

MACHINES-EQUIPMENT & TOOLING

Product	Page
PYPLOK Tooling	480-490
Pipe & Tube Bending Machines	491-495
Pipe & Tube Cutting Machines & Equipment	496-497
Deburring Machines	498
Cleaning Equipment Pipes & Hoses	499-501
Pre-assembling & End Forming Pipe & Tubes	502-509
Hose Crimping Machines	510-513
Hose Cutting Machines	514-515
Hose Skiving Machines	515
Hose Assembling Equipment	516-517



PYPLOK Tooling

The PYPLOK® Tooling System Consists of the Following Items

- Tube-Mac® Swage Tooling
- 10,000 PSI/690 bar Hydraulic Power Supply
- Inspection/Marking Gauges

Swage Tooling

The tools are lightweight, portable and activated by 10,000 PSI/690 bar hydraulic pressure. The swage tools are identical in design. The only difference is the force generated by each model.

The following models are used to install the PYPLOK® fittings:

DLT10 – 1/4" OD and 6mm-8mm

DLT20 – 1/4"-3/8" NPS, 1/4"-5/8" OD and 8mm-16mm

DLT40 – 1/4"-3/4" NPS, 3/8"-1" OD and 8mm-30mm

DLT55 – 1/2"-1-1/2" NPS, 1"-2" OD and 22mm-50mm

DLT70 – 1"-3" NPS, 1-1/2"-2" OD and 35mm-60mm

DLT86 – 3"-4" NPS

Swage Tooling Primary Components

The PYPLOK® swage tooling assembly has four main components:

- Power Unit
- Head Assembly
- Swage Dies
- Die Block Assembly

PYPLOK® Tooling CE Compliance

PYPLOK® tooling complies with all relevant provisions of the EC-Directives 2006/42/EC (Machinery) and 2014/68/EU (Pressure Equipment). The following harmonised standards are applied:

- EN ISO 12100: 2010: Safety of Machinery, Principles
- EN ISO 4413: 2010, hydraulic equipment



PYPLOK Tooling

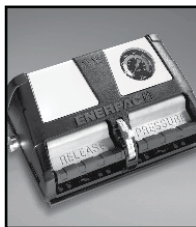
PYPLOK® Swaging Tool Pump Requirements

1. Depending on application and environment the choice of Electric, Battery, Pneumatic or Hand Operated pumps can be used.
2. The hydraulic pumps used for operation of the PYPLOK® Tooling must be capable of producing up to but not exceeding 10,000 PSI/690 bar and have internal relief valve to prevent pump from producing more than 10,000 PSI/690 bar within the PYPLOK® Tools.
3. Power operated pumps must operate in hold-to-run mode (hydraulic supply only as long as push-button or pedal is activated, hydraulic Stop or Release when push-button or pedal are released). PYPLOK® has defined PL = c (EN ISO 13849) as requirement for the control circuit.
4. The hydraulic hose and quick connectors joining the pump to the PYPLOK® Tooling must be rated for use with a 10,000 PSI/690 bar Pump.

Pumps Offered by Tube-Mac® for Use with the PYPLOK® Tooling

Part Number	Description	Weight lbs (kg)
P392	Hand Pump	9.00 (4.10)
XA11G	Pneumatic Pump	19.40 (8.80)
WUD1100EU100	220 Volt Electric Pump	31.00 (14.05)
WUD1100BU100	110 Volt Electric Pump	31.00 (14.05)
B70M-P24	Battery Pump, 110V Charger	20.28 (9.20)
B70M-P24-220	Battery Pump, 220V Charger	20.28 (9.20)

Pump come complete with carrying case and a 10 ft., 10,000 PSI/690 bar, non-conductive hose



PYPLOK Tooling

Tooling coverage by tube/pipe sizes

DM 20 Series - NPS Sch Pipe									
	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	3"
Model 20									
Model 40									
Model 55									
Model 70									
Model 86									

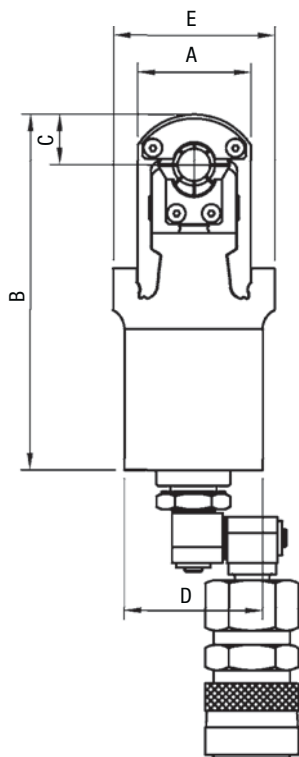
DM 60 Series - OD Tube									
	1/4"	3/8"	1/2"	5/8"	3/4"	1"	1-1/4"	1-1/2"	2"
Model 10									
Model 20									
Model 40									
Model 55									
Model 70									

DM 80 Series - Metric Tube																	
	6mm	8mm	10mm	12mm	15mm	16mm	18mm	20mm	22mm	25mm	28mm	30mm	35mm	38mm	42mm	50mm	60mm
Model 10																	
Model 20																	
Model 40																	
Model 55																	
Model 70																	

DP 40 Series - NPS Low Pressure			
	2-1/2"	3"	4"
Model 70			
Model 86			

DP 04 Series - Metric Pipe CuNi		
	44mm	57mm
Model 55		

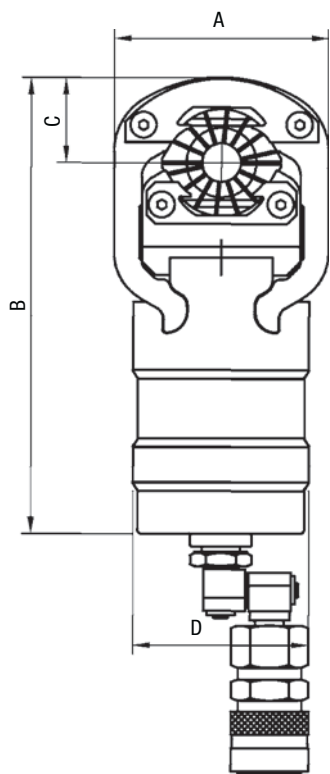
PYPLOK Tooling Dimensions



Model 10

Head Size	Dimensions - Inch (mm)				
	A	B	C	D	E
01' Series	1.33 (33.86)	4.22 (107.21)	0.60 (15.24)	1.63 (41.40)	1.90 (48.26)

Head Size	Weight - lbs (kg)		
	Power Unit	Head Assembly	Complete Tool
01' Series	2.00 (0.90)	0.03 (0.20)	2.40 (1.10)

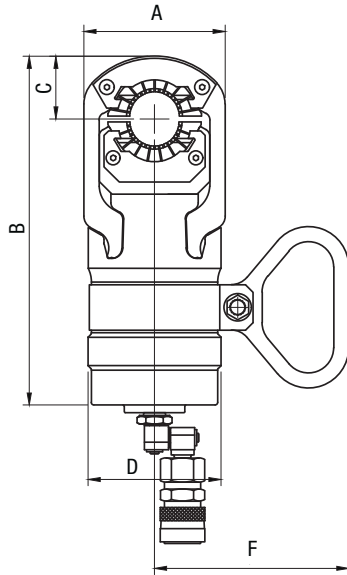


Model 20

Head Size	Dimensions - Inch (mm)			
	A	B	C	D
00' Series	3.04 (77.22)	6.48 (164.67)	1.21 (30.84)	2.49 (63.25)

Head Size	Weight - lbs (kg)		
	Power Unit	Head Assembly	Complete Tool
00' Series	4.40 (2.00)	3.10 (1.40)	7.50 (3.40)

PYPLOK Tooling Dimensions

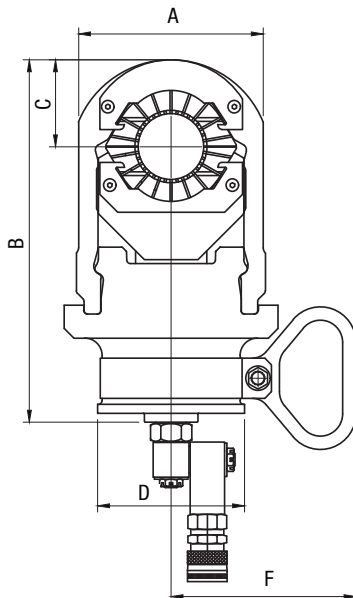


*Model 40

Head Size	Dimensions - Inch (mm)				
	A	B	C	D	F
00' Series	3.29 (83.57)	8.23 (209.12)	1.15 (29.26)	3.29 (83.59)	4.81 (122.23)
02' Series	3.50 (88.88)	8.63 (219.28)	1.55 (39.45)	3.29 (83.59)	4.81 (122.23)

Head Size	Weight - lbs (kg)		
	Power Unit	Head Assembly	Complete Tool
00' Series	9.20 (4.20)	4.20 (1.90)	13.40 (6.10)
02' Series	9.20 (4.20)	5.30 (2.40)	14.60 (6.60)

*Handle is an option. Not standard with model 40.



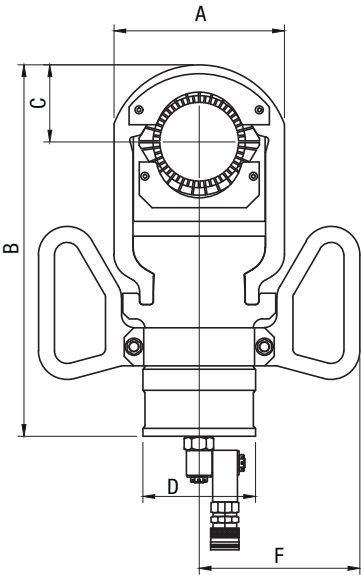
*Model 55

Head Size	Dimensions - Inch (mm)				
	A	B	C	D	F
01' Series	5.18 (131.57)	9.92 (251.92)	2.43 (61.70)	4.12 (104.65)	5.19 (131.78)

Head Size	Weight - lbs (kg)		
	Power Unit	Head Assembly	Complete Tool
01' Series	16.70 (7.60)	11.20 (5.10)	27.90 (12.70)

*Handle is an option. Not standard with model 55.

PYPLOK Tooling Dimensions

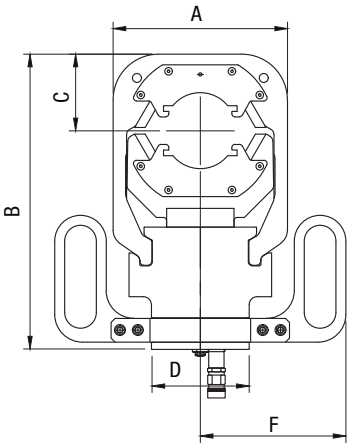


*Model 70

Head Size	Dimensions - Inch (mm)				
	A	B	C	D	F
01' Series	6.68 (169.70)	14.62 (371.45)	3.03 (76.99)	4.41 (112.07)	6.30 (159.97)
02' Series	7.55 (191.77)	15.23 (386.77)	3.62 (92.05)	4.41 (112.07)	6.30 (159.97)

Head Size	Weight - lbs (kg)		
	Power Unit	Head Assembly	Complete Tool
01' Series	30.80 (14.00)	17.60 (8.00)	48.40 (22.00)
02' Series	30.80 (14.00)	23.10 (10.50)	53.90 (24.50)

*Handle comes standard with model 70.



*Model 86

Head Size	Dimensions - Inch (mm)				
	A	B	C	D	F
00' Series	11.00 (279.40)	19.50 (495.30)	5.00 (127.00)	6.25 (158.75)	18.00 (457.20)

Head Size	Weight - lbs (kg)		
	Power Unit	Head Assembly	Complete Tool
00' Series	61.70 (28.00)	62.20 (28.20)	123.90 (56.20)

*Handle comes standard with model 86.

PYPLOK Tool Matrix

DM 20 Series - NPS SCH Pipe

Model 40 Power Unit - DLT40MAPW0000									
Size	Fitting Series	Inspection Gauge	Die Set	Die Block	Head	Upper Endplates	Lower Endplates	Endplate Bolts	*Head Assembly
Model 40-00' Series								MS51595-61 10-24 x 3/8" Flat Socket Cap	
1/4"	DM 20 Series	DLT40PYIG3804	DLT40PYDI3804	DLT40MADA0000	DLT40MAHD0000	DLT40PYEU0000	DLT40PYEL0000		DLT40PYHA3804
3/8"		DLT40PYIG3806	DLT40PYDI3806						DLT40PYHA3806
Model 40 - 02' Series									
1/2"	DM 20 Series	DLT40PYIG3808	DLT40PYDI3808	DLT40MADA0002	DLT40MAHD0002	DLT40PYEU0002	DLT40PYEL0002		DLT40PYHA3808
3/4"		DLT40PYIG3812	DLT40PYDI3812						DLT40PYHA3812

Model 55 Power Unit - DLT55MAPW0000									
Size	Fitting Series	Inspection Gauge	Die Set	Die Block	Head	Upper Endplates	Lower Endplates	Endplate Bolts	*Head Assembly
Model 55 - 01' Series								MS51595-61 10-24 x 3/8" Flat Socket Cap	
1/2"	DM 20 Series	DLT40PYIG3808	DLT55PYDI3808	DLT55MADA0001	DLT55MAHD0001	DLT55PYEU0001	DLT55PYEL0001		DLT55PYHA3808
3/4"		DLT40PYIG3812	DLT55PYDI3812						DLT55PYHA3812
1"		DLT55PYIG3816	DLT55PYDI3816						DLT55PYHA3816
1-1/4"		DLT55PYIG3820	DLT55PYDI3820						DLT55PYHA3820
1-1/2"		DLT55PYIG3824	DLT55PYDI3824						DLT55PYHA3824

Model 70 Power Unit - DLT70MAPW0000									
Size	Fitting Series	Inspection Gauge	Die Set	Die Block	Head	Upper Endplates	Lower Endplates	Endplate Bolts	*Head Assembly
Model 70 - 01' Series								MS51595-61 10-24 x 3/8" Flat Socket Cap	
1"	DM 20 Series	DLT55PYIG3816	DLT70PYDI3816	DLT70MADA0001	DLT70MAHD0001	DLT70PYEU0001	DLT70PYEL0001		DLT70PYHA3816
1-1/4"		DLT55PYIG3820	DLT70PYDI3820						DLT70PYHA3820
1-1/2"		DLT55PYIG3824	DLT70PYDI3824						DLT70PYHA3824
2"		DLT70PYIG3832	DLT70PYDI3832						DLT70PYHA3832

*Head Assembly Includes: Die Set, Die Block, Head, Endplates and Endplate Bolts

PYPLOK Tool Matrix

DM 80 Series - Metric Tube

Model 10 Power Unit - DLT10MAPW0000										
Size	Fitting Series	Inspection Gauge	Die Set	Die Block	Head	Upper Inboard	Upper Outboard	Lower Inboard	Lower Outboard	*Head Assembly
Model 10 - 01' Series										
6mm	DM 80 Series	DLT10PYIG3906	DLT10PYDI3704	DLT10MADA0001	DLT10MAHD0001	DLT10PSEU4006	DLT10PYFU704	DLT10PSEL4006	DLT10PSFL4006	DLT10PYHA3704
8mm		DLT10PYIG3908	DLT10PYDI3908							DLT10PYHA3908

Model 20 Power Unit - DLT20MAPW0000									
Size	Fitting Series	Inspection Gauge	Die Set	Die Block	Head	Upper Endplates	Lower Endplates	Endplate Bolts	*Head Assembly
Model 20 - 00' Series								MS51595-61 10-24 x 3/8" Flat Socket Cap	
8mm	DM 80 Series	DLT40PYIG3908	DLT20PYDI3908	DLT20MADA0000	DLT20MAHD0000	DLT40PYEU0000	DLT40PYEL0000		DLT20PYHA3908
10mm		DLT40PYIG3910	DLT20PYDI3910						DLT20PYHA3910
12mm		DLT40PYIG3912	DLT20PYDI3912						DLT20PYHA3912
15mm		DLT40PYIG3915	DLT20PYDI3916						DLT20PYHA3916
16mm		DLT40PYIG3916	DLT20PYDI3916						DLT20PYHA3916

Model 40 Power Unit - DLT40MAPW0000									
Size	Fitting Series	Inspection Gauge	Die Set	Die Block	Head	Upper Endplates	Lower Endplates	Endplate Bolts	*Head Assembly
Model 40 - 00' Series								MS51595-61 10-24 x 3/8" Flat Socket Cap	
8mm	DM 80 Series	DLT40PYIG3908	DLT20PYDI3908	DLT40MADA0000	DLT40MAHD0000	DLT40PYEU0000	DLT40PYEL0000		DLT40PYHA3908
10mm		DLT40PYIG3910	DLT40PYDI3910						DLT40PYHA3910
12mm		DLT40PYIG3912	DLT40PYDI3912						DLT40PYHA3912
14mm		DLT40PYIG3914	DLT40PYDI3804						DLT40PYHA3804
15mm		DLT40PYIG3915	DLT40PYDI3916						DLT40PYHA3916
16mm		DLT40PYIG3916	DLT40PYDI3916						DLT40PYHA3916
18mm		DLT40PYIG3918	DLT40PYDI3806						DLT40PYHA3806
20mm		DLT40PYIG3920	DLT40PYDI3920						DLT40PYHA3920
Model 40 - 02' Series									
22mm	DM 80 Series	DLT40PYIG3922	DLT40PYDI3808	DLT40MADA0002	DLT40MAHD0002	DLT40PYEU0002	DLT40PYEL0002	DLT40PYHA3808	
25mm		DLT40PYIG3925	DLT40PYDI3925					DLT40PYHA3925	
28mm		DLT40PYIG3928	DLT40PYDI3812					DLT40PYHA3812	
30mm		DLT40PYIG3930	DLT40PYDI3930					DLT40PYHA3930	

*Head Assembly Includes: Die Set, Die Block, Head, Endplates and Endplate Bolts

PYPLOK Tool Matrix

DM 80 Series - Metric Tube

Model 55 Power Unit -DLT55MAPW0000									
Size	Fitting Series	Inspection Gauge	Die Set	Die Block	Head	Upper Endplates	Lower Endplates	Endplate Bolts	*Head Assembly
Model 55 - 01' Series								MS51595-61 10-24 x 3/8” Flat Socket Cap	
22mm	DM 80 Series	DLT40PYIG3922	DLT55PYDI3808	DLT55MADA0001	DLT55MAHD0001	DLT55PYEU0001	DLT55PYEU0001		DLT55PYHA3808
25mm		DLT40PYIG3925	DLT55PYDI3925						DLT55PYHA3925
28mm		DLT40PYIG3928	DLT55PYDI3812						DLT55PYHA3812
30mm		DLT40PYIG3930	DLT55PYDI3930						DLT55PYHA3930
35mm		DLT55PYIG3935	DLT55PYDI3816						DLT55PYHA3816
38mm		DLT55PYIG3938	DLT55PYDI3938						DLT55PYHA3938
42mm		DLT55PYIG3820	DLT55PYDI3820						DLT55PYHA3820
50mm		DLT55PYIG3950	DLT55PYDI3824						DLT55PYHA3824

Model 70 Power Unit - DLT70MAPW0000									
Size	Fitting Series	Inspection Gauge	Die Set	Die Block	Head	Upper Endplates	Lower Endplates	Endplate Bolts	*Head Assembly
Model 70 - 01' Series								MS51595-61 10-24 x 3/8" Flat Socket Cap	
35mm	DM 80 Series	DLT55PYIG3935	DLT70PYDI3816	DLT70MADA0001	DLT70MAHD0001	DLT70PYEU0001	DLT70PYEL0001		DLT70PYHA3816
38mm		DLT55PYIG3938	DLT70PYDI3938						DLT70PYHA3938
42mm		DLT55PYIG3820	DLT70PYDI3820						DLT70PYHA3820
50mm		DLT55PYIG3950	DLT70PYDI3824						DLT70PYHA3824
60mm		DLT70PYIG3832	DLT70PYDI3832						DLT70PYHA3832

*Head Assembly Includes: Die Set, Die Block, Head, Endplates and Endplate Bolts

PYPLOK Tool Matrix

DM 40 Series - NPS Low Pressure

Model 70 Power Unit - DLT70MAPW0000									
Size	Fitting Series	Inspection Gauge	Die Set	Die Block	Head	Upper Endplates	Lower Endplates	Endplate Bolts	*Head Assembly
Model 70 - 02' Series								MS51595-61 10-24 x 3/8" Flat Socket Cap	
2-1/2"	DP 40 Series	DLT70PYIG4040	DLT70PYDI4040	DLT70MAHD0002	DLT70MAHD0002	DLT70PYEU0002	DLT70PYEL0002		DLT70PYHA4040
3"		DLT70PYIG4048	DLT70PYDI4048						DLT70PYHA4048

Model 86 Power Unit - DLT86MAPW0000									
Size	Fitting Series	Inspection Gauge	Die Set	Die Block	Head	Upper Endplates	Lower Endplates	Endplate Bolts	*Head Assembly
Model 86 - 00' Series								1/4-28 x 1/2" Socket Cap	DLT86PYHA4064
4"	DP 40 Series	DLT86PYIG4064	DLT86PYDI4064	DLT86MADA0000	DLT86MAHD0000	DLT86PYEP0001	DLT86PYEP0001		

*Head Assembly Includes: Die Set, Die Block, Head, Endplates and Endplate Bolts

DP 04 Series - Metric Pipe CuNi

Model 55 Power Unit - DLT55MAPW0000										
Size	Fitting Series	Inspection Gauge	Die Set	Die Block	Head	Upper Endplates	Lower Endplates	Endplate Bolts	*Head Assembly	
Model 55 - 01' Series								MS51595-61 10-24 x 3/8" Flat Socket Cap		
44.5mm	DP 04 Series	DLT55PYIG4244	DLT55PYDI3944						DLT55PYHA3944	
57mm		DLT55PYIG4257	DLT55PYDI3957						DLT55MADA0001	DLT55MAHD0001

*Head Assembly Includes: Die Set, Die Block, Head, Endplates and Endplate Bolts

PYPLOK Tooling Accessories

PYPLOK® Tooling Accessories

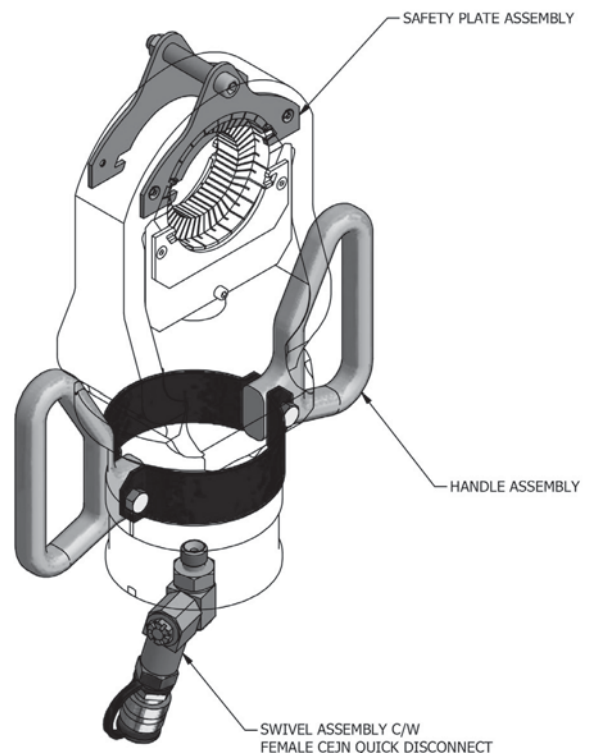
DLT10PYCC1200	Case for (1) Model 10 Power Unit and (2) Head Assemblies
DLT20PYCC1200	Case for (1) Model 20 Power Unit and (2) Head Assemblies
DLT40PYCC1501	Case for (1) Model 40 Power Unit and (6) Head Assemblies
DLT55PYCC1501	Case for (1) Model 55 Power Unit and (1) Head Assembly
DLT55PYCC1502	Case for (2) Model 55 Head Assemblies
DLT70PYCC1501	Case for (1) Model 70 Power Unit
DLT70PYCC1502	Case for (2) Model 70 Head Assemblies
DLT70PYCC1503	Case for (1) Model 70 3" Head Assembly
DLT86PYCC0001	Case for (1) Model 86 Power Unit
DLT86PYCC0002	Case for (1) Model 86 Head Assembly
DLTXXPYSL0000	Swage Lube
DLT00HOSE0010	10' Hose Assembly comes with Quick Disconnects
DLT00HOSE0015	15' Hose Assembly comes with Quick Disconnects
DLT00SABP1040	Quick Disconnect Swivel Assembly for Model 10/20/40
DLT00SABP5570	Quick Disconnect Swivel Assembly for Model 55/70

Spare Endplates and Bolts

DLT10PYFU3704	Model 10 - Upper Out Endplate
DLT10PSEU4006	Model 10 - Upper In Endplate
DLT10PSFL4006	Model 10 - Lower Out Endplate
DLT10PSEL4006	Model 10 - Lower In Endplate
DLT20PYEU0000	Model 20 - Upper Endplate
DLT20PYEL0000	Model 20 - Lower Endplate
DLT40PYEU0000	Model 40 - 00' Series Upper Endplate
DLT40PYEL0000	Model 40 - 00' Series Lower Endplate
DLT40PYEU0002	Model 40 - 02' Series Upper Endplate
DLT40PYEL0002	Model 40 - 02' Series Lower Endplate
DLT55PYEU0001	Model 55 - Upper Endplate
DLT55PYEL0001	Model 55 - Lower Endplate
DLT70PYEU0001	Model 70 - 01' Series Upper Endplate
DLT70PYEL0001	Model 70 - 01' Series Lower Endplate
DLT70PYEU0002	Model 70 - 02' Series Upper Endplate
DLT70PYEL0002	Model 70 - 02' Series Lower Endplate
DLT86PYEP0001	Model 86 - Upper/Lower Endplate
10-24 x 3/8"	Flat Socket Cap Bolts for Model 20/40/55/70 Endplates
1/4-28 x 1/2"	Socket Cap Bolts for Model 86 Endplates

Optional Safety Endplates and Handles

DLT40PSPA000	Model 40 - 00' Series Upper Safety Endplate Kit
DLT40PSPA0002	Model 40 - 02' Series Upper Safety Endplate Kit
DLT55PSPA0001	Model 55 - Series Upper Safety Endplate Kit
DLT70PSPA0001	Model 70 - 01' Series Upper Safety Endplate Kit
DLT70PSPA0002	Model 70 - 02' Series Upper Safety Endplate Kit
DLT00PHLA4055	Model 40/55 Handle Kit
DLT70PHLA0000	Model 70 Handle Kit



Bending Machines

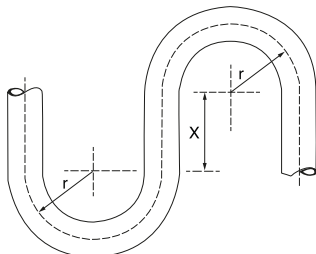
RBV 6/18

Tube Bending Device

This device comes with 6 changeable bending rollers for tubes from 6 to 18 mm.

Weight of each piece: approx. 4 kg

Ease-of-use: ideal for workshop independent, mobile bending operations.



Technical Specifications RBV 6/18

Description	tube OD mm	gas tube	r	~ x	~ kg/pc
RBV 6/18	6		33.0	35	4
	8		34.0	35	
	10	1/8	35.5	35	
	12		36.5	35	
	14	1/4	36.5	35	
	15		44.0	38	
	16		44.0	38	
	18	3/8	51.5	42	

JUTEC 3000

The compact, mobile type of construction enables precise and repeatable bending both stationary and at the place of mounting. Powerful maintenance-free AC motor and precision gearing provide powerful drive. Setting the bending angle on target-actual value display to 0.5 ° accuracy. High repeatability. For thin-walled tubes slide shoes are used for wrinkle-free bending and in order to produce bends, for example from tubes made of stainless steel and copper, with smallest possible deformations. With the profile bending adaptor PB 20, flat steel bars, square steel and round bars can be bent without problems.

Technical Data:

Bending capacity pipe Ø 6 up to 35mm
CU Ø 42mm depend on Material

Bending radius min / max: 36 mm / 150 mm digital
bending angle setting to 0,5°

3 bending angel storable

Maks 180°

hexagonal tool drive shaft 40mm alternating

230 Volt

3 phase 230V/ 0,6 kW

Weight: 29 kg



Bending Machines

BM 76 Mackma

Rigth and left hand bending, &underhead bending

Main technical data BM76:

- Pipe Max Outer Diameter 76 mm
- Max Torque 7000 N/m
- Diameter using FE – 42 daN/mq 76×3 mm
- Diameter using FE – 35 daN/mq 70×5 mm
- Diameter using AISI 304/316 – 65 dan/mq 70×4 mm
- Maximum radius 380 mm
- Height of the head 315 mm
- Projection of the head 384 mm
- Max curvature angle 180°
- Minimum rotation speed 1 rpm
- Maximum rotation speed 2 rpm
- Bending direction rightward and leftward
- Electric tension 380/400 V ac
- Max installed power 1,8 KW
- Weight 306 Kg
- Dimensions (WxhxL) 680x1100x1000 mm



PT

AMOB's mandrel-less tube & pipe bending machines are made to cover the needs of those bending large radiuses and thick walls in very small batches. Portability and simplicity combined with quick tool changes allow these machines to be used by any operator, even on a first-time basis.



Permutable shaft
The PT series is equipped with permutable shaft for tight radius.



User-friendly controller
PT series machines are equipped with easy-to-operate digital readout controls.



Technical specifications	PT-42	PT-76	PT-127
Maximum capacity	Ø 42 x 3 mm	Ø 76 x 4 mm	Ø 127 x 3 mm
Y axis accuracy	± 0,5 °	± 0,5 °	± 0,5 °
Maximum Bending Radius	260 mm	300 mm	450 mm
Installed Power	0,750 KW	1,5 KW	5,5 KW

Bending machines

eMOB

Fully electric CNC tube bending machines



The AMOB all-electric CNC **eMOB series** features state-of-the-art bending technology. Processing tube from **10mm** up to 150mm, these machines have multi-stack capability. They can bend fixed and variable radii within the same cycle and allow bending with no straight between them. A carriage booster allows bends with radii as tight as 1D and eliminates clamping marks. Welding detection, punching/cutting mechanisms and integrated loading/unloading systems are also available. **eMOB series** machines are all equipped with the newly updated user-friendly AMOB 3D SOFTWARE.



Punching unit

On request, a punching unit can be added to the multi-stack, fixed and variable eMOB series.



Multi-stack capability

All eMOB models have multi-stack, fixed and variable radius capability.



Welding detection

There's also the option to add welding detection unit.

Technical specifications

	eMOB-42	eMOB-52	eMOB-63	eMOB-80	eMOB-100	eMOB-130	eMOB-150
Maximum capacity	Ø42x2 mm	Ø52x2 mm	Ø63x2 mm	Ø80x2 mm	Ø100x2 mm	Ø130x2 mm	Ø150x3 mm
Controlled Axes	9	9	9	10	10	10	10
Max. Bending Radius mm	240 mm	23	350 mm	400	400 mm	400 mm	400 mm

Ce

Electric CNC tube bending machines



AMOB electric CNC tube bending machines **Ce CNC R series** are the ultimate in efficiency and green technology. This innovative range of products was born out of a growing concern with rising energy prices and production costs, and a need to reduce energy consumption intelligently.

Processing tube from **10mm** up to **90mm** OD, these machines are ideal for medium to large jobs. Available in single stack, double stack or multi-stack capabilities as well as fixed and variable radii in the same cycle, they also allow bends with no straight between them when equipped with more than one stack feature. There is also the option to add welding detection, punching/cutting mechanisms and integrated loading or unloading systems, and all Ce CNC R series machines are equipped with the latest AMOB 3D bending software.



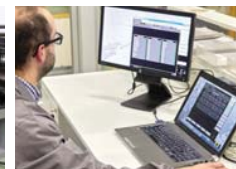
AMOB 3D software

Ce CNC R series are equipped with latest up to date user-friendly AMOB 3D software.



Fixed and variable radius

All Ce CNC R models have multi-stack, fixed and variable radius capability.



Online diagnosis

AMOB CNC models permit online safe access for online diagnosis.



Servo controlled POB

All Ce CNC R plane of bend positioners are servo controlled (up to 4 axis).



Multi-stack capability

Ce CNC R models are available in single or multi-stack, fixed and variable radius capability.

Technical specifications

	Ce-35CNC R	Ce-42CNC R	Ce-60CNC R	Ce-90CNC R
Maximum capacity	Ø 35 x 2 mm	Ø 42 x 2 mm	Ø 60 x 3 mm	Ø 90 x 2 mm
Controlled Axes	3 - 5	3 - 5	3 - 5	3 - 5
Maximum Bending Radius	90 mm	90 mm	180 mm	230 mm

Bending machines

CH-L NC & CNC tube benders



CH-L series is the backbone of AMOB tube and profile bending machines. Their rigidity, stability and untouchable precision in exceptional conditions such as humidity or harsh temperatures is what makes them stand out from the crowd. Ranging from **10mm** up to **120mm** OD these machines are suited for use in a wide range of pipe manufacturing sectors and industries. Available in different versions, there's NC1, NC2 and fully CNC, where all three axis are auto-matic in a single stack machine. There's also the option to add welding detection, punching/cutting mechanisms and integrated loading and unloading systems if necessary. The **CH-L series** comes equipped with the AMOB NC touchscreen easy-to-operate controls, or in the CNC version, with the latest user-friendly AMOB 3D bending software. This stores tooling configuration, allows spring-back compensation and boasts anti-collision technology, amongst other features. These multi-faceted models are easy to operate and suitable for almost all types of applications and industries.



3D imaging devices connection
Allows easy CAD comparison, dimensional analysis and reverse engineering.



Online diagnosis
AMOB CNC models permit online safe access for online diagnosis.



Booster bending
The pressure die assist/booster cylinder is integrated into the pressure die carrier head.



Serpentine tooling
Designed to exact centre line radii specifications requiring continuous 180-degree plane change.



Compound Tooling
Machined tube groove matching the contour of the previous bend.



Special purpose tooling
On request CH-L series may be equipped with punching unit.

Technical specifications

Maximum capacity	CH-35	CH-42	CH-60	CH-80	CH-120
	Ø 35 x 2 mm	Ø 42 x 2 mm	Ø 60 x 3 mm	Ø 80 x 3,5 mm	Ø 114,3 x 8,6 mm
Max. bend radius	125 mm	125 mm	220 mm	260 mm	340 mm

CH-HD

NC & CNC tube benders



The AMOB NC & CNC tube bending machines **CH-HD series** are a heavy-duty version of the CH-L cold tube and profile bending machines. Like the CH L range, they are robust and reliable in extreme conditions such as high humidity or harsh temperatures. Covering ODs from **120mm** up to **420mm**, these monster machines are suited for use in a wide range of pipe manufacturing sectors and industries. Available in different versions, there's NC1, NC2 and fully CNC, where all three axis are automatic in a single stack machine. Welding detection, punching/cutting mechanisms and integrated loading and unloading systems can also be added. This series also comes equipped with the AMOB NC touchscreen easy-to-operate controls, or again in the CNC version, with the latest AMOB 3D software. These user-friendly systems are suitable for almost all types of applications and heavy industries.



Quick tool changing
In order to reduce setup times, all CH-HD features quick tool changing.



Rear and front tube loading system
Integrated loading/unloading systems can also be added.



Motorised tool adjustment
CH-HD models, can be equipped with motorised tool adjustment.

Technical specifications

	CH-170	CH-220	CH-270	CH-320	CH-350	CH-420
Maximum capacity	Ø168,3x11 mm	Ø219,1x12,7 mm	Ø273x15,1mm	Ø323,9x17,5 mm	Ø355x19,1 mm	Ø419x21,4 mm

MDH Electric NC tube bending machines

Bending machines



The AMOB **MDH series** (NC electric tube benders) is our standard-issue range – simplicity, strength and accuracy are the key features of this extremely cost-effective line. Ideal for prototyping or small to medium projects, MDH are easily adapted to each different industrial and non-industrial situation. Covering a range from **10mm** up to **90mm** OD, these versatile machines are an easy and obvious choice for those starting up a tube bending business, or to complement heavy production or prototyping divisions. As standard, these machines come with a hydraulic mandrel extractor, hydraulic clamp and pressure die which guarantees a good-quality bended finish. Available in two versions - NC1 and NC2 axis - these machines allow for bending complex tube geometries within seconds of programming. Machines from this range are all equipped with AMOB NC touchscreen easy to operate controls.



User friendly touch screen controller
MDH Series are all equipped with AMOB NC touchscreen easy-to-operate controls.



Hydraulic POB clamp
NC plane of bend positioner equipped with hydraulic clamp.



Built in storage
MDH Series machines features built-in storage for tooling and accessories.



Magnetic flip stops
Easy-to-setup sequentially adjustable magnetic flip stops for X axis.



Special propose tooling
On request, MDH series may be equipped with special tooling.



Direct acting pressure die cylinder
Pressure die cylinder is mounted in tube's centerline plane to resist the bending forces.

Technical specifications

	MDH-35	MDH-60	MDH-90
Maximum capacity	Ø 35 x 3 mm	Ø 60 x 3 mm	Ø 90 x 4 mm
Maximum Bending Radius	110 mm	195 mm	305 mm
Machine Usefull Length	3000 mm	3000 mm	3000 mm
Installed Power CN1 - CN2	4,75 KW - 5 KW	6,2 KW - 6,4 KW	8 KW - 8,25 KW

Software Tube bending software

AMOB 3D BENDING SOFTWARE is at the cutting-edge of tube bending applications. Extremely easy to operate, it allows direct programming using coordinates or LRA, as well as importing CAD files. Amongst other features it boasts automatic spring-back compensation, stores tooling configuration and geometry, and features anti-collision properties for component feasibility, without prototyping or wasting material. Thanks to its intuitive software design, which utilises a stepping program, it's very easy to use.

AMOBAPP



AMOBAPP is the ultimate aid for AMOB machines users in day-to-day operations. By simply entering tube OD, wall thickness, material and CLR, you will receive a visual representation of what's required to perform the perfect bend. The tool archive allows management of pre-existing tooling and adjustment details. Main features: tool setup and archive, tool notes and adjustments, coordinate converter (XYZ - LRA), bending guide, metric and imperial settings.

Pipe/Tube Cutting Saws

V 275 T

Manual with power vice

CUTTING CAPASITY			
Maximum Saw Blade Size Ø		275 mm	
Head Swivel		90°	45°
Round (mm)		85	70
Square (mm)		70 x 70	60 x 60
Rectangle (mm)		95 x 60	70 x 55
TECHNICAL SPECIFICATIONS			
Main Voltage (V)		400	
Control Voltage (V)		24	
Installed Power (kW)		3,7	
Nominal Current (A)		1,35	
Main Saw Motor (kW)		1 - 1,3	
Coolant Pump Motor (kW)		0,06	
Air Pressure (Consumption)		6 kg/cm2 (120 l/min)	
Blade Speed (RPM)		45 / 90	
Head Swivel		90° / 45°	
Saw Blade Size	Diameter	275	
	Bore	32	
	Pin Holes	2 x Ø11 / Pivot Center Ø63	
Machine Dimensions (LxWxH) mm		100 x 60 x 140	
Packing Dimensions (LxWxH) cm		120 x 80 x 170	
Net Weight (Kg)		200	
Gross Weight (Kg)		220	



Compact, pull down manual circular saw with powered material clamping and operated by a hand lever, offer easy mitre cutting for the workshop or toolroom

- Air-operated clamp for material vise
- Robust Double Hinged Pivot
- Low voltage start/stop trigger switch within the pull down hand grip
- Counterbalance spring
- Miter capabilities 45 degrees left and 45 degrees right
- Double split vice to grip material on both sides of the material
- Self centering of vice optimizes cutting position
- Two cutting speeds
- Adjustable bar stop 500mm
- Large base for ultra-stability.
- Electric coolant pump with tank

Optional Accessories:

- Material support roller
- Saw Blade

V 275 X

Semi-automatic

Semi-automatic saws have powered material clamping and controlled blade feed rate that is initiated with a foot switch actuation, for fast cutting different size of metal pipes.

A semi-automatic coldsaw usually has a foot switch start that initiates the cycle. The blade starts, the powered vice clamps the workpiece and the cutting head feeds the blade through the material at a controlled rate. Powered bow raise lifts the head after the piece has been cut.

- High production rates, ideal for short batch runs,
- Foot switch actuation
- Hydro-pneumatic operation of saw head smoothes descent for optimum cut
- Cutting speed regulator
- Adjustable head stroke according to the dimensions of the material which has to be cut
- 2 speed main motor
- 45° right to 45° left cutting
- Centralising heavy duty split vice
- Coolant tank and electric pump for blade lubrication and cooling

Optional Accessories:

- Material support roller
- Saw Blade



Pipe/Tube Cutting Saws

DT and V- SERIES MACHINES

Most of the specifications are same with V series machines and DT series machines. Main difference between DT and V series machines is vice systems.

V series machines has double split vice to grip material on both sides of the material and also self centering of vice optimizes cutting position. Therefore most of users prefer V type machines for general applications .



CUTTING CAPACITY

		DT 275T		DT 315T		DT 350T		DT 275S		DT 315S		DT 350S	
Maximum Saw Blade Size Ø		275 mm		315 mm		350 mm		275 mm		315 mm		350 mm	
Head Swivel		90°	45°	90°	45°	90°	45°	90°	45°	90°	45°	90°	45°
Round (mm)		85	70	105	90	115	110	85	70	105	90	115	110
Square (mm)		70 x 70	60 x 60	85 x 85	80 x 80	100 x 100	90 x 90	70 x 70	60 x 60	85 x 85	80 x 80	100 x 100	90 x 90
Rectangle (mm)		95 x 60	70 x 55	120 x 60	90 x 60	120 x 80	90 x 90	95 x 60	70 x 55	120 x 60	90 x 60	120 x 80	90 x 90

Pipe/Tube Cutting Equipment

T3

MANUAL LENGTH STOPPER SYSTEM (3 mt.)



T2

MATERIAL SUPPORT ROLLER (1,5 mt.)



Deburring Machines

S02

This tool carries out both internal and external deburring of rigid 20 to 75 mm stainless steel (AISI 316 TI) and carbon steel (ST 37.4) tubes. The **S02** deburring device guarantees proper removal of burrs leaving the edge of the tube uniformly clean and smooth.

MAIN FEATURES

20-75 mm int/ext deburring devices.

TECHNICAL DATA INTERNAL

DEBURRING	20x2→75 mm
EXTERNAL DEBURRING	22→75 mm
MATERIALS	AISI 316 - EN235-355
WEIGHT	65 Kg
STANDARD VOLTAGE	400V 50HZ 3PH
MOTOR POWER	0.37 Kw (0.5 Hp)
DIMENSIONS LxWxH	370x550x1080 mm
REVOLUTIONS/MINUTE	75

INCLUDED

INT./EXT. DEBURRING TOOL 20-75 mm

OPTINAL

INT./EXT. DEBURRING TOOL 6-42 mm



S01

This tool carries out both internal and external deburring of rigid 6 to 42 mm stainless steel (AISI 316 TI) and carbon steel tubes. The **S01** deburring device guarantees proper removal of burrs leaving the edge of the tube uniformly clean and smooth.

TECHNICAL DATA

INTERNAL DEBURRING	6→42 mm
EXTERNAL DEBURRING	6→42 mm
MATERIALS	AISI 316 TI - ST 37.4
WEIGHT	30 Kg (66 Lbs)
STANDARD VOLTAGE	230V 50HZ 1PH
MOTOR POWER	0.18 Kw (0.25 Hp)
DIMENSIONS LxWxH	406x470x270 mm
REVOLUTIONS/MINUTE	50

INCLUDED

INT./EXT. DEBURRING TOOL 6-42 mm



Cleaning Equipment

JETCLEANER



JETCLEANER Classic

Description

The original since 1986. Made of cast aluminium. For hoses with ID 3/16" - 2" and tubes with OD 6mm - 60mm.



JETCLEANER Classic - Starter kit

Description

JETCLEANER Classic gun, nozzles, cleaning projectiles and a projectile collector. For hoses with ID 1/4" up to 1 1/4". Comes in a protective carrying case.



JETCLEANER Classic - Hose set (thermoplastic)

JETCLEANER Classic gun, a bench stand and 11 standard thermoplastic nozzles for hoses with ID 3/16" - 2". Comes in a protective carrying case.



JETCLEANER Classic - Hose set (steel)

Description JETCLEANER Classic gun, a bench stand and 11 standard steel nozzles for hoses with ID 3/16" - 2". Comes in a protective carrying case.

Cleaning Equipment

JETCLEANER

Hose nozzle (thermoplastic)



ID hose dimension (inch)

- 3/16"
- 1/4"
- 5/16"
- 3/8"
- 1/2"
- 5/8"
- 3/4"
- 1"
- 1 ¼"
- 1 ½"
- 2"

Hose nozzle (steel)



ID hose dimension (inch)

- 3/16"
- 1/4"
- 5/16"
- 3/8"
- 1/2"
- 5/8"
- 3/4"
- 1"
- 1 ¼"
- 1 ½"
- 2"

Tube nozzle (thermoplastic)



Tube dimension OD x t (mm)

6x1.0	25x3.0
6x1.5	25x4.0
8x1.0	25x5.0
8x1.5	28x2.0
10x1.0	28x3.0
10x1.5	30x2.0
10x2.0	30x3.0
10x2.5	30x4.0
12x1.5	30x5.0
12x2.0	35x2.0
14x2.0	35x3.0
14x2.5	35x4.0
15x1.5	38x2.5
15x2.0	38x3.0
16x1.5	38x4.0
16x2.0	38x5.0
16x3.0	38x6.0
18x1.5	42x2.0
18x2.0	42x3.0
20x2.0	42x4.0
20x2.5	42x5.0
20x3.0	50x3.0
20x4.0	50x4.0
22x1.5	50x5.0
22x2.0	50x6.0
22x3.0	60x3.0
25x2.0	60x4.0
25x2.5	60x5.0

* Other sizes on request

Cleaning Equipment

JETCLEANER Projectiles



- Made of medium-hard, flexible polyurethane. The material is homogeneous and does not release fibers.
- Withstands 50% compression.
- Free from PVC, PTFE and Silicone.
- Handles any bends, spirals and smaller reductions. Also used as coupling projectile.
- When selecting the size of the projectile, it is our recommendation to use a projectile that is 20% larger than the inner diameter of the hose or tube. Alternatively, make your own evaluation of the best possible results.

Part. No.	Rec. for inner meter (mm)	Rec. for inner dia-meter (inch)	Number per pack-age
04-400	2- 3mm		100st
05-400	2,5- 4mm	1/8"	100st
07-400	3,5- 5mm	3/16"	100st
08-400	4- 6mm		100st
09-400	4,5- 7mm	1/4"	100st
10-400	5- 8mm		100st
12-400	6- 9mm	5/16"	100st
14-400	7- 11mm	3/8"	100st
16-400	8- 12mm	1/2"	100st
20-400	9- 14mm		100st
	10- 16mm		
22-400	11- 17mm	5/8"	50st
24-400	12- 18mm		50st
26-400	13- 19mm	3/4"	50st
28-400	14- 21mm		50st
30-400	15- 23mm		50st
33-400	16,5- 25mm	1"	50st
35-400	17,5- 27mm		20st
38-400	19- 28mm		20st
40-400	20- 31mm	1 1/4"	20st
45-400	22- 35mm		20st
48-400	24- 37mm		20st
50-400	25- 40mm	1 1/2"	20st
55-400	27- 45mm		20st
60-400	30- 50mm	Cobra* 2"	20st
65-400	32- 55mm	2"	20st

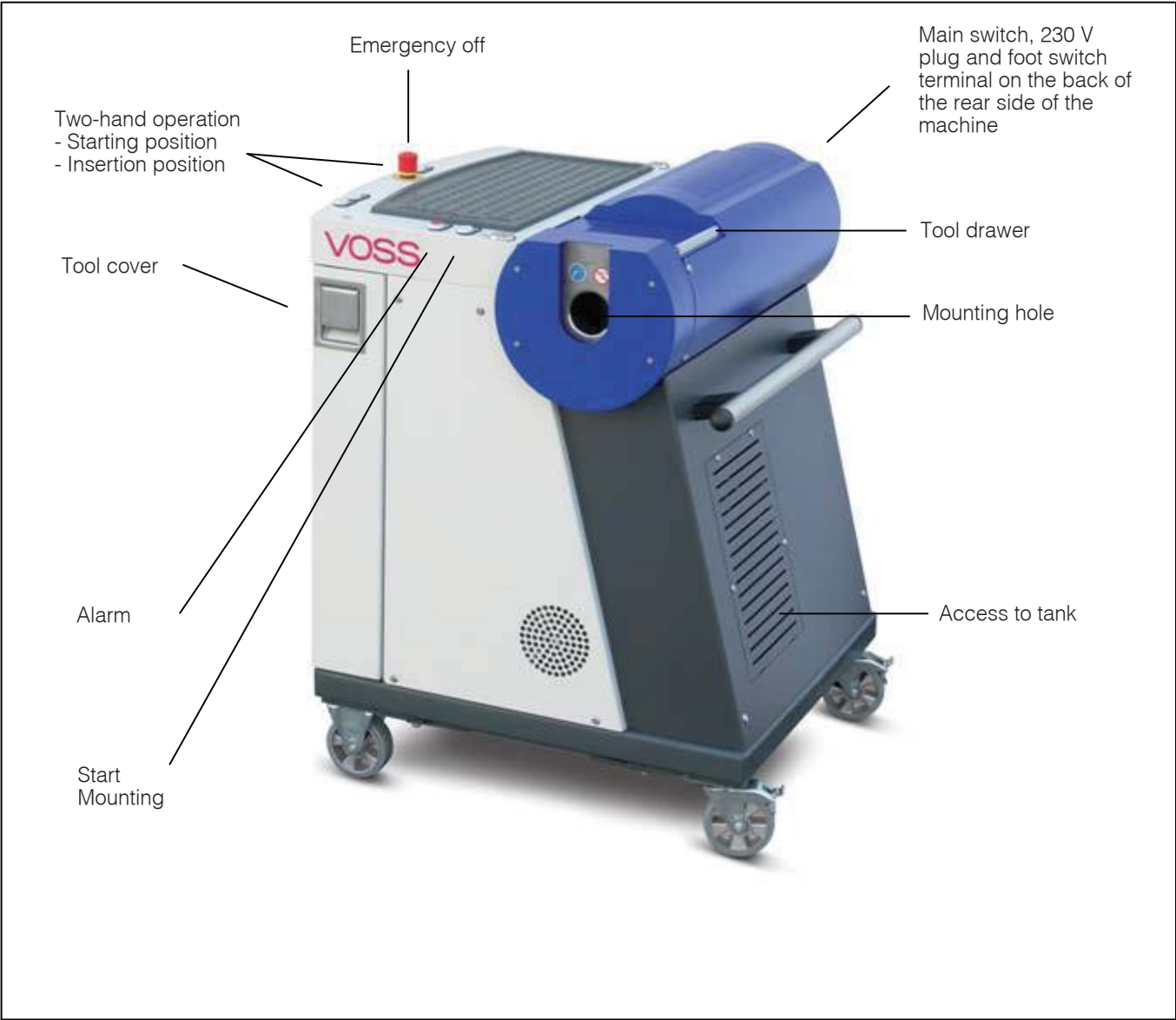
Art. No.	Rec. for inner dia-meter (mm)	Rec. for inner dia-meter (inch)	Number per pack-age
70-400	56- 60mm	2 1/4"	10st
75-400	61- 65mm	2 1/2"	10st
80-400	66- 70mm	2 3/4"	10st
85-400	71- 75mm		10st
90-400	76- 80mm	3"	10st
95-400	81- 84mm	3 1/4"	10st
100-400	85- 88mm	3 1/4"	5st
105-400	88- 91mm	3 1/2"	5st
110-400	91- 95mm	3 3/4"	5st
115-400	96- 100mm		5st
120-400	101- 105mm	4"	5st
125-400	106- 110mm	4 1/4"	5st
130-400	111- 115mm	4 1/2"	5st
140-400	115- 120mm	4 3/4"	5st
150-400	125- 130mm	5"	5st
160-400	135- 140mm	5 1/2"	5st
170-400	145- 150mm	6"	5st
180-400	155- 160mm	6 1/2"	5st

* Recommended for JETCLEANER Cobra 2" hose nozzle.

Pre-assembling - End Forming

VOSSForm

VOSS



Pre-assembling - End Forming

VOSSForm

Tooling range & sizes



6.5 Preparation of tube

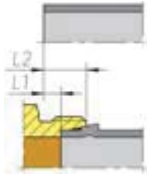
- Cut tube at right angles, (max. angular deviation: 1°).
- Deburr the inside and outside of the tube ends to 0.2 x 45°.
- To reduce tool wear, wet the inside and outside of the tube after every 10 tubes with hydraulic fluid or a MoS2 lubricant. Caution! The outline precision may be distorted during forming if the oil film between the forming tool and tube is too thick.
- The tube ends must not show any signs of damage either on the inside or outside.
- The inside and outside of the tubes must be free from cuttings, dirt, coating, rust or any other contamination especially in the clamping and forming area.

Type	Clamping jaw kit Part no.	Forming head Part no.
L 6 x 1	5993090149	5993090690
L 6 x 1,5		5993090691
L 6 x 2		5993090692
L 8 x 1	5993092949	5993093490
L 8 x 1,5		5993093491
L 8 x 2		5993093492
L 8 x 2,5		5993093493
L 10 x 1	5993093649	5993094190
L 10 x 1,5		5993094191
L 10 x 2		5993094192
L 12 x 1	5993094349	5993094890
L 12 x 1,5		5993094891
L 12 x 2		5993094892
L 15 x 1,5	5993096049	5993096591
L 15 x 2		5993096592
L 15 x 2,5		5993096593
L 18 x 1,5	5993096749	5993097291
L 18 x 2		5993097292
L 18 x 2,5		5993097293
L 18 x 3		5993097294
L 22 x 1,5	5993097449	5993097991
L 22 x 2		5993097992
L 22 x 2,5		5993097993
L 22 x 3		5993097994
L 28 x 2	5993098149	5993098692
L 28 x 2,5		5993098693
L 28 x 3		5993098694
L 35 x 2	5993098849	5993099392
L 35 x 2,5		5993099393
L 35 x 3		5993099394
L 35 x 4		5993099396
L 42 x 2	5993092249	5993092792
L 42 x 2,5		5993092793
L 42 x 3		5993092794
L 42 x 4		5993092796
S 6 x 1	5993090149	5993090690
S 6 x 1,5		5993090691
S 6 x 2		5993090692
S 8 x 1	5993092949	5993093490
S 8 x 1,5		5993093491
S 8 x 2		5993093492
S 8 x 2,5		5993093493
S 10 x 1,5	5993093649	5993095391
S 10 x 2		5993095392
S 10 x 2,5		5993095393
S 12 x 1,5	5993094349	5993095891
S 12 x 2		5993095892
S 12 x 2,5		5993095893
S 12 x 3		5993095894
S 14 x 1,5	5993099549	5993100191
S 14 x 2		5993100192
S 14 x 2,5		5993100193
S 14 x 3		5993100194
S 16 x 1,5	5993090849	5993091391
S 16 x 2		5993091392
S 16 x 2,5		5993091393
S 16 x 3		5993091394
S 20 x 2	5993091549	5993092092
S 20 x 2,5		5993092093
S 20 x 3		5993092094
S 20 x 3,5		5993092095
S 20 x 4		5993092096
S 25 x 2	5993100349	5993100892
S 25 x 2,5		5993100893
S 25 x 3		5993100894
S 25 x 4		5993100896
S 30 x 2	5993101049	5993101592
S 30 x 2,5		5993101593
S 30 x 3		5993101594
S 30 x 4		5993101596
S 30 x 5		5993101597
S 38 x 2,5	5993101749	5993102293
S 38 x 3		5993102294
S 38 x 4		5993102296
S 38 x 5		5993102297
S 38 x 6		5993102298

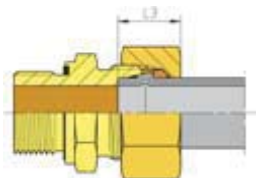
Pre-assembling - End Forming

VOSSForm

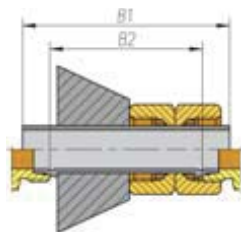
Structural dimensions



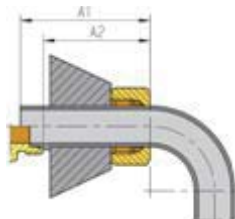
Determination of tube length



Height of the assembled VossForm SQR connection



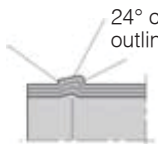
Minimum tube length for the clamping of straight tubes



Minimum tube length for the clamping of bent tubes

Qualitative visual check on forming

Contact surface for seal ring



Contact surface for clamping ring

A qualitative visual check on the three characteristic features is enough

Series	Tube-OD	s	L1	L2	L3 (approx.)	A1	A2	B1	B2
L	6	1	5,1	12,1	15,6	69	56	91	65
		1,5	5,6	12,6	16,3				
		2	4,9	11,9	16,3				
L	8	1	5,1	12,1	15,6	64	51	86	60
		1,5	5,1	12,1	16,3				
		2	4,4	11,4	16,3				
L	10	1	5,2	12,2	15,6	59	46	81	55
		1,5	5,2	12,2	16,3				
		2	4,5	11,5	16,3				
L	12	1	5,2	12,2	15,6	58	45	80	54
		1,5	5,1	12,1	16,3				
		2	4,3	11,3	16,3				
L	15	1,5	5,6	12,6	17,8	68	54	91	64
		2	4,7	11,7	17,8				
		2,5	4,5	11,5	17,8				
L	18	1,5	5,8	13,3	18,8	73	59	98	70
		2	4,7	12,2	18,8				
		2,5	4,5	12	18,8				
L	22	3	4,5	12	18,8	82	68	108	79
		1,5	6,6	14,1	19,7				
		2	5,5	13	19,7				
L	28	2,5	4,9	12,4	19,7	91	77	116	88
		3	4,8	12,3	19,7				
		2	5,5	13	19,3				
L	35	2,5	4,9	12,4	19,3	115	97	145	109
		3	5	12,5	19,3				
		2	7,7	18,2	24,4				
L	42	2,5	6,7	17,2	24,4	116	97	146	109
		3	7,2	17,7	25,4				
		4	6,9	17,4	25,4				
S	6	2	7,5	18,5	24,9	116	97	146	109
		2,5	6,9	17,9	24,9				
		3	7	18	25,9				
S	8	4	6,7	17,7	25,9	69	56	91	65
		1	5,1	12,1	16,1				
		1,5	5,6	12,6	16,8				
S	10	2	4,9	11,9	16,8	64	51	86	60
		2,5	3,8	10,8	16,8				
		1,5	6,1	13,6	18,8	62	48	87	59
S	12	2	5,1	12,6	18,8				
		2,5	4,5	12	18,8				
S	14	1,5	5,7	13,2	18,8	62	48	87	59
		2	4,9	12,4	18,8				
		2,5	4,4	11,9	18,8				
S	16	3	4	11,5	18,8	70	55	97	67
		1,5	6	14	20,8				
		2	5,3	13,3	20,8				
S	20	2,5	4,8	12,8	20,8	73	58	100	69
		3	4,7	12,7	20,8				
		1,5	6,2	14,7	20,8	86	67	118	80
S	25	2	5,2	13,7	20,8				
		2,5	4,8	13,3	20,8				
S	30	3	4,6	13,1	20,8	100	80	135	94
		2	7,8	18,3	25,3				
		2,5	6,4	16,9	25,3	123	102	160	118
S	38	3	6	16,5	25,3				
		3,5	5,8	16,3	25,3				
S	42	4	5,6	16,1	25,3	134	108	178	125
		2	7,7	19,7	28,3				
		2,5	6,7	18,7	28,3	123	102	160	118
S	48	3	6,3	18,3	28,3				
		4	6	18	28,3				
S	54	2	7,7	21,2	30,8	123	102	160	118
		2,5	6,9	20,4	30,8				
		3	7,4	20,9	31,8	134	108	178	125
S	60	4	6,9	20,4	31,8				
		5	6,7	20,2	31,8				
S	66	2,5	10,5	26,5	36,9	134	108	178	125
		3	8,8	24,8	36,9				
		4	8,8	24,8	37,9	123	102	160	118
S	72	5	8,1	24,1	37,9				
		6	7,8	23,8	37,9				

Pre-assembling - End Forming

VOSSForm

Easy tooling and quick tool change

- Before inserting a tool, make sure that it is free of cuttings and soiling.
- Immediately replace defective or worn tools.
- Open tool drawer.
- If necessary, remove the inserted tool and fit in a new one.
- Insert the forming head as shown in the picture.
- Insert the clamping jaws as shown in the picture.
- Close tool drawer.
- Make sure that the tools always correspond to the pipe size.



- Each time the tool is changed or after every 100 forming operations, the tools are to be slightly lubricated with hydraulic fluid or with a non-thickening lubricant containing MoS₂.

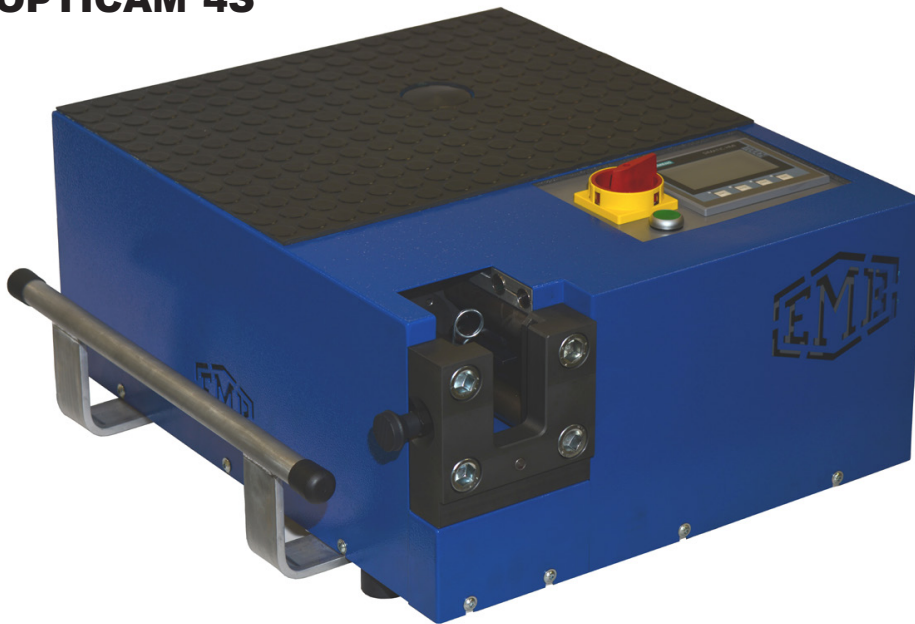


Pre-assembling - End Forming

OPTICAM 4S

NEW

**-MORE CONTROL
-MORE SAFETY
-EVEN EASIER!
THE NEW GATES
EMB OPTICAM 4S**



Equipment and Technique:

- No possibility of confusion by automatic tool recognition
- The process of assembly starts by pressing the hand switch.
A foot-switch or contact tool switch is available at extra charge.
- Increased assembly accuracy by reference run after each tool change
- Wear monitoring with cycle counter individually for each size
- For security reasons the assembling room is monitored by photo-electric light beams.
- Easy handling
- SPC control of each assembly
- Improved error detection
- Possible export of assembly data as CSV-file
- The machine corresponds to the requirements of accident prevention.

The possibilities for extension are:

- To reduce cycle time the machine can be equipped with a two-stage hydraulic unit (double pump unit briefly DP) for continuous operation.

Technical data:

working pressure: max. 400 bar
assembly pressure: max. 20 to
electric drive: 400 V / 50 cyl. / 3-phases
dimensions: W 660 mm
D 635 mm
H 310 mm
weight: approx. 92 kg

Pre-assembling - End Forming

UNISPEED US-FL/01

UNISPEED US-FL/01 allows preassembling DIN2353 cutting rings through manual adjustment of the pressure, which is to be set before each operation. . Also available in the 12V version, this is the perfect device for outdoor assistance.

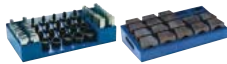


TECHNICAL DATA

24° PREASSEMBLY	6→42x4 mm
MATERIALS	AISI 316 TI - ST 37.4, ST52.4
WEIGHT	58 Kg
DIMENSIONS LxWxH	430x600x270 mm
STANDARD VOLTAGE	400V 50HZ 3PH
MOTOR POWER	0.75 Kw (1 Hp)

OPTIONAL

TOOL HOLDER (6→42)



12V SPECIAL
VOLTAGE

SPECIAL VOLTAGE,
EX 220V

UNISPN01

UNISPEED 01 is a pneumatic device that allows preassembling DIN2353 cutting rings on 6 to 42 mm diameter and 4 mm maximum thickness stainless steel (AISI 316 TI) and carbon steel (ST 37.4) tubes.

TECHNICAL DATA

24° PREASSEMBLY	6→42x4 mm (0.236"→1.654"x0.158")
MATERIALS	AISI 316 TI - ST 37.4
WEIGHT	42 Kg (93 Lbs)
DIMENSIONS LxWxH	305x640x210 mm (12.008"x25.197"x8.268")
PNEUMATIC INPUT	MAX 6 BAR (87 Psi)

OPTIONAL

TOOL HOLDER (6→42)



Pre-assembling - End Forming

SPR-PRC-H

Cutting Ring Pre-Assembly Machine



3: Operating elements overview

Pos.	Designation	Description
1	Device	Ergonomically, light-weight and robust design
2	Assembling area	Processing workpiece
3	Release button	Releasing the machine
4	Press button	For operation the machine
5	Rechargeable battery	Lithium-ion (18V / 5.0 Ah)
6	Mode dial	To manually adjust the pressure; on the bottom of the machine
7	Status lights	On the back of the machine

3.2 Technical Data

General data	
Dimensions (L x H x W)	440 mm x 330 mm x 80 mm 17.32 in x 12.99 in x 3.15 in
Weight:	6,8 kg / 15 lbs
Rechargeable Battery (Battery operated)	
Battery type:	Lithium-ion (18V / 5.0 Ah)

Pre-assembling - End Forming

FL90

Flaring machine



Technical Data	
Standard voltage	380V 50Hz 3ph
Motor power	0.37kw
Size range	10x1.5 - 90x8.0
Dimensions	780x580x1220mm
Weigth	280kg

Tooling			
37° Flaring pin	Ø 10 -38mm	Ø 38-60mm	Ø 76-90mm
90° Flaring pin	Ø10 -42mm	Ø 42-90mm	
Clamps	Ø10-90mm		

Reshaping machine



Technical data:	
Tube diamter range	6-42mm
Wall Thickness	1.0 - 6mm
Working speed	2Pcc/min.
Tube/Pipe Material	AISI316 TI/316L,
Dimensions	950x830x260mm
Standard voltage	380V 50HZ 3PH
Motor Power	2.8kw
Max Pressure	600 Bar
Oil tank	5.0L
Weight	240kg

Hose Crimping Machines

SM 625



TECHNICAL SPECIFICATIONS

Max hose size	1" 4SP, 1 1/4" 2SN
Crimping force (kN): Max	1100
crimping diameter: Max	61 mm
opening:	die diameter + 10 mm
Control	Manometer
Master dies opening / Length(mm): 85/66 Crimping range (mm):	6 mm – 61 mm
Weight (kg)	29
Dimensions (LxWxH mm)	285 x 210 x 340

STANDARD DIE SETS	Range	Lenght
25-06	(mm) 6-16	40
25-08	8-18	40
25-11	11-21	40
25-14	14-24	40
25-17	17-27	40
25-20	20-30	45
25-23	23-33	50
25-26	26-36	50
25-31	31-41	55
25-34	34-44	60
25-39	39-49	60
25-43	43-53	65
25-45	45-55	65
25-51*	51-61	65

* Max. ferrule diameter before crimping 61 mm

SM 625 E MICROMETER



SM 25L HP/AP

STANDARD DIE SETS

	Range (mm)	Lenght
38-06	6-8	45
38-08	8-11	45
38-11	11-14	45
38-14	14-17	45
38-17	17-20	45
38-20	20-23	45
38-23	23-26	55
38-26	26-30	55
38-30S	30-34	55
38-34S	34-39	60
38-39S	39-45	60
38-45S	45-51	60
38-51S	51-61	65

HAND PUMP / AIR PUMP



TECHNICAL SPECIFICATIONS

Max hose size	1" 4 SH, 1 1/2"	Crimping unit weight (kg)	25
Crimping force (kN):	1200	Crimping unit dimensions (LxWxH mm)	230 x 200 x 275
Max ferrule diameter (mm):	61		
Max opening diameter (mm): Actuation / HP model:	die diameter + 15		
Actuation / AP model	Two-speed hand pump		
Control :	Air pressure Micrometer		
Master dies opening / Length (mm):	with led		
Crimping range (mm):	90/64,5		
	6 – 61		

Hose Crimping Machines

YL-20S



YL-20



TECHNICAL SPECIFICATIONS

Max hose size	1 ¼"
With additional die sets	1 ½"
Crimping force (kN):	1700
Max crimping Ø (mm): Max opening (mm):	55 die diameter + 26
Standard motor:	3,6 kW 380V 3-ph
Different voltage versions available	
Control	Digital control
Master dies opening/Length(mm):	124/80
Crimping range (mm):	10 – 55
Weight (kg) Dimensions (LxWxH mm)	244 (without oil) 600 x 480 x 600
Die sets	10-13-16-19-22-26-30-34-39-45 Standard

YL-20S includes

Die sets: 10-13-16-19-22-26-30-34-39-45
Quick Change-set
Foot pedal or Back stop device
Stand for machine

YL-32



TECHNICAL SPECIFICATIONS

Max hose size	2" 4 SP
Crimping force (kN):	2200
Max crimping Ø (mm):	79
Max opening (mm):	die diameter + 32
Standard motor:	3,6kW 380V 3-ph
Different voltage versions available	
Control	Digital control
Master dies opening / Length (mm):	132/80
Crimping range (mm):	10 – 79
Weight (kg) Dimensions (LxWxH mm)	345 (without oil) 600 x 480 x 1300
Die sets	Standard 10-13-16-19-22-26-30-34-39-45-52-57-64-69
Quick Change-set	Standard
Foot pedal	Standard
Stand for machine	Standard

YL 32 includes

Die sets:
10-13-16-19-22-26-30-34-39-45-52-57-64-69
Quick Change-set
Foot pedal or Back stop device
Stand for machine

Hose Crimping Machines

YL-65



TECHNICAL SPECIFICATIONS

Max hose size	2" R13
Crimping force (kN):	2400
Max crimping Ø (mm):	88
Max opening (mm):	die diameter + 65
Standard motor:	5,5kW 380V 3-Ph
Different voltage versions available	Control
Master dies opening / Length (mm):	Digital control
Crimping range (mm):	163/97
Weight (kg)	10 - 88
Dimensions (LxWxH mm)	1200 (without oil)
	850 x 1000 x 1500

Die sets Standard

10-13-16-19-22-26-30-34-39-45-52-57-64-69-74-78

Quick Change-set Standard

Back stop device Standard

Foot pedal Standard

YL-80



TECHNICAL SPECIFICATIONS

Max hose size	4"
Crimping force (kN):	3200
Max crimping Ø (mm):	126
Max opening (mm):	die diameter + 80
Standard motor:	5,5kW 380V 3-Ph
Different voltage versions available	Control
Master dies opening / Length (mm):	Digital control 220/97
Crimping range (mm):	10 - 126
Weight (kg)	1350 (without oil)

Dimensions (LxWxH mm) 850 x 1000 x 1600

Die sets Standard

10-13-16-19-22-26-30-34-39-45-52-57-64-69-74-78-84-92-100-108-116

Quick Change-set Standard

Back stop device Standard

Foot pedal Standard

Hose Crimping Machines

YL-125



TECHNICAL SPECIFICATIONS

Max hose size	6"
Crimping force (kN):	4000
Max crimping Ø (mm):	202
Max opening (mm):	die diameter + 125 5,5kW
Standard motor:	380V 3-Ph
Different voltage versions available	Control Digital control
Master dies opening / Length (mm):	335/116
Crimping range (mm):	10 - 202
Weight (kg)	3000 (without oil)

Dimensions (LxWxH mm) 1050 x 1300 x 1750

Die sets Standard

10-13-16-19-22-26-30-34-39-45-52-57-64-69-74-78-84-92-100-108-116
1126-136-146-156-166-178-190

Quick Change-set Standard

Back stop device Standard

Foot pedal Standard

YL-330



TECHNICAL SPECIFICATIONS

Max hose size	12"
Crimping force (kN):	8300
Max crimping Ø (mm):	335
Max opening (mm):	die diameter + 155
Standard motor:	11 kW 380V 3-Ph
Different voltage versions available	
Control	Digital control
Master dies opening / Length (mm):	485/220
Crimping range (mm):	10 - 350
Weight (kg)	4500 + 500 (without oil)

OPTIONAL DIE SETS

Size	Range (mm)	Lenght	Size	Range	Lenght
125-84	84-92	116	125-178	178-190	116
125-92	92-100	116	125-190	190-202	116
125-100	100-108	116	330-205	205-220	220
125-108	108-116	116	330-220	220-235	220
125-116	116-126	116	330-235	235-250	220
125-126	126-136	116	330-250	250-270	220
125-136	136-146	116	330-270	270-290	220
125-146	146-156	116	330-290	290-305	220
125-156	156-166	116	330-305	305-335	220
125-166	166-178	116			

Hose Cutting Machines

HP1010

Hose cutting machine ¼" - 1.1/2"



Dimensions

H: 550mm W: 600mm D:500mm Weigh: 36 kg

Capacity,sizes

Hose size : ¼ - 1½"(2-wire)

Motor: 230/400V - 50Hz - 2,2kW - 2,7hk,

Optimal 220V-50HZ Speed: 2870 RPM

Optimal: Length measure device 3m

CM70-CM100

Hose cutting machine ¼" - 3"



TECHNICAL SPECIFICATIONS

		CM 70	CM 100
Weight (kg) Dimensions (LxWxH mm)		90	120
		730 x 470 x 900	730 x 470 x 900
Control		Footpedal	Footpedal
		3000 rpm	3000 rpm
Blade speed Standard motor Different voltage versions available		2,2 kW 380V 3-Ph	4 kW 380V 3-Ph
	Suction connection	82 mm	82 mm
Blade, type		Smooth	Carved
	Blade size	(Option Carved) 250 mm	300 mm
Max hose size O.D		70 mm	100 mm
	Max hose type	1 1/4" 4SH 2" 2-wire	2" 4SH, 3" LP

Hose Cutting Machines

CM 520P

Hose cutting machine 1/4" - 3"



TECHNICAL SPECIFICATIONS

Max hose size	2" 4SH
Max hose outer diameter	150 mm
Blade Ø	520 mm
Suction connection	100 mm
Standard motor	7,5 kW 380V 3-Ph
Control	Pneumatical
Blade speed	footpedal 1500 rpm
Weight (kg)	200
Dimensions (LxWxH mm)	905 x 740 x 1020

Hose Skiving Machines

HS50

Skiving machine 1/4" - 2"



TECHNICAL SPECIFICATIONS

Max hose size	2" (internal & external)
Standard motor	1,1 kW 380V 3-Ph
Different voltage versions available	
Control	Footpedal
Blade speed	150 rpm
Weight (kg)	25
Dimensions (LxWxH mm)	460 x 490 x 270

SKIVING HEADS

External size	Range (mm)	Internal size	Range
3/16"	0-55		
1/4"	0-55		
5/16"	0-55		
3/8"	0-55	3/8"	adjustable ↔
1/2"	0-55	1/2"	adjustable ↔
5/8"	0-55	5/8"	adjustable ↔
3/4"	0-55	3/4"	adjustable ↔
1"	0-55 / 55-90	1"	adjustable ↔
1 1/4"	0-55 / 55-90	1 1/4"	adjustable ↔
1 1/2"	0-55 / 55-90	1 1/2"	adjustable ↔
2"	50-90	2"	adjustable ↔

HS50M

Manual skiving tool



Hose Assembling Equipment

HP CR6

Hose reel



TECHNICAL SPECIFICATIONS

Levels 6
Weight (kg) 75

Dimensions (LxWxH mm)
1165 x 1115 x 2050

Optional center hub



HP 1302

Hose reel for bobbins



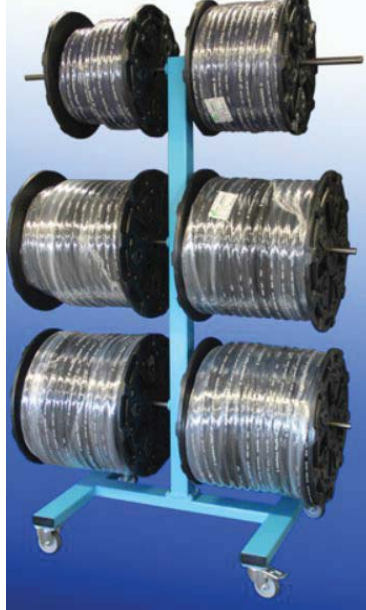
TECHNICAL SPECIFICATIONS

Levels 3
Weight (kg) 45

Dimensions (LxWxH mm)
700 x 800 x 2200

HP 1306

Hose reel for bobbins



TECHNICAL SPECIFICATIONS

Levels 3 (6pcs)
Weight (kg) 60

Dimensions (LxWxH mm)
1450 x 800 x 2000

HP 1306

Hose reel for bobbins

Designed for easy movement, ideal for small narrow places.



TECHNICAL SPECIFICATIONS

Levels 2 (4pcs)
Weight (kg) 50

Dimensions (LxWxH mm)
950 x 500 x 1100

HP 1314

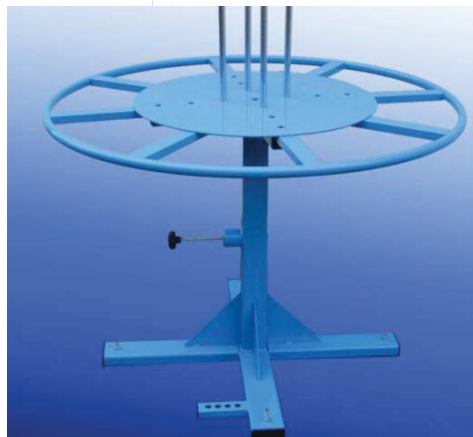
Hose assembly carrier



Dimension: L: 1100 mm H: 950 mm W: 700mm Weight 70kg

HP 1316

Hose unroller



Dimension: L: 1300mm H: 900mm W: 1300mm Ø: 1300mm
Weight 110kg

Hose Assembling Equipment

HP 1512

Measure device



Dimensions: L:250 H:200 W:120
Weigth:10kg
Hose size: 1/4" -1"
Wheel: 65mm

HP 1320

Hose on-up roller



Dimensions: L:750 H:1200 W:700
Weigth:50kg
Rondel capacity: Ø 700mm

HP 1322

Hose on-up roller



Dimensions: L:1170 H:1600 W:110
Weigth:100kg
Rondel capacity: Ø 1170mm
Motor: 230V 50HZ
RPM:0-35

PP432

Pin-hole prickling device

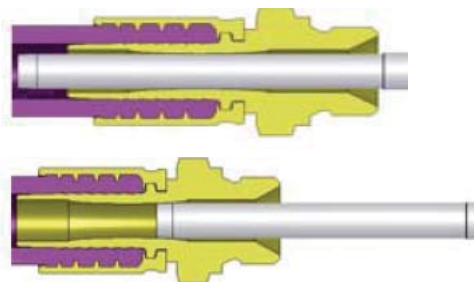


Used to avoid cracking of hose cover when hose is used for air, gas applications.

Hose sizes : 03 -32 (1/4" - 2")

HP03-32

Go-No Go measure tool



Set of gauges for control of internal collapse on hose couplings before and after crimping
Hose sizes 3/16" - 2"