sales departments.

#### Theory

The participants acquire basic knowledge about

- Types of hose selection
- Rubber and thermoplastic hoses
- International standards and regulations
- Storage and storage periods of hose
- Hose fittings and connection forms

#### Practice

- Production of hose assemblies with UNIFLEX machines
- Cutting hose
- Marking of hose fittings
- Skiving, internal and external
- Crimping with production and service crimpers
- Cleaning and inspection of the hose assemblies

## 2. MACHINE MAINTENANCE

### Maintenance and repair of UNIFLEX machines

The participants acquire basic knowledge about the functioning of the machines, their maintenance and repair.

#### Practice

All types of machine maintenance work is carried out by our experienced service staff.

#### Duration of training

2 days: Day 1 – basics of hose assembling, theory and practice

Day 2 – machine maintenance

maximum 8 persons per course

Start: 09:00 h

#### Cost

Each participant 675,00 €/p.P.

The participation fee includes refreshments, lunch and course materials.

#### Info and Inscriptions

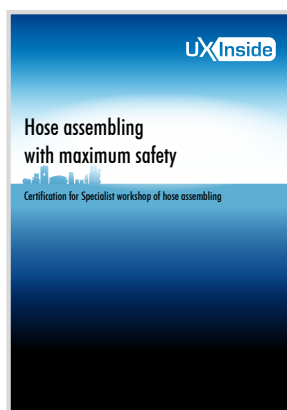
# Experience the Value using UNIFLEX Machines! Share it with your Customer.

**UNIFLEX  
Machine**

**+ Certification**

**+ Training**  
Your service and sales team.

**+ ULS  
(UxInside Label)**



**Workshop certified.**



**PROMOTE QUALITY!**