

# ■ HYDRAULIC POWER UNITS

## HY-HPP-D15



ORDER NO.	DESCRIPTION
HY-HPP-D15	Hydraulic power pack with Diesel motor, 15 kW

Machine	HY-HPP-D15
Oil capacity	120 l (31.7 gal)
Range adjustable flow	69 l/min (18.227 gal/min)
Maximum Pressure	120 bar (1 740 psi)
Low and High Pressure	-
Power	Diesel motor 14.7 kW

Height	Width	Lenght
1000 mm	1000 mm	1500 mm
39.37"	39.37"	59.055"



## HY-HPP-D85



ORDER NO.	DESCRIPTION
HY-HPP-D85	Hydraulic power pack with Diesel motor, 85 kW

Machine	HY-HPP-D85
Oil capacity	350 l (92.460 gal)
Range adjustable flow	240 l/min (63.401 gal/min)
Maximum Pressure	160 bar (1 740 psi)
Low and High Pressure	Yes
Power	Electrical Motor 55 kW

Height	Width	Lenght
1810 mm	1100 mm	1970 mm
70.866"	43.307"	77.559"



# MICRO LUBRICATION SYSTEM

## Lubrication device



### DESCRIPTION :

This system of lubrication provides HSS and carbide tools with the correct quantity of lubricant. This allows to extend the life time of these tool bits.

It can supply lubrication points precisely and irrespective of temperature. The dispensing times can be set individually.

It can be used either with the cutting and beveling PROTEM machines (ranges TTNG, TTLW, MF...) or with any other type of such machines

The system of micro-lubrication is completely independent of the machine with which it can be associated.

ORDER NO.	DESCRIPTION
MIKRO-LUB	Lubrication device
MCLUB-K01	MCLUB-K01 transport box

It can be positioned under the tube to be cut and/or bevelled on ground level.

The basis is hold by two cross-pieces which allow its movement by forklift or through any other adapted means of handling

It can be positioned directly on the tube while fixed with removable tension belts (ref. 2) which are provided for adjustment in height and the desired levelling (with pawl).

It also has 4 handles (ref. 3) which allow a use in areas where a forklift could not be used.

The tension belts are provided with hooks and lockings fixed on the lifting eye (ref. 4).

Delivery without plugs.



# ■ ACCESSORIES

## Lubricating filter FRL200

ORDER NO.	DESCRIPTION
FRL200	Maintenance unit for pneumatically operated machines with pressure adjustment.

## Lubricating filter FRL300

ORDER NO.	DESCRIPTION
FRL300	Maintenance unit for pneumatically operated machines with dual motor pack.

## Kits 01

ORDER NO.	DESCRIPTION
KIT 01	Flexible tubing set

## Kits 02

ORDER NO.	DESCRIPTION
KIT 01	Flexible tubing set

## Regulation Valve

ORDER NO.	DESCRIPTION
OPT-RP	Regulation Valve

## Chip hook

ORDER NO.	DESCRIPTION
OPT-SPH	Chip hook

## Oil for filters

ORDER NO.	DESCRIPTION
F-LUB-0,5-L	Oil for filters, 0,5 L
F-LUB-1-L	Oil for filters, 1 L
F-LUB-5-L	Oil for filters, 5 L



# PROMOTIONAL ITEMS

## PROTEM Work Coat



ORDER NO.	DESCRIPTION
10010	PROTEM Work Coat size XS
10011	PROTEM Work Coat size S
10012	PROTEM Work Coat size M
10013	PROTEM Work Coat size L
10014	PROTEM Work Coat size XL
10015	PROTEM Work Coat size XXL
10016	PROTEM Work Coat size XXXL

## PROTEM Jacket



ORDER NO.	DESCRIPTION
10020	PROTEM Jacket size XS
10021	PROTEM Jacket size S
10022	PROTEM Jacket size M
10023	PROTEM Jacket size L
10024	PROTEM Jacket size XL
10025	PROTEM Jacket size XXL
10026	PROTEM Jacket size XXXL

## PROTEM Polo-shirt



Available in 3 colors on request:



ORDER NO.	DESCRIPTION
10030	PROTEM Polo-shirt size XS
10031	PROTEM Polo-shirt size S
10032	PROTEM Polo-shirt size M
10033	PROTEM Polo-shirt size L
10034	PROTEM Polo-shirt size XL
10035	PROTEM Polo-shirt size XXL
10036	PROTEM Polo-shirt size XXXL

## PROTEM Shirt



Available in 3 colors on request:



ORDER NO.	DESCRIPTION
10040	PROTEM shirt size XS
10041	PROTEM shirt size S
10042	PROTEM shirt size M
10043	PROTEM shirt size L
10044	PROTEM shirt size XL
10045	PROTEM shirt size XXL
10046	PROTEM shirt size XXXL

## PROTEM Fleece Vest



ORDER NO.	DESCRIPTION
10050	PROTEM Fleece Vest size XS
10051	PROTEM Fleece Vest size S
10052	PROTEM Fleece Vest size M
10053	PROTEM Fleece Vest size L
10054	PROTEM Fleece Vest size XL
10055	PROTEM Fleece Vest size XXL
10056	PROTEM Fleece Vest size XXXL

## PROTEM Blouse



ORDER NO.	DESCRIPTION
10060	PROTEM Blouse size XS
10061	PROTEM Blouse size S
10062	PROTEM Blouse size M
10063	PROTEM Blouse size L
10064	PROTEM Blouse size XL
10065	PROTEM Blouse size XXL
10066	PROTEM Blouse size XXXL

## PROTEM Sweat-Shirt



Available in 3 colors on request:



ORDER NO.	DESCRIPTION
10150	Protém Sweat-Shirt size XS
10151	Protém Sweat-Shirt size S
10152	Protém Sweat-Shirt size M
10153	Protém Sweat-Shirt size L
10154	Protém Sweat-Shirt size XL
10155	Protém Sweat-Shirt size XXL
10156	Protém Sweat-Shirt size XXXL

# PROMOTIONAL ITEMS

## PROTEM Rollup



ORDER NO.	DESCRIPTION
10100	Rollup BB
10101	Rollup CA Series
10102	Rollup CTA
10103	Rollup PFM
10104	Rollup S18 & SM8
10105	Rollup SE Series
10106	Rollup TNO

## PROTEM Rollup



ORDER NO.	DESCRIPTION
10107	Rollup TT
10108	Rollup US600R
10109	Rollup US Series
10110	Rollup Construction
10111	Rollup Maintenance & repair
10112	Rollup Dismantling
10113	Rollup Waste Deposal

## PROTEM Catalog



ORDER NO.	DESCRIPTION
10079	Protem Catalog

## PROTEM Flyer



ORDER NO.	DESCRIPTION
10080	Protem Flyer

## PROTEM Notebook



ORDER NO.	DESCRIPTION
10081	Protem Notebook

## Tool box



ORDER NO.	DESCRIPTION
30000	Tool box

# PROMOTIONAL ITEMS

## PROTEM Flashlight



ORDER NO.	DESCRIPTION
10074	Protém Flashlight

## PROTEM Lighter



ORDER NO.	DESCRIPTION
10075	Protém Lighter

## PROTEM Pen



ORDER NO.	DESCRIPTION
10076	Protém Pen

## PROTEM Pen Set



ORDER NO.	DESCRIPTION
10074	Protém Pen Set

## PROTEM Backpack



ORDER NO.	DESCRIPTION
10072	Protém Backpack

## Tape measure 5m



ORDER NO.	DESCRIPTION
10077	Protém Tape measure 5m

## PROTEM Wall clock



ORDER NO.	DESCRIPTION
10073	Protém Wall Clock

## PROTEM Safety cap



ORDER NO.	DESCRIPTION
10070	Protém Safety cap


## PROTEM Safety vest







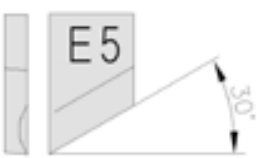
ORDER NO.	DESCRIPTION
10071	Protém Safety Vest

# ■ TOOLS BITS & INSERTS

## SM8












ORDER NO.	DESCRIPTION	VISUAL
O-SM8-M1-4-H-70	Facing, 4 mm wall thickness	
O-SM8-M2-4-H-71	30° beveling, 4 mm wall thickness	
O-SM8-M3-4-H-72	37°30' beveling, 4 mm wall thickness	
O-SM8-M4-4-H-73	45° beveling, 4 mm wall thickness	

## S18

ORDER NO.	DESCRIPTION	VISUAL
O-S18-E1-4-H-50	Facing tool bit	
O-S18-E2-4-H-52	30° beveling tool bit	
O-S18-E3-4-H-51	37°30' beveling tool bit	
O-S18-E4-4-H-53	45° beveling tool bit	
O-S18-E5-4-H-54	30° inverse beveling tool bit	

## US25











ORDER NO.	DESCRIPTION	VISUAL
US25-TIH-30	US25-TIH-30 Insert holder 30° for US25	
US25-TIH-37.5	US25-TIH-30 Insert holder 37,5° for US25	
US25-TIH-45	US25-TIH-30 Insert holder 45° for US25	
US25-TIH-90	US25-TIH-90 Insert holder 90° for US25	
US25-TIH-S	US25-TIH-S screw for tool insert	
O-US-P1-6-H-T	Tool Holder for US25	
O-US-P2-6-H-T	Tool Holder for US25	
O-US-P1-DUPLEX-30	Tool Holder for US25	
O-US-P2-DUPLEX-0	Tool Holder for US25	

ORDER NO.	DESCRIPTION	VISUAL
O-US-A1-6-H-18	Facing 90°	
O-US-A2-6-H-17	30° beveling	
O-US-A3-6-H-19	37°30 beveling	
O-US-A4-6-H-16	15° counterboring	
O-US-B6-6-H-55	Notched tool bit for facing	
O-US-B7-6-H-57	Notched tool bit for 30° beveling	
O-US-B8-6-H-58	Notched tool bit for 37°30 beveling	
O-US-B9-6-H-60	15° counterboring	
O-US-B11-6-H-24	Facing and counterboring	
O-US-C5-6-H-62	J-bevel 7° with radius 6	
O-US-C6-6-H-64	J-bevel 12,5° with radius 6	
O-US-C8-6-H-68	J-bevel 12,5° with radius 6	
O-US-C9-6-H-20	J-bevel 10°, with radius 1,5	



# ■ TOOLS BITS & INSERTS

## US Series (US30CH to US150)

ORDER NO.		VISUAL			
O-US-A1-9-H-27	Facing 90°		O-US-C5-9-H-63	J-bevel 7° with radius 6	
O-US-A2-9-H-26	30° beveling		O-US-C6-9-H-65	J-bevel 12,5° with radius 6	
O-US-A3-9-H-28	37°30 beveling		O-US-C8-9-H-69	Notched tool bit for J-bevel 12,5° with radius 6	
O-US-A4-9-H-25	15° counterboring		O-US-C9-9-H-29	J-bevel 10°, with radius 1,5	
O-US-B6-9-H-54	Notched tool bit for facing		COATING TIN/TICN	Coating (Titanium, TiCN) on request	
O-US-B7-9-H-56	Notched tool bit for 30° beveling				
O-US-B8-9-H-59	Notched tool bit for 37°30 beveling				
O-US-B9-9-H-61	15° counterboring				
O-US-B11-9-H-15	Facing and counterboring				

## US450

ORDER NO.	DESCRIPTION :
O-US-A7	O-US-A7 tool bit 90°
O-US-A8	O-US-A8 tool bit for 30° bevel
O-US-A9	O-US-A9 tool bits for 37°30 bevels
O-US-A10	O-US-A10-85 tool bit for 45° bevels

## PFM

ORDER NO.	DESCRIPTION :
US-HSB-R-PO/40C	US-HSB-R-PO/40C Carbide insert triangular 27x27(xx following radius, material, reverse or no)
US-HSB-R-PO/45C01	US-HSB-R-PO/45C01 Carbide insert rhomb shape 9,52x9,52 (xx following radius, material, reverse or no)




## OHSB

ORDER NO.	DESCRIPTION :
US-HSB-R-PO/45C01	US-HSB-R-PO/45C01 Carbide insert rhomb shape 9,52x9,52
US-HSB-R-PO/40C	US-HSB-R-PO/40C Carbide insert triangular 27x27(xx following radius, material, reverse or no)

## SE25 & SE65 & SE2T

ORDER NO.	DESCRIPTION	VISUAL
O-SE-P1-3.-H-HC-20	Tool inserts for SE25 and SE65, material: HSSE – coating: TiSiN	
O-SE-P1-3.3-C-F-20A	Tool inserts for SE25 and SE65, material carbide, coating: TiAlN	
O-SE-P1-3.3-C-T-20A	Tool inserts for SE25 and SE65, material carbide, coating: TiN	
O-SE-P1-3.3-H-F-20	Tool inserts for SE25 and SE65, material HSSE, coating: TiAlN	
O-SE-P1-3.3-H-T-20	Tool inserts for SE25 and SE65, material HSSE, coating: TiN	

## SL & SE Series

ORDER NO.		VISUAL
O-SE-P2-3.3-H-T-25	Tool inserts right for SL, SE	
O-SE-P3-3.3-H-T-25A	Tool inserts right with radius 1.5 for SL, SE	
O-SE-P4-3.3-H-T-26	Tool inserts left for SL, SE	

# TOOLS BITS & INSERTS

## GR Series

ORDER NO.	DESCRIPTION
O-GR-P1.4-H-F	O-GR-P1.4-H-F beveling tool insert for GR machines
O-GR-P2.3-H-T	O-GR-P2.3-H-T pointed tool insert for GR machines
O-GR-P3.3-H-T	O-GR-P3.3-H-T flat tool insert for GR machines



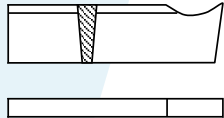

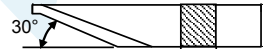
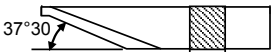
## TTS & TTS-RD Series

ORDER NO.	DESCRIPTION
O-TTS-D2D-12-H-12	Standard pointed cutting tool bits
O-TTS-D1D-12-H-11	Standard flat cutting tool bits right
O-TTS-D4-12-H-18	30° beveling tool bits
O-TTS-D4-12-H-13	37°30 beveling tool bits (up to 12,7mm wall)
O-TTS-D1D-12-H-10	Standard flat cutting tool bits left

## TTLW Series

ORDER NO.	DESCRIPTION
O-TTL-PL-5-H-2210	Standard severing tool bits (up to 25,4 mm wall)
O-TTL-PT-5-H-2211	Standard pointed tool bits (up to 25,4 mm wall)

## TT-NG & TNO Series

ORDER NO.	DESCRIPTION	VISUAL
O-TTN-TT1-5-H-PL	Standard severing tool bits (up to 35 mm wall)	
O-TTN-TT1-5-H-PT	Standard pointed tool bits (up to 35 mm wall)	
O-TTN-TT11-5-H-PL	Standard severing tool bits (up to 90 mm wall)	
O-TTN-TT11-5-H-PT	Standard pointed tool bits (up to 90 mm wall)	
O-TTN-TT2-12-H-2	30° beveling tool bits (up to 27mm wall)	
O-TTN-TT3-12-H-3	37°30 beveling tool bits (up to 20mm wall)	

Additional beveling-tool bits: see cutting tool bits for TTNG-machines

ORDER NO.	DESCRIPTION
O-TTN-TT4-12-H-4	45° beveling tool bit
O-TTN-TT5-12-H-5	Beveling tool bit 30°, reversed
O-TTN-TT6-12-H-6	Beveling tool bit 37°30, reversed
O-TTN-TT7-25-H-7	Beveling tool bit 30°, wall thickness 35 mm
O-TTN-TT8-25-H-8	Beveling tool bit 37°30, wall thickness 35 mm
O-TTN-TT9-25-H-9	Beveling tool bit 30° for double bevel
O-TTN-TT9I-25-H-9	30° reversed beveling tool bit for double bevel
O-TTN-TT10-12-H-10	Beveling tool bit 37°30, double bevel, wall thickness 18 mm
O-TTN-TT10I-12-H-10	Beveling tool bit 37°30, double bevel, wall thickness 18 mm, reversed
O-TTN-TT11-5-H-PL	Severing tool bit, max. wall thickness 90 mm
O-TTN-TT11-5-H-PT	Pointed tool bit, max. wall thickness 90 mm
O-TTN-TT12-25-H-12	30° beveling tool bit for double bevel, wall thickness 46 mm
O-TTN-TT12I-25-H-12	30° beveling tool bit for double bevel, wall thickness 46 mm, reversed
O-TTN-TT13-25-H-13	30° beveling tool bit for double bevel, wall thickness 39 mm
O-TTN-TT13I-25-H-13	30° beveling tool bit for double bevel, wall thickness 39 mm, reversed
O-TTN-TT14-25-H-14	Beveling tool bit 37°30, wall thickness 50 mm
O-TTN-TT14I-25-H-14	Beveling tool bit 37°30, wall thickness 50 mm, reversed
O-TTN-TT15-8-H-PL	Severing tool bit, max. wall thickness 90 mm, height 30 mm
O-TTN-TT15-8-H-PT	Pointed tool bit, max. wall thickness 90 mm, height 30 mm
O-TTN-TT16-8-H-PL	Severing tool bit, max. wall thickness 90 mm, width 8 mm
O-TTN-TT16-8-H-PT	Pointed tool bit, max. wall thickness 90 mm, width 8 mm

ORDER NO.	DESCRIPTION
O-TTN-TT17-25-H-17	37°30 / 10° beveling tool bit for compound bevel
O-TTN-TT17I-25-H-17	37°30 / 10° beveling tool bit for compound bevel, reversed
O-TTN-TT18-25-H-18	37°30 / 10° beveling tool bit for compound bevel, wall thickness 45 mm
O-TTN-TT18I-25-H-18	37°30 / 10° beveling tool bit for compound bevel, reversed
O-TTN-TT19-25-H-19	37°30 / 10° beveling tool bit for compound bevel, wall thickness 50 mm
O-TTN-TT19I-25-H-19	37°30 / 10° beveling tool bit for compound bevel, reversed
O-TTN-TT20-25-H-20	30° / 10° beveling tool bit for compound bevel, wall thickness 35 mm
O-TTN-TT20I-25-H-20	30° / 10° beveling tool bit for compound bevel, reversed
O-TTN-TT21-25-H-21	30° / 10° beveling tool bit for compound bevel, wall thickness 45 mm
O-TTN-TT21I-25-H-21	30° / 10° beveling tool bit for compound bevel, reversed
O-TTN-TT22-25-H-22	30° / 10° beveling tool bit for compound bevel, wall thickness 50 mm
O-TTN-TT22I-25-H-22	30° / 10° beveling tool bit for compound bevel, reversed
O-TTN-TT23-25-H-23	30° beveling tool bit for double bevel, wall thickness 50 mm
O-TTN-TT23I-25-H-23	30° beveling tool bit for double bevel, wall thickness 50 mm, reversed
O-TTN-TT24-12-H-24	30° beveling tool bit for double bevel, wall thickness 22 mm
O-TTN-TT24I-12-H-24	30° beveling tool bit for double bevel, wall thickness 22 mm, reversed
TT-KS	Tool inserts for the copying carriage
TT.INNEN	Tool bits for the counter boring carriage
TT-TULPE	Tool bits for J-bevels

# ■ TOOLS BITS & INSERTS

## MF Series

ORDER NO.	DESCRIPTION
O-MF-P1-3-H	Cutting blade (2 cutting edges) with shim
O-MF-P2-4-H	Tool inserts for 30° and 37,5°

ORDER NO.	DESCRIPTION
O-TTN-TT1-5-H-PL	Standard severing tool bits (up to 35mm wall)
O-TTN-TT1-5-H-PT	Standard pointed tool bits (up to 35mm wall)
O-TTN-TT2-12-H-2	30° beveling tool bits (up to 27mm wall)
O-TTN-TT3-12-H-3	37°30 beveling tool bits (up to 20mm wall)
Additional beveling-tool bits: see cutting tool bits for TTNG-machines	

## CTA Series

ORDER NO.	DESCRIPTION
CTA-PO/PO106	CTA-PO/PO106 Bevel 30°
CTA-PO/PO107	CTA-PO/PO107 Bevel 37,5°
CTA-PO/PO108	CTA-PO/PO108 Bevel 37,5° sym.
CTA-PO/PO109	CTA-PO/PO109 Bevel 10° for bevel 30°
CTA-PO/PO110	CTA-PO/PO110 Cut and Bevel 10° for bevel 37°30
CTA-PO/PO111	CTA-PO/PO111 cut 30°
CTA-PO/PO113	CTA-PO/PO113 Cut and Bevel 10° for bevel 30°
CTA-PO/OT106	CTA-PO/OT106 Tool bit holder 30°
CTA-PO/OT107	CTA-PO/OT107 Tool bit holder 37° 30
CTA-PO/OT108	CTA-PO/OT108 Tool bit holder 37° 30
CTA-PO/OT109	CTA-PO/OT109 Tool bit holder 10°
CTA-PO/OT110	CTA-PO/OT110 Cutting blade holder + bevel 10° for bevel 37°30
CTA-PO/OT111	CTA-PO/OT111 Cutting blade holder
CTA-PO/OT112-01	CTA-PO/OT112-01 Shim for cutting blade holder 0,1 mm
CTA-PO/OT112-02	CTA-PO/OT112-02 Shim for cutting blade holder 0,2 mm
CTA-PO/OT112-2	CTA-PO/OT112-2 Shim for cutting blade holder 2 mm
CTA-PO/OT113	CTA-PO/OT113 Cutting blade holder + bevel 10° for bevel 30°

## BB Series

ORDER NO.	DESCRIPTION
<b>BB-PO/3025</b>	BB-3/16-PO/3025 Outside beveling carbide insert holder 20° (wall<19 mm)
<b>BB-PO/3032</b>	BB-3/16-PO/3032 Outside beveling carbide insert holder 20°+ ref 3001 (wall>19 mm)
<b>BB-PO/3017</b>	BB-3/16-PO/3017 Outside beveling carbide insert holder 37°5'(wall<19 mm)
<b>BB-PO/3018</b>	BB-3/16-PO/3018 Outside beveling carbide insert holder 37°5'+ ref 3504 (wall>19 mm)
<b>BB-PO/3014</b>	BB-3/16-PO/3014 Outside beveling carbide insert holder 10°
<b>BB-PO/3033</b>	BB-3/16-PO/3033 Outside beveling carbide insert holder 75°
<b>BB-PO/3216</b>	BB-3/16-PO/3216 Tool holder adapter plate for facing tool holder block for small diameter
<b>BB-PO/3220</b>	BB-3/16-PO/3220 Deported tool holder
<b>BB-PO/3221</b>	BB-3/16-PO/3221 Horizontal tool holder
<b>BB-PO/3221</b>	BB-3/16-PO/3221 Horizontal tool holder