

# One-Stop-Shop

Product Catalogue

## Liners & More



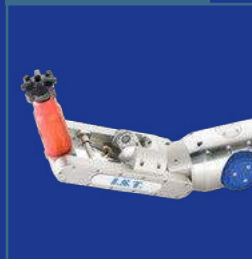
## Equipment



## UV Technology



## Robotics



## Elastotec Power Spray





## “Made in Germany” Quality

I.S.T. Innovative Sewer Technologies GmbH, headquartered in Bochum – the heart of the Ruhr region – is one of the world’s most successful and innovative full-service providers in the field of pipe and sewer renovation. The rapid growing and developing company was founded by Managing Director Jörg Vogt in the spring of 1998.



The company, now a global enterprise, both manufactures and distributes many successful sewer renovation products – developed by I.S.T.’s design team according to the customers’ needs.

Our ultimate goal is to serve our existing customers to their complete satisfaction at all times and to excite new customers with our product range and service.

**That also includes our worldwide network of subsidiaries and affiliates, which allows us to offer the best possible support and immediate expert service on site even for our international customers.**

“If you stop trying to become better, you stop being good.”

Marie von Ebner-Eschenbach

## “Impossible” is not in our vocabulary!

**I.S.T.’s experienced and highly qualified team offers our customers a wide range of support.**

- Detailed product training as well as on-site support for our customers on construction sites.
- We stock the most important consumable materials thanks to more than 2,000 m<sup>2</sup> of warehouse space.
- Repairs and servicing take place near the customer, either in our Bochum workshop or through our subsidiaries or retailers on site.
- Replacement or rental equipment are available.





## Command Console-Lite

Compact control unit designed for working with Comet and Discovery camera systems depending on chosen variant. When using push-rod camera system Comet 260 or Comet 350 it is possible to simply fix the control unit on the holder positioned on the reel. The control unit ReBoss is designed for monitoring of pipes with possibility to save the recorded video. The video is saved in the system PAL or NTSC (firmware upgrade).

### TECHNICAL SPECIFICATION

#### Case Reboss

10" LCD colour monitor with resolution 800 x 600, Digital video recorder, OSD video card with possibility to save comments and titles into the video, Alphanumeric keyboard, Distance measuring card, ReBoss electronic unit, Date, time and distance indicator, Video out

Optionally the control unit can be equipped with battery (power supply 12V DC) - operation time ca. 8 hours

It is also possible to connect external digital camera to the control unit





# Comet

## Nano

REVI 90 Camera designed for small pipe inspection DN40 - 50 mm



### TECHNICAL SPECIFICATION

#### CONTROL UNIT - different options

##### Comet 250 PC

15" LCD display, PC, card for analogy signal transfer into PC, SW DigiCAN Light for video recording, possibility to connect external digital camera

##### ReBoss USB/ReBoss USB 12V

10" LCD industrial color monitor 800 x 600, power 120V AC / AKU or 12V DC / AKU

#### CAMERA HOUSING

diameter 20 mm, length 28mm + 100 mm spring behind the camera head

#### CAMERA RESOLUTION

600 TVL/min. lighting 0,5 LUX, standard PAL, recording speed 50 images /second

#### PUSH ROD

9 mm in length 30', 65', 95' according to customer's wish. 8x LED lights in camera head

#### ACCESSORIES

Camera in offer without centering part



# Comet

Portable colour equipment designed for monitoring of home drainage including connections in range 2" to 12". Axial camera head is manually inserted into the pipe with help of special reinforced cable. The system is commonly used by companies, which deal with cleaning and monitoring of connection lines, alternatively administrators of pipe networks.



## TECHNICAL SPECIFICATION

### CONTROL UNIT - different options

<b>Comet 250 USB</b>	Colour data recording into intern memory or external USB-stick, picture PAL, regulation of brightness LED
<b>Comet 250 USB AKU</b>	Colour data recording into intern memory or external USB-stick, picture PAL, regulation of brightness LED. The control unit is equipped with battery, which enables work without power supply ca. 2 - 3 hours
<b>Comet 250 PC</b>	15" LCD display, PC, card for analogy signal transfer into PC, SW DigiCAN Light for video recording, possibility to connect external digital camera
<b>ReBoss USB/ReBoss USB 12V</b>	10" LCD industrial colour monitor 800 x600, power 120V AC / AKU or 12V DC / AKU

### CABLE DRUM

Material - stainless steel, capacity - 260' (push rod 7,5 mm), sensor of unwinded cable length, axial brake, weight - ca. 16LBS (without push-rod) and ca. 24LBS with 165' push-rod

### CAMERA HEAD KA46

Axial, self-levelling, colour CCD camera, resolution 470 TVL, light sensitivity 1 lux, lights 6x LED, diagonal visual angle ca. 68°, waterproof to 1 bar, material - stainless steel housing

### PUSH ROD

Diameter 7,5 mm or 9 mm, standard lengths 165', 195', 260'

### ACCESSORIES

Probe 33 kHz or 512 Hz for location determining up to depth 10', centring, and other



## Comet with rotary camera head

The push-rod camera Comet 260 equipped with rotary camera head KZ60, which enables monitoring of pipes in diameters 2" - 12". The camera head KZ60 can be easily replaced with standard axial camera head KA46 via connector. Controlling of swing and rotation is made thanks to touch joystick in control panel, where is the „Intelligent Control System“ installed - thanks to it you can fully operate the system (zero position, automatic camera views, etc.). Reel Comet 260 has capacity up to 260' when using the push rod 7,5 mm.



### TECHNICAL SPECIFICATION

#### CONTROL UNIT - different options

<b>Comet 250 USB rotary</b>	Colour data recording into intern memory or external USB-stick, picture PAL, regulation of brightness LED, possibility of controlling axial camera head KA46
<b>Comet 250 USB AKU rotary</b>	Colour data recording into intern memory or external USB-stick, picture PAL, regulation of brightness LED. The control unit is equipped with battery, which enables work without power supply ca. 2-3 hours, possibility of controlling axial camera head KA46
<b>Comet 250 PC rotary</b>	15" LCD display, PC, card for analogy signal transfer into PC, SW DigiCAN Light for video recording, possibility to connect external digital camera
<b>ReBoss USB</b>	10" LCD industrial colour monitor 800 x600, power 120 AC / AKU or 12V DC / AKU

#### CABLE DRUM

Material - stainless steel, capacity - 260' (push rod 7,5 mm), sensor of unwinded cable length, axial brake, weight - ca. 16LBS (without push-rod) and ca. 24LBS with 165' push-rod

#### CAMERA HEAD KZ60

Colour CCD camera, resolution 307.200 pix, light sensitivity 0,3 lux by F1,2, range angle 50°, 8x LED, swing 2x125°, rotation 360° (infinity), waterproof up to 1 bar, built-in pressure sensor for monitoring of tightness.

#### PUSH ROD

Diameter 7,5 mm or 9 mm, standard lengths 165', 195', 260'

#### ACCESSORIES

Probe 33 kHz or 512 Hz for location determining up to depth 10ft centring, antenna for inspection of connections, flexible spacer for pipe knee inspection, and other



# Shooting Star

Push-rod camera system designed for monitoring of pipes 2" - 12". The system can be used with axial camera head KA46 or rotary camera head KZ60 (also compatible with camera system Comet 260). The reel is equipped with wheels for easy handling. The capacity of the reel is up to 328' - depending on the cable diameter (7,5 or 9 mm). On the top part it is possible to equip the reel with holder for fastening the control unit ReBoss, from the side there are the transport holders for centring parts.



TECHNICAL SPECIFICATION	
<b>CONTROL UNIT - different options</b>	
Depends on the chosen camera head type (axial or rotary) - same options as by push rod camera Comet 260 or Comet 260 rotary	
<b>CABLE DRUM</b>	
Material - stainless steel, aluminium, capacity - 328' (push rod 9 mm), sensor for measuring of unwinded cable length, axial brake, weight - ca. 37 lbs (without push rod and centring)	
<b>CAMERA HEAD - different options</b>	
<b>Axial camera head KA46</b>	Axial, self-levelling, colour CCD camera, resolution 470 TVL, light sensitivity 1 lux, lights 6x LED, diagonal visual angle ca. 68°, waterproof to 1 bar, material - stainless steel housing
<b>Rotary camera head KZ60</b>	Colour CCD camera, resolution 307.200 pix, light sensitivity 0,3 lux by F1,2, range angle 50°, 8x LED, swing 2x125°, rotation 360° (infinity), waterproof up to 1 bar, built-in pressure sensor for monitoring of tightness
<b>PUSH ROD</b>	
Diameter 7,5 mm or 9 mm	
<b>ACCESSORIES</b>	
Probe 33 kHz or 512 Hz for location determining up to depth 10ft, centring, antenna for inspection of connections (camera head Kz60), and other	

# Explorer Micro

The camera system Explorer Micro is determined for pipe monitoring of diameters 4" - 12". The camera crawler is equipped with two engines, which enable it's simple turning and fluent drive in the pipe. Thanks to rotating and pivoting camera head KZ60 it is possible to monitor the pipe in detail. Camera Explorer Micro has the same control unit as the higher camera version Explorer. It is so possible simply substitute the cameras according to monitoring needs and pipe diameter.

TECHNICAL SPECIFICATION
<b>CONTROL UNIT - different options</b>
the same types as the higher row Explorer
<b>CABLE DRUM - different options</b>
The same types as the higher row Explorer, max. cable length 655' (by cable drums with higher cable capacity is max. crawler run out 655')
<b>SOFTWARE - various modules</b>
the same types and module as the higher row Explorer
<b>CAMERA HEAD KZ60</b>
Colour CCD camera, resolution 307.200 pix, light sensitivity 0,3 lux by F1,2, range angle 50°, 8 x LED, swing 2 x 125°, rotation 360° (infinity), waterproof up to 1 bar, built-in pressure sensor for monitoring of tightness.
<b>CAMERA CRAWLER Explorer Micro</b>
Drive 6x6, 2 engines 20W, 1 set of basic wheels, hook for lowering into the shaft, water-resistant up to 1 bar, material - brass
<b>ACCESSORIES</b>
Wheels for diverse diameters, LED light, light holder, probe 33 kHz or 512 Hz, auxiliary arm for cable reel, hand control (cable drum Discovery), guiding pulley for the pipe edge

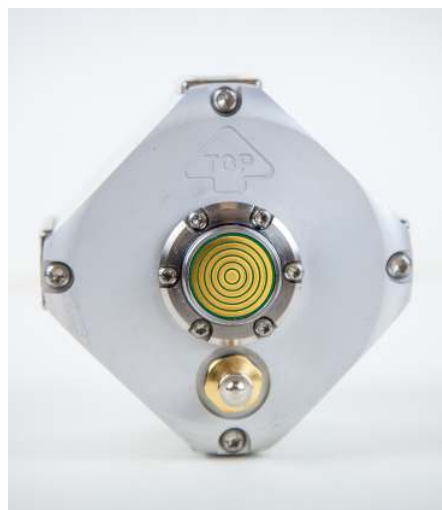
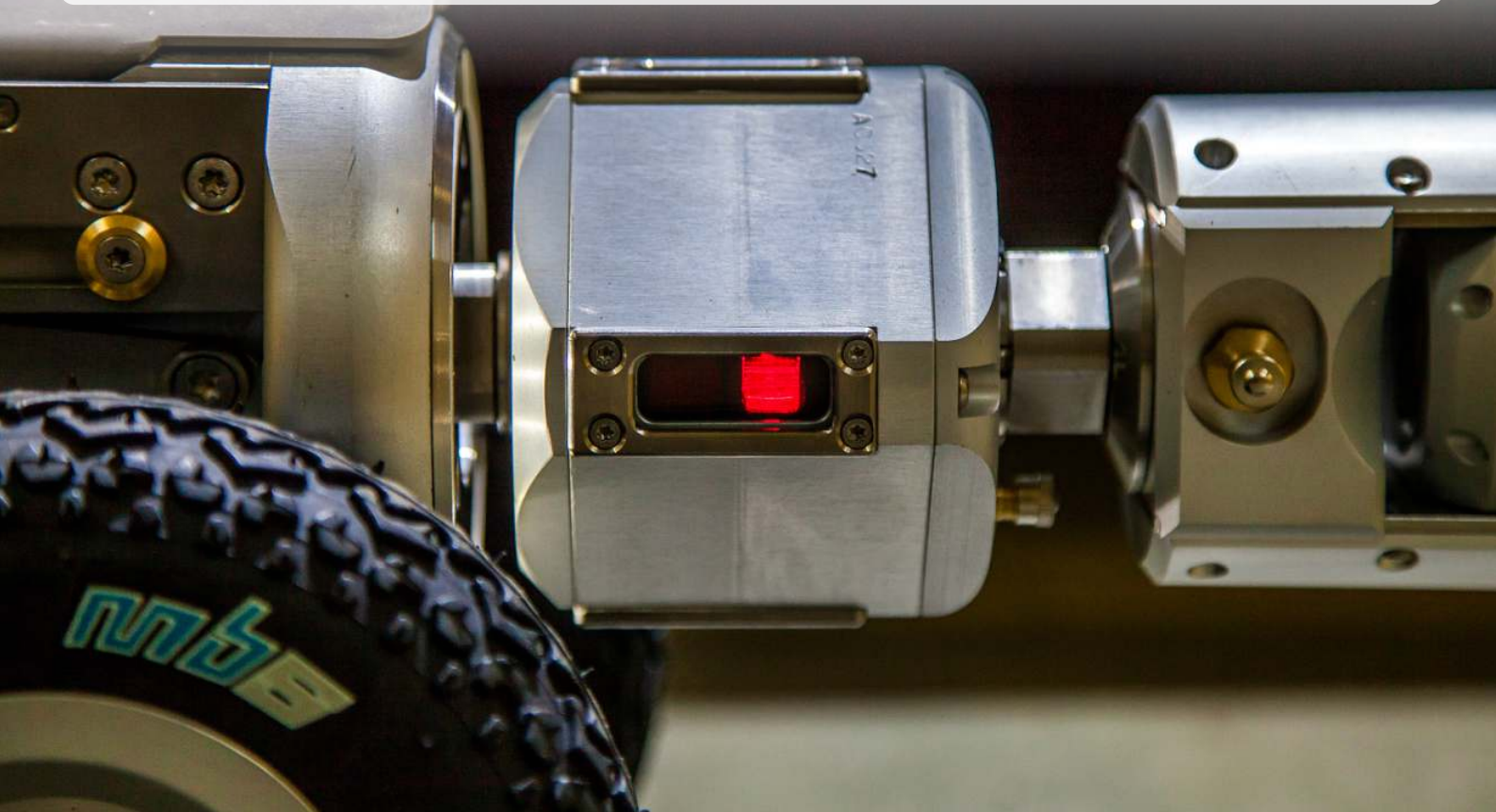




## Cyclops Scanner

Specially developer system for ovality measuring with help of accurate sensors with red light (is not dangerous for accidental contact with eye). Resolution of measuring is 0,5 mm and is going on via 4 spots in vertical and horizontal axis. If the measuring camera head deflects from the middle of the pipe, is the failure compensate thanks to algorithm. The result is displayed directly in the picture. On the basis of the measuring result it is possible to prepare the graph of the pipe ovality and measured values process with help of software DigiCAN.

The measuring is possible to carry out in the pipe with diameter 8" - 32". Thanks to this system, which is installed between camera head and crawler, you can determine pipe condition in every part of it.



## Explorer

The highest version of series Explorer is available as portable or firmly integrated in a vehicle. The camera crawler has two motors with high performance 100 W, which enables easy turning and controlling. Thanks to the rear camera with sensitivity 0,025 lux is the way out from the pipe easy. High-lift pantograph, on which the camera head is mounted, enables lifting the camera up to the pipeline axis, which together with the LED auxiliary lights allows to make the pipe monitoring quickly and in high-quality. The auxiliary chassis is determined for bigger diameters. The Explorer reel can be supplied with the cable length from 655' to 1,640'. The control unit (eventually built in) is controlled via PC, which contains software including DigiCAN software.

TECHNICAL SPECIFICATION	
CONTROL UNIT - different options	
Explorer control unit	15" LCD industrial colour display, inputs DVI and CVB-S, integrated PC, display of actual video Picture with possibility of switch to PC mode, optional SW DigiCAN (display of date, time, measuring of unwinded cable length, inclination, swing, rotation, pressure, etc.) and creating of documentation to damaged spots
ReBoss CB USB	Power supply 120v AC / AKU, 10" LCD industrial colour monitor 800x600
ReBoss CB USB 12V	Power supply 12V DC / AKU, 10" LCD industrial colour monitor 800x600
Built-in Discovery	22" industrial colour display, inputs DVI and CVB-S, display of actual video Picture with possibility of switch to PC mode, optional SW DigiCAN (display of date, time, measuring of unwinded cable length, inclination, swing, rotation, pressure, etc.) and creating of documentation to damaged spots
It is possible to extend the controlling by adapter for controlling of <b>electro-robot</b>	
SOFTWARE - VARIOUS MODULES	
Basic (video recording and report creating according to EN13508-2), photo protocol, ovality, laser (measuring of cracks), measuring of level height and sediment, gradient, measuring of diameter and ovality, interactive protocol, continuous ovality, ISYBAU XML, set of all programmes PRO	
CABLE DRUM - different options	
MN200	Manually cable drum, special lightweight cable with length up to 655' (according to wish). Cable drum equipped with guiding pulley. Construction resistant against water splash. Weight 51 lbs (without cable), 82 lbs (655' cable)
NAVI200	Automatic motorized reel, guide pulley for reducing the strain on the cable, sensor for measuring the length of unwinded cable, resistant against water splash, capacity max. 655' cable. The reel includes the remote control hand control, which enables the controlling of crawler and camera
NAVI300	Automatic motorized reel, guide pulley for reducing the strain on the cable, sensor for measuring the length of unwinded cable, resistant against water splash, capacity max. 980' cable
NAVI500	Automatic motorized reel, guide pulley for reducing the strain on the cable, sensor for measuring the length of unwinded cable, resistant against water splash, capacity max. 1,640' cable



#### **CAMERA HEAD KZ95**

Colour CCD camera, resolution 440.000 pix, light sensitivity 0,25 lux, 24 x superbright LED, swing 2x120°, rotation 360° (infinity), zoom 10 x optical and 12 x digital, water-resistant up to 1 bar

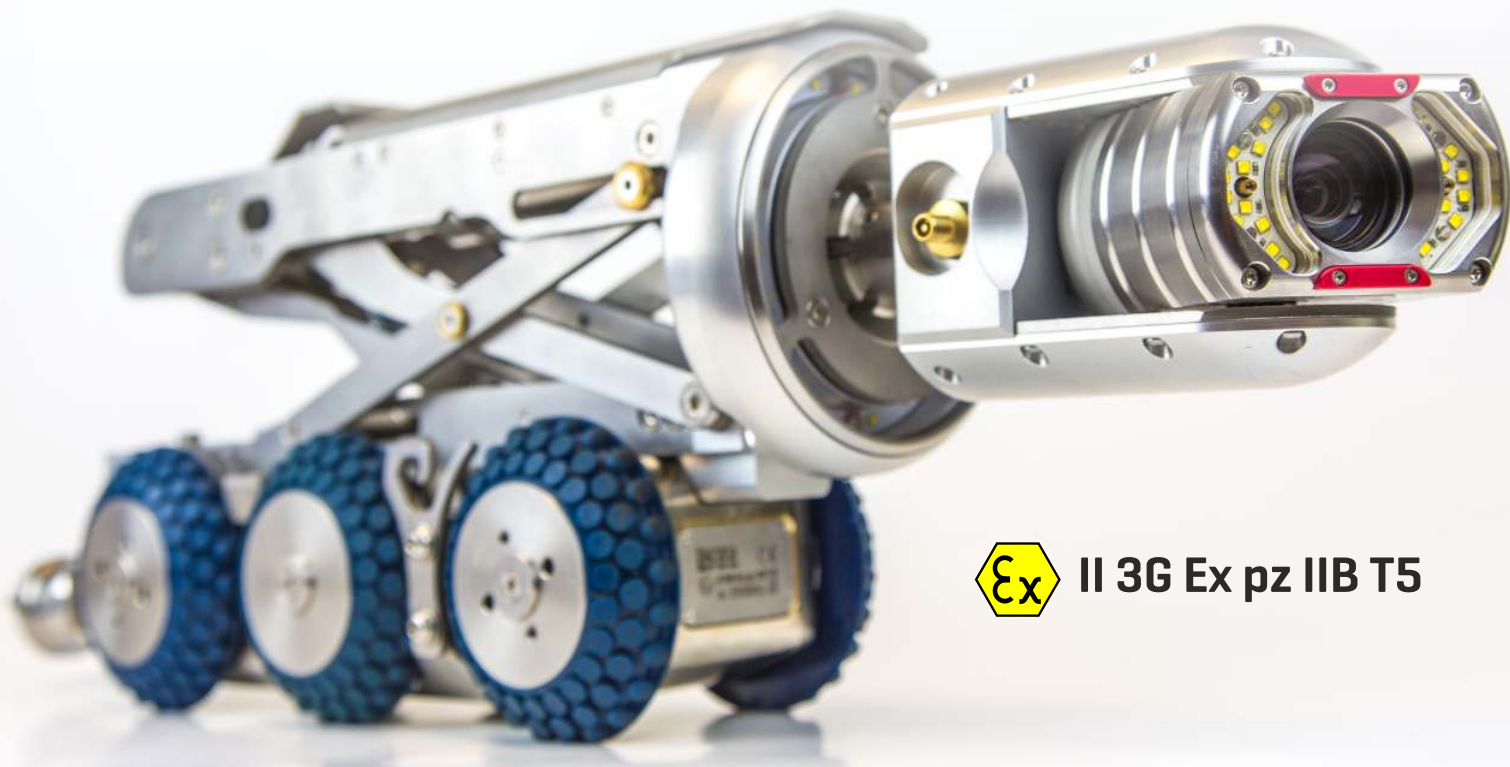
#### **CAMERA CRAWLER Explorer**

Drive 6 x 6, 2 engines 100 W, automatically balancing to prevent overturning, 1 set basic wheels, water-resistant up to 1 bar

#### **ACCESORIES**

Lasers for camera head for measuring cracks, holes and connections in pipe, ovality module for continuous measuring of pipe ovality, electric pantograph with LED lights 20W, manually elevating arm, auxiliary chassis (32" - 40", probe 33 kHz, wheels for various diameters, upper guiding for ovoid pipe profiles and other.

Discovery 150 system also in ATEX version designed for explosive environments:



**Ex II 3G Ex pz IIB T5**



## Explorer with Alien Prober

Satellite extension of the crawler Discovery (6 x 6) for pipe inspection in 6" - 40". View camera is component of the satellite extension, inspection of pipe connections is enabled.



### TECHNIC SPECIFICATION

#### CAMERA HEAD KZ60

Resolution 307.200 pix, Swing 2 x 125°, rotation 360° (infinity), 8x extra luminous LED, water-proof up to 1 bar

#### CONTROLLING

Two 3-axes joysticks

#### SATELLITE CABLE DRUM

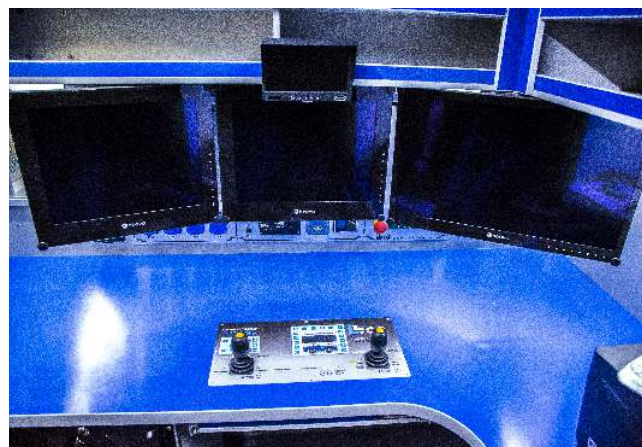
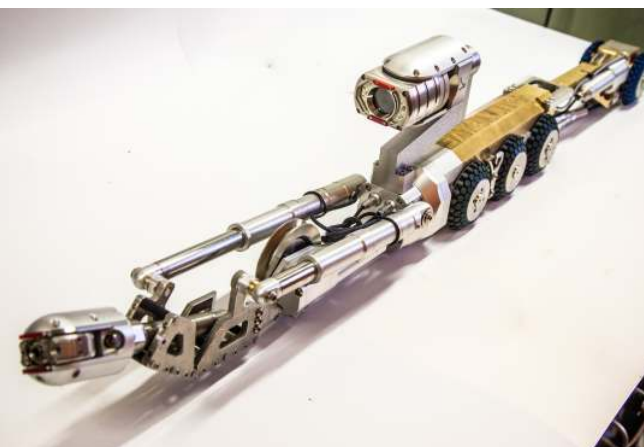
Flexible cable reinforced with kevlar + push-rod cable

#### OPCE

JetCam - combination of satellite camera and high-pressure cleaning machine for pipe cleaning (built-in into for example MB Sprinter 5t)

**This system is designed only for the built-into the vans.**







## S.S. Sewer Seeker

**Extend the monitoring possibilities  
of your Discovery system...**



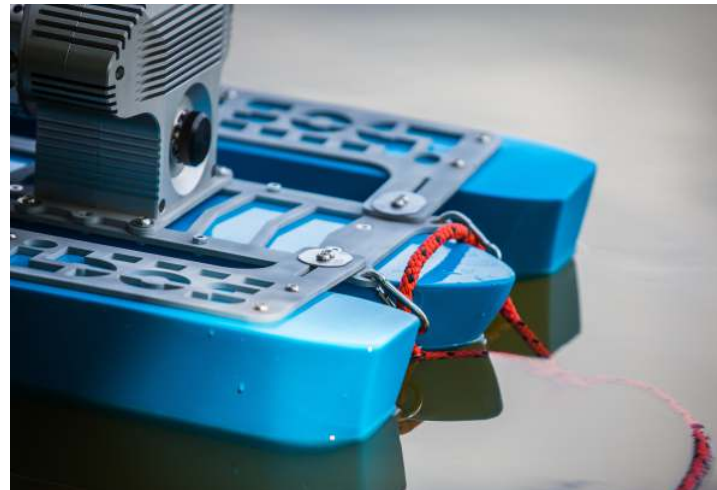
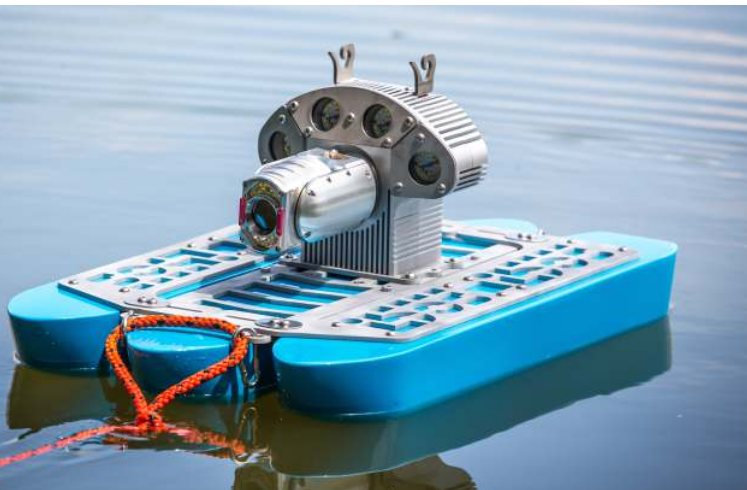
Floating monitoring system compatible with Discovery camera series, with pan and tilt camera head KZ95 for big pipe diameters and sewers.

### TECHNIC SPECIFICATION

- Width min./max. 17"/21.26"
- Length 27.55"
- Height 12.60" (incl. light extension)
- Light extension: 64x super-bright LED - total power 60W
- Connectors for CamBoss system connection
- Weight 25.5 lbs (incl. light extension)

#### CAMERA HEAD KZ95

Colour CCD camera, resolution 2,38 mil. Pix, light sensitivity 0,15 lux, swing 2x120°, rotation 360° (infinity), view angle 50°, 24x super-bright LED 650 lm, 5,5 W, zoom - 10x optical + 12x digital, weight ca. 4.6 lbs, length 6.8", diameter 3.55"





## Camera built-in

We offer professional solution of camera system as built-in into the van according to your choice. You can choose from wide offer of combination and furniture built-in providing everything needed for work in the field.

Standard solution - the car inside is professional insulated, floor and partially walls is coated with water-resistant polyurethane painting, walls and ceiling is covered with material according to customer's wish, usually with aluminium chequer plate. The inner room is possible to divide with dividing wall on work part and office (= simple maintenance and comfort of operators). We can install independent heating, electro generator, electrics 12/24/120 V, battery systems, LED lighting, rear camera and other equipment according to your wish and requirements.

For further information, please contact our sales representative. We will gladly prepare the offer for you according to your requirement and adapt the car for the most optimal utilization.





# Detectors

Detectors are often used for whistling, locating and searching failures in pipelines.

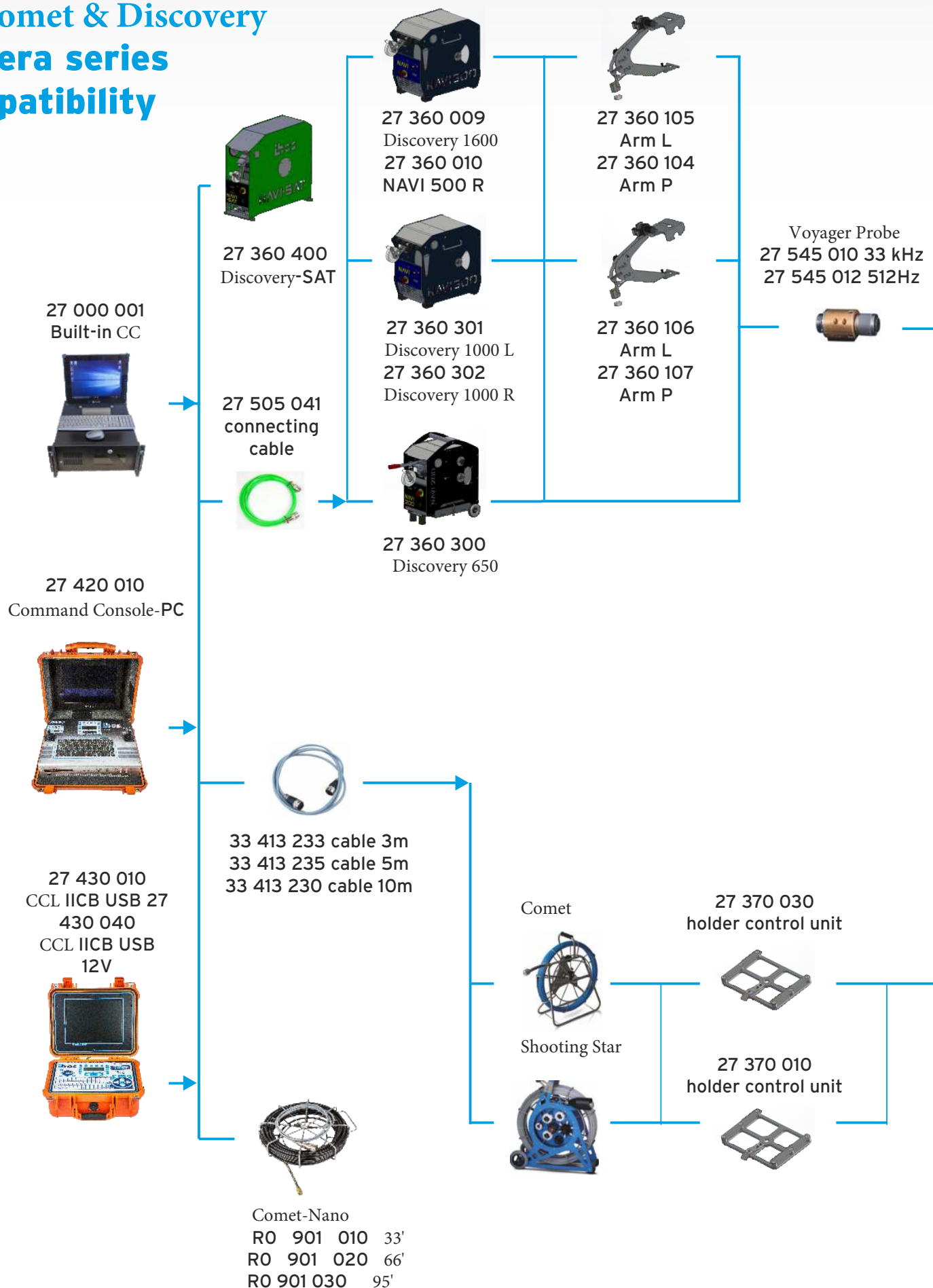
A probe is attached to a Comet camera. The camera is inserted to the pipeline and in case we see a defect in the pipeline via the camera, we can locate the place in the terrain using the detector, which facilitates excavating sewer for repairs.

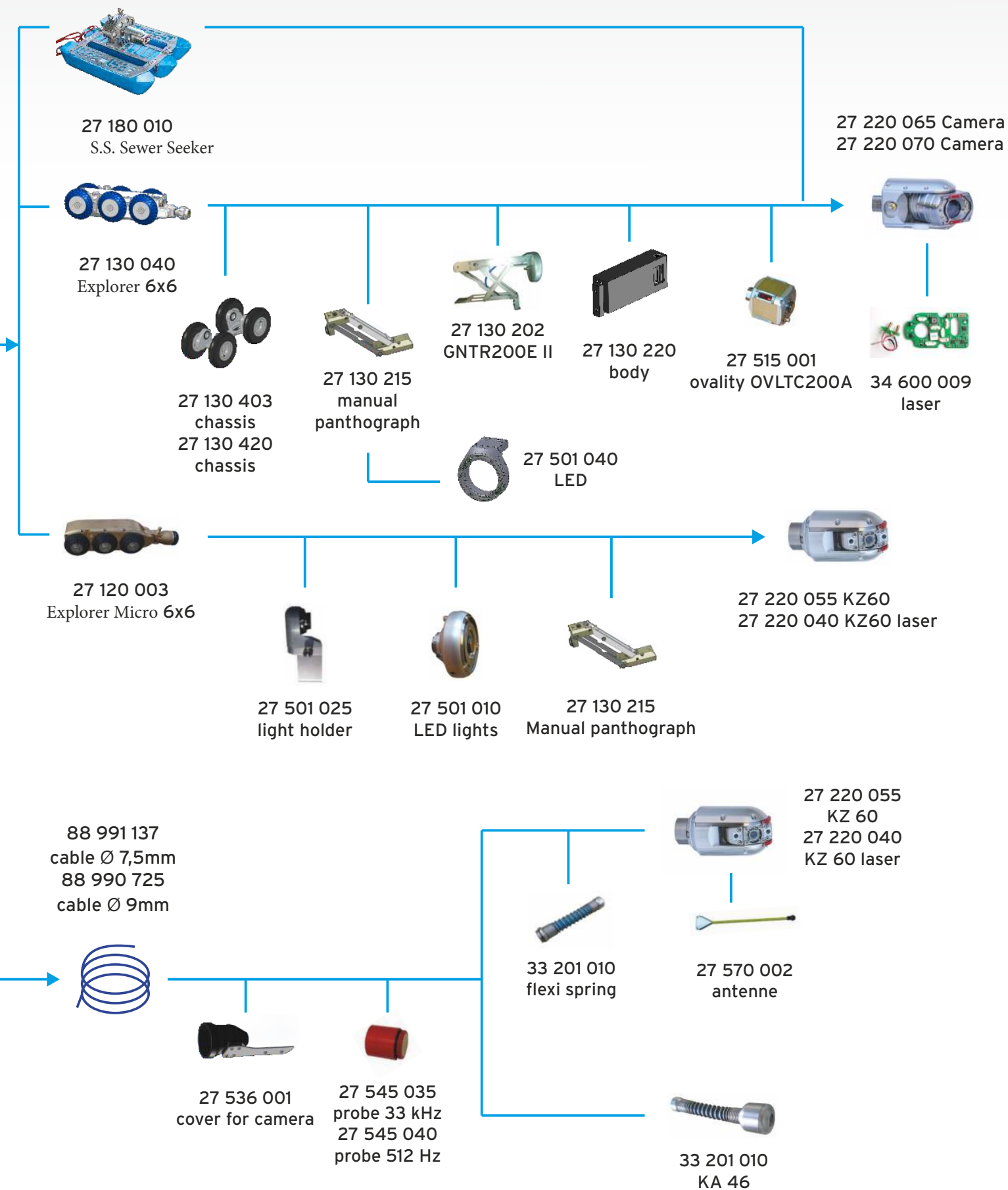
Detector can also locate low voltage and telephone cables, which is highly practical to be used before the necessary excavation of sewer for its repair.





# Overview of Comet & Discovery camera series compatibility







# CHAIN KNOCKERS

Chain Knocker is a mechanically rotated tool for sewer cleaning and pipeline renovations. NOT TO BE USED WITH HYDRAULIC ROTATOR.

## US PATENT

Renssi® Chain Knockers have received US Patent No. 9,649,671 B2



## RS 0000 SERIES

for 6mm, 1/4" cable

	Product code	Pipe diameter	
<input type="checkbox"/>	RS-0035/1	35mm	1,5"
<input type="checkbox"/>	RS-0035/2	35mm	1,5"
<input type="checkbox"/>	RS-0050/1	50mm	2"
<input type="checkbox"/>	RS-0050/2	50mm	2"
<input type="checkbox"/>	RS-0050	50mm	2"
<input type="checkbox"/>	RS-0075/2	75mm	3"
<input type="checkbox"/>	RS-0075	75mm	3"
<input type="checkbox"/>	RS-0100	100mm	4"

## RS 1000 SERIES

for 8mm, 5/16" cable

## RS 2000 SERIES

for 10mm, 3/8" cable

## RS 3000 SERIES

for 12mm, 1/2" cable

	Product code	Pipe diameter	
<input type="checkbox"/>	RS-1035/1	35mm	1,5"
<input type="checkbox"/>	RS-1035/2	35mm	1,5"
<input type="checkbox"/>	RS-1050/1	50mm	2"
<input type="checkbox"/>	RS-1050/2	50mm	2"
<input type="checkbox"/>	RS-1050	50mm	2"
<input type="checkbox"/>	RS-1075/1	75mm	3"
<input type="checkbox"/>	RS-1075/2	75mm	3"
<input type="checkbox"/>	RS-1075	75mm	3"
<input type="checkbox"/>	RS-1100	100mm	4"
<input type="checkbox"/>	RS-1125	125mm	5"
<input type="checkbox"/>	RS-1150	150mm	6"
<input type="checkbox"/>	RS-1200	200mm	8"

	Product code	Pipe diameter	
<input type="checkbox"/>	RS-2050/2	50mm	2"
<input type="checkbox"/>	RS-2050	50mm	2"
<input type="checkbox"/>	RS-2075/1	75mm	3"
<input type="checkbox"/>	RS-2075/2	75mm	3"
<input type="checkbox"/>	RS-2075	75mm	3"
<input type="checkbox"/>	RS-2100/1	100mm	4"
<input type="checkbox"/>	RS-2100/2	100mm	4"
<input type="checkbox"/>	RS-2100	100mm	4"
<input type="checkbox"/>	RS-2125/2	125mm	5"
<input type="checkbox"/>	RS-2125	125mm	5"
<input type="checkbox"/>	RS-2150	150mm	6"
<input type="checkbox"/>	RS-2200	200mm	8"

	Product code	Pipe diameter	
<input type="checkbox"/>	RS-3050/2	50mm	2"
<input type="checkbox"/>	RS-3050	50mm	2"
<input type="checkbox"/>	RS-3075	75mm	3"
<input type="checkbox"/>	RS-3100	100mm	4"
<input type="checkbox"/>	RS-3125	125mm	5"
<input type="checkbox"/>	RS-3150	150mm	6"
<input type="checkbox"/>	RS-3200	200mm	8"
<input type="checkbox"/>	RS-3250	250mm	10"
<input type="checkbox"/>	RS-3300	300mm	12"

# DRILL HEAD TOOLS

**US PATENT**

Renssi® Chain Knockers have received US Patent No. 9,649,671 B2



## RS-DR 0000 SERIES

for 6 mm, 1/4" cable

Product code	Pipe diameter
<input type="checkbox"/> RS-0035/1-DR	35mm 1,5"
<input type="checkbox"/> RS-0035/2-DR	35mm 1,5"

## RS-DR 1000 SERIES

for 8mm, 5/16" cable

## RS-DR 2000 SERIES

for 10mm, 3/8" cable

## RS-DR 3000 SERIES

for 12mm, 1/2" cable

Product code	Pipe diameter
<input type="checkbox"/> RS-1050/2-DR	50mm 2"
<input type="checkbox"/> RS-1050-DR	50mm 2"
<input type="checkbox"/> RS-1075/2-DR	75mm 3"
<input type="checkbox"/> RS-1075-DR	75mm 3"
<input type="checkbox"/> RS-1100-DR	100mm 4"
<input type="checkbox"/> RS-1125-DR	125mm 5"
<input type="checkbox"/> RS-1150-DR	150mm 6"
<input type="checkbox"/> RS-1200-DR	200mm 8"

Product code	Pipe diameter
<input type="checkbox"/> RS-2050/2-DR	50mm 2"
<input type="checkbox"/> RS-2050-DR	50mm 2"
<input type="checkbox"/> RS-2075/2-DR	75mm 3"
<input type="checkbox"/> RS-2075-DR	75mm 3"
<input type="checkbox"/> RS-2100-DR	100mm 4"
<input type="checkbox"/> RS-2125-DR	125mm 5"
<input type="checkbox"/> RS-2150-DR	150mm 6"
<input type="checkbox"/> RS-2200-DR	200mm 8"

Product code	Pipe diameter
<input type="checkbox"/> RS-3050/2-DR	50mm 2"
<input type="checkbox"/> RS-3050-DR	50mm 2"
<input type="checkbox"/> RS-3075/2-DR	75mm 3"
<input type="checkbox"/> RS-3075-DR	75mm 3"
<input type="checkbox"/> RS-3100-DR	100mm 4"
<input type="checkbox"/> RS-3125-DR	125mm 5"
<input type="checkbox"/> RS-3150-DR	150mm 6"
<input type="checkbox"/> RS-3200-DR	200mm 8"



# CHAIN KNOCKERS WITH STARBITS

**US PATENT!**

Renssi® Chain Knockers have received US Patent No. 9,649,671 B2



## RS-WS 0000 SERIES

for 6mm, 1/4" cable

	Product code	Pipe diameter
<input type="checkbox"/>	RS-0035/1-WS	35mm 1,5"
<input type="checkbox"/>	RS-0050/1-WS	50mm 2"
<input type="checkbox"/>	RS-0050-WS	50mm 2"
<input type="checkbox"/>	RS-0075-WS	75mm 3"

## RS-WS 1000 SERIES

for 8mm, 5/16" cable

## RS-WS 2000 SERIES

for 10mm, 3/8" cable

## RS-WS 3000 SERIES

for 12mm, 1/2" cable

	Product code	Pipe diameter
<input type="checkbox"/>	RS-1050/1-WS	50mm 2"
<input type="checkbox"/>	RS-1050/2-WS	50mm 2"
<input type="checkbox"/>	RS-1050-WS	50mm 2"
<input type="checkbox"/>	RS-1075-WS	75mm 3"
<input type="checkbox"/>	RS-1100-WS	100mm 4"
<input type="checkbox"/>	RS-1150-WS	150mm 6"

	Product code	Pipe diameter
<input type="checkbox"/>	RS-2050/2-WS	50mm 2"
<input type="checkbox"/>	RS-2050-WS	50mm 2"
<input type="checkbox"/>	RS-2075-WS	75mm 3"
<input type="checkbox"/>	RS-2100-WS	100mm 4"
<input type="checkbox"/>	RS-2150-WS	150mm 6"
<input type="checkbox"/>	RS-2200-WS	200mm 8"

	Product code	Pipe diameter
<input type="checkbox"/>	RS-3050-WS	50mm 2"
<input type="checkbox"/>	RS-3075-WS	75mm 3"
<input type="checkbox"/>	RS-3100-WS	100mm 4"
<input type="checkbox"/>	RS-3150-WS	150mm 6"
<input type="checkbox"/>	RS-3200-WS	200mm 8"

# CHAIN KNOCKERS WITH DRILL HEAD AND STARBITS

**US PATENT]**

Renssi® Chain Knockers have received US Patent No. 9,649,671 B2



## RS-WS-DR 1000 SERIES

for 8mm, 5/16" cable

## RS-WS-DR 2000 SERIES

for 10mm, 3/8" cable

## RS-WS-DR 3000 SERIES

for 12mm, 1/2" cable

Product code	Pipe diameter	Product code	Pipe diameter	Product code	Pipe diameter
<input type="checkbox"/> RS-1050-WS-DR	50mm 2"	<input type="checkbox"/> RS-2050-WS-DR	50mm 2"	<input type="checkbox"/> RS-3075-WS-DR	75mm 3"
<input type="checkbox"/> RS-1075-WS-DR	75mm 3"	<input type="checkbox"/> RS-2075-WS-DR	75mm 3"	<input type="checkbox"/> RS-3100-WS-DR	100mm 4"
<input type="checkbox"/> RS-1100-WS-DR	100mm 4"	<input type="checkbox"/> RS-2100-WS-DR	100mm 4"	<input type="checkbox"/> RS-3150-WS-DR	150mm 6"
<input type="checkbox"/> RS-1150-WS-DR	150mm 6"	<input type="checkbox"/> RS-2150-WS-DR	150mm 6"	<input type="checkbox"/> RS-3200-WS-DR	200mm 8"



# CHAIN TOOLS WITHOUT CARBIDE

**US PATENT]**

Renssi® Chain Knockers have received US Patent No. 9,649,671 B2



## RS-NC 0000 SERIES

for 6mm, 1/4" cable

	Product code	Pipe diameter
<input type="checkbox"/>	RS-0035/1-NC	35mm 1 3/8"
<input type="checkbox"/>	RS-0035/2-NC	35mm 1 3/8"
<input type="checkbox"/>	RS-0050/1-NC	50mm 2"
<input type="checkbox"/>	RS-0050/2-NC	50mm 2"
<input type="checkbox"/>	RS-0050-NC	50mm 2"
<input type="checkbox"/>	RS-0075/2-NC	75mm 3"
<input type="checkbox"/>	RS-0075-NC	75mm 3"
<input type="checkbox"/>	RS-0100-NC	100mm 4"
<input type="checkbox"/>	RS-0125-NC	125mm 5"

## RS-NC 1000 SERIES

for 8mm, 5/16" cable

## RS-NC 2000 SERIES

for 10mm, 3/8" cable

## RS-NC 3000 SERIES

for 12mm, 1/2" cable

	Product code	Pipe diameter
<input type="checkbox"/>	RS-1035/1-NC	35mm 1 3/8"
<input type="checkbox"/>	RS-1035/2-NC	35mm 1 3/8"
<input type="checkbox"/>	RS-1050/2-NC	50mm 2"
<input type="checkbox"/>	RS-1050-NC	50mm 2"
<input type="checkbox"/>	RS-1075/2-NC	75mm 3"
<input type="checkbox"/>	RS-1075-NC	75mm 3"
<input type="checkbox"/>	RS-1100-NC	100mm 4"
<input type="checkbox"/>	RS-1125-NC	125mm 5"
<input type="checkbox"/>	RS-1150-NC	150mm 6"
<input type="checkbox"/>	RS-1200-NC	200mm 8"

	Product code	Pipe diameter
<input type="checkbox"/>	RS-2050/2-NC	50mm 2"
<input type="checkbox"/>	RS-2050-NC	50mm 2"
<input type="checkbox"/>	RS-2075/2-NC	75mm 3"
<input type="checkbox"/>	RS-2075-NC	75mm 3"
<input type="checkbox"/>	RS-2100-NC	100mm 4"
<input type="checkbox"/>	RS-2125-NC	125mm 5"
<input type="checkbox"/>	RS-2150-NC	150mm 6"
<input type="checkbox"/>	RS-2200-NC	200mm 8"

	Product code	Pipe diameter
<input type="checkbox"/>	RS-3050/2-NC	50mm 2"
<input type="checkbox"/>	RS-3050-NC	50mm 2"
<input type="checkbox"/>	RS-3075/2-NC	75mm 3"
<input type="checkbox"/>	RS-3075-NC	75mm 3"
<input type="checkbox"/>	RS-3100-NC	100mm 4"
<input type="checkbox"/>	RS-3125-NC	125mm 5"
<input type="checkbox"/>	RS-3150-NC	150mm 6"
<input type="checkbox"/>	RS-3200-NC	200mm 8"

# CIRCULAR CHAIN KNOCKERS

WC Circular Chain Knockers come with Securing ring.

## IMPROVED MODELS



### WC 1000 SERIES

for 8mm,  $\frac{5}{16}$ " cable  
with 4mm,  $\frac{1}{8}$ " chain

### WC 2000 SERIES

for 10mm,  $\frac{3}{8}$ " cable  
with 4mm,  $\frac{1}{8}$ " chain

### WC 3000 SERIES

for 12mm,  $\frac{1}{2}$ " cable  
with 4mm,  $\frac{1}{8}$ " chain

Product code	Pipe diameter
<input type="checkbox"/> WC-1050-4	50mm 2"
<input type="checkbox"/> WC-1075-4	75mm 3"
<input type="checkbox"/> WC-1100-4	100mm 4"

Product code	Pipe diameter
<input type="checkbox"/> WC-2050-4	50mm 2"
<input type="checkbox"/> WC-2075-4	75mm 3"
<input type="checkbox"/> WC-2100-4	100mm 4"
<input type="checkbox"/> WC-2150-4	150mm 6"
<input type="checkbox"/> WC-2200-4	200mm 8"
<input type="checkbox"/> WC-2250-4	250mm 10"
<input type="checkbox"/> WC-2300-4	300mm 12"

Product code	Pipe diameter
<input type="checkbox"/> WC-3075-4	75mm 3"
<input type="checkbox"/> WC-3100-4	100mm 4"
<input type="checkbox"/> WC-3150-4	150mm 6"
<input type="checkbox"/> WC-3200-4	200mm 8"
<input type="checkbox"/> WC-3250-4	250mm 10"
<input type="checkbox"/> WC-3300-4	300mm 12"



### WC 3000-5 SERIES

for 12mm,  $\frac{1}{2}$ " cable  
with 5mm,  $\frac{3}{16}$ " chain

Product code	Pipe diameter
<input type="checkbox"/> WC-3100-5	100mm 4"
<input type="checkbox"/> WC-3150-5	150mm 6"
<input type="checkbox"/> WC-3200-5	200mm 8"
<input type="checkbox"/> WC-3250-5	250mm 10"



# BRUSHES



## NYLON BRUSHES

for 6 mm  $\frac{1}{4}$ " cable

Product code	Diameter
<input type="checkbox"/> RH-0040-14-03	Ø 40 mm 1,5"
<input type="checkbox"/> RH-0050-14-03	Ø 50 mm 2"
<input type="checkbox"/> RH-0050-20-03	Ø 50 mm 2"
<input type="checkbox"/> RH-0075-14-03	Ø 75 mm 3"
<input type="checkbox"/> RH-0075-20-03	Ø 75 mm 3"
<input type="checkbox"/> RH-0100-14-03	Ø 100 mm 4"
<input type="checkbox"/> RH-0100-14-05	Ø 100 mm 4"
<input type="checkbox"/> RH-0125-14-03	Ø 125 mm 5"
<input type="checkbox"/> RH-0125-14-05	Ø 125 mm 5"
<input type="checkbox"/> RH-0125-20-05	Ø 125 mm 5"
<input type="checkbox"/> RH-0125-20-07	Ø 125 mm 5"

## NYLON BRUSHES

for 8  $\frac{5}{16}$ " mm cable

Product code	Diameter
<input type="checkbox"/> RH-1040-14-03	Ø 40 mm 1,5"
<input type="checkbox"/> RH-1045-14-03	Ø 45 mm 1,8"
<input type="checkbox"/> RH-1050-14-03	Ø 50 mm 2"
<input type="checkbox"/> RH-1050-20-03	Ø 50 mm 2"
<input type="checkbox"/> RH-1075-20-05	Ø 75 mm 3"
<input type="checkbox"/> RH-1075-20-07	Ø 75 mm 3"
<input type="checkbox"/> RH-1100-20-05	Ø 100 mm 4"
<input type="checkbox"/> RH-1125-29-05	Ø 125 mm 5"
<input type="checkbox"/> RH-1125-29-07	Ø 125 mm 5"
<input type="checkbox"/> RH-1150-29-05	Ø 150 mm 6"
<input type="checkbox"/> RH-1150-29-07	Ø 150 mm 6"
<input type="checkbox"/> RH-1160-40-07	Ø 160 mm 6,3"
<input type="checkbox"/> RH-1175-29-05	Ø 175 mm 7"
<input type="checkbox"/> RH-1175-40-07	Ø 175 mm 7"
<input type="checkbox"/> RH-1200-40-07	Ø 300 mm 12"

## NYLON/STEEL BRUSHES

Center hole of the hub of 8 mm  $\frac{5}{16}$ "

Product code	Diameter
<input type="checkbox"/> RH-1055-20-NS	Ø 55 mm 2,2"
<input type="checkbox"/> RH-1075-24-NS	Ø 75 mm 3"
<input type="checkbox"/> RH-1105-24-NS	Ø 105 mm 4,2"
<input type="checkbox"/> RH-1130-24-NS	Ø 130 mm 5,1"
<input type="checkbox"/> RH-1155-29-NS	Ø 155 mm 6,1"
<input type="checkbox"/> RH-1175-29-NS	Ø 175 mm 7"
<input type="checkbox"/> RH-1205-29-NS	Ø 205 mm 8,1"



## SILICON CARBIDE BRUSHES

for 8 mm  $\frac{5}{16}$ " cable

	Product code	Diameter	Cable diameter
<input type="checkbox"/>	RH-1050-C	Ø 50 mm 2"	8 mm $\frac{5}{16}$ "
<input type="checkbox"/>	RH-1075-C	Ø 75 mm 3"	8 mm $\frac{5}{16}$ "
<input type="checkbox"/>	RH-1110-C	Ø 110 mm 4,3"	8 mm $\frac{5}{16}$ "
<input type="checkbox"/>	RH-1125-C	Ø 125 mm 5"	8 mm $\frac{5}{16}$ "
<input type="checkbox"/>	RH-1170-C	Ø 170 mm 6,7"	8 mm $\frac{5}{16}$ "



## SILICON CARBIDE BRUSHES

for 10 mm  $\frac{3}{8}$ " cable

	Product code	Diameter	Cable diameter
<input type="checkbox"/>	RH-2075-C	Ø 75 mm 3"	10 mm $\frac{3}{8}$ "
<input type="checkbox"/>	RH-2110-C	Ø 110 mm 4,3"	10 mm $\frac{3}{8}$ "
<input type="checkbox"/>	RH-2125-C	Ø 125 mm 5"	10 mm $\frac{3}{8}$ "
<input type="checkbox"/>	RH-2170-C	Ø 170 mm 6,7"	10 mm $\frac{3}{8}$ "

## SILICON CARBIDE BRUSHES

for 12 mm  $\frac{1}{2}$ " cable

	Product code	Diameter	Cable diameter
<input type="checkbox"/>	RH-3075-C	Ø 75 mm 3"	12 mm $\frac{1}{2}$ "
<input type="checkbox"/>	RH-3110-C	Ø 110 mm 4,3"	12 mm $\frac{1}{2}$ "
<input type="checkbox"/>	RH-3125-C	Ø 125 mm 5"	12 mm $\frac{1}{2}$ "
<input type="checkbox"/>	RH-3170-C	Ø 170 mm 6,7"	12 mm $\frac{1}{2}$ "

## SECURING RING FOR BRUSHES

The securing ring is used to prevent a drop of the brush from the cable during the cleaning.

	Product code	Product
<input type="checkbox"/>	SR-20-006	for 6mm $\frac{1}{4}$ " cable
<input type="checkbox"/>	SR-20-008	for 8mm $\frac{5}{16}$ " cable
<input type="checkbox"/>	SR-20-010	for 10mm $\frac{3}{8}$ " cable
<input type="checkbox"/>	SR-20-012	for 12mm $\frac{1}{2}$ " cable



## BRUSH ADAPTERS

	Product code	Product
<input type="checkbox"/>	RA-080-010-IX	for 10mm cable, Ø 8mm ( $\frac{3}{8}$ " / $\frac{5}{16}$ " ) shaft inox
<input type="checkbox"/>	RA-080-012-IX	for 12mm cable, Ø 8mm ( $\frac{1}{2}$ " / $\frac{5}{16}$ " ) shaft inox





# ERC CABLES

We sell easy-to-use cables, cables and covers separately for customer’s needs.  
ERC-cable includes a cover, a cable, brass sleeves on both ends and a rotator shaft.  
We use Cross Layer Cable in ERC-cables.



## ERC 0000 SERIES

6mm ¼" cable

Product code	Length
<input type="checkbox"/> ERC-0008-1	8m 26'
<input type="checkbox"/> ERC-0010-1	10m 33'
<input type="checkbox"/> ERC-0015-1	15m 50'

## ERC 1000 SERIES

8mm 5/16" cable

Product code	Length
<input type="checkbox"/> ERC-1002-1	2m 6,6'
<input type="checkbox"/> ERC-1003-1	3m 10'
<input type="checkbox"/> ERC-1005-1	5m 16,5'
<input type="checkbox"/> ERC-1010-1	10m 33'
<input type="checkbox"/> ERC-1015-1	15m 50'
<input type="checkbox"/> ERC-1020-1	20m 65'

## ERC 2000 SERIES

10mm 3/8" cable

Product code	Length
<input type="checkbox"/> ERC-2003-1	3m 10'
<input type="checkbox"/> ERC-2005-1	5m 16,5'
<input type="checkbox"/> ERC-2010-1	10m 33'
<input type="checkbox"/> ERC-2015-1	15m 50'
<input type="checkbox"/> ERC-2020-1	20m 65'
<input type="checkbox"/> ERC-2025-1	25m 82'
<input type="checkbox"/> ERC-2030-1	30m 100'

## ERC 3000 SERIES

12mm ½" cable

Product code	Length
<input type="checkbox"/> ERC-3003-1	3m 10'
<input type="checkbox"/> ERC-3005-1	5m 16,5'
<input type="checkbox"/> ERC-3010-1	10m 33'
<input type="checkbox"/> ERC-3015-1	15m 50'
<input type="checkbox"/> ERC-3020-1	20m 65'
<input type="checkbox"/> ERC-3025-1	25m 82'
<input type="checkbox"/> ERC-3030-1	30m 100'

# TC CABLES

TC-cables includes a cover, a cable, a ballbearing and T-slide adapters.  
We use Cross Layer Cable in TC Cables.



## TC 1000 SERIES

8mm  $\frac{5}{16}$ " cable /  
adapters 16mm

## TC 2000 SERIES

10mm  $\frac{3}{8}$ " cable /  
adapters 20mm

## TC 3000 SERIES

12mm  $\frac{1}{2}$ " cable /  
adapters 20mm

Product code	Length (m)
<input type="checkbox"/> TC-1001	1m 3,3'
<input type="checkbox"/> TC-1002	2m 6,6'
<input type="checkbox"/> TC-1003	3m 10'
<input type="checkbox"/> TC-1005	5m 16,5'
<input type="checkbox"/> TC-1006	6m 20'
<input type="checkbox"/> TC-1008	8m 26'
<input type="checkbox"/> TC-1010	10m 33'
<input type="checkbox"/> TC-1015	15m 50'
<input type="checkbox"/> TC-1020	20m 65'

Product code	Length (m)
<input type="checkbox"/> TC-2001	1m 3,3'
<input type="checkbox"/> TC-2002	2m 6,6'
<input type="checkbox"/> TC-2003	3m 10'
<input type="checkbox"/> TC-2005	5m 16,5'
<input type="checkbox"/> TC-2006	6m 20'
<input type="checkbox"/> TC-2008	8m 26'
<input type="checkbox"/> TC-2010	10m 33'
<input type="checkbox"/> TC-2015	15m 50'
<input type="checkbox"/> TC-2020	20m 65'

Product code	Length (m)
<input type="checkbox"/> TC-3001	1m 3,3'
<input type="checkbox"/> TC-3002	2m 6,6'
<input type="checkbox"/> TC-3003	3m 10'
<input type="checkbox"/> TC-3005	5m 16,5'
<input type="checkbox"/> TC-3006	6m 20'
<input type="checkbox"/> TC-3008	8m 26'
<input type="checkbox"/> TC-3010	10m 33'
<input type="checkbox"/> TC-3015	15m 50'
<input type="checkbox"/> TC-3020	20m 65'



# TS CABLES

**Incl. a cable without steel sleeves  
or adapters, and nylon cover**



## TS 1000 SERIES

8mm  $\frac{5}{16}$ " cable

Product code	Length
<input type="checkbox"/> TS-1001	1m 3,3'
<input type="checkbox"/> TS-1002	2m 6,6'
<input type="checkbox"/> TS-1003	3m 10'
<input type="checkbox"/> TS-1005	5m 16,5'
<input type="checkbox"/> TS-1006	6m 20'
<input type="checkbox"/> TS-1008	8m 26'
<input type="checkbox"/> TS-1010	10m 33'
<input type="checkbox"/> TS-1015	15m 50'
<input type="checkbox"/> TS-1020	20m 65'
<input type="checkbox"/> TS-1023	23m 75'
<input type="checkbox"/> TS-1030	30m 100'
<input type="checkbox"/> TS-1035	35m 115'
<input type="checkbox"/> TS-1040	40m 131'

## TS 2000 SERIES

10mm  $\frac{3}{8}$ " cable

Product code	Length
<input type="checkbox"/> TS-2001	1m 3,3'
<input type="checkbox"/> TS-2002	2m 6,6'
<input type="checkbox"/> TS-2003	3m 10'
<input type="checkbox"/> TS-2005	5m 16,5'
<input type="checkbox"/> TS-2006	6m 20'
<input type="checkbox"/> TS-2008	8m 26'
<input type="checkbox"/> TS-2010	10m 33'
<input type="checkbox"/> TS-2013	13m 43'
<input type="checkbox"/> TS-2015	15m 50'
<input type="checkbox"/> TS-2020	20m 65'
<input type="checkbox"/> TS-2023	23m 75'
<input type="checkbox"/> TS-2025	25m 82'
<input type="checkbox"/> TS-2030	30m 100'
<input type="checkbox"/> TS-2037	35m 115'
<input type="checkbox"/> TS-2040	40m 131'

## TS 3000 SERIES

12mm  $\frac{1}{2}$ " cable

Product code	Length
<input type="checkbox"/> TS-3001	1m 3,3'
<input type="checkbox"/> TS-3002	2m 6,6'
<input type="checkbox"/> TS-3003	3m 10'
<input type="checkbox"/> TS-3005	5m 16,5'
<input type="checkbox"/> TS-3006	6m 20'
<input type="checkbox"/> TS-3008	8m 26'
<input type="checkbox"/> TS-3010	10m 33'
<input type="checkbox"/> TS-3015	15m 50'
<input type="checkbox"/> TS-3020	20m 65'
<input type="checkbox"/> TS-3025	25m 82'
<input type="checkbox"/> TS-3030	30m 100'
<input type="checkbox"/> TS-3037	37m 121'
<input type="checkbox"/> TS-3049	49m 160'

# TS-01 CABLES

**Incl. cable with rotator end crimped,  
and nylon cover**



## TS-01 0000 SERIES

6mm ¼" cable

Product code	Length
<input type="checkbox"/> TS-01-0003	3m 10'
<input type="checkbox"/> TS-01-0006	6m 20'
<input type="checkbox"/> TS-01-0015	15m 50'
<input type="checkbox"/> TS-01-0030	30m 100'

## TS-01 1000 SERIES

8mm 5/16" cable

Product code	Length
<input type="checkbox"/> TS-01-1001	1m 3,3'
<input type="checkbox"/> TS-01-1002	2m 6,6'
<input type="checkbox"/> TS-01-1003	3m 10'
<input type="checkbox"/> TS-01-1005	5m 16,5'
<input type="checkbox"/> TS-01-1006	6m 20'
<input type="checkbox"/> TS-01-1008	8m 26'
<input type="checkbox"/> TS-01-1010	10m 33'
<input type="checkbox"/> TS-01-1015	15m 50'
<input type="checkbox"/> TS-01-1020	20m 65'
<input type="checkbox"/> TS-01-1023	23m 75'
<input type="checkbox"/> TS-01-1030	30m 100'
<input type="checkbox"/> TS-01-1035	35m 115'
<input type="checkbox"/> TS-01-1040	40m 131'

## TS-01 2000 SERIES

10mm 3/8" cable

Product code	Length
<input type="checkbox"/> TS-01-2001	1m 3,3'
<input type="checkbox"/> TS-01-2002	2m 6,6'
<input type="checkbox"/> TS-01-2003	3m 10'
<input type="checkbox"/> TS-01-2005	5m 16,5'
<input type="checkbox"/> TS-01-2006	6m 20'
<input type="checkbox"/> TS-01-2008	8m 26'
<input type="checkbox"/> TS-01-2010	10m 33'
<input type="checkbox"/> TS-01-2015	15m 50'
<input type="checkbox"/> TS-01-2020	20m 65'
<input type="checkbox"/> TS-01-2023	23m 75'
<input type="checkbox"/> TS-01-2030	30m 100'
<input type="checkbox"/> TS-01-2037	37m 121'
<input type="checkbox"/> TS-01-2038	38m 125'
<input type="checkbox"/> TS-01-2040	40m 131'

## TS-01 3000 SERIES

12mm ½" cable

Product code	Length
<input type="checkbox"/> TS-01-3001	1m 3,3'
<input type="checkbox"/> TS-01-3002	2m 6,6'
<input type="checkbox"/> TS-01-3003	3m 10'
<input type="checkbox"/> TS-01-3005	5m 16,5'
<input type="checkbox"/> TS-01-3006	6m 20'
<input type="checkbox"/> TS-01-3008	8m 26'
<input type="checkbox"/> TS-01-3010	10m 33'
<input type="checkbox"/> TS-01-3015	15m 50'
<input type="checkbox"/> TS-01-3017	20m 65'
<input type="checkbox"/> TS-01-3020	23m 75'
<input type="checkbox"/> TS-01-3030	30m 100'
<input type="checkbox"/> TS-01-3037	37m 121'



# TS-10 CABLES

**Incl. cable with tool end crimped,  
and nylon cover**



## TS-10 1000 SERIES

8mm  $\frac{5}{16}$ " cable

Product code	Length
<input type="checkbox"/> TS-10-1001	1m 3,3'
<input type="checkbox"/> TS-10-1002	2m 6,6'
<input type="checkbox"/> TS-10-1003	3m 10'
<input type="checkbox"/> TS-10-1005	5m 16,5'
<input type="checkbox"/> TS-10-1006	6m 20'
<input type="checkbox"/> TS-10-1008	8m 26'
<input type="checkbox"/> TS-10-1010	10m 33'
<input type="checkbox"/> TS-10-1015	15m 50'
<input type="checkbox"/> TS-10-1020	20m 65'
<input type="checkbox"/> TS-10-1023	23m 75'
<input type="checkbox"/> TS-10-1030	30m 100'
<input type="checkbox"/> TS-10-1035	35m 115'
<input type="checkbox"/> TS-10-1040	40m 131'

## TS-10 2000 SERIES

10mm  $\frac{3}{8}$ " cable

Product code	Length
<input type="checkbox"/> TS-10-2001	1m 3,3'
<input type="checkbox"/> TS-10-2002	2m 6,6'
<input type="checkbox"/> TS-10-2003	3m 10'
<input type="checkbox"/> TS-10-2005	5m 16,5'
<input type="checkbox"/> TS-10-2006	6m 20'
<input type="checkbox"/> TS-10-2008	8m 26'
<input type="checkbox"/> TS-10-2010	10m 33'
<input type="checkbox"/> TS-10-2015	15m 50'
<input type="checkbox"/> TS-10-2020	20m 65'
<input type="checkbox"/> TS-10-2023	23m 75'
<input type="checkbox"/> TS-10-2030	30m 100'
<input type="checkbox"/> TS-10-2037	37m 121'
<input type="checkbox"/> TS-10-2038	38m 125'
<input type="checkbox"/> TS-10-2040	40m 131'

## TS-10 3000 SERIES

12mm cable

Product code	Length
<input type="checkbox"/> TS-10-3001	1m 3,3'
<input type="checkbox"/> TS-10-3002	2m 6,6"
<input type="checkbox"/> TS-10-3003	3m 10'
<input type="checkbox"/> TS-10-3005	5m 16,5'
<input type="checkbox"/> TS-10-3006	6m 20'
<input type="checkbox"/> TS-10-3008	8m 26'
<input type="checkbox"/> TS-10-3010	10m 33'
<input type="checkbox"/> TS-10-3015	15m 50'
<input type="checkbox"/> TS-10-3020	20m 65'
<input type="checkbox"/> TS-10-3030	30m 100'
<input type="checkbox"/> TS-10-3037	37m 121'

# TS-11 CABLES

**Incl. cable with both ends crimped,  
and nylon cover**



## TS-11 0000 SERIES

6mm cable

Product code	Length
<input type="checkbox"/> TS-11-0005	5m 16,5'
<input type="checkbox"/> TS-11-0015	15m 50'

## TS-11 1000 SERIES

8mm 5/16" cable

Product code	Length
<input type="checkbox"/> TS-11-1001	1m 3,3'
<input type="checkbox"/> TS-11-1002	2m 6,6'
<input type="checkbox"/> TS-11-1003	3m 10'
<input type="checkbox"/> TS-11-1005	5m 16,5'
<input type="checkbox"/> TS-11-1006	6m 20'
<input type="checkbox"/> TS-11-1008	8m 26'
<input type="checkbox"/> TS-11-1010	10m 33'
<input type="checkbox"/> TS-11-1015	15m 50'
<input type="checkbox"/> TS-11-1020	20m 65'
<input type="checkbox"/> TS-11-1023	23m 75'
<input type="checkbox"/> TS-11-1030	30m 100'
<input type="checkbox"/> TS-11-1035	35m 115'
<input type="checkbox"/> TS-11-1040	40m 131'

## TS-11 2000 SERIES

10mm 3/8" cable

Product code	Length
<input type="checkbox"/> TS-11-2001	1m 3,3'
<input type="checkbox"/> TS-11-2002	2m 6,6'
<input type="checkbox"/> TS-11-2003	3m 10'
<input type="checkbox"/> TS-11-2005	5m 16,5'
<input type="checkbox"/> TS-11-2006	6m 20'
<input type="checkbox"/> TS-11-2008	8m 26'
<input type="checkbox"/> TS-11-2010	10m 33'
<input type="checkbox"/> TS-11-2015	15m 50'
<input type="checkbox"/> TS-11-2020	20m 65'
<input type="checkbox"/> TS-11-2023	23m 75'
<input type="checkbox"/> TS-11-2030	30m 100'
<input type="checkbox"/> TS-11-2037	37m 121'
<input type="checkbox"/> TS-11-2038	38m 125'
<input type="checkbox"/> TS-11-2040	40m 131'

## TS-11 3000 SERIES

12mm 1/2" cable

Product code	Length
<input type="checkbox"/> TS-11-3001	1m 3,3'
<input type="checkbox"/> TS-11-3002	2m 6,6'
<input type="checkbox"/> TS-11-3003	3m 10'
<input type="checkbox"/> TS-11-3005	5m 16,5'
<input type="checkbox"/> TS-11-3006	6m 20'
<input type="checkbox"/> TS-11-3008	8m 26'
<input type="checkbox"/> TS-11-3010	10m 33'
<input type="checkbox"/> TS-11-3015	15m 50'
<input type="checkbox"/> TS-11-3020	20m 65'
<input type="checkbox"/> TS-11-3030	30m 100'
<input type="checkbox"/> TS-11-3037	37m 121'
<input type="checkbox"/> TS-11-3040	40m 131'



## ROTATING CABLES

Cross Layer Cable

## ROTATING CABLES

Spring Layer Cable  
Max length 20m / 65'

## ROTATING CABLE ROLL

Cross Layer Cable

Product code	Diameter
<input type="checkbox"/> RC-004-1	Ø 4mm 1/8"
<input type="checkbox"/> RC-006-1	Ø 6mm 1/4"
<input type="checkbox"/> RC-008-1	Ø 8mm 5/16"
<input type="checkbox"/> RC-010-1	Ø 10mm 3/8"
<input type="checkbox"/> RC-012-1	Ø 12mm 1/2"

Product code	Diameter
<input type="checkbox"/> RC-008-2	Ø 8mm 5/16"
<input type="checkbox"/> RC-010-2	Ø 10mm 3/8"
<input type="checkbox"/> RC-012-2	Ø 12mm 1/2"

Product code	Diameter	Length
<input type="checkbox"/> RC-008-1-ROLL-250	Ø 8mm 5/16"	250m 820'
<input type="checkbox"/> RC-008-1-ROLL	Ø 8mm 5/16"	400m 1312'
<input type="checkbox"/> RC-010-1-ROLL	Ø 10mm 3/8"	200m 656'
<input type="checkbox"/> RC-012-1-ROLL	Ø 12mm 1/2"	200m 656'



## COVERS, NYLON

Product code	Information	Length
<input type="checkbox"/> RCC-06/08-N	for 4mm 1/8" cable	
<input type="checkbox"/> RCC-08/10-N	for 6mm 1/4" cable	
<input type="checkbox"/> RCC-10/13-N	for 8mm 5/16" cable	
<input type="checkbox"/> RCC-12/15-N	for 10mm 3/8" cable	
<input type="checkbox"/> RCC-13/16-N	for 12mm 1/2" cable	
<input type="checkbox"/> RCC-14-18-N	for 12mm 1/2" cable	
<input type="checkbox"/> RCC-10/13-N-50M	for 8mm 5/16" cable	50m 164'
<input type="checkbox"/> RCC-12/15-N-50M	for 10mm 3/8" cable	50m 164'
<input type="checkbox"/> RCC-13/16-N-50M	for 12mm 1/2" cable	50m 164'

## COVERS, PEX

Product code	Information	Length
<input type="checkbox"/> RCC-8	for 8mm 5/16" cable	
<input type="checkbox"/> RCC-10	for 10mm 3/8" cable	
<input type="checkbox"/> RCC-12	for 12mm 1/2" cable	
<input type="checkbox"/> RCC-8-ROLL	for 8mm 5/16" cable	500m 1640'
<input type="checkbox"/> RCC-8-ROLL-200	for 8mm 5/16" cable	200m 656'
<input type="checkbox"/> RCC-10-ROLL	for 10mm 3/8" cable	500m 1640'
<input type="checkbox"/> RCC-12-ROLL	for 12mm 1/2" cable	500m 1640'





## CABLE CARRIER

Transportation and handling of cable

## CABLE COVER BALL BEARINGS

To minimize the friction between your tool and cable cover

Product code	Information	Length
<input type="checkbox"/> R-CASE-1	cable sold separately	
<input type="checkbox"/> R-CASE-2	incl. Ø 6mm 1/4"	15m 50' cable
<input type="checkbox"/> R-CASE-3	incl. Ø 8mm 5/16"	15m 50' cable
<input type="checkbox"/> R-CASE-4	incl. Ø 10mm 3/8"	10m 33' cable

Product code	Product size
<input type="checkbox"/> CB-D8	8mm 5/16" cable / 12mm cover
<input type="checkbox"/> CB-D10	10mm 3/8" cable / 15mm cover
<input type="checkbox"/> CB-D12	12mm 1/2" cable / 16mm cover
<input type="checkbox"/> CB-D12-XL	12mm 1/2" cable / 18mm cover

## BRASS ENDS, HEXAGON

Brass cover pipe sleeves



Product code	Information
<input type="checkbox"/> WA-MS-08	for 8mm 5/16" cable
<input type="checkbox"/> WA-MS-10	for 10mm 3/8" cable
<input type="checkbox"/> WA-MS-12	for 12mm 1/2" cable

## BRASS ENDS, ROUND

Brass cover pipe sleeves



Product code	Information
<input type="checkbox"/> RC-MS-D14	for 6mm 1/4" cable
<input type="checkbox"/> RC-MS-D16	for 8mm 5/16" cable
<input type="checkbox"/> RC-MS-D19	for 10mm 3/8" cable
<input type="checkbox"/> RC-MS-D20	for 12mm 1/2" cable



## TOOL FOR BEARINGS

Product code	Information
<input type="checkbox"/> CBT-20	tool for CB-D8/ D10/-D12

# ADJUSTABLE CLUTCH



## ADJUSTABLE CLUTCH

Product code	Information
<input type="checkbox"/> CLT-001	Clutch for a drill

Includes crimp sleeves for 8mm  $\frac{5}{16}$ ", 10mm  $\frac{3}{8}$ " and 12mm  $\frac{1}{2}$ " cables.

Includes also CAT-set, CLT-25-014 and CRS-011.

The drill is sold separately.

## CLUTCH SPARE PARTS

Product code	Information
<input type="checkbox"/> CLT-25-002-20-S	20mm t-slide adapter, male
<input type="checkbox"/> CLT-25-002-S	16mm t-slide adapter, male
<input type="checkbox"/> CLT-25-014	Adapter for 14mm sleeve
<input type="checkbox"/> CAT-SET	Adjustment tool kit for clutch
<input type="checkbox"/> CAT-001	Adjustment tool, hex
<input type="checkbox"/> CAT-44	Adjustment tool, spanner wrench
<input type="checkbox"/> CRS-011	Rotator shaft for clutch
<input type="checkbox"/> RAK-SET	Hex key wrench set

# CABLE CONNECTORS



## CABLE CONNECTORS, EXTENSION

### Product code Information

- ☐ CC-006 for 6mm 1/4" cable
- ☐ CC-008-S for 8mm 5/16" cable
- ☐ CC-010 for 10mm 3/8" cable
- ☐ CC-012 for 12mm 1/2" cable



## CABLE CONNECTORS, CONVERSION

### Product code Information

- ☐ CC-008-010 8mm cable to 10mm (5/16"/3/8") cable connection
- ☐ CC-008-012 8mm cable to 12mm (5/16"/1/2") cable connection
- ☐ CC-010-012 10mm cable to 12mm (3/8"/1/2") cable connection
- ☐ CC-014-010 for 10mm 3/8" cable to connect centering device
- ☐ CC-014-012 for 12mm 1/2" cable to connect centering device



## CABLE CONNECTORS FOR CRIMPED SLEEVE

### Product code Information

- ☐ CC-050 for 50mm 2" centering device / Ø 14mm sleeve
- ☐ CC-100 for 75mm-100mm-150mm (3"-4"-6") centering device / Ø 14mm sleeve



## CRIMP SLEEVES

### Product code

### Information

- ☐ SLEEVE-008 10 pcs for 8mm 5/16" cable
- ☐ SLEEVE-010 10 pcs for 10mm 3/8" cable
- ☐ SLEEVE-012 10 pcs for 12mm 1/2" cable
- ☐ SLEEVE-008-016 10 pcs for 8mm 5/16" cable
- ☐ SLEEVE-010-016 10 pcs for 10mm 3/8" cable
- ☐ SLEEVE-012-016 10 pcs for 12mm 1/2" cable
- ☐ RA-WS-I-001 1/2" W female thread connector for 12mm 1/2" cable



# CONNECTORS

## CONNECTORS 16mm FEMALE

Product code	Information
<input type="checkbox"/> RA-16-001-008	T-slide, female, 8mm $\frac{5}{16}$ " cable
<input type="checkbox"/> RA-16-001-010	T-slide, female, 10mm $\frac{3}{8}$ " cable
<input type="checkbox"/> RA-16-001-012	T-slide, female, 12mm $\frac{1}{2}$ " cable
<input type="checkbox"/> RA-16-001-060-M4-IX	T-slide, female, shackle with M4 thread
<input type="checkbox"/> RA-16-001-060-M5-IX	T-slide, female, shackle with M5 thread
<input type="checkbox"/> RA-16-001-CC	T-slide, female with connection to CC-connector
<input type="checkbox"/> RA-16-001-P10-IX	T-slide, female for 10mm $\frac{3}{8}$ " POM shaft, stainless steel



## CONNECTORS 16mm MALE

Product code	Information
<input type="checkbox"/> RA-16-002-008	T-slide, male, 8mm $\frac{5}{16}$ " cable
<input type="checkbox"/> RA-16-002-010	T-slide, male, 10mm $\frac{3}{8}$ " cable
<input type="checkbox"/> RA-16-002-012	T-slide, male, 12mm $\frac{1}{2}$ " cable
<input type="checkbox"/> RA-16-002-P10-IX	T-slide, male for 10mm $\frac{3}{8}$ " POM shaft, stainless steel
<input type="checkbox"/> RA-16-002-RBH-010	T-slide, male for 10mm $\frac{3}{8}$ " cable with set screws



## CONNECTORS 20mm FEMALE

Product code	Information
<input type="checkbox"/> RA-20-001-008	T-slide, female, 8mm $\frac{5}{16}$ " cable
<input type="checkbox"/> RA-20-001-010	T-slide, female, 10mm $\frac{3}{8}$ " cable
<input type="checkbox"/> RA-20-001-012	T-slide, female, 12mm $\frac{1}{2}$ " cable
<input type="checkbox"/> RA-20-001-060-M5-IX	T-slide, female, shackle with M5 thread
<input type="checkbox"/> RA-20-001-060-M6-IX	T-slide, female, shackle with M6 thread
<input type="checkbox"/> RA-20-001-13.2	T-slide, female, for $\frac{1}{2}$ " cable
<input type="checkbox"/> RA-20-001-P16-IX	T-slide, female, for 16mm POM shaft, stainless steel

## CONNECTORS 20mm MALE

Product code	Information
<input type="checkbox"/> RA-20-002-010	T-slide, male, 10mm $\frac{3}{8}$ " cable
<input type="checkbox"/> RA-20-002-012	T-slide, male, 12mm $\frac{1}{2}$ " cable
<input type="checkbox"/> RA-20-002-13.2	T-slide, male, for $\frac{1}{2}$ " cable
<input type="checkbox"/> RA-20-002-P16-IX	T-slide, male, for 16mm POM shaft, stainless steel

# DRILL ADAPTERS

Product code	Product
<input type="checkbox"/> RA-16-001-011	T-slide, female, rotator shaft
<input type="checkbox"/> RA-16-002-011	T-slide, male, rotator shaft
<input type="checkbox"/> RA-20-002-011	T-slide, male rotator shaft
<input type="checkbox"/> RA-16-006-011	6mm ¼" cable, rotator shaft
<input type="checkbox"/> RA-16-008-011	8mm ⅝" cable, rotator shaft
<input type="checkbox"/> RA-20-010-011	10mm ¾" cable, rotator shaft
<input type="checkbox"/> RA-20-012-011	12mm ½" cable, rotator shaft, male
<input type="checkbox"/> RA-20-014-011	rotator shaft for TS Cable



# T-SLIDE ADAPTERS

Product code	Product
<input type="checkbox"/> RA-16-001/20-002	adapter from 16mm ⅝" female to 20mm male
<input type="checkbox"/> RA-16-002/20-001	adapter from 16mm ⅝" male to 20mm female



# MISCELLANEOUS ACCESSORIES

Product code	Product
<input type="checkbox"/> RA-16-008-021	for 8mm ⅝" cable and UNF ½ male thread
<input type="checkbox"/> RA-20-070-P08	for 8mm ⅝" POM shaft with G¼ male thread
<input type="checkbox"/> RA-20-070-P10	for 10mm ¾" POM shaft with G¼ male thread
<input type="checkbox"/> RA-20-070-P12	for 12mm ½" POM shaft with G¼ male thread
<input type="checkbox"/> RA-20-070-P16	for 16mm ⅝" POM shaft with G¼ male thread
<input type="checkbox"/> RA-24-033-011	rotator shaft for drill with M14 male thread



# WHIPS

Product code	Product
<input type="checkbox"/> RA-08-WHIP	with 8mm ⅝" cable
<input type="checkbox"/> RA-10-WHIP	with 10mm ¾" cable
<input type="checkbox"/> RA-12-WHIP	with 12mm ½" cable
<input type="checkbox"/> WS-I-Adapter-10	adapter for ½W thread with 10mm ¾" cable adapter
<input type="checkbox"/> WS-I-Adapter-12	adapter for ½W thread with 12mm ½" cable adapter

# RCM CLEANING UNITS



## CLEANING UNITS (230V)

Product code	Information
<input type="checkbox"/> RCM-8	cleaning unit with 15m of Ø 8mm (50' / 5/16") cable and drill
<input type="checkbox"/> RCM-10	cleaning unit with 10m of Ø 10mm (32' / 3/8") cable and drill
<input type="checkbox"/> RCM-8-PLUS	cleaning unit with 25m of Ø 8mm (82' / 5/16") cable and drill
<input type="checkbox"/> RCM-10-PLUS	cleaning unit with 25m of Ø 10mm (82' / 3/8") cable and drill
<input type="checkbox"/> R-MILL-25	milling unit with 25m of Ø 10mm (82' / 3/8") cable
<input type="checkbox"/> R-MILL-36	milling unit with 36m of Ø 12mm (118' / 1/2") cable



## CLEANING UNITS (110V)

Product code	Information
<input type="checkbox"/> RCM-8-X	cleaning unit with 15m of Ø 8mm cable (50' / 5/16"), USA, without drill
<input type="checkbox"/> RCM-10-X	cleaning unit with 10m of Ø 10mm cable (32' / 3/8"), USA, without drill
<input type="checkbox"/> RCM-10-110-UK	cleaning unit with 15m of Ø 12mm cable (50' / 1/2"), UK, without drill
<input type="checkbox"/> RCM-8-X-PLUS	cleaning unit with 25m of Ø 8mm cable (82' / 5/16") without drill
<input type="checkbox"/> RCM-10-X-PLUS	cleaning unit with 25m of Ø 10mm cable (82' / 3/8"), without drill
<input type="checkbox"/> R-MILL-25-US	milling unit with 25m of Ø 10mm cable (82' / 3/8")
<input type="checkbox"/> R-MILL-36-US	milling unit with 36m of Ø 12mm cable (118' / 1/2")



## CLEANING UNIT SPARE PARTS

Product code	Information
<input type="checkbox"/> RCM-1015	RCM-15 spare cable Ø 8mm cable, 15m (50' / 5/16")
<input type="checkbox"/> RCM-2010	RCM-10 spare cable Ø 10mm cable, 10m (32' / 3/8")
<input type="checkbox"/> RCM-2014	RCM-10 spare cable Ø 10mm cable, 14m (45' / 3/8")
<input type="checkbox"/> RCM-2025	R-MILL-25 spare cable Ø 10mm cable, 25m (82' / 3/8")
<input type="checkbox"/> RCM-2036	R-MILL-36 spare cable Ø 10mm cable, 36m (118' / 3/8")
<input type="checkbox"/> RCM-3036	R-MILL-36 spare cable Ø 12mm cable, 36m (118' / 1/2")
<input type="checkbox"/> RCM-1025-PLUS	RCM-8-PLUS spare cable Ø 8mm cable, 25m (82' / 5/16")
<input type="checkbox"/> RCM-2025-PLUS	RCM-10-PLUS spare cable Ø 10mm cable, 25m (82' / 3/8")

# CUTTERS AND SPARE PARTS



## HOLE SAWS WITH T-SLIDE CONNECTOR

Product code	Information
<input type="checkbox"/> HS-T16-030	30mm 1 $\frac{3}{16}$ " hole saw with 16mm t-slide connector
<input type="checkbox"/> HS-T16-040	40mm 1 $\frac{1}{2}$ " hole saw with 16mm t-slide connector
<input type="checkbox"/> HS-T16-050	50mm 2" hole saw with 16mm t-slide connector
<input type="checkbox"/> HS-T16-060	60mm 2 $\frac{3}{8}$ " hole saw with 16mm t-slide connector
<input type="checkbox"/> HS-T16-070	70mm 2 $\frac{3}{4}$ " hole saw with 16mm t-slide connector

## COLLAPSED LINE DRILL

Product code	Information
<input type="checkbox"/> RCD-050	Ø 50mm 2" , 5 inserts
<input type="checkbox"/> RCD-I-050	50mm 2" - 5 inserts and screws
<input type="checkbox"/> RCD-075	Ø 75mm 3" , 5 inserts
<input type="checkbox"/> RCD-I-075	75mm 3" - 5 inserts and screws
<input type="checkbox"/> RCD-100	Ø 100mm 4" , 5 inserts
<input type="checkbox"/> RCD-I-100	100mm 4" - 5 inserts and screws
<input type="checkbox"/> RCD-125	Ø 125mm 5" , 5 inserts
<input type="checkbox"/> RCD-I-125	125mm 5" - 5 inserts and screws



## REINSTATEMENT CUTTER KITS

### Product code Pipe size

- ☐ RLC-050-C for 50mm 2" pipe
- ☐ RLC-075-C for 75mm 3" pipe
- ☐ RLC-100-C for 100mm 4" pipe
- ☐ RLC-150-C for 150mm 6" pipe



## SPARE PARTS FOR REINSTATEMENT CUTTER KITS

### Product code Information

- ☐ RLC-050-C-BA centering device for RLC-050
- ☐ RLC-075-C-BA centering device for RLC-075
- ☐ RLC-100-C-BA centering device for RLC-100
- ☐ RLC-150-C-BA centering device for RLC-150
- ☐ RLC-075-C-A centering brush for RLC-075
- ☐ RLC-100-C-A centering brush for RLC-100
- ☐ RLC-150-C-A centering brush for RLC-150

## SUPPRESSION SLEEVES FOR REINSTATEMENT CUTTERS

Product code	Cable size	Pipe size
<input type="checkbox"/> RLC-050-008	for 8mm $\frac{5}{16}$ " cable	50mm 2"
<input type="checkbox"/> RLC-050-010	for 10mm $\frac{3}{8}$ " cable	50mm 2"
<input type="checkbox"/> RLC-050-012	for 12mm $\frac{1}{2}$ " cable	50mm 2"
<input type="checkbox"/> RLC-075-008	for 8mm $\frac{5}{16}$ " cable	75mm 3"
<input type="checkbox"/> RLC-075-010	for 10mm $\frac{3}{8}$ " cable	75mm 3"
<input type="checkbox"/> RLC-075-012	for 12mm $\frac{1}{2}$ " cable	75mm 3"
<input type="checkbox"/> RLC-100-010	for 10mm $\frac{3}{8}$ " cable	100mm 4"
<input type="checkbox"/> RLC-100-012	for 12mm $\frac{1}{2}$ " cable	100mm 4"
<input type="checkbox"/> RLC-150-010	for 10mm $\frac{3}{8}$ " cable	150mm 6"
<input type="checkbox"/> RLC-150-012	for 12mm $\frac{1}{2}$ " cable	150mm 6"

## REINSTATEMENT CUTTERS

### Product code Diameter Pipe size

- ☐ RLC-050 50mm 2" for 50mm 2" pipe
- ☐ RLC-075 75mm 3" for 75mm 3" pipe
- ☐ RLC-100 100mm 4" for 100mm 4" pipe
- ☐ RLC-150 150mm 6" for 150mm 6" pipe



## DRILL HEADS FOR CABLES

### Product code Cable size

- ☐ RD-006 for 6mm  $\frac{1}{4}$ " cable
- ☐ RD-008 for 8mm  $\frac{5}{16}$ " cable
- ☐ RD-010 for 10mm  $\frac{3}{8}$ " cable
- ☐ RD-012 for 12mm  $\frac{1}{2}$ " cable

### Product code Cable size

- ☐ WD-08 for 8mm  $\frac{5}{16}$ " cable
- ☐ WD-10 for 10mm  $\frac{3}{8}$ " cable
- ☐ WD-12 for 12mm  $\frac{1}{2}$ " cable
- ☐ WD40-10 for 10mm  $\frac{3}{8}$ " cable
- ☐ WD40-12 for 12mm  $\frac{1}{2}$ " cable





# SANDPAPER HOLDERS WITH WEDGE



## SANDPAPER HOLDERS WITH WEDGE

For 4 papers

Product code	Product size
<input type="checkbox"/> RSP-25-1	25mm wide, Ø 8mm cable (1" / 5/16")
<input type="checkbox"/> RSP-25-2	50mm wide, Ø 8mm cable (2" / 5/16")
<input type="checkbox"/> RSP-25-3	75mm wide, Ø 8mm cable (3" / 5/16")
<input type="checkbox"/> RSP-25-1-10	25mm wide, Ø 10mm cable (1" / 3/8")
<input type="checkbox"/> RSP-25-2-10	50mm wide, Ø 10mm cable (2" / 3/8")
<input type="checkbox"/> RSP-25-3-10	75mm wide, Ø 10mm cable (3" / 3/8")
<input type="checkbox"/> RSP-44-2-10	50mm wide, Ø 10mm cable (2" / 3/8")
<input type="checkbox"/> RSP-44-3-10	75mm wide, Ø 10mm cable (3" / 3/8")
<input type="checkbox"/> RSP-44-4-10	100mm wide, Ø 10mm cable (4" / 3/8")
<input type="checkbox"/> RSP-44-6-10	150mm wide, Ø 10mm cable (6" / 3/8")
<input type="checkbox"/> RSP-44-2-12	50mm wide, Ø 12mm cable (2" / 1/2")
<input type="checkbox"/> RSP-44-3-12	75mm wide, Ø 12mm cable (3" / 1/2")
<input type="checkbox"/> RSP-44-4-12	100mm wide, Ø 12mm cable (4" / 1/2")
<input type="checkbox"/> RSP-44-6-12	150mm wide, Ø 12mm cable (6" / 1/2")

## SANDPAPERS WITH WEDGE

Sandpapers are sold in packages of 40 pcs.

<input type="checkbox"/> Product code	Width x Length
<input type="checkbox"/> SPB-B-25-1-3	25mm x 75mm (1" / 3")
<input type="checkbox"/> SPB-B-25-2-4	50mm x 100mm (2" / 4")
<input type="checkbox"/> SPB-B-25-3-4	75mm x 100mm (3" / 4")
<input type="checkbox"/> SPB-B-44-2-6	50mm x 150mm (2" / 6")
<input type="checkbox"/> SPB-B-44-3-6	75mm x 150mm (3" / 6")
<input type="checkbox"/> SPB-B-44-4-6	100mm x 150mm (4" / 6")
<input type="checkbox"/> SPB-B-44-6-8	150mm x 200mm (6" / 8")



### SPB-B

Heavy grinding  
Zirconia alumina  
abrasive grain  
P24 grit

## SANDPAPERS WITH WEDGE

Sandpapers are sold in packages of 40 pcs.

<input type="checkbox"/> Product code	Width x Length
<input type="checkbox"/> SPB-R-25-1-3	25mm x 75mm (1" / 3")
<input type="checkbox"/> SPB-R-25-2-4	50mm x 100mm (2" / 4")
<input type="checkbox"/> SPB-R-25-3-4	75mm x 100mm (3" / 4")
<input type="checkbox"/> SPB-R-44-2-6	50mm x 150mm (2" / 6")
<input type="checkbox"/> SPB-R-44-3-6	75mm x 150mm (3" / 6")
<input type="checkbox"/> SPB-R-44-4-6	100mm x 150mm (4" / 6")
<input type="checkbox"/> SPB-R-44-6-8	150mm x 200mm (6" / 8")



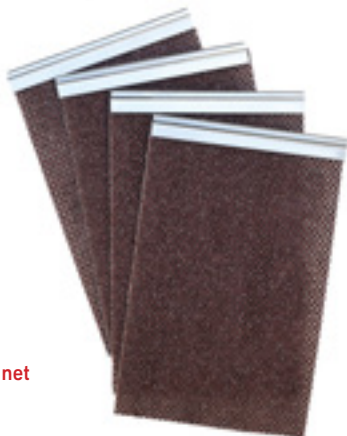
### SPB-R

Heavy grinding  
Ceramic  
abrasive grain  
P24 grit

## SANDPAPERS WITH WEDGE

Sandpapers are sold in packages of 40 pcs.

<input type="checkbox"/> Product code	Width x Length
<input type="checkbox"/> SPB-F-25-2-4	50mm x 100mm (2" / 4")
<input type="checkbox"/> SPB-F-25-3-4	75mm x 100mm (3" / 4")
<input type="checkbox"/> SPB-F-44-2-6	50mm x 150mm (2" / 6")
<input type="checkbox"/> SPB-F-44-3-6	75mm x 150mm (3" / 6")
<input type="checkbox"/> SPB-F-44-4-6	100mm x 150mm (4" / 6")



### SPB-F

Finishing  
Grinding net  
P40 grit

# RENSSI GRINDING KIT

Renssi Grinding Kit includes the most common chain knockers and one of each size sandpaper holder with sandpapers. With this kit you have all the accessories you need for a descaling job!

☐ KIT-REN-GRI-1

Product	Qty.	Unit
RS-3150	Chain knocker	2 PCS
RS-3100	Chain knocker	2 PCS
RS-3100-DR	Chain knocker	2 PCS
RS-3075	Chain knocker	2 PCS
RS-1075	Chain knocker	2 PCS
RS-1050/2	Chain knocker	2 PCS
RSP-25-1	Sandpaper holder for 8mm cable	1 PC
RSP-25-2	Sandpaper holder for 8mm cable	1 PC
RSP-25-3-10	Sandpaper holder for 10mm cable	1 PC
RSP-44-2-10	Sandpaper holder for 10mm cable	1 PC
RSP-44-3-10	Sandpaper holder for 10mm cable	1 PC
RSP-44-4-12	Sandpaper holder for 12mm cable	1 PC
RSP-44-6-12	Sandpaper holder for 12mm cable	1 PC
SPB-B-25-1-3	Sandpaper panel with wedge	4 PCS
SPB-B-25-2-6	Sandpaper panel with wedge	4 PCS
SPB-B-25-3-6	Sandpaper panel with wedge	4 PCS
SPB-B-44-2-6	Sandpaper panel with wedge	4 PCS
SPB-B-44-3-6	Sandpaper panel with wedge	4 PCS
SPB-B-44-4-6	Sandpaper panel with wedge	4 PCS
SPB-B-44-6-8	Sandpaper panel with wedge	4 PCS



# RENSSI CUTTER KIT

Renssi Cutter Kit includes every cutting tool we have from 50mm (2") up to 100mm (4") including small drill heads, reinstatement cutters and collapsed line drills with centering devices and connectors.

☐ KIT-REN-CUT-1

Product	Qty.	Unit
RLC-050-C	Lateral cutter with centering device	1 PC
RLC-075-C	Lateral cutter with centering device	1 PC
RLC-100-C	Lateral cutter with centering device	1 PC
RCD-050	Collapsed line drill	1 PC
RCD-075	Collapsed line drill	1 PC
RCD-100	Collapsed line drill	1 PC
RD-006	Cable tip drill	1 PC
RD-008	Cable tip drill	1 PC
RD-010	Cable tip drill	1 PC
RD-012	Cable tip drill	1 PC
CC-050	Connector	1 PC
CC-100	Connector	1 PC
CC-014-010	Connector	1 PC
CC-014-012	Connector	1 PC





# FAB-COB®

## PIPE PLUGS



Rubber Material Choice



50 - 4200 mm  
2\"/>



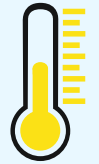
STAINLESS STEEL



0,5 bar / 7,3 psi



Tested & Approved  
With 3 Times Safety  
Factor



- 40 / +80 °C

## MULTI SIZE PIPE PLUGS 1,5 BAR

Part Number	Nominal Size	Min.Pipe Ø Diameter (mm)	Max.Pipe Ø Diameter (mm)	Working Pressure (bar)	Back Pressure (bar)	Product Ø Diameter (mm)	Product Length (mm)	Product Weight (kg)
AB50100	50-100	50	100	1,5	0,5	45	280	0,4
AB70150	70-150	70	150	1,5	0,5	65	320	0,6
AB100200	100-200	100	200	1,5	0,5	85	500	1
AB150300	150-300	150	300	1,5	0,5	135	500	2,2
AB200400	200-400	200	400	1,5	0,5	182	600	3,4
AB200500	200-500	200	500	1,5	0,5	182	750	4,2
AB300600	300-600	300	600	1,5	0,5	280	800	7,2
AB375750	375-750	375	750	1,5	0,5	355	1000	13,7
AB400800	400-800	400	800	1,5	0,5	355	1000	13,7
AB500800	500-800	500	800	1,5	0,5	480	1050	24,9
AB5001000	500-1000	500	1000	1,5	0,5	480	1050	24,9
AB5001200	500-1200	500	1200	1,5	0,5	480	1400	33,2
AB5001400	500-1400	500	1400	1,5	0,5	480	1900	45
AB6001200	600-1200	600	1200	1,5	0,5	580	1250	36,3
AB6001600	600-1600	600	1600	1,5	0,5	580	1900	48,5
AB8001200	800-1200	800	1200	1,5	0,5	780	1600	55
AB8001600	800-1600	800	1600	1,5	0,5	780	2000	69
AB8002000	800-2000	800	2000	1,5	0,5	780	2400	83
AB8002200	800-2200	800	2200	1,5	0,5	780	3200	110
AB12002400	1200-2400	1200	2400	1,5	0,5	1180	3000	156
AB12002800	1200-2800	1200	2800	1,5	0,5	1180	4000	208
AB18003600	1800-3600	1800	3600	1,5	0,5	1780	4000	314
AB18004200	1800-4200	1800	4200	1,5	0,5	1780	6000	470

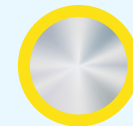




Rubber Material Choice



20 - 1000 mm  
3/4" - 40"



STAINLESS QUALITY



1 bar / 14,5 psi



Tested & Approved  
With 3 Times Safety  
Factor



- 40 / +80 °C

## SMALL PIPE PLUGS 2,5 BAR

Part Number	Nominal Size	Min.Pipe Ø Diameter (mm)	Max.Pipe Ø Diameter (mm)	Working Pressure (bar)	Back Pressure (bar)	Product Ø Diameter (mm)	Product Length (mm)	Product Weight (kg)
ABE20	20	20	20	2,5	1	18	100	0,1
ABE25	25	25	25	2,5	1	23	100	0,12
ABE30	30	30	30	2,5	1	28	100	0,15
ABE40	40	40	40	2,5	1	38	100	0,15
ABE50	50	50	50	2,5	1	45	100	0,25
ABE60	60	60	60	2,5	1	58	100	0,35
ABE75	75	75	75	2,5	1	68	100	0,45
ABE100	100	100	100	2,5	1	85	150	0,6
ABE150	150	150	150	2,5	1	135	150	1,1
ABE200	200	200	200	2,5	1	182	250	1,6
ABE250	250	250	250	2,5	1	182	300	2,2
ABE300	300	300	300	2,5	1	280	300	3,5
ABE400	400	400	400	2,5	1	380	400	7,5
ABE500	500	500	500	2,5	1	480	450	10,5
ABE600	600	600	600	2,5	1	580	450	15
ABE800	800	800	800	2,5	1	780	1200	41
ABE1200	1200	1200	1200	2,5	1	1180	1500	78
ABE1800	1800	1800	1800	2,5	1	1780	1500	118

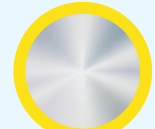
Part Number	Nominal Size	Min.Pipe Ø Diameter (mm)	Max.Pipe Ø Diameter (mm)	Working Pressure (bar)	Back Pressure (bar)	Product Ø Diameter (mm)	Product Length (mm)	Product Weight (kg)
ABE2030	20-30	20	30	2,5	1	18	100	0,1
ABE3040	30-40	30	40	2,5	1	28	100	0,12
ABE3050	30-50	30	50	2,5	1	28	100	0,15
ABE4050	40-50	40	50	2,5	1	38	100	0,15
ABE5075	50-75	50	75	2,5	1	45	100	0,25
ABE70100	70-100	70	100	2,5	1	65	150	0,35
ABE100150	100-150	100	150	2,5	1	85	150	0,45
ABE150200	150-200	150	200	2,5	1	135	200	0,6
ABE200250	200-250	200	250	2,5	1	182	250	1,1
ABE250300	250-300	250	300	2,5	1	235	300	2,2
ABE300350	300-350	300	350	2,5	1	280	300	3,5
ABE400450	400-450	400	450	2,5	1	380	450	4,4
ABE500550	500-550	500	550	2,5	1	480	450	5,5
ABE600650	600-650	600	650	2,5	1	580	450	18
ABE8001000	800-1000	800	1000	2,5	1	780	1200	40
ABE12001400	1200-1400	1200	1400	2,5	1	1180	1600	78
ABE18002000	1800-2000	1800	2000	2,5	1	1780	1500	118



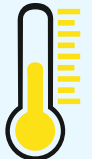
Rubber Material Choice



50 - 400 mm  
2" - 16"



STAINLESS STEEL



- 40 / +80 °C



Tested & Approved  
With 3 Times Safety  
Factor

## MULTI SIZE SHORT PIPE PLUGS

Part Number	Nominal Size	Min.Pipe Ø Diameter (mm)	Max.Pipe Ø Diameter (mm)	Working Pressure (bar)	Back Pressure (bar)	Product Ø Diameter (mm)	Product Length (mm)	Product Weight (kg)
ABS50100	50-100	50	100	3	0,5	45	150	0,3
ABS70150	70-150	70	150	3	0,5	65	200	0,4
ABS100200	100-200	100	200	3	0,5	85	200	1
ABS150300	150-300	150	300	3	0,5	135	300	2
ABS200400	200-400	200	400	3	0,5	182	400	3
ABS300600	300-600	300	600	3	0,5	280	600	6



## ALU MECHANICAL SINGLE SIZE PIPE PLUG WITH HIGH TEST PRESSURE WITHOUT SIDEBOLT

Part number	Nominal size(mm)	Product Diameter(mm)	Min. Pipe Dia.(mm)	Max. Pipe Dia.(mm)	Max. Backpressure(bar)	Bypass Dia. (inch)	Product weight (kg)
AHPB2001	200	192	193	206	6	1/2"	3,8
AHPB2501	250	242	244	257	6	1/2"	4,5
AHPB3001	300	289	290	310	6	1/2"	6,8
AHPB3501	350	342	345	360	6	1/2"	8
AHPB4001	400	390	396	412	6	1/2"	10
AHPB4501	450	444	445	460	6	1/2"	12
AHPB5001	500	489	490	508	6	1/2"	14
AHPB5501	550	539	540	560	6	1/2"	16
AHPB6001	600	589	590	610	6	1/2"	19
AHPB6501	650	639	640	660	6	1/2"	20,7
AHPB7001	700	689	690	710	4	1/2"	22,3
AHPB7501	750	739	740	760	4	1/2"	25
AHPB8001	800	789	790	810	4	1/2"	27
AHPB8501	850	839	840	860	4	1/2"	29



## ALU MECHANICAL SINGLE SIZE PIPE PLUG WITH HIGH TEST PRESSURE WITH SIDEBOLT

Part number	Nominal size(mm)	Product Diameter(mm)	Min. Pipe Dia.(mm)	Max. Pipe Dia.(mm)	Max. Backpressure(bar)	Bypass Dia. (inch)	Product Weight (kg)
AHPB2002	200	192	193	206	6	1/2"	5,7
AHPB2502	250	242	244	257	6	1/2"	6,8
AHPB3002	300	289	290	310	6	1/2"	10,2
AHPB3502	350	342	345	360	6	1/2"	12
AHPB4002	400	390	396	412	6	1/2"	15
AHPB4502	450	444	445	460	6	1/2"	18
AHPB5002	500	489	490	508	6	1/2"	21
AHPB5502	550	539	540	560	6	1/2"	24
AHPB6002	600	589	590	610	6	1/2"	29
AHPB6502	650	639	640	660	6	1/2"	31
AHPB7002	700	689	690	710	4	1/2"	34
AHPB7502	750	739	740	760	4	1/2"	38
AHPB8002	800	789	790	810	4	1/2"	41
AHPB8502	850	839	840	860	4	1/2"	44





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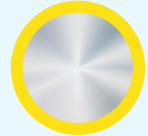
## PIPE PLUGS



Rubber Material Choice



35 - 4200 mm  
1,4\"/>



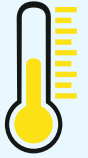
STAINLESS STEEL



0,5 bar / 7,3 psi



Tested & Approved  
With 3 Times Safety  
Factor



- 40 / +80 °C

## MULTI SIZE FLEXIBLE PIPE TEST PLUGS 1,5 BAR

Part Number	Nominal Size	Min. Pipe Ø Diameter (mm)	Max. Pipe Ø Diameter (mm)	Working Pressure (bar)	Back Pressure (bar)	Product Ø Diameter (mm)	Product Length (mm)	Bypass Ø Diameter (inch)	Product Weight (kg)
APB3570	35-70	35	70	1,5	0,5	32	200	M6	0,4
APB501001	50-100	50	100	1,5	0,5	45	280	1/4"	0,9
APB501002	50-100	50	100	1,5	0,5	45	280	2 x 1/8"	1,2
APB701501	70-150	70	150	1,5	0,5	65	320	1/2"	1,4
APB701502	70-150	70	150	1,5	0,5	64	320	2 x 1/4"	1,6
APB1002001	100-200	100	200	1,5	0,5	85	500	1"	2,1
APB1002002	100-200	100	200	1,5	0,5	85	500	2 x 1/2"	2,3
APB1503001	150-300	150	300	1,5	0,5	135	500	2"	7,2
APB1503002	150-300	150	300	1,5	0,5	135	500	1" x 1/2"	7,5
APB2004001	200-400	200	400	1,5	0,5	182	600	2"	8,3
APB2004002	200-400	200	400	1,5	0,5	182	600	2 x 1"	8,6
APB2005001	200-500	200	500	1,5	0,5	182	750	2"	9,6
APB2005002	200-500	200	500	1,5	0,5	182	750	2 x 1"	10
APB3006001	300-600	300	600	1,5	0,5	280	800	2"	16
APB3006002	300-600	300	600	1,5	0,5	280	800	2 x 2"	17
APB3757501	375-750	375	750	1,5	0,5	355	1000	2"	28
APB3757502	375-750	375	750	1,5	0,5	355	1000	2 x 2"	31



# FAB-COB®

## PIPE PLUGS

Part Number	Nominal Size	Min.Pipe Ø Diameter (mm)	Max.Pipe Ø Diameter (mm)	Working Pressure (bar)	Back Pressure (bar)	Product Ø Diameter (mm)	Product Length (mm)	Bypass Ø Diameter (inch)	Product Weight (kg)
APB4008001	400-800	400	800	1,5	0,5	355	1000	2"	32
APB4008002	400-800	400	800	1,5	0,5	355	1000	2 x 2"	35
APB5008001	500-800	500	800	1,5	0,5	480	1050	2"	38
APB5008002	500-800	500	800	1,5	0,5	480	1050	2 x 2"	42
APB50010001	500-1000	500	1000	1,5	0,5	480	1050	2"	38
APB50010002	500-1000	500	1000	1,5	0,5	480	1050	2 x 2"	42
APB50012001	500-1200	500	1200	1,5	0,5	480	1400	2"	49
APB50012002	500-1200	500	1200	1,5	0,5	480	1400	2 x 2"	54
APB50014001	500-1400	500	1400	1,5	0,5	480	1900	2"	60
APB50014002	500-1400	500	1400	1,5	0,5	480	1900	2 x 2"	65
APB60012001	600-1200	600	1200	1,5	0,5	580	1250	2"	65
APB60012002	600-1200	600	1200	1,5	0,5	580	1250	2 x 2"	70
APB60016001	600-1600	600	1600	1,5	0,5	580	1900	2"	99
APB60016002	600-1600	600	1600	1,5	0,5	580	1900	2 x 2"	106
APB80012001	800-1200	800	1200	1,5	0,5	780	1600	2"	112
APB80012002	800-1200	800	1200	1,5	0,5	780	1600	2 x 2"	120
APB80016001	800-1600	800	1600	1,5	0,5	780	2000	2"	140
APB80016002	800-1600	800	1600	1,5	0,5	780	2000	2 x 2"	150
APB80020001	800-2000	800	2000	1,5	0,5	780	2400	2"	168
APB80020002	800-2000	800	2000	1,5	0,5	780	2400	2 x 2"	180
APB80022001	800-2200	800	2200	1,5	0,5	780	3200	2"	224
APB80022002	800-2200	800	2200	1,5	0,5	780	3200	2 x 2"	234
APB120024001	1200-2400	1200	2400	1,5	0,5	1180	3000	2"	315
APB120024002	1200-2400	1200	2400	1,5	0,5	1180	3000	2 x 2"	340
APB120028001	1200-2800	1200	2800	1,5	0,5	1180	4000	2"	420
APB120028002	1200-2800	1200	2800	1,5	0,5	1180	4000	2 x 2"	450
APB180036001	1800-3600	1800	3600	1,5	0,5	1780	4000	2"	630
APB180036002	1800-3600	1800	3600	1,5	0,5	1780	4000	2 x 2"	680
APB180042001	1800-4200	1800	4200	1,5	0,5	1780	6000	2"	945
APB180042002	1800-4200	1800	4200	1,5	0,5	1780	6000	2 x 2"	990

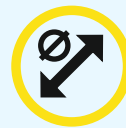


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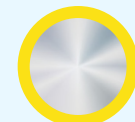
## PIPE PLUGS



Rubber Material Choice



30 - 1000 mm  
1,2" - 40"



STAINLESS QUALITY



1 bar / 14,5 psi



Tested & Approved  
With 3 Times Safety  
Factor



- 40 / +80 °C

## SMALL PIPE TEST PLUGS WITH BYPASS 2,5 BAR

Part Number	Nominal Size	Min.Pipe Ø Diameter (mm)	Max.Pipe Ø Diameter (mm)	Working Pressure (bar)	Back Pressure (bar)	Product Ø Diameter (mm)	Product Length (mm)	Bypass Diameter(inch)	Product Weight (kg)
APBE30	30	30	32	2,5	1	29	30	M6	0,14
APBE40	40	40	42	2,5	1	37	40	M6	0,15
APBE50	50	50	54	2,5	1	45	75	M8	0,25
APBE60	60	60	65	2,5	1	58	90	M8	0,35
APBE75	75	72	78	2,5	1	69	110	1/4"	0,45
APBE100	100	90	105	2,5	1	85	150	1/2"	0,6
APBE150	150	150	150	2,5	1	135	150	1"	1,5
APBE200	200	200	200	2,5	1	182	200	2"	2
APBE250	250	250	250	2,5	1	225	250	2"	2,5
APBE300	300	300	300	2,5	1	280	300	2"	3,2
APBE400	400	400	400	2,5	1	380	450	2"	4,2
APBE500	500	500	500	2,5	1	485	450	2"	5,4
APBE600	600	600	600	2,5	1	585	450	2"	6,5
APBE800	800	800	800	2,5	1	780	800	2"	30
APBE1200	1200	1200	1200	2,5	1	1180	500	2"	95
APBE1800	1800	1800	1800	2,5	1	1780	1000	2"	220

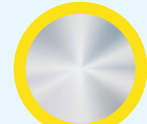
Part Number	Nominal Size	Min.Pipe Ø Diameter (mm)	Max.Pipe Ø Diameter (mm)	Working Pressure (bar)	Back Pressure (bar)	Product Ø Diameter (mm)	Product Length (mm)	Bypass Diameter(inch)	Product Weight (kg)
APBE3040	30-40	40	40	2,5	1	29	30	M6	0,14
APBE5075	50-75	50	75	2,5	1	48	80	M8	0,25
APBE70100	70-100	70	100	2,5	1	65	150	1/4"	0,45
APBE100150	100-150	100	150	2,5	1	85	150	1/2"	0,6
APBE150200	150-200	150	200	2,5	1	135	200	1"	1,5
APBE200250	200-250	200	250	2,5	1	182	250	2"	2
APBE250300	250-300	250	300	2,5	1	225	300	2"	2,5
APBE300350	300-350	300	350	2,5	1	280	300	2"	3,2
APBE400450	400-450	400	450	2,5	1	380	450	2"	4,2
APBE500550	500-550	500	550	2,5	1	480	450	2"	5,4
APBE600650	600-650	600	650	2,5	1	480	450	2"	6,5
APBE8001000	800-1000	800	1000	2,5	1	780	800	2"	30
APBE18002000	1800-2000	1800	2000	2,5	1	1780	1000	2"	220



Rubber Material Choice



70 - 1200 mm  
3" - 48"



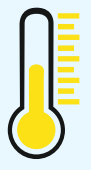
STAINLESS STEEL



0,5 bar / 7,3 psi



Tested & Approved  
With 3 Times Safety  
Factor



- 40 / +80 °C

## MULTI SIZE PIPE PLUGS WITH BYPASS & METAL CORE

Part Number	Nominal Size	Min.Pipe Ø Diameter (mm)	Max.Pipe Ø Diameter (mm)	Working Pressure (bar)	Product Ø Diameter (mm)	Product Length (mm)	Bypass Diameter(inch)	Product Weight (kg)
APBG50100	50-100	50	100	1,5	45	350	1"	0,8
APBG70150	70-150	70	150	1,5	68	320	1"	1
APBG100150	100-150	100	150	1,5	92	200	2"	1,5
APBG100200	100-200	100	200	1,5	92	400	1/4" + 1"	2,1
APBG125200	125-200	125	200	1,5	115	270	1/4" + 1"	3
APBG150250	150-250	125	200	1,5	140	400	1/4" + 2"	5,5
APBG200400	200-400	200	500	1,5	185	680	2" + 1"	12,1
APBG200500	200-500	200	500	1,5	185	680	2" + 1"	12,1
APBG300600	300-600	300	600	1,5	280	680	2" + 1"	17,7
APBG300750	300-750	300	750	1,5	280	750	2" + 1"	25
APBG500800	500-800	500	800	1,5	440	680	4" + 1"	36
APBG5001200	500-1200	500	1200	1,5	440	980	4" + 1"	44

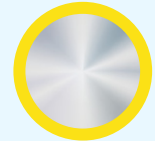




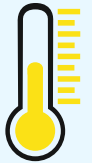
Rubber Material Choice



50 - 400 mm  
2" - 16"



STAINLESS STEEL



- 40 / +80 °C



Tested & Approved  
With 3 Times Safety  
Factor

## MULTI SIZE SHORT PIPE TEST PLUGS

Part Number	Nominal Size	Min.Pipe Ø Diameter (mm)	Max.Pipe Ø Diameter (mm)	Working Pressure (bar)	Back Pressure (bar)	Product Ø Diameter (mm)	Product Length (mm)	Bypass Diameter(inch)	Product Weight (kg)
APBS50100	50-100	50	100	3	0,5	45	150	1/4"	0,7
APBS70150	70-150	70	150	3	0,5	65	200	1/4"	1,2
APBS100200	100-200	100	200	3	0,5	85	200	1/2"	1,7
APBS150300	150-300	150	300	3	0,5	135	300	1"	4,5
APBS200400	200-400	200	400	3	0,5	182	400	2"	6,5
APBS300600	300-600	300	600	3	0,5	280	600	2"	14



# FAB-COB®

## PACKERS



Tested & Approved  
With 3 Times Safety  
Factor



ALUMINUM



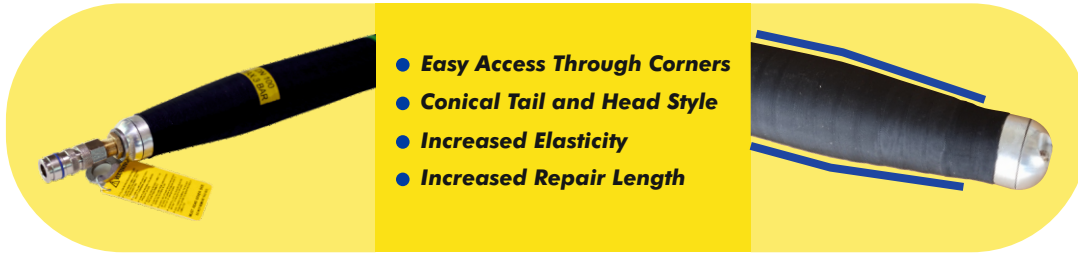
50 - 300 mm  
2" - 12"



80 °C



Conical Tail Design  
to Ease Movement



- Easy Access Through Corners
- Conical Tail and Head Style
- Increased Elasticity
- Increased Repair Length

## BENDY PACKER

Part Number	Nominal Size	Product Diameter Ø (mm)	Product total Length (mm)	Product Rubber Length (mm)	Working Pressure (Bar)	Repair Length at Max.Dia.(mm)	Product Weight (kg)
BP3050	30-50	24	1350	1250	3	1110	0,3
BP50	50	38	1350	1250	3	930	0,6
BP5070	50-70	35	1350	1250	3	930	0,6
BP70	70	45	1350	1250	3	930	1
BP7080	70-80	45	1350	1250	3	930	1
BP 70100	70-100	55	1350	1250	3	930	1,6
BP100	100	55	1350	1250	3	930	1,9
BP100125	100-125	55	1350	1250	3	930	2,1
BP125150	125-150	74	1350	1250	3	930	2,4
BP150	150	74	1350	1250	3	930	2,4
BP150165	150-165	74	1350	1250	3	930	4
BP200	200	90	1400	1250	2,5	930	9,5
BP170220	170-220	90	1400	1250	2,5	930	9,5
BP250	250	116	1400	1250	2	930	14
BP225250	225-250	116	1400	1250	2	930	14
BP250300	250-300	140	1500	1250	2	900	18
BP300	300	140	1600	1250	1,5	900	20



# FAB-COB®

## PIPE PLUGS



Rubber Material Choice



100 - 1200 mm  
4\"/>



STAINLESS STEEL



0,5 bar / 7,3 psi



Tested & Approved  
With 3 Times Safety  
Factor



- 40 / +80 °C

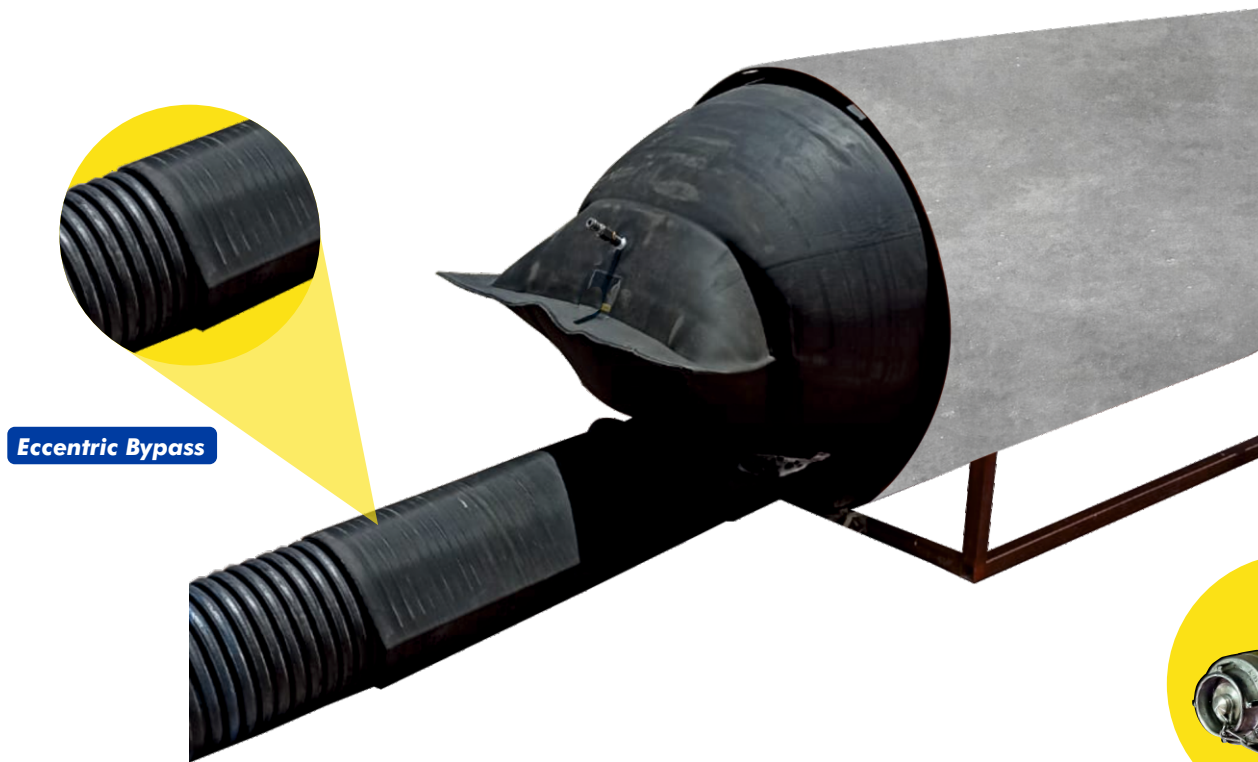
### CONNECTIONS



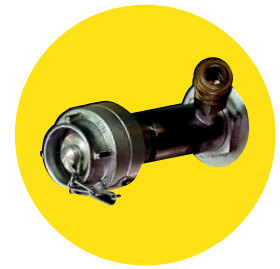
*The connection type and bypass size can be specified by customer request.*

## MULTI SIZE PIPE PLUGS WITH LARGE BYPASS & METAL CORE

Part Number	Nominal Size	Min.Pipe Ø Diameter (mm)	Max.Pipe Ø Diameter (mm)	Working Pressure (bar)	Product Ø Diameter (mm)	Product Length (mm)	Bypass Diameter (inch)	Product Weight (kg)
BPBG100200	100-200	100	200	1,5	92	400	2"	3
BPBG150250	150-250	150	250	1,5	140	400	2"	5,8
BPBG200500	200-500	200	500	1,5	185	680	4"	12,1
BPBG300600	300-600	300	600	1,5	280	680	4"	18
BPBG300750	300-750	300	750	1,5	280	750	4"	25
BPBG500800	500-800	500	800	1,5	440	680	6"	38
BPBG5001200	500-1200	500	1200	1,5	440	980	8"	47



**Eccentric Bypass**



**Quick Inflation and Deflation**



Rubber Material Choice



STAINLESS STEEL



Manufactured with  
3 Times Safety  
Factor



600 - 2000 mm  
24" - 80"



- 40 / +115 °C

## PILLOW PACKER WITH FLOWTHROUGH HOSE

Part Number	Nominal Size	Min. Pipe Dia. (mm) Ø	Product Width (mm)	Product Length (mm)	Required Inflation Pressure (Bar)	Flowthrough hose Dia. (mm) Ø	Type of Quick Inflation	Repair Lengths at Max. Dia. (mm)	Product Weight (kg)
PPFT6001000-25	600-1000	600	910	2500	1	290	1/4" quick coup.+ 1" Storz	1000	28,8
PPFT6001000-35	600-1000	600	910	3500	1	290	1/4" quick coup.+ 1" Storz	2000	37
PPFT8001200-25	800-1200	800	1200	2500	1	323	1/4" quick coup.+ 1" Storz	1000	45
PPFT8001200-35	800-1200	800	1200	3500	1	323	1/4" quick coup.+ 1" Storz	2000	52
PPFT10001400-25	1000-1400	1000	1550	2500	0,8	340	1/4" quick coup.+ 1" Storz	1000	55
PPFT10001400-35	1000-1400	1000	1550	3500	0,8	340	1/4" quick coup.+ 1" Storz	2000	65
PPFT12001600-25	1200-1600	1200	1800	2500	0,6	340	1/4" quick coup.+ 1" Storz	1000	75
PPFT12001600-35	1200-1600	1200	1800	3500	0,6	340	1/4" quick coup.+ 1" Storz	2000	84
PPFT15002000-28	1500-2000	1500	2300	2800	0,5	406	1/4" quick coup.+ 1" Storz	1000	102
PPFT15002000-37	1500-2000	1500	2300	3700	0,5	406	1/4" quick coup.+ 1" Storz	2000	120

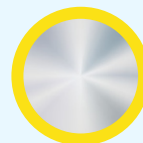




Rubber Material Choice



50 - 1200 mm  
2\"/>



STAINLESS STEEL



0,5 bar / 7,3 psi

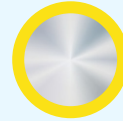


- 40 / +80 °C

## MULTI SIZE CONICAL HEAD PIPE PLUGS 1,5 BAR

Part Number	Nominal Size	Insert Ø Diameter (mm)	Max.Pipe Ø Diameter (mm)	Working Pressure (bar)	Back Pressure (bar)	Product Ø Diameter (mm)	Product Length (mm)	Product Weight (kg)
CAB5075	50-75	30	75	1,5	0,5	45	220	0,4
CAB70100	70-100	50	100	1,5	0,5	65	260	0,6
CAB100150	100-150	70	150	1,5	0,5	85	300	1
CAB150200	150-200	100	200	1,5	0,5	135	434	1,2
CAB200300	200-300	120	300	1,5	0,5	182	640	3,4
CAB300400	300-400	200	400	1,5	0,5	280	1110	6,6

Part Number	Nominal Size	Insert Ø Diameter (mm)	Max.Pipe Ø Diameter (mm)	Working Pressure (bar)	Back Pressure (bar)	Product Ø Diameter (mm)	Product Length (mm)	Product Weight (kg)
CAB50100	50-100	30	100	1,5	0,5	45	350	0,5
CAB70150	70-150	50	150	1,5	0,5	65	380	0,8
CAB100200	100-200	70	200	1,5	0,5	85	600	1,2
CAB150300	150-300	100	300	1,5	0,5	135	634	4
CAB200400	200-400	120	400	1,5	0,5	182	840	7
CAB300600	300-600	200	600	1,5	0,5	280	1310	8
CAB375750	375-750	250	750	1,5	0,5	355	1566	10
CAB5001000	500-1000	300	1000	1,5	0,5	480	1520	22
CAB6001200	600-1200	400	1200	1,5	0,5	580	1600	26



STAINLESS STEEL



Rubber Material Choice



100 - 3600 mm  
4" - 144"



- 40 / +115 °C



Manufactured with  
3 Times Safety  
Factor



0,5 bar / 7,3 psi

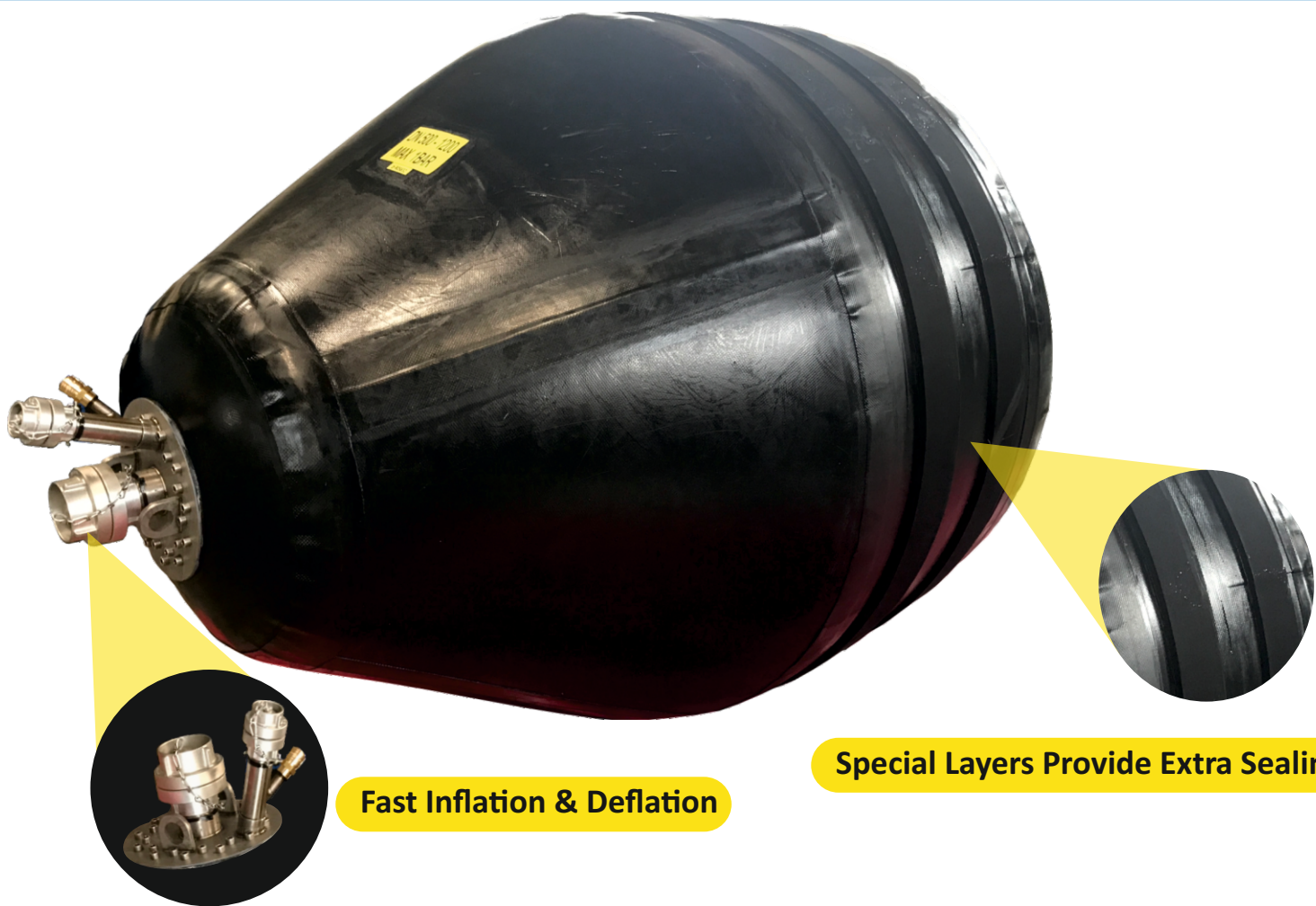
**Quick Inflation and  
Deflation on Big Sizes**



## MULTI SIZE CONICAL PIPE PLUGS

Part Number	Nominal Size	Min.Pipe Ø Diameter (mm)	Max.Pipe Ø Diameter (mm)	Working Pressure (bar)	Back Pressure (bar)	Product Length (mm)	Product Weight (kg)
CSP100200	100-200	100	200	1	0,5	340	2
CSP150400	150-400	150	400	1	0,5	760	6
CSP250600	250-600	250	600	1	0,5	1050	10
CSP300800	300-800	300	800	1	0,5	1300	21,3
CSP4001000	400-1000	400	1000	1	0,5	1600	27
CSP5001200	500-1200	500	1200	1	0,5	1880	46,6
CSP5001400	500-1400	500	1400	1	0,5	2150	59,4
CSP5001500	500-1500	500	1500	1	0,5	2500	60
CSP6001600	600-1600	600	1600	1	0,5	2650	93
CSP8001800	800-1800	800	1800	1	0,5	3000	140
CSP10002200	1000-2200	1000	2200	1	0,5	3500	210
CSP15002800	1500-2800	1500	2800	0,5	0,2	3650	370
CSP22003600	2200-3600	2200	3600	0,4	0,2	4250	380





**Fast Inflation & Deflation**

**Special Layers Provide Extra Sealing**



Rubber Material Choice



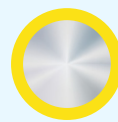
100 - 3600 mm  
4" - 144"



Manufactured with  
3 Times Safety  
Factor



0,5 bar / 7,3 psi



STAINLESS STEEL



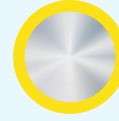
- 40 / +115 °C

## MULTI SIZE CONICAL TEST PLUGS

Part Number	Nominal Size	Min.Pipe Ø Diameter (mm)	Max.Pipe Ø Diameter (mm)	Working Pressure (bar)	Back Pressure (bar)	Product Length (mm)	Bypass Ø Diameter(inch)	Product Weight (kg)
CSTP100200	100-200	100	200	1	0,5	360	1/4"	4,5
CSTP150400	150-400	150	400	1	0,5	800	1/2"	9,5
CSTP250600	250-600	250	600	1	0,5	1150	1"	17
CSTP300800	300-800	300	800	1	0,5	1400	2"	27
CSTP4001000	400-1000	400	1000	1	0,5	1750	2"	36
CSTP5001200	500-1200	500	1200	1	0,5	1900	2"	54,1
CSTP5001400	500-1400	500	1400	1	0,5	2250	2"	75
CSTP5001500	500-1500	500	1500	1	0,5	2600	2"	80
CSTP6001600	600-1600	600	1600	1	0,5	2800	2"	115
CSTP8001800	800-1800	800	1800	1	0,5	3000	2"	165
CSTP10002200	1000-2200	1000	2200	1	0,5	3500	2"	240
CSTP15002800	1500-2800	1500	2800	0,5	0,2	3650	4"	410
CSTP22003600	2200-3600	2200	3600	0,4	0,2	4250	4"	418



Tested & Approved  
With 3 Times Safety  
Factor



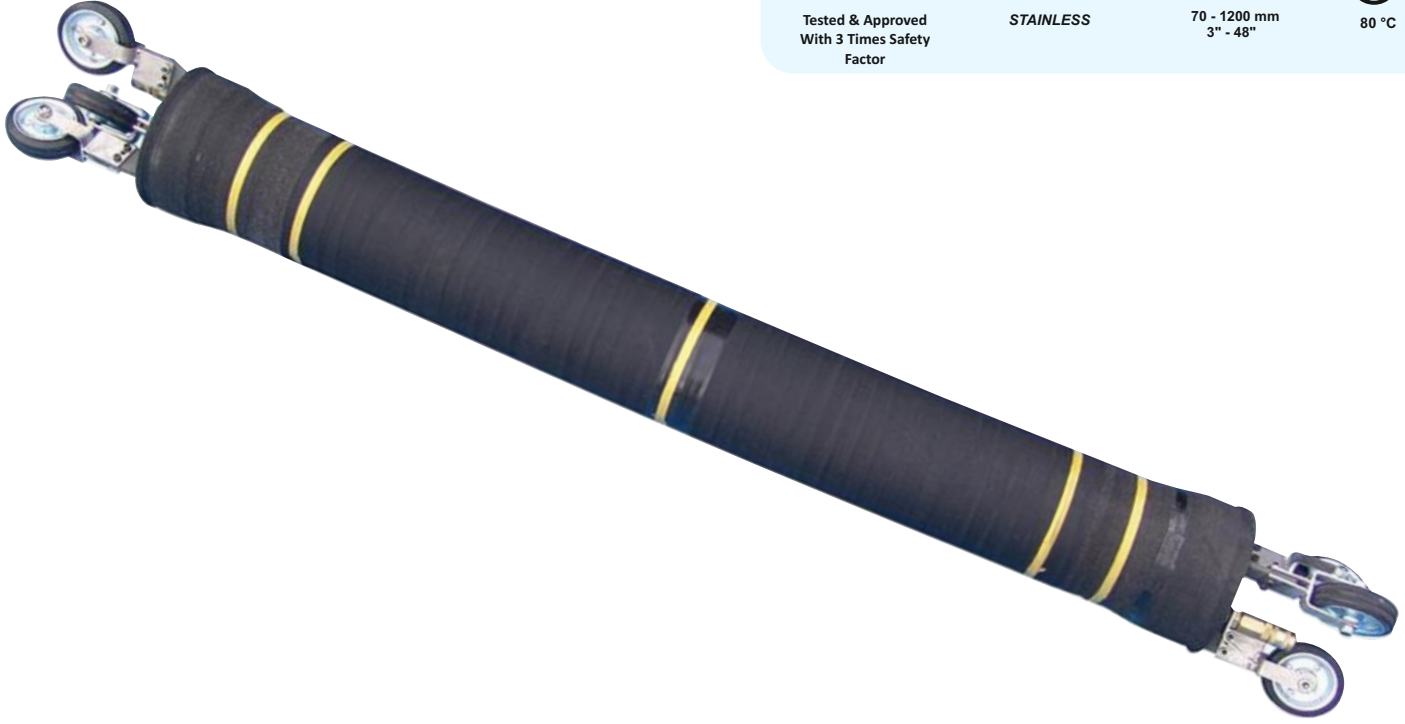
STAINLESS



70 - 1200 mm  
3" - 48"



80 °C



## MULTI SIZE FLEXIBLE PACKER WITH BYPASS AND WHEELS

Part Number	Nominal Size	Product Diameter Ø (mm)	Rubber Body Length (mm)	Product Total Length (mm)	Required Inflation Pressure (Bar)	Repair Length (mm) (at min.Dia.Ø)	Repair Length (mm) (at max.Dia.Ø)	Bypass Dia. (Inch)	Product Weight (kg/m)
FRP100150	100-150	60	R + 300	R + 500	3,5	R + 160	N/A	1/2	2,5
FRP150250	150-250	116	R + 360	R + 610	2,5	R + 200	R	2"	8
FRP200300	200-300	140	R + 440	R + 710	2,5	R + 220	R	2"	14
FRP300400	300-400	215	R + 460	R + 730	1,5	R + 300	R	2,5"	22
FRP300450	300-450	215	R + 560	R + 830	1,5	R + 300	R	2,5"	22
FRP400500	400-500	360	R + 480	R + 750	1	R + 280	R	3"	26
FRP400600	400-600	360	R + 660	R + 930	1	R + 280	R	3"	35
FRP600800	600-800	455	R + 760	R + 1030	1	R + 380	R	3"	46
FRP8001000	800-1000	555	R + 860	R + 1130	1	R + 400	R	3"	60
FRP8001200	800-1200	555	R + 1280	R + 1550	1	R + 400	R	3"	64





# FAB-COB®

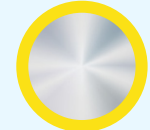
## PIPE PLUGS



Rubber Material Choice



50 - 2000 mm  
2" - 80"



STAINLESS STEEL



Up to 6 bar / 87 psi



- 40 / +80 °C

## MULTI SIZE HIGH PRESSURE PIPE PLUGS 6 & 12 BAR

Part Number	Nominal Size	Min.Pipe Ø Diameter (mm)	Max.Pipe Ø Diameter (mm)	Working Pressure (bar)	Back Pressure (bar)	Product Ø Diameter (mm)	Product Length (mm)	Product Weight (kg)
HPAB3550	35-50	35	50	6	3	32	200	0,2
HPAB50	50	50	50	12	6	45	280	0,4
HPAB5070	50-70	50	70	6	3	45	280	0,4
HPAB70	70	70	70	12	6	65	320	0,6
HPAB70100	70-100	70	100	6	3	65	320	0,6
HPAB100	100	100	100	12	6	85	500	1
HPAB100150	100-150	100	150	6	3	85	500	1
HPAB150	150	150	150	12	6	135	500	2,2
HPAB150200	150-200	150	200	6	3	135	500	2,2
HPAB200	200	200	200	12	6	182	600	3,4
HPAB200300	200-300	200	300	6	3	182	600	3,4
HPAB300	300	300	300	12	6	280	800	8,1
HPAB300400	300-400	300	400	6	3	280	800	8,1
HPAB375	375	375	375	12	6	355	1000	13,7
HPAB375500	375-500	375	500	6	3	355	1000	13,7
HPAB500	500	500	500	12	6	480	1050	24,9
HPAB500600	500-600	500	600	6	3	480	1050	24,9
HPAB600	600	600	600	12	6	580	1250	36,3
HPAB600700	600-700	600	700	6	3	580	1250	36,3
HPAB800	800	800	800	12	6	780	1200	55
HPAB8001000	800-1000	800	1000	6	3	780	1200	55
HPAB1200	1200	1200	1200	12	6	1180	1600	115
HPAB12001400	1200-1400	1200	1400	6	3	1180	1600	115
HPAB1800	1800	1800	1800	12	6	1780	2000	180
HPAB18002000	1800-2000	1800	2000	6	3	1780	2000	180



# FAB-COB®

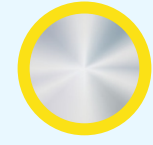
## PIPE PLUGS



Rubber Material Choice



50 - 2000 mm  
2\"/>



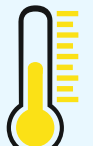
STAINLESS STEEL



Up to 6 bar / 87 psi



Tested & Approved  
With 3 Times Safety  
Factor



- 40 / +80 °C

## MULTI SIZE FLEXIBLE HIGH PRESSURE TEST PLUGS 6 & 12 BAR

Part Number	Nominal Size	Min.Pipe Ø Diameter (mm)	Max.Pipe Ø Diameter (mm)	Working Pressure (bar)	Back Pressure (bar)	Product Ø Diameter (mm)	Product Length (mm)	Bypass Ø Diameter (inch)	Product Weight (kg)
HPAPB501	50	50	50	12	6	45	280	1/4"	0,9
HPAPB502	50	50	50	12	6	45	280	2 X 1/8"	1,2
HPAPB50701	50-70	50	70	6	3	45	280	1/4"	0,9
HPAPB50702	50-70	50	70	6	3	45	280	2 X 1/8"	1,2
HPAPB701	70	70	70	12	6	65	320	1/2"	1,4
HPAPB702	70	70	70	12	6	65	320	2 x 1/4"	1,6
HPAPB701001	70-100	100	70	6	3	65	320	1/2"	1,4
HPAPB701002	70-100	100	70	6	3	65	320	2 x 1/4"	1,6
HPAPB1001	100	100	100	12	6	85	500	1"	2,1
HPAPB1002	100	100	100	12	6	85	500	2 X 1/2"	2,3
HPAPB1001501	100-150	100	150	6	3	85	500	1"	2,1
HPAPB1001502	100-150	100	150	6	3	85	500	2 X 1/2"	2,3
HPAPB1501	150	150	150	12	6	135	500	2"	7,2
HPAPB1502	150	150	150	12	6	135	500	1" + 1/2"	7,5
HPAPB1502001	100-200	150	200	6	3	135	500	2"	7,2
HPAPB1502002	100-200	150	200	6	3	135	500	1" + 1/2"	7,5



# FAB-COB®

## PIPE PLUGS

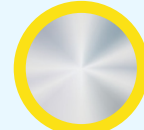
Part Number	Nominal Size	Min.Pipe Ø Diameter (mm)	Max.Pipe Ø Diameter (mm)	Working Pressure (bar)	Back Pressure (bar)	Product Ø Diameter (mm)	Product Length (mm)	Bypass Ø Diamater (inch)	Product Weight (kg)
HPAPB2001	200	200	200	12	6	182	600	2"	8,3
HPAPB2002	200	200	200	12	6	182	600	2 X 1"	8,6
HPAPB2003001	200-300	200	300	6	3	182	600	2"	8,3
HPAPB2003002	200-300	200	300	6	3	182	600	2 X 1"	8,6
HPAPB3001	300	300	300	12	6	280	800	2"	19
HPAPB3002	300	300	300	12	6	280	800	2 X 2"	20
HPAPB3004001	300-400	300	400	6	3	280	800	2"	19
HPAPB3004002	300-400	300	400	6	3	280	800	2 X 2"	20
HPAPB3751	375	375	375	12	6	355	1000	2"	32
HPAPB3752	375	375	375	12	6	355	1000	2 X 2"	35
HPAPB3755001	375-500	375	500	6	3	355	1000	2"	32
HPAPB3755002	375-500	375	500	6	3	355	1000	2 X 2"	35
HPAPB5001	500	500	500	12	6	480	1050	2"	38
HPAPB5002	500	500	500	12	6	480	1050	2 X 2"	42
HPAPB5006001	500-600	500	600	6	3	480	1050	2"	38
HPAPB5006002	500-600	500	600	6	3	480	1050	2 X 2"	42
HPAPB6001	600	600	600	12	6	580	1250	2"	65
HPAPB6002	600	600	600	12	6	580	1250	2 X 2"	70
HPAPB6007001	600-700	600	700	6	3	580	1250	2"	65
HPAPB6007002	600-700	600	700	6	3	580	1250	2 X 2"	70
HPAPB8001	800	800	800	12	6	780	1200	2"	90
HPAPB8002	800	800	800	12	6	780	1200	2 X "2	100
HPAPB80010001	800-1000	800	1000	6	3	780	1200	2"	90
HPAPB80010002	800-1000	800	1000	6	3	780	1200	2 X 2"	100
HPAPB12001	1200	1200	1200	12	6	1180	1600	2"	200
HPAPB12002	1200	1200	1200	12	6	1180	1600	2 X 2"	225
HPAPB120014001	1200-1400	1200	1400	6	3	1180	1600	2"	200
HPAPB120014002	1200-1400	1200	1400	6	3	1180	1600	2 X 2"	225
HPAPB18001	1800	1800	1800	12	6	1780	2000	2"	330
HPAPB18002	1800	1800	1800	12	6	1780	2000	2 X 2"	360
HPAPB180020001	1800-2000	1800	2000	6	3	1780	2000	2"	330
HPAPB180020002	1800-2000	1800	2000	6	3	1780	2000	2 X 2"	360



Rubber Material Choice



35 - 4200 mm  
1,4\"/>



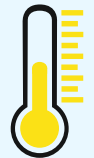
STAINLESS STEEL



1 bar / 14,5 psi



Tested & Approved  
With 3 Times Safety  
Factor



- 40 / +80 °C

## MULTI SIZE PIPE PLUGS 2,5 BAR

Part Number	Nominal Size	Min.Pipe Ø Diameter (mm)	Max.Pipe Ø Diameter (mm)	Working Pressure (bar)	Back Pressure (bar)	Product Ø Diameter (mm)	Product Length (mm)	Product Weight (kg)
KAB3570	35-70	35	70	2,5	1	32	200	0,2
KAB50100	50-100	50	100	2,5	1	45	280	0,4
KAB70150	70-150	70	150	2,5	1	65	320	0,6
KAB100200	100-200	100	200	2,5	1	85	500	1
KAB150300	150-300	150	300	2,5	1	135	500	2,2
KAB200400	200-400	200	400	2,5	1	182	600	3,4
KAB200500	200-500	200	500	2,5	1	182	750	4,2
KAB300600	300-600	300	600	2,5	1	280	800	8,1
KAB375750	375-750	375	750	2,5	1	355	1000	13,7
KAB400800	400-800	400	800	2,5	1	355	1000	13,7
KAB500800	500-800	500	800	2,5	1	480	1050	24,9
KAB5001000	500-1000	500	1000	2,5	1	480	1050	24,9
KAB5001200	500-1200	500	1200	2,5	1	480	1400	33,2
KAB5001400	500-1400	500	1400	2,5	1	480	1900	52,5
KAB6001200	600-1200	600	1200	2,5	1	580	1250	36,3
KAB6001600	600-1600	600	1600	2,5	1	580	1900	48,5
KAB8001200	800-1200	800	1200	2,5	1	780	1600	55
KAB8001600	800-1600	800	1600	2,5	1	780	2000	69
KAB8002000	800-2000	800	2000	2,5	1	780	2400	98
KAB8002200	800-2200	800	2200	2,5	1	780	3200	129
KAB12002400	1200-2400	1200	2400	2,5	1	1180	3000	190
KAB12002800	1200-2800	1200	2800	2,5	1	1180	4000	248
KAB18003600	1800-3600	1800	3600	2,5	1	1780	4000	330
KAB18004200	1800-4200	1800	4200	2,5	1	1780	6000	500

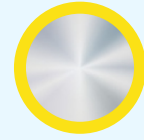




Rubber Material Choice



35 - 4200 mm  
1,4\"/>



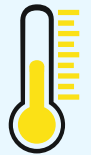
STAINLESS STEEL



1 bar / 14,5 psi



Tested & Approved  
With 3 Times Safety  
Factor



- 40 / +80 °C

## MULTI SIZE FLEXIBLE PIPE TEST PLUGS 2,5 BAR

Part Number	Nominal Size	Min.Pipe Ø Diameter (mm)	Max.Pipe Ø Diameter (mm)	Working Pressure(bar)	Back Pressure (bar)	Product Ø Diameter (mm)	Product Length (mm)	Bypass Ø Diameter (inch)	Product Weight (kg)
KAPB3570	35-70	35	70	2,5	1	32	200	M6	0,4
KAPB501001	50-100	50	100	2,5	1	45	280	1/4"	0,9
KAPB501002	50-100	50	100	2,5	1	45	280	2 x 1/8"	1,2
KAPB701501	70-150	70	150	2,5	1	65	320	1/2"	1,4
KAPB701502	70-150	70	150	2,5	1	64	320	2 x 1/4"	1,6
KAPB1002001	100-200	100	200	2,5	1	85	500	1"	2,1
KAPB1002002	100-200	100	200	2,5	1	85	500	2 x 1/2"	2,3
KAPB1503001	150-300	150	300	2,5	1	135	500	2"	7,2
KAPB1503002	150-300	150	300	2,5	1	135	500	1" x 1/2"	7,5
KAPB2004001	200-400	200	400	2,5	1	182	600	2"	8,3
KAPB2004002	200-400	200	400	2,5	1	182	600	2 x 1"	8,6
KAPB2005001	200-500	200	500	2,5	1	182	750	2"	9,6
KAPB2005002	200-500	200	500	2,5	1	182	750	2 x 1"	10
KAPB3006001	300-600	300	600	2,5	1	280	800	2"	19
KAPB3006002	300-600	300	600	2,5	1	280	800	2 x 2"	20
KAPB3757501	375-750	375	750	2,5	1	355	1000	2"	32
KAPB3757502	375-750	375	750	2,5	1	355	1000	2 x 2"	35



# FAB-COB®

## PIPE PLUGS

Part Number	Nominal Size	Min.Pipe Ø Diameter (mm)	Max.Pipe Ø Diameter (mm)	Working Pressure(bar)	Back Pressure (bar)	Product Ø Diameter (mm)	Product Length (mm)	Bypass Ø Diameter (inch)	Product Weight (kg)
KAPB4008001	400-800	400	800	2,5	1	355	1000	2"	32
KAPB4008002	400-800	400	800	2,5	1	355	1000	2 x 2"	35
KAPB5008001	500-800	500	800	2,5	1	480	1050	2"	38
KAPB5008002	500-800	500	800	2,5	1	480	1050	2 x 2"	42
KAPB50010001	500-1000	500	1000	2,5	1	480	1050	2"	38
KAPB50010002	500-1000	500	1000	2,5	1	480	1050	2 x 2"	42
KAPB50012001	500-1200	500	1200	2,5	1	480	1400	2"	50
KAPB50012002	500-1200	500	1200	2,5	1	480	1400	2 x 2"	56
KAPB50014001	500-1400	500	1400	2,5	1	480	1900	2"	70
KAPB50014002	500-1400	500	1400	2,5	1	480	1900	2 x 2"	75
KAPB60012001	600-1200	600	1200	2,5	1	580	1250	2"	65
KAPB60012002	600-1200	600	1200	2,5	1	580	1250	2 x 2"	70
KAPB60016001	600-1600	600	1600	2,5	1	580	1900	2"	99
KAPB60016002	600-1600	600	1600	2,5	1	580	1900	2 x 2"	106
KAPB80012001	800-1200	800	1200	2,5	1	780	1600	2"	112
KAPB80012002	800-1200	800	1200	2,5	1	780	1600	2 x 2"	120
KAPB80016001	800-1600	800	1600	2,5	1	780	2000	2"	140
KAPB80016002	800-1600	800	1600	2,5	1	780	2000	2 x 2"	150
KAPB80020001	800-2000	800	2000	2,5	1	780	2400	2"	183
KAPB80020002	800-2000	800	2000	2,5	1	780	2400	2 x 2"	195
KAPB80022001	800-2200	800	2200	2,5	1	780	3200	2"	244
KAPB80022002	800-2200	800	2200	2,5	1	780	3200	2 x 2"	254
KAPB120024001	1200-2400	1200	2400	2,5	1	1180	3000	2"	350
KAPB120024002	1200-2400	1200	2400	2,5	1	1180	3000	2 x 2"	375
KAPB120028001	1200-2800	1200	2800	2,5	1	1180	4000	2"	500
KAPB120028002	1200-2800	1200	2800	2,5	1	1180	4000	2 x 2"	530
KAPB180036001	1800-3600	1800	3600	2,5	1	1780	4000	2"	630
KAPB180036002	1800-3600	1800	3600	2,5	1	1780	4000	2 x 2"	680
KAPB180042001	1800-4200	1800	4200	2,5	1	1780	6000	2"	945
KAPB180042002	1800-4200	1800	4200	2,5	1	1780	6000	2 x 2"	990



Manufactured with  
3 Times Safety  
Factor



40 - 400 mm  
3/4" - 16"



80 °C



Conical End Design  
to Ease Movement

- Easy Access Through Corners
- Conical Rubber Head
- More Expansion Range Than Standard Packers

## MULTI SIZE BENDY PACKER

Part Number	Nominal Size	Product Diameter Ø (mm)	Product total Length (mm)	Working Pressure (Bar)	Repair Length at Max.Dia.(mm)	Product Weight (kg)
KBP3050	30-50	24	1450	3	1000	0,3
KBP70100	70-100	48	1470	3	1000	1,6
KBP100	100	60	1500	3	1000	2,1
KBP100125	100-125	60	1500	3	1000	2,1
KBP100150	100-150	68	1540	3	1000	2,4
KBP125150	125-150	68	1540	3	1000	2,4
KBP150	150	68	1540	3	1000	2,4
KBP150200	150-200	80	1560	3	1000	9,5
KBP200	200	80	1560	3	1000	9,5
KBP200300	200-300	135	1600	2,5	1000	18
KBP300400	300-400	220	1620	2	1000	23



Tested & Approved  
With 3 Times Safety  
Factor



ALUMINUM



35 - 1000 mm  
1,4" - 40"



80 °C

### SUPERIOR EXPANSION RANGE



*This packer stands out with its great expansion capability compared to normal packers.  
Same product can be used in wide range of different pipe sizes.*

## CONICAL MULTI SIZE PACKER

Part Number	Nominal Size	Product Diameter (mm) Ø	Required Inflation Pressure (Bar)	Rubber Body Length (mm)	Product Length (mm)	Repair length at Min.Dia (mm)	Repair length at Max.Dia (mm)	Product Weight(kg/m)
KLP3570	35-70	28	4	R + 200	R + 340	R + 60	R	0,4
KLP40100	40-100	35	4	R + 210	R + 355	R + 70	R	0,6
KLP50150	50-150	45	4	R + 290	R + 460	R + 80	R	0,7
KLP70200	70-200	58	3,5	R + 380	R + 580	R + 100	R	1,5
KLP100200	100-200	75	3	R + 360	R + 590	R + 140	R	2,5
KLP100250	100-250	75	3	R + 430	R + 660	R + 140	R	3,5
KLP150300	150-300	120	2	R + 430	R + 730	R + 200	R	8
KLP200500	200-500	195	2	R + 700	R + 980	R + 220	R	12
KLP300800	300-800	275	2	R + 1200	R + 1580	R + 220	R	35
KLP4001000	400-1000	350	1,5	R + 1400	R + 1780	R + 240	R	45





ALUMINUM



Tested & Approved  
With 3 Times Safety  
Factor



80 °C



35 - 200 mm  
1,4" - 8"



Easy Access & Better Fix



Normal Packer



Corner Packer

## CORNER PACKER

Part Number	Nominal Size	Product Diameter Ø (mm)	Rubber Body Length (mm)	Product Total Length (mm)	Required Inflation Pressure (Bar)	Repair Length (mm) (at min.Dia.Ø)	Repair Length (mm) (at max.Dia.Ø)	Product Weight (kg)
KP3550-03	35-50	25	325	385	3	210	105	0,2
KP3550-06	35-50	25	625	685	3	510	405	0,3
KP3550-10	35-50	25	1025	1085	3	910	805	0,5
KP3550-15	35-50	25	1525	1585	3	1410	1305	0,7
KP5075-06	50-70	32	630	700	3	510	430	0,4
KP5075-10	50-70	32	1030	1100	3	910	830	0,6
KP5075-15	50-70	32	1530	1600	3	1410	1330	0,9
KP70100-06	70-100	51	635	720	3,5	520	370	0,7
KP70100-10	70-100	51	1035	1120	3,5	920	770	1,2
KP70100-15	70-100	51	1535	1620	3,5	1420	1270	1,8
KP100150-06	100-150	60	635	720	3,5	515	375	1
KP100150-10	100-150	60	1035	1120	3,5	915	775	1,7
KP100150-15	100-150	60	1535	1620	3,5	1415	1275	2,5
KP150200-06	150-200	80	645	750	2,5	495	335	1,5
KP150200-10	150-200	80	1045	1150	2,5	895	775	2,5
KP150200-15	150-200	80	1545	1650	2,5	1395	1275	3,8





Tested & Approved  
With 3 Times Safety  
Factor



ALUMINUM



25 - 1000 mm  
1" - 40"

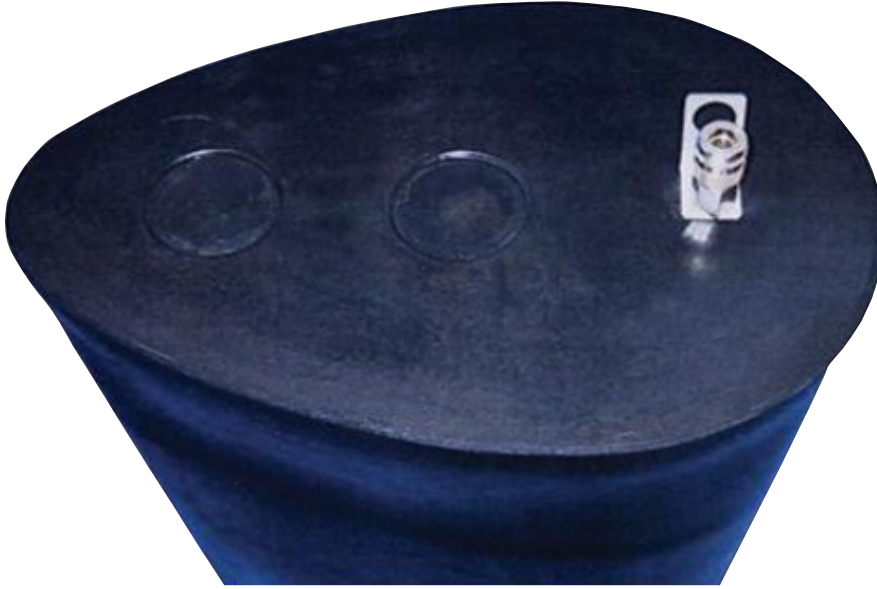


80 °C

## MULTI SIZE LATERAL PACKER

Part Number	Nominal Size	Product Diameter Ø (mm)	Rubber Body Length (mm)	Product Total Length (mm)	Required Inflation Pressure (Bar)	Repair Length (mm) (at min.Dia.Ø)	Repair Length (mm) (at max.Dia.Ø)	Product Weight (kg/m)
LP2535	25-35	18	R + 200	R + 290	3	R + 100	R	0,4
LP3550	35-50	25	R + 220	R + 300	3	R + 140	R	0,5
LP5070	50-70	32	R + 240	R + 315	3	R + 160	R	0,6
LP70100	70-100	51	R + 300	R + 385	3,5	R + 150	R	1,2
LP80125	80-125	51	R + 320	R + 405	3,5	R + 160	R	1,3
LP80150	80-150	60	R + 300	R + 390	3,5	R + 120	R	1,7
LP100150	100-150	60	R + 300	R + 390	3,5	R + 160	R	1,7
LP150200	150-200	80	R + 380	R + 495	2,5	R + 220	R	2,5
LP150250	150-250	116	R + 360	R + 470	2,5	R + 200	R	6
LP200300	200-300	140	R + 440	R + 580	2,5	R + 220	R	12,5
LP300400	300-400	215	R + 460	R + 680	1,5	R + 300	R	15,4
LP300450	300-450	215	R + 560	R + 780	1,5	R + 300	R	16,5
LP400500	400-500	360	R + 480	R + 750	1	R + 280	R	23
LP400600	400-600	360	R + 660	R + 930	1	R + 280	R	31
LP600800	600-800	455	R + 760	R + 1030	1	R + 380	R	36
LP8001000	800-1000	555	R + 860	R + 1130	1	R + 400	R	53
LP8001200	800-1200	555	R + 1280	R + 1550	1	R + 400	R	60

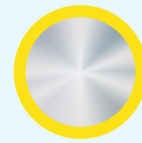




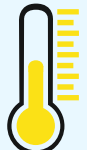
Rubber Material Choice



0,5 bar / 7,3 psi



STAINLESS STEEL



- 40 / +80 °C



Tested & Approved  
With 3 Times Safety  
Factor

## MULTI SIZE EGG SHAPE PIPE PLUGS

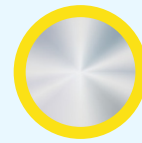
Part Number	Pipe Cross-Section (mm)	Product Cross-Section (mm)	Working Pressure (bar)	Back Pressure(bar)	Product Length (mm)	Product Weight (kg)
OAB250375	250-375	180 x 265	1,5	0,5	600	9
OAB350525	350-525	280 x 415	1,5	0,5	650	15
OAB500750	500-750	380 x 565	1,5	0,5	750	20
OAB600900	600-900	480 x 715	1	0,5	1300	32
OAB7001050	700-1050	580 x 865	1	0,5	1300	38
OAB8001200	800-1200	680 x 850	1	0,5	1600	42
OAB9001350	900-1350	780 x 1165	1	0,5	2000	55
OAB10001500	1000-1500	880 x 1315	0,8	0,5	2500	85
OAB12001800	1200-1800	1080 x 1618	0,8	0,5	2800	120



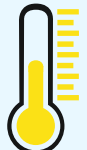
Rubber Material Choice



0,5 bar / 7,3 psi



STAINLESS STEEL



- 40 / +80 °C



Tested & Approved  
With 3 Times Safety  
Factor

## MULTI SIZE EGG SHAPE PIPE TEST PLUGS

Part Number	Pipe Cross-Section (mm)	Product Cross-Section (mm)	Working Pressure (bar)	Back Pressure(bar)	Bypass Diameter (inch)	Product Length (mm)	Product Weight (kg)
OAPB250375	250-375	180 x 265	1,5	0,5	2"	600	12
OAPB350525	350-525	280 x 415	1,5	0,5	2"	650	22
OAPB500750	500-750	380 x 565	1,5	0,5	2"	750	30
OAPB600900	600-900	480 x 715	1	0,5	2"	1300	48
OAPB7001050	700-1050	580 x 865	1	0,5	2"	1300	53
OAPB8001200	800-1200	680 x 850	1	0,5	2"	1600	58
OAPB9001350	900-1350	780 x 1165	1	0,5	2"	2000	77
OAPB10001500	1000-1500	880 x 1315	0,8	0,5	2"	2500	120
OAPB12001800	1200-1800	1080 x 1618	0,8	0,5	2"	2800	168

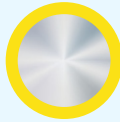




**Quick Inflation and Deflation**



Rubber Material Choice



STAINLESS STEEL



Manufactured with  
3 Times Safety  
Factor



600 - 2000 mm  
24" - 80"



- 40 / +115 °C

## PILLOW PACKER

Part Number	Nominal Size	Min.Pipe Dia. Ø (mm)	Product Width (mm)	Product Length (mm)	Required Inflation Pressure (Bar)	Type of Quick Inflation	Repair Lengths at Max.Dia.(mm)	Product Weight (kg)
PP6001000-25	600-1000	600	910	2500	1	1/4" quick coup.+ 1" Storz	1000	23
PP6001000-35	600-1000	600	910	3500	1	1/4" quick coup.+ 1" Storz	2000	32
PP8001200-25	800-1200	800	1200	2500	1	1/4" quick coup.+ 1" Storz	1000	38
PP8001200-35	800-1200	800	1200	3500	1	1/4" quick coup.+ 1" Storz	2000	42
PP10001400-25	1000-1400	1000	1550	2500	0,8	1/4" quick coup.+ 1" Storz	1000	45
PP10001400-35	1000-1400	1200	1550	3500	0,8	1/4" quick coup.+ 1" Storz	2000	55
PP12001600-25	1200-1600	1200	1800	2500	0,6	1/4" quick coup.+ 1" Storz	1000	65
PP12001600-35	1200-1600	1200	1800	3500	0,6	1/4" quick coup.+ 1" Storz	2000	75
PP15002000-28	1500-2000	1500	2300	2800	0,5	1/4" quick coup.+ 1" Storz	1000	95
PP15002000-37	1500-2000	1500	2300	3700	0,5	1/4" quick coup.+ 1" Storz	2000	110





# FAB-COB®

## PIPE PLUGS



- 40 / +80 °C



ARAMID  
Reinforcement



50 - 4200 mm  
2" - 168"

\* This product is also available with optional

**NITRILE** , **EPDM** , **CHLOROPRENE**

type rubber.

## PROTECTIVE SLEEVE FOR PIPE PLUGS

Part Number	Nominal Size	Max.UsableØ Diameter (mm)	Product Length (mm)	Product Weight (kg)
SAB50100	50-100	45	330	0,2
SAB70150	70-150	64	370	0,3
SAB100200	100-200	88	550	0,4
SAB150300	150-300	138	550	0,6
SAB200400	200-400	185	650	1,8
SAB200500	200-500	185	800	2,4
SAB300600	300-600	285	850	3,7
SAB375750	375-750	355	1000	6
SAB5001000	500-1000	485	1050	8
SAB5001200	500-1200	485	1400	10
SAB5001400	500-1400	485	1900	14
SAB6001200	600-1200	585	1300	12
SAB6001600	600-1600	585	1900	16
SAB8001600	800-1600	780	2000	17
SAB8002000	800-2000	780	2400	34
SAB8002200	800-2200	780	3200	46
SAB12002400	1200-2400	1180	3000	65
SAB12002800	1200-2800	1180	4000	86
SAB18003600	1800-3600	1780	4000	130
SAB18004200	1800-4200	1780	6000	190

# SILICON BLADDERS

## MAIN/BRANCH-ANGLE

### SILICON BLADDERS WITH 90° ANGLE

Product code	Product size
<input type="checkbox"/> SB70/50-90	70/50-90
<input type="checkbox"/> SB70/70-90	70/70-90
<input type="checkbox"/> SB100/50-90	100/50-90
<input type="checkbox"/> SB100/70-90	100/70-90
<input type="checkbox"/> SB100/100-90	100/100-90
<input type="checkbox"/> SB125/50-90	125/50-90
<input type="checkbox"/> SB125/70-90	125/70-90
<input type="checkbox"/> SB125/100-90	125/100-90
<input type="checkbox"/> SB125/125-90	125/125-90
<input type="checkbox"/> SB150/50-90	150/50-90
<input type="checkbox"/> SB150/70-90	150/70-90
<input type="checkbox"/> SB150/100-90	150/100-90
<input type="checkbox"/> SB150/125-90	150/125-90
<input type="checkbox"/> SB150/150-90	150/150-90
<input type="checkbox"/> SB200/50-90	200/50-90
<input type="checkbox"/> SB200/70-90	200/70-90
<input type="checkbox"/> SB200/100-90	200/100-90
<input type="checkbox"/> SB200/125-90	200/125-90
<input type="checkbox"/> SB200/150-90	200/150-90
<input type="checkbox"/> SB200/200-90	200/200-90
<input type="checkbox"/> SB225/100-90	225/100-90
<input type="checkbox"/> SB250/100-90	250/100-90
<input type="checkbox"/> SB250/150-90	250/150-90

### SILICON BLADDERS WITH 45° ANGLE

Product code	Product size
<input type="checkbox"/> SB70/50-45	70/50-45
<input type="checkbox"/> SB70/70-45	70/70-45
<input type="checkbox"/> SB100/50-45	100/50-45
<input type="checkbox"/> SB100/70-45	100/70-45
<input type="checkbox"/> SB100/100-45	100/100-45
<input type="checkbox"/> SB125/50-45	125/50-45
<input type="checkbox"/> SB125/70-45	125/70-45
<input type="checkbox"/> SB125/100-45	125/100-45
<input type="checkbox"/> SB125/125-45	125/125-45
<input type="checkbox"/> SB150/50-45	150/50-45
<input type="checkbox"/> SB150/70-45	150/70-45
<input type="checkbox"/> SB150/100-45	150/100-45
<input type="checkbox"/> SB150/125-45	150/125-45
<input type="checkbox"/> SB150/150-45	150/150-45
<input type="checkbox"/> SB200/50-45	200/50-45
<input type="checkbox"/> SB200/70-45	200/70-45
<input type="checkbox"/> SB200/100-45	200/100-45
<input type="checkbox"/> SB200/125-45	200/125-45
<input type="checkbox"/> SB200/150-45	200/150-45
<input type="checkbox"/> SB200/200-45	200/200-45
<input type="checkbox"/> SB225/100-45	225/100-45
<input type="checkbox"/> SB225/125-45	225/125-45
<input type="checkbox"/> SB250/100-45	250/100-45
<input type="checkbox"/> SB250/150-45	250/150-45



## SILICON BLADDERS WITH 90° ANGLE, LONG

	Product code	Product size	Main length	/	Lateral length
<input type="checkbox"/>	SBAU100/100-90	100/100-90	1350mm	53"	/ 500mm 20"
<input type="checkbox"/>	SBAU150/100-90	150/100-90	1350mm	53"	/ 500mm 20"
<input type="checkbox"/>	SBAU150/150-90	150/150-90	1350mm	53"	/ 500mm 20"
<input type="checkbox"/>	SBAU225/100-90	225/100-90	1350mm	53"	/ 500mm 20"
<input type="checkbox"/>	SBAU225/150-90	225/150-90	1350mm	53"	/ 500mm 20"
<input type="checkbox"/>	SBAU375/100-90	375/100-90	1350mm	53"	/ 500mm 20"

## SILICON BLADDERS WITH 45° ANGLE, LONG

	Product code	Product size	Main length	/	Lateral length
<input type="checkbox"/>	SBAU100/100-45	100/100-45	1350mm	53"	/ 500mm 20"
<input type="checkbox"/>	SBAU150/100-45	150/100-45	1350mm	53"	/ 500mm 20"
<input type="checkbox"/>	SBAU150/150-45	150/150-45	1350mm	53"	/ 500mm 20"
<input type="checkbox"/>	SBAU225/100-45	225/100-45	1350mm	53"	/ 500mm 20"
<input type="checkbox"/>	SBAU225/150-45	225/150-45	1350mm	53"	/ 500mm 20"

## CURVED SILICON BLADDERS

	Product code	Product size
<input type="checkbox"/>	SBB100/70-45	100/70-45
<input type="checkbox"/>	SBB100/70-90	100/70-90
<input type="checkbox"/>	SBB100/100-45	100/100-45
<input type="checkbox"/>	SBB100/100-90	100/100-90

## T-BLADDERS

	Product code	Product size
<input type="checkbox"/>	SB100/100-45-T	100/100-45
<input type="checkbox"/>	SB100/100-90-T	100/100-90

## TUBES

	Product code	Product size (per meter)	Max length
<input type="checkbox"/>	SB50-M	50mm 2" silicon tube	2m 79"
<input type="checkbox"/>	SB70-M	70mm 2 ¾" silicon tube	2m 79"
<input type="checkbox"/>	SB100-M	100mm 4" silicon tube	2m 79"
<input type="checkbox"/>	SB125-M	125mm 5" silicon tube	2m 79"
<input type="checkbox"/>	SB150-M	150mm 6" silicon tube	2m 79"





# PACKERS AND ACCESSORIES

## PACKER ASSEMBLIES WITH A SINGLE ROD

Product code	Head diameter	Length	Rod diameter
<input type="checkbox"/> PP-D30-720-08	Ø 30mm	720mm	8mm
<input type="checkbox"/> PP-D30-720-10	Ø 30mm	720mm	10mm
<input type="checkbox"/> PP-D30-1000-08	Ø 30mm	1000mm	8mm
<input type="checkbox"/> PP-D30-1350-10	Ø 30mm	1350mm	10mm
<input type="checkbox"/> PP-D30-S-720-08	Ø 30mm	720mm	8mm
<input type="checkbox"/> PP-D30-S-720-10	Ø 30mm	720mm	10mm
<input type="checkbox"/> PP-D40-720-08	Ø 40mm	720mm	8mm
<input type="checkbox"/> PP-D40-720-10	Ø 40mm	720mm	10mm
<input type="checkbox"/> PP-D40-1350-10	Ø 40mm	1350mm	10mm
<input type="checkbox"/> PP-D60-720-10	Ø 60mm	720mm	10mm
<input type="checkbox"/> PP-D60-1350-10	Ø 60mm	1350mm	10mm
<input type="checkbox"/> PP-D90-720-10	Ø 90mm	720mm	10mm

## PACKER ASSEMBLIES WITH TWO RODS

Product code	Head diameter	Length
<input type="checkbox"/> PP2-D40-1500	Ø 40mm	1500mm
<input type="checkbox"/> PP2-D60-1500	Ø 60mm	1500mm



## PACKER HEADS FOR A SINGLE ROD

Product code	Information
<input type="checkbox"/> PP-D30-AL-A	Ø 30mm, shackle M4, air pressure plug G¼
<input type="checkbox"/> PP-D30-S-AL-A	Ø 30mm, shackle M4, air pressure plug G¼, shorter version
<input type="checkbox"/> PP-D40-AL-A	Ø 40mm, shackle M5, air pressure plug G¼
<input type="checkbox"/> PP-D60-AL-A	Ø 60mm, shackle M6, air pressure plug G¼
<input type="checkbox"/> PP-D90-AL-A	Ø 90mm, shackle M6, air pressure plug G¼
<input type="checkbox"/> PP-D30-AL-B	Ø 30mm, blind plug G¼
<input type="checkbox"/> PP-D30-S-AL-B	Ø 30mm, blind plug G¼, shorter version
<input type="checkbox"/> PP-D40-AL-B	Ø 40mm, blind plug G¼
<input type="checkbox"/> PP-D60-AL-B	Ø 60mm, blind plug G¼
<input type="checkbox"/> PP-D90-AL-B	Ø 90mm, blind plug G¼

## PACKER HEADS FOR TWO RODS

Product code	Information
<input type="checkbox"/> PP2-D40-A	Ø 40mm, shackle M5, air pressure plug G¼
<input type="checkbox"/> PP2-D40-B	Ø 40mm, blind plug G¼
<input type="checkbox"/> PP2-D60-A	Ø 60mm, shackle M6, air pressure plug G¼
<input type="checkbox"/> PP2-D60-B	Ø 60mm, blind plug G¼



## PACKER MIDDLE BARS

Product code	Information	
<input type="checkbox"/> PP-VT-500-8	length 500mm	Ø 8mm
<input type="checkbox"/> PP-VT-600-8	length 600mm	Ø 8mm
<input type="checkbox"/> PP-VT-720-8	length 720mm	Ø 8mm
<input type="checkbox"/> PP-VT-1350-8	length 1350mm	Ø 8mm
<input type="checkbox"/> PP-VT-340-10	length 340mm	Ø 10mm
<input type="checkbox"/> PP-VT-500-10	length 500mm	Ø 10mm
<input type="checkbox"/> PP-VT-720-10	length 720mm	Ø 10mm
<input type="checkbox"/> PP-VT-1350-10	length 1350mm	Ø 10mm
<input type="checkbox"/> PP2-VT-1500-8	length 1500mm	Ø 8mm

## PRESSURE HOLDERS

Product code	Information
<input type="checkbox"/> SS-90-40	for 50mm liner
<input type="checkbox"/> SS-90-60	for 75mm liner
<input type="checkbox"/> SS-90-90	for 100mm liner
<input type="checkbox"/> SS-90-140	for 150mm liner

## PUSH RODS

Product code	Information
<input type="checkbox"/> RA-010	10mm pom axle, length 1,5m
<input type="checkbox"/> RA-016	16mm pom axle, length 1,5m

## ADAPTERS AND ACCESSORIES

Product code	Information
<input type="checkbox"/> APC-1/4	air connector
<input type="checkbox"/> APP-1/4	air pressure plug
<input type="checkbox"/> RA-16-002	packer key with 16mm male t-slide
<input type="checkbox"/> RA-20-002	packer key with 20mm male t-slide



### Advantages: Liners & More

- + Best possible variety
- + Wide range of materials and equipment
- + Reproducible top quality thanks to in-house manufacturing



## Liners & More

Our product range includes high-quality consumable materials such as fast and slow reaction resins, hose liners and glass fiber composite mattings with innovative in-house developments and numerous unique selling points.



Easy  
LINER



Easy  
POX



Easy  
PUR    Easy  
PURplus



Easy  
TOP HAT

## “Easy LINER” hose liner system

For renovating damaged pipes.



Installation



The result

### Hose liners



#### Hose liners for renovating damaged pipes

- ✓ For renovation of non-accessible pipes.
- ✓ Available with various diameters, wall thicknesses, liners and seam designs.
- ✓ Can navigate bends up to 87°; depending on liner type, one or two dimensional steps are possible.

Product name	DIBt-certified	Application	Bend navigation	Curing (without calibration hose)	Dimensional change	Nominal widths
ThermoLiner plus	yes	ground connection	very good	cold + hot water + steam	max. 1 step	DN 70 – DN 300
ThermoLiner Stretch	yes	ground connection	very good	cold + hot water	max. 2 steps	DN 70 – DN 225
BendiLiner	no	downpipe	very good	cold + hot water + steam	max. 1 step	DN 50 – DN 150

### Calibration hoses



#### Calibration hoses

- ✓ For nominal widths from DN 50 to DN 300.
- ✓ Varying material thicknesses and bend navigation.
- ✓ Partially temperature-resistant to 80 °C.

Product name	Bend navigation	Temperature resistance	Curing	Nominal widths
Mediumtube PVC purple	up to 90°	up to approx. 50 °C	cold + hot water	DN 50 – DN 200
Thermotube PVC orange/blue	up to 90° depending on Ø	up to approx. 80 °C	cold + hot water + steam	DN 100 – DN 300

### Resins



#### Two-component epoxy resins for hose liners

- ✓ Reaction resins with exclusive resin formulas.
- ✓ Seven types of curing agents with varying reaction times.
- ✓ Cold and heat-curing
- ✓ Solvent-free, unfilled and pigmented.
- ✓ Shrink-resistant

Product name	DIBt-certified	Curing	Pot life (20 °C)	Curing time
Easy POX 3008	yes	cold (or warm)	approx. 30 minutes	15 °C: approx. 8 h / 50 °C: approx. 1.5 h / 60 °C: approx. 1.3 h
Easy POX 6024	yes	cold (or warm)	approx. 60 minutes	15 °C: approx. 24 h / 60 °C: approx. 2.5 h
Easy POX T0530	yes	warm	approx. 5 hours	15 °C: approx. 3 days / 60 °C: approx. 5 h



# CONNECTION LINERS

## MAIN/BRANCH-ANGLE

### CONNECTION LINERS WITH 90° ANGLE

Product code	Product size
<input type="checkbox"/> CL70/50-90	70/50-90
<input type="checkbox"/> CL70/70-90	70/70-90
<input type="checkbox"/> CL100/50-90	100/50-90
<input type="checkbox"/> CL100/70-90	100/70-90
<input type="checkbox"/> CL100/100-90	100/100-90
<input type="checkbox"/> CL125/70-90	125/70-90
<input type="checkbox"/> CL125/100-90	125/100-90
<input type="checkbox"/> CL125/125-90	125/125-90
<input type="checkbox"/> CL150/70-90	150/70-90
<input type="checkbox"/> CL150/100-90	150/100-90
<input type="checkbox"/> CL150/125-90	150/125-90
<input type="checkbox"/> CL150/150-90	150/150-90
<input type="checkbox"/> CL200/100-90	200/100-90
<input type="checkbox"/> CL200/150-90	200/150-90

### CONNECTION LINERS WITH 45° ANGLE

Product code	Product size
<input type="checkbox"/> CL60/60-45	60/60-45
<input type="checkbox"/> CL70/50-45	70/50-45
<input type="checkbox"/> CL70/70-45	70/70-45
<input type="checkbox"/> CL100/50-45	100/50-45
<input type="checkbox"/> CL100/70-45	100/70-45
<input type="checkbox"/> CL100/100-45	100/100-45
<input type="checkbox"/> CL125/70-45	125/70-45
<input type="checkbox"/> CL125/100-45	125/100-45
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<input type="checkbox"/> CL150/70-45	150/70-45
<input type="checkbox"/> CL150/100-45	150/100-45
<input type="checkbox"/> CL150/125-45	150/125-45
<input type="checkbox"/> CL150/150-45	150/150-45
<input type="checkbox"/> CL200/100-45	200/100-45
<input type="checkbox"/> CL200/150-45	200/150-45
<input type="checkbox"/> CL225/150-45	225/150-45
<input type="checkbox"/> CL225/200-45	225/200-45





## CURVED CONNECTION LINERS

Product code	Product size
<input type="checkbox"/> CLB100/70-45	100/70-45
<input type="checkbox"/> CLB100/70-90	100/70-90
<input type="checkbox"/> CLB100/100-45	100/100-45
<input type="checkbox"/> CLB100/100-90	100/100-90

## CONNECTION LINERS WITH 45° ANGLE, LONG

Product code	Product size	Main length	Lateral length
<input type="checkbox"/> CLAU100/100-45	100/100-45	900mm 35"	400mm 16"
<input type="checkbox"/> CLAU150/100-45	150/100-45	900mm 35"	400mm 16"
<input type="checkbox"/> CLAU150/150-45	150/150-45	900mm 35"	400mm 16"
<input type="checkbox"/> CLAU225/100-45	225/100-45	900mm 35"	400mm 16"
<input type="checkbox"/> CLAU225/150-45	225/150-45	900mm 35"	400mm 16"
<input type="checkbox"/> CLAU300/100-45	300/100-45	900mm 35"	400mm 16"

## CONNECTION LINERS WITH 90° ANGLE, LONG

Product code	Product size	Main length	Lateral length
<input type="checkbox"/> CLAU100/100-90	100/100-90	900mm 35"	400mm 16"
<input type="checkbox"/> CLAU150/100-90	150/100-90	900mm 35"	400mm 16"
<input type="checkbox"/> CLAU150/150-90	150/150-90	900mm 35"	400mm 16"
<input type="checkbox"/> CLAU225/100-90	225/100-90	900mm 35"	400mm 16"
<input type="checkbox"/> CLAU225/150-90	225/150-90	900mm 35"	400mm 16"
<input type="checkbox"/> CLAU300/100-90	300/100-90	900mm 35"	400mm 16"
<input type="checkbox"/> CLAU375/100-90	375/100-90	900mm 35"	400mm 16"

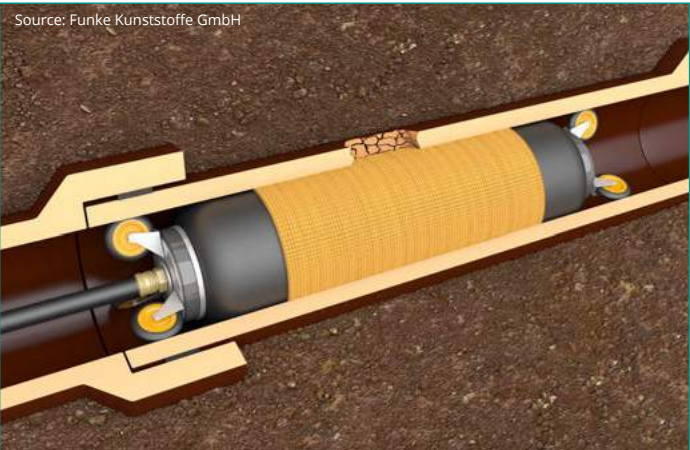


# Short liner system

## “Spot Repair System” and “Spot Repair System Plus”



For repairing partial and small defects in non accessible pipes.



Installation



The result

### Glass mattings



#### Advantex® glass fiber composite mattings

- ✓ Corrosion-resistant, bi-directional glass composites made from ECR glass
- ✓ Varying surface weights and roll widths
- ✓ Excellent saturation with Easy PUR/ Easy PUR Plus resins

Product name	DIBt-certified	Surface weight	Roll widths – some specifically tailored for the respective nominal widths!
Advantex® glass fiber composite mattings	yes	1,086 g/m²	1.90 m / 1.28 m / 0.66 m / 0.55 m
Advantex® glass fiber composite mattings	yes	1,368 g/m²	1.90 m / 1.28 m / 0.66 m / 0.55 m / 0.43 m / 0.35 m

### Resins



#### Easy PUR / Easy PUR Plus

- ✓ Two- or three-component silicate resin system
- ✓ Developed specifically for short liner installation on damp pipe surfaces
- ✓ Fast and even impregnation
- ✓ Excellent adhesion to host pipes
- ✓ Outstanding chemical and abrasion resistance

Product name	Pot life	Setting time	Curing time
Easy PUR 3 K (MV 100:200:3)	15 °C: approx. 10 minutes	15 °C: approx. 20 minutes	15 °C: approx. 60 minutes
Easy PUR 2K Summer	25 °C: approx. 12 minutes	25 °C: approx. 20 minutes	25 °C: approx. 60 minutes
Easy PUR 2K Winter	15 °C: approx. 10 minutes	15 °C: approx. 20 minutes	15 °C: approx. 60 minutes
Easy PUR Plus 3K (MV 100:200:3)	15 °C: approx. 11 minutes	15 °C: approx. 15 minutes	15 °C: approx. 55 minutes
Easy PUR Plus 2K Summer	25 °C: approx. 15 minutes	25 °C: approx. 24 minutes	25 °C: approx. 60 minutes
Easy PUR Plus 2K Winter	15 °C: approx. 16 minutes	15 °C: approx. 27 minutes	15 °C: approx. 60 minutes

# Renovating connections using the TOP HAT system

The perfect complement to the Easy LINER system, for permanently sealed lateral connections!



Installation



The result

### TOP HAT material



#### The TOP HAT material

- ✓ Dimensions:
  - DN 100 – DN 800 (main sewer line)
  - DN 100, DN 125, DN 150 and DN 200 (lateral connection)
- ✓ Hat materials:
  - Coated/uncoated polyester needle felt,
  - Advantex® glass fiber /polyester needle felt construction,
  - each available in 45°, 70° and 90° angles
- ✓ Reaction resins for saturation:
  - Easy PUR/Easy PUR Plus silicate resin (2K/3K) or
  - Easy POX 1504 epoxy resin
- ✓ Positioning:
  - Manual, using pneumatic rods (up to DN 200), or preferably using robots like the Power CUTTER 200

Product name	Angle	Material thickness	Rim width	End wall thickness	Shaft length	Inside diameters
Needle felt	90°	5 mm	100 mm	approx. 3.5 mm	300 mm	DN 100 / DN 125 / DN 150 / DN 200
Needle felt	70°	5 mm	100 mm	approx. 3.5 mm	300 mm	DN 100 / DN 125 / DN 150 / DN 200
Needle felt	45°	5 mm	100 mm	approx. 3.5 mm	300 mm	DN 100 / DN 125 / DN 150 / DN 200
Needle felt / glass	90°	5 mm	100 mm	approx. 3.5 mm	300 mm	DN 100 / DN 125 / DN 150 / DN 200 / DN 250 / DN 300
Needle felt / glass	70°	5 mm	100 mm	approx. 3.5 mm	300 mm	DN 100 / DN 125 / DN 150 / DN 200
Needle felt / glass	45°	5 mm	100 mm	approx. 3.5 mm	300 mm	DN 100 / DN 125 / DN 150 / DN 200 / DN 250 / DN 300



### Advantages: Equipment

- + Technically innovative equipment
- + Made exclusively from high-quality materials
- + Practical, user-friendly design



## Equipment

The I.S.T. Power installation equipment is field-tested, sturdy and simple to use. It also stands out because of its user-friendly construction, high-quality components and cost-effectiveness.



**Power  
VACUUM**



**Power  
TABLE**



**Power  
DRUM**



**Power  
BOX** **Power  
STEAM**

### Power VACUUM



#### Vacuum pumps

For optimal impregnation of a polyester base material using resins from the Easy POX series, a suitable vacuum pump is essential.

- ✓ 2 types for different liner lengths and diameters
- ✓ Prevents unwanted air bubbles
- ✓ Improved saturation
- ✓ Designed especially for sewer renovation needs

### Power TABLE



#### Impregnation units

Impregnation units in various sizes and designs with proven, robust stainless-steel technology.

- ✓ For DN 50 – DN 1000 hose liners
- ✓ Optimal, even resin distribution / saturation in the liner
- ✓ Convenient and easy to use

### Power DRUM



#### Inversion drums

High-quality, practically designed drums made from steel or aluminum.

- ✓ For DN 50 – DN 1000 hose liners inversion
- ✓ Hydraulic brakes/motorized drive stainless available upon request
- ✓ Convenient and safe operation
- ✓ Suitable for hot-water and steam curing

### Power BOX



#### Hot-water units

Efficient hot-water units for fast, controlled liner curing.

- ✓ Tried and tested in practice
- ✓ Can also be used for cold-cured resin systems
- ✓ For inside pipe diameters up to DN 300
- ✓ Significantly shortens curing time
- ✓ Digital flow and return-flow temperature indicator

### Power STEAM



#### Steam units

##### Power STEAM 150

- ✓ For liners up to 50 m in length, max. DN 200
- ✓ Steam output 150 kg steam/hour
- ✓ Optimizes curing time

##### Power STEAM Mini

- ✓ For liners ranging from 10 - 15 m in length, max. DN 100
- ✓ 230-volt connection
- ✓ 3.6 KW output, 5 kg steam/hour
- ✓ Steam temperatures up to 60 °C



## SpeedyDrum 600 *Carbon*

Art. Nr. - SEW-2757-0000

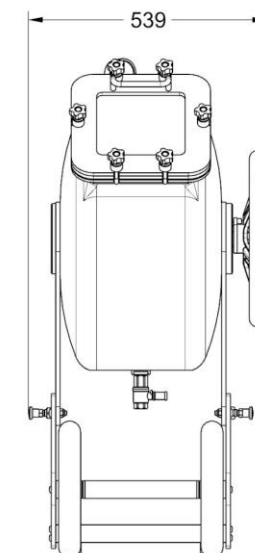
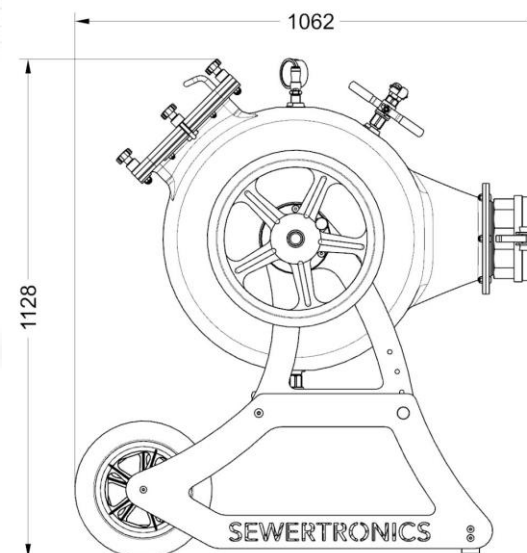
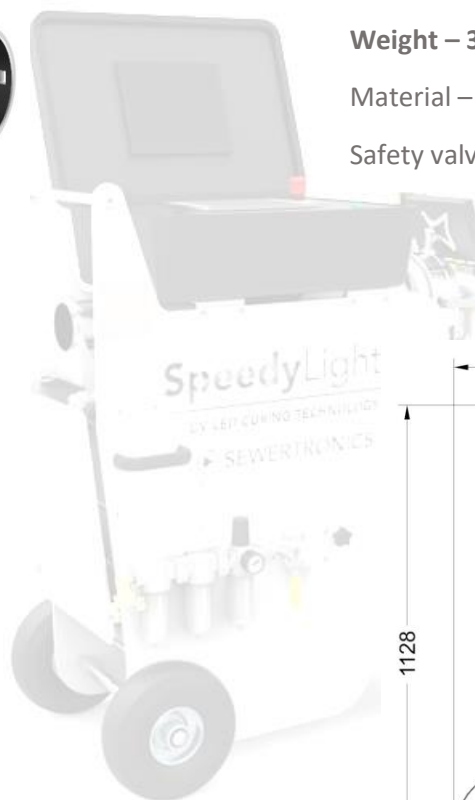
**Weight – 36kg**

Material – Carbon Fiber, Aluminium frame, Rubber wheels.

Safety valve of 0.9 bar

**€6 370**

SpeedyDrum 600	
Diameter	3-4mm
DN100	≈ 40 m
DN125	≈ 30 m
DN150	≈ 26 m
DN200	≈ 18 m
DN250	≈ 12 m





# RENSSI®

DRAIN CLEANING EQUIPMENT

## *RID-600-S*



### **NEW WITH SLIM DESIGN AND BIGGER WINDOW!**

- Length 83cm [32.5"], Width 59cm [23"], Height 98cm [38.5"]
- Drum weight: 49,5 kg [109 lbs]
- Drum capacity: 100mm/45m [4"/145ft], 150mm/20m [6"/65ft]
- Max pressure 1.5 bar
- Nozzle connection: 6" Storz or 6" Camlock
- Additional curing methods: steam, water

# DRUM HEADS

Drum Head is an accessory for the inversion drum. It ables a versatile use of drums in relining. Custom drum heads can be manufactured to customer's needs with a minimum order of 15pcs.

## INVERSION DRUM ACCESSORY

### DRUM HEADS

with 4" thread attachment

Product code	Information
<input type="checkbox"/> DH-4S-30	for Ø 30mm 1,5" liner
<input type="checkbox"/> DH-4S-50	for Ø 50mm 2" liner
<input type="checkbox"/> DH-4S-70	for Ø 70mm 3" liner
<input type="checkbox"/> DH-4S-100	for Ø 100mm 4" liner

### DRUM HEADS

Storz adapters

Product code	Information
<input type="checkbox"/> DH-4S	4" Storz adapter / thread
<input type="checkbox"/> DH-6S	6" Storz adapter / thread

### DRUM HEADS

with 6" thread attachment

Product code	Information
<input type="checkbox"/> DH-6S-30	for Ø 30mm 1,5" liner*
<input type="checkbox"/> DH-6S-50	for Ø 50mm 2" liner
<input type="checkbox"/> DH-6S-70	for Ø 70mm 3" liner
<input type="checkbox"/> DH-6S-100	for Ø 100mm 4" liner
<input type="checkbox"/> DH-6S-150	for Ø 150mm 6" liner

### DRUM HEADS

Accessories

Product code	Information
<input type="checkbox"/> DH-KEY	Storz key
<input type="checkbox"/> DH-6S-GSK	Storz gaskets

### DRUM HEADS

with 6" thread attachment and cam lock

Product code	Information
<input type="checkbox"/> DH-6S-CL-70	for Ø 70mm 3" liner
<input type="checkbox"/> DH-6S-CL-100	for Ø 100mm 4" liner
<input type="checkbox"/> DH-6S-CL-150	for Ø 150mm 6" liner

\* This product is not available in our stock. We will start production after receiving the order.



# KrasoWalk®

## KrasoWalk M in versions up to DN200 and DN300 (more upon request)

The KrasoWalk M are compact and lightweight impregnation systems with manual roller drive and is predestined for mobile applications in difficult and confined areas.



- Made of high-quality aluminium and stainless steel
- Calibration rollers with special coating - especially easy to clean
- Synchronised motion of both calibration rollers
- Rotation direction forwards and reverse
- Gap adjustment via setting wheel display ( 0,1mm precision )
- Drill adaption - option
- Individual logo and colour integration possible



### TIP

Our bestseller: KrasoWalk M - case version

- Compact and light weight design
- Integrated roller conveyor
- Easy foldable for a space saving transport



### NEW

Ask for our  
KrasoWalk M Light for beginners

Please contact us directly for additional information on the KrasoWalk M and its extensions.  
We will manufacture the fitting device for you.

## KrasoTech®

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KrasoWalk M manual



# KrasoWalk®

## KrasoWalk E in versions up to DN1200 (more upon request)

The KrasoWalk E are compact impregnation units with electrical roller drive. This product is predestined for installations inside renovation vehicles.

- Made of high-quality aluminium and/or stainless steel
- Calibration rollers with special coating - especially easy to clean
- Synchronised drive of both calibration rollers
- Drive rotation direction forwards and reverse
- Stepless speed regulation
- Gap adjustment via setting wheel display ( 0,1mm precision) or electrical
- Emergency STOP button
- Transparent safety flap with emergency STOP function
- Mobile and stationary version possible
- Devices in all sizes from lateral up to main pipe lining
- Individual logo and colour integration possible
- Assembled to suit your needs for highest efficiency



### KrasoWalk E Extensions:

- Various special racks (e.g., self-propelling, etc.)
- Roller conveyor extension (foldable, attachable, adjustable angle, etc.)
- Electrical driven conveyor belt extension
- External controlling, monitoring and recording via PC or touch screen via KrasoTech Software
- Personalised protocol with your logo

NEW

Ask for our  
KrasoWalk M Light for beginners



Self-propelling unit



Please contact us directly for additional information on the KrasoWalk E and its extensions. We will manufacture the fitting device for you.

## KrasoTech®

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# KrasoWalk®

KrasoWalk EP in versions up to DN1500 (more upon request)

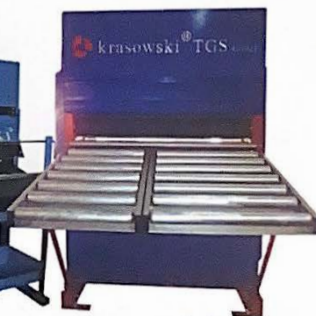
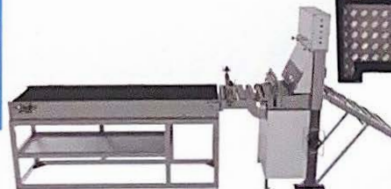
The KrasoWalk EP are compact impregnation units with electrical roller drive and electro-pneumatic roller closing and opening for highest safety.

This product is predestined for installations inside vehicles, trailers, containers or work halls.

- Made of high-quality aluminium and/or stainless steel
- Calibration rollers with special coating - especially easy to clean
- Synchronised drive of both calibration rollers
- Drive rotation direction forwards and reverse
- Stepless speed regulation
- Fully automatic electro-pneumatic closing and opening of the rollers
- **MEMORY** Function on gap adjustment provides highest precision
- Gap adjustment via setting wheel display (0,1mm precision) and digital on extended controlling
- **Emergency STOP Button**
- Automatic and **immediate** separation of the calibration rollers and system stop
- Transparent safety flap with emergency STOP function
- Mobile and stationary version possible
- Devices in all sizes from lateral up to main pipe lining
- Extremely durable and low-maintenance
- Individual logo and colour integration possible
- Assembled to suit your needs for highest efficiency

## KrasoWalk EP Extensions:

- Roller conveyor extension (foldable, attachable, adjustable angle, etc.)
- Electrical driven conveyor belt extension
- External controlling, monitoring and recording (jobsite data, liner data, speed, etc.) via PC or touch screen via KrasoTech Software



Please contact us directly for additional information on the KrasoWalk EP and its extensions.  
We will manufacture the fitting device for you.

## KrasoTech®

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# KrasoSluice®

KrasoSluice ONE - inversion shooter in versions up to DN1200 (more upon request)

The KrasoSluice ONE - shooter is based on our patented chamber system for „endless inversion“.

This protects the liner from unwanted stretching, dents, wrinkles and folds.

Even large knots, fittings or heating hoses are no problem for the KrasoSluice family!

- ◆ Original patented chamber system
- ◆ Ideal replacement for a water tower
- ◆ Aluminium or stainless-steel version
- ◆ Inversion with low pressure
- ◆ Flexible even on difficult to reach jobsites
- ◆ Outlet storz, camlock, EasyKlick, etc.
- ◆ Direct inversion without roll up the inliner
- ◆ Optional with drive
- ◆ Optional with data recording

„Endless“ Inversion device



## KrasoTech Exclusive

### EasyKlick fast seal:

- ◆ No screws
- ◆ No clamps
- ◆ Faster
- ◆ Easier
- ◆ Safer
- ◆ Ready within seconds

### Usable media:

- ✓ Air
- ✓ Water
- ✓ Steam
- ✓ Light curing
- ✓ YOUR Design
- ✓ YOUR Logo



POWER-Shot Function  
For especially difficult bends

Individual adjusted design solutions

## KrasoTech®



# KrasoSluice®

KrasoSluice TWO in versions up to DN1600 (more upon request)

The KrasoSluice TWO with our patented two chamber system for „endless“ inversion without pressure loss.

This protects the liner from unwanted stretching, dents, wrinkles and folds.

Even large knots, fittings or heating hoses are no problem for the KrasoSluice family!

- ◆ Original patented TWO chamber system
- ◆ Ideal replacement for a water tower
- ◆ Aluminium or stainless-steel version
- ◆ Inversion with low pressure
- ◆ Flexible even on difficult to reach jobsites
- ◆ Outlet storz, camlock, EasyKlick, etc.
- ◆ Direct inversion without roll up the inliner
- ◆ Optional with drive
- ◆ Optional with data recording

„Endless“ Inversion device  
WITHOUT PRESSURE LOSS



## KrasoTech Exclusive

### EasyKlick fast seal:

- ◆ No screws
- ◆ No clamps
- ◆ Faster
- ◆ Easier
- ◆ Safer
- ◆ Ready within seconds

### Usable media:

- ✓ Air
- ✓ Water
- ✓ Steam
- ✓ Light curing
- ✓ YOUR Design
- ✓ YOUR Logo

POWER-Shot Function  
For especially difficult bends



Individual adjusted design solutions

Significant reduction of the  
longitudinal expansion of  
flexible inliners

## KrasoTech®

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KrasoSluice TWO - Inversion Equipment



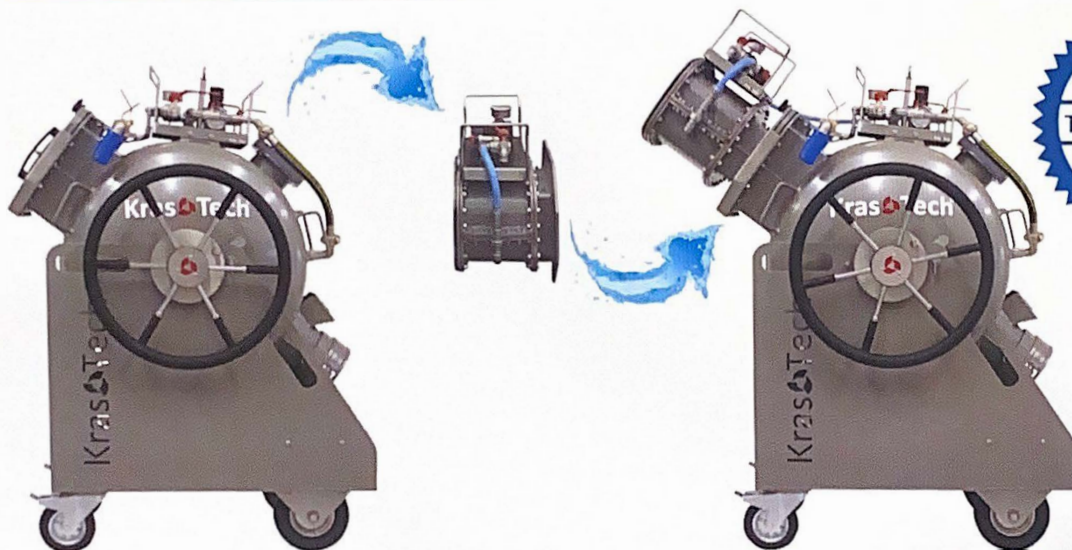
# KrasoDrum®

KrasoDrum M - manual in versions up to DN400 (more upon request)

## DID YOU KNOW? KrasoDrum Hybrid System

With a KrasoTech Inversion drum you are at any time able to extend it with our KrasoSluice Module system.

Simply just attach the KrasoSluice Module onto your KrasoDrum, this enables the renovation of distances beyond the capacity of the drum and converts your KrasoTech Inversion drum into an „Endless“ Sluice- Inversion device.



- ✓ Aluminium or stainless steel version
- ✓ Outlet storz, camlock, Easy Klick, etc.

**POWER-Shot Function**  
For especially difficult bends

### KrasoTech Exclusive

#### EasyKlick fast seal:

- ◆ No screws
- ◆ No clamps
- ◆ Faster
- ◆ Easier
- ◆ Safer
- ◆ Ready within seconds

#### Usable media:

- ✓ Air
- ✓ Water
- ✓ Steam
- ✓ Light curing
- ✓ YOUR Design
- ✓ YOUR Logo

### TIP

Our lightweight  
KrasoDrum Light



# KrasoTech®

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# KrasoDrum®

KrasoDrum D - driven in versions up to DN1600 (more upon request)

- ◆ Made of stainless steel
- ◆ Electrical/hydraulic drive
- ◆ Stepless speed regulation
- ◆ Variable working pressure up to 6 bar (or upon agreement)
- ◆ Front or rear loader
- ◆ Hydraulic opening/closing of the revision opening
- ◆ Automatic hydraulic locking of the revision opening
- ◆ Mounted or self propelled rack
- ◆ Electrical air in- and outlet
- ◆ Inside lighting
- ◆ Automatic liner lubrication and cooling
- ◆ Individual customised production for your renovation vehicle

## KrasoTech Exclusive

### EasyKlick fast seal:

- ◆ No screws
- ◆ No clamps
- ◆ Faster
- ◆ Easier
- ◆ Safer
- ◆ Ready within seconds

### Usable media:

- ✓ Air
- ✓ Water
- ✓ Steam
- ✓ Light curing
- ✓ YOUR Design
- ✓ YOUR Logo

### Data collection

- ◆ External evaluation of all data like inversion pressure and speed,
- ◆ rotation direction, etc. via KrasoTechSoftware
- ◆ Personalised protocol with your logo
- ◆ External controlling and monitoring via PC or touch screen

Extendable to an „Endless“ Inversion device with the KrasoSluice Module system



## KrasoTech®

KrasoTech GmbH • Radeburger Str.9 • 01936 Lausnitz • Germany ☎ 0049 35795 47930 ✉ Info@KrasoTech.de • www.KrasoTech.de





Advantages: STARLIGHT

- + Curing begins only when exposed to UV light
- + Short curing times
- + Optimal combination of resin and liner
- + Can be adhered to the old pipe
- + Close-Fit Installation
- + Pipes and sewers ranging from DN 70 to DN 300
- + Lamp output from 175 - 1600 W
- + Navigates 90° angles in DN 100 and up
- + Cable lengths of 60 and 100 m



Siemens  
HMI touch panel

The STARLIGHT UV system – the perfect combination of equipment and consumable materials, consisting of a UV unit, three liner types and several resin options. For trenchless renovation of sewers and pipelines ranging from DN 70 to DN 300.

STARLIGHT	
Application area:	DN 70 – DN 300
Output:	175 W up to 1600 W
Cable lengths:	60 m and 100 m
Dimensions:	800 mm x 610 mm x 1260 mm (LxWxH)
Weight:	90 kg – 150 kg*
Power supply:	240 V   60 / 50 Hz   16 A
Power supply int.:	110 / 240 V   60 / 50 Hz   30 A / 16 A

\* Depending on configuration

UV light sources



DN 70 and up	DN 80 and up	DN 80 and up	DN 150 and up
60 m cable length (175 W drum)	60 m cable length (300 W drum)	60 m cable length (300 W drum)	100 m cable length (400 W drum)
1 x 175 W output	1 x 300 W output	2 x 300 W output	4 x 400 W output
DN 70 – DN 125	DN 80 – DN 225	DN 80 – DN 225	DN 150 – DN 300
Ø 52 mm	Ø 72 mm	Ø 72 mm	Ø 100 mm

UV resins



RayCure UV resins

Ready-to-use premixed resins, outstanding impregnation capacity, storable, perfectly designed for use with the STARLIGHT UV hose liners.

RayCure UA resin  
(urethane-acrylate/methacrylate)

- ✓ Resistant to standard household wastewater and chemicals
- ✓ Outstanding static values
- ✓ Installs without an annulus (close-fit)
- ✓ Can be adhered to the old pipe

RayCure VE, RayCure EP and RayCure PU

- ✓ By special request due to budget considerations or dimensional stability requirements with chemical or heat exposure

Product name	DIBt certificate	Curing	Storage time (5 – 35 °C)	Curing time/max. temp.
RayCure UA	requested	UV Hg lamp or LED	min. 6 months	3 – 5 min / 100 °C – 120 °C
RayCure VE	requested	UV Hg lamp or LED	min. 6 months	3 – 5 min / 120 °C – 140 °C

UV hose liners



STARLIGHT hose liners

Polyester-fiber-based hose liners

STARLIGHT Plus  
ThermoLiner Stretch  
BendiLiner

- ✓ High-quality 250 µm PU coating.
- ✓ The right material for every application.
- ✓ Dimension change possible with all types.
- ✓ Seam optimized for UV curing.

Product name	DIBt certificate	Application	Material	Angle navigation	Curing	Dimension change	Inside diameters
STARLIGHT Plus	requested	ground connection	needle felt	very good	UV Hg lamp or LED	1 step	DN 70 – DN 300
ThermoLiner Stretch	requested	ground connection	nonwoven	very good	UV Hg lamp or LED	2 step	DN 70 – DN 225
BendiLiner	no	downpipe	knit	very good	UV Hg lamp or LED	1 step	DN 70 – DN 150



**Advantages:****Elastotec Power Spray**

- + For small inside diameters in in-house applications
- + Perfectly coordinated machine technology
- + Fast, damage-free renovation



## Elastotec Power Spray

Pipe coating without liners – fast, clean and cost-effective.

Especially for use in in-house applications, in tight conditions, for small and hard-to-access wastewater lines and downpipes with inside diameters ranging from DN 32 to DN 200.



Machine technology



Coating material in plastic pipes

## Elastotec Power Spray technology

Proven machine technology with extremely compact dimensions.

- ✓ A fully automatic machine
- ✓ Multilingual, easy-to-use touchscreen interface
- ✓ Precise calculation of resin volumes / mixing ratios / flow rates



## Also available as a fully equipped vehicle



## Elastotec Power Spray Material

A reaction resin specifically formulated for special requirements.



- ✓ Solvent-free two-component PU material
- ✓ Very fast reaction time of 2 – 3 minutes
- ✓ Final layer thickness: 2 – 4 mm
- ✓ Coating is resistant to pressure, domestic wastewater and grease
- ✓ Not sensitive to high temperatures/temperature fluctuations
- ✓ Suitable for all standard pipe materials, with outstanding adhesion
- ✓ No contamination, noise or unpleasant odors



"Picote" required  
(see page 29).



Before



After

# CLIMBOLINO® **E**

## Electric milling robot

- Compact design
- Decades of experience
- Product design made in Germany
- Utmost ease of use
- Battery operation

**NOW NEW!**

**EVEN UP TO 12"**



**THE E-REVOLUTION**  
FOR 2" TO 12"



## E-revolution made in Germany

Decades of experience in milling robots has paved the way for the **CLIMBOLINO®E** house connection robot.

The milling robot was specially developed for present-day conditions in sewer rehabilitation. Featuring a powerful electric milling spindle, plus exceptional bending capabilities, in nine sizes with only one system, the service connection robot has truly revolutionised sewer rehabilitation.

- Powerful electric milling spindle with max. 1 kw
- 56 V battery operation
- 12" LED display for stress-free work
- 30 m hose reel, extendible
- Every camera angle adjustable
- Compact hygienic hose box
- 90% energy saving compared to conventional milling robots
- 9 sizes from 2" - 12"



**Practical, ergonomic and compact**  
SPACE-SAVING DESIGN FOR EASY HANDLING



**Attachments for every application**  
SPECIALLY DESIGNED MILLING TOOLS  
FOR EVERY MATERIAL



**Perfect view and monitoring**  
WITH THE SOPHISTICATED CONTROL UNIT AND EXTRA LARGE  
DISPLAY



**Independent power supply**  
POWERED BY TWO EXCHANGEABLE BATTERIES



**Everything to hand**  
WITH THE INTEGRATED TOOL SET




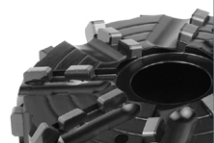



**Powerful unit**  
MAXIMUM OUTPUT IN MINIMUM SPACE



# PRODUCT Catalogue

## For Hächler

Climbolino E

<b>N•TEC II®</b> 	<p>Field-Proven Standard Diamond Tools with Outstanding Value for Purchase Investment</p> <p><b>Materials to be processed</b></p> <ul style="list-style-type: none"> <li>Reinforced Concrete</li> <li>Concrete</li> <li>Deposits / Fouling</li> <li>Cast Iron</li> <li>Vitrified Clay</li> </ul>
<b>BLACK•LINE</b> 	<p>High-Tech Milling Tools made of PCD with Unbeatable Cutting and Stock Removal Performance for Almost Every Material</p> <p><b>Materials to be processed</b></p> <ul style="list-style-type: none"> <li>UV CIPP</li> <li>Roots</li> <li>PVC</li> <li>Felt CIPP</li> </ul>
<b>linerCUT Pro®</b> 	<p>Absolutely Smooth-Running and Precise PCD Cutting Tools for Opening CIPP - Optimized for UV CIPP -</p> <p><b>Materials to be processed</b></p> <ul style="list-style-type: none"> <li>UV CIPP</li> <li>PVC</li> <li>Felt CIPP</li> </ul>
<b>linerCUT Pro® 2.0</b> 	<p>Absolutely Smooth-Running and Precise PCD Cutting Tools for Opening CIPP - All Kinds of CIPP and PVC -</p> <p><b>Materials to be processed</b></p> <ul style="list-style-type: none"> <li>UV CIPP</li> <li>PVC</li> <li>Felt CIPP</li> </ul>
<b>D•GRIT</b> 	<p>Milling Tools with Diamond Granules for Opening CIPP - Optimal for UV CIPP and Lined Cast Iron Pipes -</p> <p><b>Materials to be processed</b></p> <ul style="list-style-type: none"> <li>UV CIPP</li> <li>PVC</li> <li>Felt CIPP</li> </ul>
<b>HM•LINE</b> 	<p>Cost-Efficient Milling Tools with Carbide Granulate Tipping for Opening and Reworking CIPP</p> <p><b>Materials to be processed</b></p> <ul style="list-style-type: none"> <li>UV CIPP</li> <li>Roots</li> <li>PVC</li> <li>Felt CIPP</li> </ul>
<b>VHM•LINE</b> 	<p>Special Milling Tools for Processing Steel and Cast Iron</p> <p><b>Materials to be processed</b></p> <ul style="list-style-type: none"> <li>Cast Iron</li> <li>Steel</li> </ul>

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