



GLOBAL DETECT CABLE LAYING EQUIPMENT CATALOGUE

2011/2012

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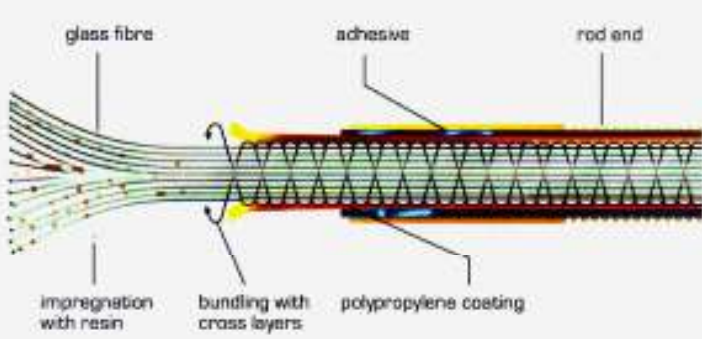
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CABLE HAULING


KATIMEX TECHNICAL INFORMATION:

All fibres are embedded together in an elastic polyester resin and cross wrapped to form a compact bound core. This forms a wavy, highly resinous outer layer, which takes up the surface tension produced when the rod is bent. This makes a very small radius of curvature possible so that tight bends are easily passed through. This product is German made.


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Polykat® fibreglass profiles are basic elements in all Katimex Cable pulling systems




Katif Blitz
3,0mm
domestic installation



Cablemax
4,5mm
underfloor installations



Cablejet
7,2mm
street lighting & signaling systems



Pipe Eel
9,0mm
11,0mm
underground cabling

Polykat® fibreglass profile



Polykat® fibreglass profile
fibreglass core, polypropylene coating
sold by metre

Rod - Ø	fibreglass core - Ø	Breaking load	Art.-Nr.
3,0mm	2,1mm	5,0kN	101115
4,5mm	3,0mm	10,3kN	102013
7,2mm	5,0mm	28,0kN	103195
9,0mm	6,2mm	40,0kN	103198
11,0mm	7,2mm	65,0kN	103199

CABLE HAULING

KATIMEX RODS:

CODE:	DESCRIPTION:	SIZE:
<u>BLITZ:</u>		
KMR101820	KATI BLITZ COMPACT SET	3mm X 20m
KMR101830	KATI BLITZ COMPACT SET	3mm X 30m
KMR101850	KATI BLITZ COMPACT SET	3mm X 50m
KMS101320	SPARE ROD	3mm X 20m
KMS101330	SPARE ROD	3mm X 30m
KMS101350	SPARE ROD	3mm X 50m



<u>MAX:</u>		
KMR102026	CABLE MAX	4.5mm X 60m
KMR102028	CABLE MAX	4.5mm X 80m
KMS102036	SPARE ROD	4.5mm X 60m
KMS102038	SPARE ROD	4.5mm X 80m



<u>JET:</u>		
KMR103508	CABLE JET	7.2mm X 100m
KMR103509	CABLE JET	7.2mm X 120m
KMS103558	SPARE ROD	7.2mm X 100m
KMS103559	SPARE ROD	7.2mm X 120m



<u>EEL:</u>		
KMR103012	PIPE EEL	9mm X 120m
KMR103014	PIPE EEL	9mm X 150m
KMR103015	PIPE EEL	11mm X 150m
KMR103020	PIPE EEL	11mm X 200m
KMR103030	PIPE EEL	11mm X 300m
KMS103078	SPARE ROD	9mm X 120m
KMS103079	SPARE ROD	9mm X 150m
KMS103081	SPARE ROD	11mm X 150m
KMS103086	SPARE ROD	11mm X 200m
KMS103091	SPARE ROD	11mm X 250m
KMS103096	SPARE ROD	11mm X 300m



CABLE HAULING

VETTER RODS TECHNICAL INFORMATION:

THE EASY WAY THROUGH:

In most cases, pulling cables into underground pipes is no easy task for the cable layer. Many obstacles make the work difficult, irrespective of whether it is being carried out with short lengths of pipe of 60m or the usual shaft intervals of 100 – 120m. Complicated problems can arise, particularly in the case of lengths of pipes for fibre optic cables which today measure around 1000 – 2000m.

With good planning, the equipment needed can be reduced to a minimum. Cleverly designed lightweight units are essential, particularly in the important field of installing ropes or cables in pipes. The quality of these units determines whether a cable passes through the pipe or not.

CONDUIT SNAKES:

Conduit snakes have become indispensable for pulling winch ropes and cables through conduits. The round fibre glass rod with a high abrasion-resistant covering of polyamide can be easily pushed through long conduits. The entire unit is light so that it can be used safely by one person only.

The galvanized storage reel can be operated upright or horizontally. Standard lengths of rods can be coupled using connecting swivels or catch hooks.

Advantages:

- Extreme high directional stability:
The glass core is approx. 27% stronger than the core of any comparable snakes on the European market. Not only is the external diameter of a conduit snake is important, much more stability depends on the pure glass fibre core diameter.
- Low danger of fracture:
Through the strong glass fibre core, failures, interruptions and repairs are reduced to a minimum. This is the advantage, the benefit is cost saving.
- High price level?
The opposite, Vetter offers first quality products for very reasonable pricing.

CABLE HAULING

VETTER RODS TECHNICAL INFORMATION (cont):



Techn. Daten der Röhrenschlangen		Techn. details of the conduit snakes		Données techniques des brins rigides		Datos técnicos de los guías	
Code	Ø mm/ m	Haspel-Ø	Reel-Ø	Dévid.-Ø	Devan.-Ø	kg	
213.500	RS 6 - 30	600	600	600	600	6,500	
213.540	RS 6 - 50	600	600	600	600	7,500	
213.560	RS 6 - 60	600	600	600	600	8,000	
215.100	RS 9 - 40	800	800	800	800	18,600	
215.160	RS 9 - 60	800	800	800	800	20,800	
215.240	RS 9 - 80	800	800	800	800	23,000	
215.250	RS 9 - 80	1000	1000	1000	1000	30,100	
215.310	RS 9 - 100	1000	1000	1000	1000	32,300	
215.370	RS 9 - 120	1000	1000	1000	1000	34,500	
221.310	RS 11 - 100	1000	1000	1000	1000	37,300	
221.380	RS 11 - 125	1000	1000	1000	1000	41,300	
221.460	RS 11 - 150	1000	1000	1000	1000	45,300	
221.470	RS 11 - 150	1200	1200	1200	1200	50,800	
221.610	RS 11 - 200	1200	1200	1200	1200	58,800	
221.760	RS 11 - 250	1200	1200	1200	1200	66,800	
221.910	RS 11 - 300	1200	1200	1200	1200	74,900	



Röhrenschlangen ohne Haspel			Conduit snakes without reels			Brins rigides sans dévidoir			Guías sin devanaderas		
Alle Röhrenschlangen sind auch lose, ohne Haspel lieferbar. Sie sind ausgerüstet mit Alu-Kopf und ab Ø 9 mm mit Schäkel.			All conduit snakes are available as loose snakes without reels. They are fitted with an aluminum head and, for sizes of Ø 9 mm or more, with shackles.			Tous les brins rigides peuvent être livrés sans dévidoir. Ils sont munis de têtes en aluminium et de manilles à partir de 9 mm de Ø.			Las guías pueden suministrarse sueltas, sin devanadera. Están provistas de una cabeza de aluminio y, a partir de Ø 9 mm, de un grillete.		
Code	Ø mm/m	kg	Code	Ø mm/m	kg	Code	Ø mm/m	kg	Code	Ø mm/m	kg
214.500	ES 6 - 30	1,600	223.310	ES 11 - 100	16,200	223.310	ES 11 - 100	16,200	223.310	ES 11 - 100	16,200
214.540	ES 6 - 50	2,600	223.380	ES 11 - 125	20,200	223.380	ES 11 - 125	20,200	223.380	ES 11 - 125	20,200
214.560	ES 6 - 60	3,100	223.460	ES 11 - 150	24,200	223.460	ES 11 - 150	24,200	223.460	ES 11 - 150	24,200
217.100	ES 9 - 40	4,600	223.610	ES 11 - 200	32,200	223.610	ES 11 - 200	32,200	223.610	ES 11 - 200	32,200
217.160	ES 9 - 60	6,800	223.760	ES 11 - 250	40,200	223.760	ES 11 - 250	40,200	223.760	ES 11 - 250	40,200
217.240	ES 9 - 80	9,000	223.910	ES 11 - 300	48,200	223.910	ES 11 - 300	48,200	223.910	ES 11 - 300	48,200
217.310	ES 9 - 100	11,200									
217.370	ES 9 - 120	13,400									



Kupplungswirbel		Connecting swivel	Raccord tournant	Empalme giratorio
Zum Verbinden von 2 Röhrenschlangen.		For connecting 2 rods, galvan.	Pour relier bout à bout deux brins, galvan.	Para unir 2 guías, galvanizado.
Code	Type	Dimension mm	Für/For/Pour/Para	kg
226.160	RSK 12	Ø 12x55/M 8	RS 6-...	0,040
226.170	RSK 18	Ø 18x80/M12	RS 9-... + RS 11-...	0,110

CABLE HAULING

VETTER RODS:

CODE:	DESCRIPTION:	SIZE:
<u>MINI:</u>		
V211.002	MINI SNAKE	3mm X 20m
VS211.010	SPARE ROD	3mm X 20m
V211.004	MINI SNAKE	3mm X 30m
VS211.012	SPARE ROD	3mm X 30m
V211.006	MINI SNAKE	3mm X 50m
VS211.014	SPARE ROD	3mm X 50m



<u>V MAX:</u>		
V211.130	V-MAX	4.5mm X 60m
VS211.630	SPARE ROD	4.5mm X 60m
V211.170	V-MAX	4.5mm X 80m
VS211.670	SPARE ROD	4.5mm X 80m



<u>V JET:</u>		
V213.643	V-JET	6.5mm X 100m
VS214.700	SPARE ROD	6.5mm X 100m



<u>V EEL:</u>		
V215.363	V -EEL	9mm X 120m
V221.463	V-EEL	11mm X 150m
V221.603	V-EEL	11mm X 200m
V221.763	V-EEL	11mm X 250m
V221.910	V-EEL	11mm X 300m
VS217.373	SPARE ROD	9mm X 120m
VS223.463	SPARE ROD	11mm X 150m
VS223.613	SPARE ROD	11mm X 200m
VS223.763	SPARE ROD	11mm X 250m
VS223.913	SPARE ROD	11mm X 300m
V226.590	SERVICE SET	9mm
V226.633	SERVICE SET	11mm



REELS AND FRAMES:

KMS 102023	CABLE MAX	Suit 4.5mm rod up to 80m
KMS 103800	"Z" CABLE JET	Suit 7.2mm rod up to 120m
V-226010	VETTER 350mm	Suit 4.5mm up to 80m
V-226020	VETTER 600mm	Suit 6mm rod up to 80m
T- MFD	GLOBAL 250mm	Suit 4.5mm up to 80m
KMS 103900E	EEL Small eco black	Suit 9mm rod up to 200m
KMS 103905E	EEL Large eco black	Suit 11mm rod up to 300m



CABLE HAULING

GLOBAL RODS TECHNICAL INFORMATION:

CABLE JOCKEY MINI DUCT RODDER (T-100505)

Wire and cable installation device based on 4.5mm diameter composite fibreglass rod. Ideal for wiring of low weight power cables, fibre optic cables and datacom cables in under floor channels, multi-storey office complexes, industrial conduits and long length electrical circuits up to 80m.



CABLE PLUS MIDI DUCT RODDER (T-ST-CP100)

Professional cable installation device based on 6.7mm diameter composite fibreglass rod. Ideal for installation of low weight power cables, fibre optic cables, datacom cables. Useful for cable installation in street lighting, campus installations, industrial conduits up to 100m.



CABLE TIGER MAXI DUCT RODDER (T-ST-CD200)

Professional cable installation device based on 9.0mm diameter composite fibreglass rod. Ideal for installation of fibre optic and telecom cables in underground ducts and medium weight power cables up to 300m.



CABLE HAULING

GLOBAL RODS:


CODE:	DESCRIPTION:	SIZE:
T-410-30S	GLASS JACK	30m x 3mm
T-101F-40S	POWER ROD	40m x 3mm
T-201P-40S	CABLE MASTER	40m x 3mm
T-100505	CABLE JOCKEY	80m x 4.5mm
T-ST-CP100	CABLE PLUS	100m x 6.7mm
T-ST-CD200	CABLE TIGER	200m x 9mm
T-100420	CABLE PRO (Wall pull through with screw rods)	4 x 1m (KIT)
T-100444	CABLE PRO (Wall pull through with screw rods)	6 x 1m (KIT)




GLOBAL ROD ACCESSORIES:

T108BG10	FLEXIBLE GUIDE HEAD 7mm	(CABLE MASTER)
T800CM	SERVICE SET	(CABLE MASTER)
T800CJ	SERVICE SET	(CABLE JOCKEY)
T800CP	SERVICE SET	(CABLE PLUS)
T800CT	SERVICE SET	(CABLE TIGER)

Glit®



Glit® is our new lubricant for domestic installations. It is optimized for the usage with our Ket® Bitz and Cablenax. Its new formula reduces friction during cable pulling by more 50%.



Content	Packaging*	Weight	Art.-Nr.
200ml	tube	0,2kg	101370
200ml/tube	10 tubes/display box	2,1kg	101371
1L	bucket	1,1kg	101373
5L	bucket	5,2kg	101374
10L	bucket	10,4kg	101375

ROD ACCESSORIES

CODE:	DESCRIPTION:	SIZE:
KATIBLITZ ACCESSORIES:		
KMA101245	KATI BLITZ REPAIR KIT	
KMA101042	FLEX GUIDE HEAD SET	7/10/13mm
KMA101033	FLEX GUIDE HEAD 3 PER SET	7mm
KMA101034	FLEX GUIDE HEAD 3 PER SET	10mm
KMA101035	FLEX GUIDE HEAD 3 PER SET	13mm
KMA101017	PULLING EYE	
KMA101016	ROD END	
KMA101015	SPLICE	
KMA101027	GLUE 3g	



CABLEMAX ACCESSORIES:		
KMA102055	CABLE MAX REPAIR KIT	
KMA102018	GUIDE HEAD WITH PULLING EYE	
KMA101042	FLEX GUIDE HEAD SET	7/10/13mm
KMA101033	FLEX GUIDE HEAD 3 PER SET	7mm
KMA101034	FLEX GUIDE HEAD 3 PER SET	10mm
KMA101035	FLEX GUIDE HEAD 3 PER SET	13mm
KMA101017	PULLING EYE	
KMA102017	ROD END	
KMA102008	SPLICE	
KMA101027	GLUE 3g	



CABLE JET ACCESSORIES:		
KMA103595	CABLE JET REPAIR KIT	
KMA103249	ROD END	
KMA103487	SPLICE	
KMA103210	GLUE 20g	
KMA103208	GUIDE HEAD/ PULLING EYE	18mm
KMA103206	GUIDE HEAD/ PULLING EYE	25mm
KMA103207	GUIDE HEAD	40mm
KMA100493	SHACKLE	8mm
KMA100491	SHACKLE	10mm
KMA100494	SHACKLE	12mm



PIPE EEL ACCESSORIES:		
KMA103138/39	PIPE EEL REPAIR KIT	9/11mm
KMA103200/02	ROD END	9/11mm
KMA103203/05	SPLICE	9/11mm
KMA103210	GLUE 20 g	9/11mm
KMA103208	GUIDE HEAD/ PULLING EYE	18mm
KMA103206	GUIDE HEAD/ PULLING EYE	25mm
KMA103207	GUIDE HEAD	40mm
KMA100493	SHACKLE	8mm
KMA100491	SHACKLE	10mm
KMA100494	SHACKLE	12mm



VETTER ACCESSORIES:		
V226.500	SERVICE SET	4.5mm
V226.530	SERVICE SET	6mm
V226.633	SERVICE SET	11mm

TRACE RODS

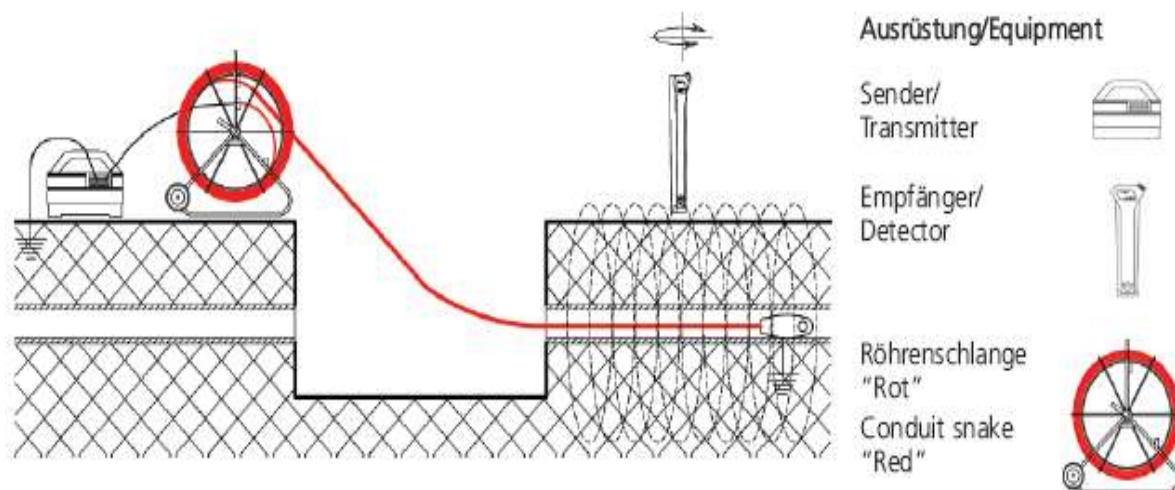
VETTER TRACE RODS TECHNICAL INFORMATION:

LOCATING OF CABLES AND PIPES:

Every year there are immense losses because of damaged cables and lines. These losses can be prevented by use of a location and detection technology. Many site managers and civil engineers have little theoretical and practical knowledge of a locating and detecting system.

The new Vetter-location program has the following advantages:

- Use of existing units, complete with suitable technical equipment;
- Sturdy construction and multiple use of the units;
- A variety of applications in all kinds of Civil Engineering.



TRACE RODS

VETTER TRACE RODS:

CODE	DESCRIPTION	SIZE
V211.029	MINI SNAKE	3mm X 20m
V211.031	MINI SNAKE	3mm X 30m
V211.033	MINI SNAKE	3mm X 50m
V225.005	V-MAX	4.5mm X 60m
V225.007	V-MAX	4.5mm X 80m
V225.038	V JET	7.4mm X 80m
V225.040	V-JET	7.4mm X 100m
V225.211	V-EEL	9.0 mm X 120m
V225.250	V-EEL	11mm X 150m



MINI SNAKE 3.0mm



V-MAX 4.5mm



V-JET 7.4mm



V-EEL 9.0mm



V-EEL 11.0mm

ROD ONLY:

CODE	DESCRIPTION	SIZE
V211.037	TRACE ROD ONLY	1 WIRE (3mm X 20m)
V211.039	TRACE ROD ONLY	1 WIRE (3mm X 30m)
V211.041	TRACE ROD ONLY	1 WIRE (3mm X 50m)
V225.015	TRACE ROD ONLY	4 WIRE (4.5mm X 80m)
V225.051	TRACE ROD ONLY	6 WIRE (7.4mm X 100m)
V225.268	TRACE ROD ONLY	6 WIRE (11 mm X 150+m)



**** PLEASE NOTE: ALL VETTER TRACE RODS ARE RED IN COLOUR ****

TRACE RODS

KATIMEX TRACE RODS TECHNICAL INFORMATION:

LOCATING DEVICES (FOR POINT AND ROUTE LOCATION):

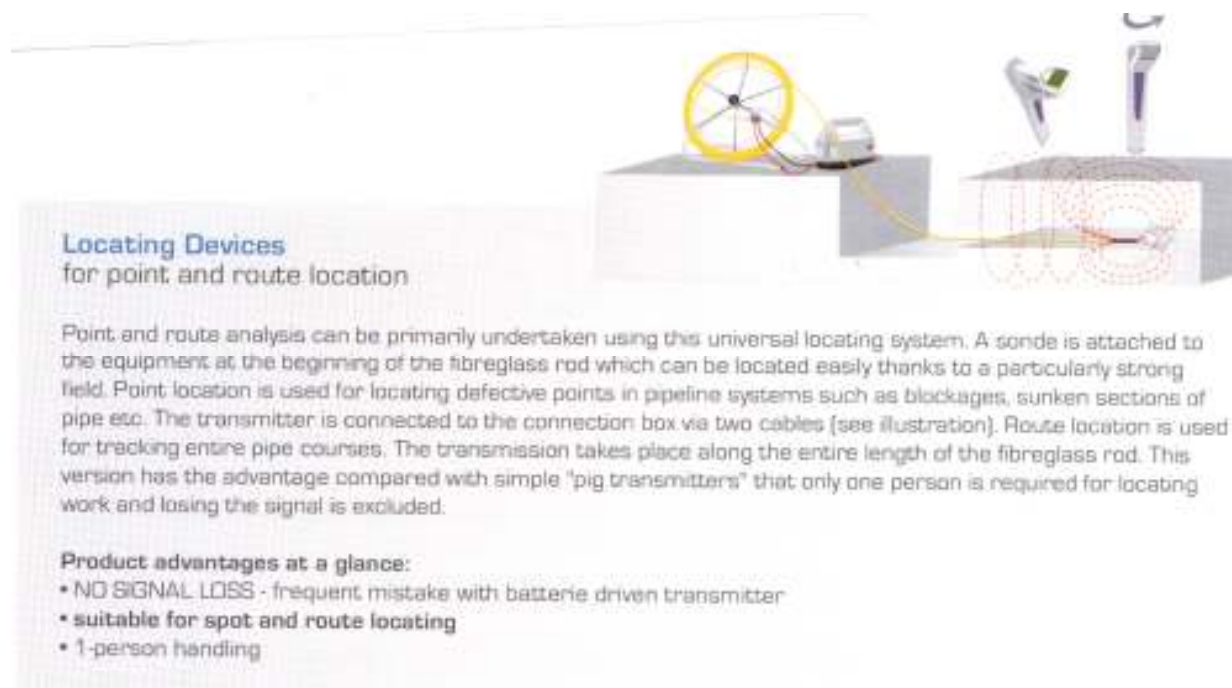
To repair and recondition pits and cables underground can be a costly, time consuming operation. Any company undertaking an underground engineering contract needs to ensure that the routing of any shaft can be quickly and safely identified.

Finding non-conductive pipes is significantly simplified and often, for the first time, made feasible by using the Katimex locating systems. At the centre of the unit is the Polykat fibreglass rod, which has the benefit of an extremely high thrust stability allied to a small radius of curvature. The Polykat fibreglass rod contains one or more copper wires that emit a locatable signal over the entire band length via the connection of a high frequency transmitter. The signal emitted can be picked up to a depth of several meters dependent on the receiving equipment fitted and the local conditions.

Units with a permanently fixed sonde can also be used for locating end points where there is a pipe fault, different diameters of Polykat fibreglass rod are available for various pipe diameters and the rod can be supplied in lengths up to 300m.

Typical areas of application where the Katimex Locating Equipment is suitable include all types of underground construction, water and sewage pipelines, cable laying and repairing of drainage pipes.

The Katimex locating systems are now being used extensively in domestic installations and repair to determine the course of pipe work or to locate faults.



TRACE RODS

CODE:	DESCRIPTION:	SIZE:
KMRT 104085	MAX T	4.5mm X 40m
KMRT 104087	MAX T	4.5mm X 60m
KMRT 104089	MAX T	4.5mm X 80m
KMRT 104095	JET T	7.5mm X 40m
KMRT 104097	JET T	7.5mm X 60m
KMRT 104099	JET T	7.5mm X 90m
KMRT 104115	EEL T	11mm X 150m

KATIMEX "CABLE-MAX T":

4.5mm rod containing 4 individual copper wires (as pictured right).
Can be in series, parallel or individual and suitable for camera connections.

Available in 40, 60 & 80m length in frame ready to be used.
Includes a guide head and generator connection.



KATIMEX "CABLE-JET T":

7.5mm Rod containing 6 individual copper wires
(as pictured right).

Available in 40, 60 & 90m or any length (at extra cost).
Includes frame, stand, guide head and generator connection.



KATIMEX "EEL T":

11.0mm Rod containing 6 copper wires (as pictured right).

Available in 150m or longer at extra cost.
Includes frame, stand, guide head and generator connection.



ROD ONLY:

CODE:	DESCRIPTION: (Available per metre)
KMST 104092	4.5mm (4 wire)
KMST 104104	7.5mm (6 wire)
KMST 104120	11mm (6 wire)

**** PLEASE NOTE: ALL KATIMEX TRACE RODS ARE YELLOW IN COLOUR ****

PIPE & CABLE LOCATING

The PL series Pipe & Cable locator assists you with its high performance on the engineering work site in locating the underground utilities such as the metallic water lines, gas lines, tracer wire by plastic pipe, telephone/TV cables, copper and aluminum wire, conduit and power lines.

CODE: DESCRIPTION:

FPL960AC Easy visual guide to operate by the large LCD display and keys arranged on one panel for the operator to choose a correct mode without a puzzle on site. Single coil antenna to track buried metallic lines and a differential coil antenna to locate the same utility correctly. can run 3 different frequencies, 27kHz, 83kHz and 334kHz and also the ability to locate power cables when active.

Kit Includes:

Transmitter, receiver, direct mode cable, grounding stake, warning flag, soft carry bag, instruction manual.

Optional:

Clamp coil, sondes small and large.

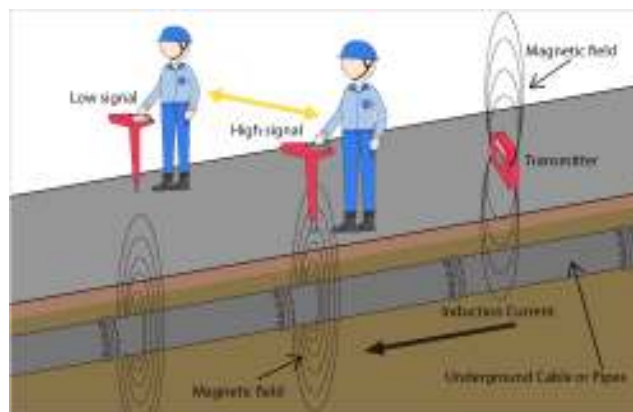
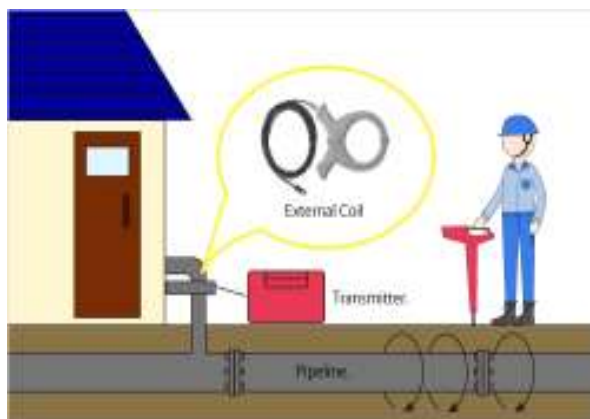
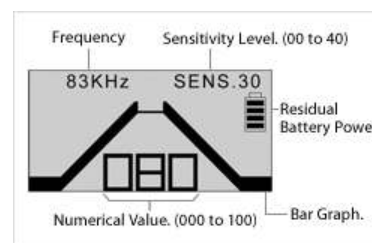
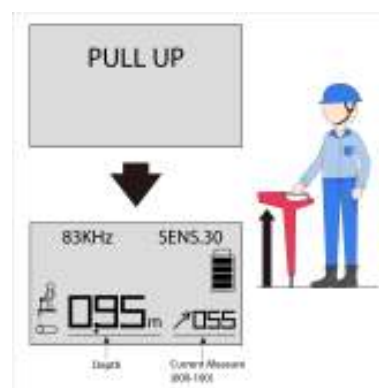
FPL2000 Equipped with 3 different frequencies. Has a live cable mode setting to distinguish the live cables from other buried metallic line utilities. -Automatic depth reading on line utilities and indicated on LCD screen.

Kit Includes:

Transmitter, receiver, direct mode cable, grounding warning flag, soft carry bag, instruction manual.

Optional:

Clamp coil, sondes, small and large.



**** PLEASE VIEW OUR LIST OF TRACE RODS THAT ACCOMPANY THIS PRODUCT
THEY CAN BE FOUND ON PAGES 5 & 6 OF THIS CATALOGUE ****

LEAK DETECTION EQUIPMENT

FUJI WATER LEAK DETECTION:

CODE:

DESCRIPTION:

FHG-10All

The new water leak detector designed on ergonomics. Ground microphone (pick up) equipped with the characteristic ball to break wind noise. Lightweight hand set (500g). Large meter deflects sensitivity and indicates clearly the intensity of leak sound.



FLD-7

This compact water leak detector is only 450g and is designed for one handed operation. Compact amplifier with mute button. Use for leak surveys and leak pinpointing. 2 section contact rods.



FSB-8D

Designed for leak detection on PVC and PE pipes. High sensitivity. Firm listening by standard short rod with the unique anti slip finish. Has a notch filter and protection against over current.



NON METALLIC PIPE LOCATOR:

FNPL-100

This unit has an automatic adjustment function for tuning in a resonance frequency of each pipe. Because of the unique principal, the NPL-100 can locate not only non metallic pipes but also metallic pipes with insulating joints.



CABLE DRUM HANDLING EQUIPMENT

TECHNICAL INFORMATION:

OPTIMAL SOLUTIONS FOR EASY & SAFE DECOILING:

ATS offers a wide range of drum handling products, drum storage systems and measuring tools for small and medium Cable Drums.

Our Roller Rails are manufactured from welded aluminium sections and provide easy and safe handling of heavy Cable Drums (up to 1 Tonne). In the larger version the rollers are manufactured using aluminium alloy and are fitted with dust and soil proof bearings to ensure an even and efficient operation.

The drum is rolled onto the rails over the flat beveled end and the rollers can be locked for removal of the cable drum. The rollers can be adjusted when using smaller diameter drums. When working exclusively with small diameter drums the practical Mini Roller Rails can be used.

The Decoiler is used for disposable cable drums and is designed for the easy and safe decoiling of cables from damaged cable drums. With this Decoiler cable drums up to 800mm diameter and a weight of 200 kilograms can be loaded, moved and decoiled by a single person.

The sturdy and robust Cable Drum Decoiler is manufactured with a powder coated steel frame which guarantees durability and long life for this maintenance free decoiling device.

EASY & RATIONAL:

In his daily job, a Cable Layer is often faced with difficulties caused by the versatile work involving the cable drum. When unwinding the cable, using the right equipment is crucial, it can make the job an easy task or a difficult one. Thus, it is particularly important that the drums be unwound easily which ensures smooth working and easy single-handed operation.

The drum shafts, mounted in rotating bearings, feature cones. They provide a central mount for the drum, independent of weight, thus forming the basis for easy rotation. In addition, all other items of equipment are designed to ensure economical and efficient working with high functionality.



CABLE DRUM HANDLING EQUIPMENT

CODE:
DESCRIPTION:

KMA107016	HYDROKAT DRUM LIFTER 10 TONNE Height 1070mm, drum diameter 700mm-2200mm, Unit weight 53kg. Maximum axle diameter 76mm
KMA107017	HYDROKAT DRUM LIFTER 10 TONNE Height 1635mm, drum diameter 700mm-3200mm, Unit weight 69kg. Maximum axle diameter 76mm, hoisting height 150mm
KMA107027	HYDROKAT DRUM LIFTER 10 TONNE Same dimensions and capacities as above but fitted with the new live axle support as standard.
KMA 107029	HYDROKAT PLUS SADDLE Live axel bearing support allows axle to rotate in support for low friction Spooling of cable off drum



AXLES TO SUIT ABOVE:

KMA 107040	1500mm x 51mm CAP 3 TONNE
KMA 107041	1850mm x 75mm CAP 5 TONNE
KMA 107042	2200mm x 75mm CAP 5 TONNE

RETAINING CLIPS TO SUIT ABOVE AXLES



VETTER CABLE DRUM JACKS:

Sturdy construction, High lift, large base plate for stability
These units are Galvanized for long life and durability

CODE:	LOAD:	DRUM SIZE:
V 312.130	30 kN	800-2500 mm
V 312.160	60 kN	900-3200 mm
V 312.200	80 kN	900-3200 mm



LIVE AXLES AND POSITIONING CONES:

Axle with recessed ends fitted with friction bearings for smooth spool
off of cable and supplied with 2 clamps.

CODE:	TYPE:	SIZE:	MAX LOAD:
314.760	Steel tube	60 x 1500mm	2 Tonne
314.770	Steel tube	76 x 1850mm	6 Tonne
314.850	Steel tube	89 x 2200 mm	10 Tonne
314.890	Steel tube	95 x 2200mm	14 Tonne



****PLEASE NOTE - CONES COME IN VARIOUS SIZES. LET US KNOW
YOUR REQUIREMENTS AND WE WILL BE ABLE TO ASSIST****

CABLE DRUM HANDLING EQUIPMENT

ROLLER RAILS:

CODE:

DESCRIPTION:

KMA107019

ROLLER RAIL (1 TONNE CAPACITY)
Dimension 1000 x 220 x 140
Weight 7 kg
Drum diameter up to 1200mm with adjustable aluminium rollers.



KMA107025

ROLLER RAIL (200 KG CAP)
Dimension 590 x 120 x 152
Weight 2.7 kg
Drum diameter up to 800mm with adjustable aluminium rollers



V320.710

ROLLER RAIL (1 TONNE CAPACITY)
Dimension 970 x 220 x 140
Weight 7 kg for steel drum.
Diameter up to 1600mm with adjustable aluminium rollers.



CABLE DRUM TIPPING STANDS:

Excellent tipping leverage due to optimum positioning of centre of gravity. Capable of lifting heavy loads, ready to reel off in minutes.

V320.300

Drum sizes 600 to 800mm,
Weight 13 kg Max. 300 kg.

V320.320

Drum sizes 705 to 1000mm,
Weight 22 kg Max. 500 kg.

V320.330

Drum sizes 910 to 1250mm,
Weight 38 kg Max. 800 kg.

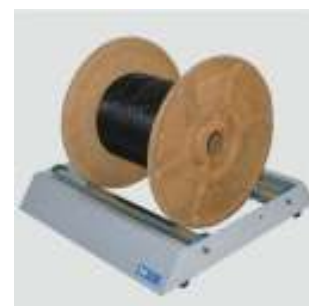


CABLE WIND OFF ROLLER:

Steel powder coated. Steel rollers with bearing, adjustable. Fitted with anti scratch rubber feet.

V320.660

Drum sizes 100 to 1200mm,
Weight 8.5 kg Max drum 155 kg.



CABLE HAULING ACCESSORIES

PIT PROTECTION BARRIERS:

ATS-TAB:

Weight: 14.4 KG
Height: 930mm
Length: 1430mm
Width: 1400mm

- Telstra approved.
- Original Manhole Guard without Tent Frame is suitable as a hauling aid for manhole recovery.



ATS- LWB:

Weight: 7.2 KG
Height: 930mm
Length: 1430mm
Width: 1400mm

- Not Telstra approved
- Standard Manhole Guard with or without ATS-LWB and is not suitable as a hauling aid for manhole recovery!



****PLEASE NOTE - TENT FRAMES ARE EXTRA IF REQUIRED****

PIT ACCESS TOOLS:

ATS-TPK:

The standard pit key is designed to lift.
Telstra style manhole lids and comes with a safety lock.



ATS-LHL:

Long Handle Manhole Lid Lifter "D" Type.
Suits heavy duty pit lids.



ATS-PBD:

"D" Type pit breaker to break seals on heavy
traffic pits.



CABLE ROLLERS & GUIDES

CABLE GUIDING EQUIPMENT TECHNICAL INFORMATION:

EFFICIENT & SAFE CABLE GUIDING IN TRENCHES:

Power and communication cables are often laid in open trenches where the road and ground conditions result in the cable route having a number of curves. With the cables own weight and the high tensions involved, the cable cannot be fed cleanly. For this reason suitable cable guiding devices are normally stipulated. For this area of application, we can offer a fully comprehensive range of ground cable rollers and protection systems.

The ground cable rollers and corner cable rollers have abrasion resistant aluminium alloy rollers which run on maintenance free dirt and dust-proof bearings. The sturdy and robust steel frames are completely galvanized and guarantee a long working life even under extreme conditions. A cost efficient option to the aluminium rollers is rollers made of steel, these units are light weight and easily and safely stacked for transportation.

SAFE GUIDING OVER THE EDGE OF THE MANHOLE IN TO THE CONDUIT:

When cables are being laid, particularly in built up urban areas, the cable is fed from the cable drum into the underground conduit system passing over edges. This would inevitably cause damage to the cable coating unless appropriate auxiliary devices are used. The Cable Guide Bows and pulley sets have been specifically designed for this application and enable the cable to be fed from the drum into the conduit without friction and kinks. By using these items the cable coating and winching wire is preserved and the power required for winching is reduced.

The Cable Guiding and run-off frame is designed to provide central feeding of the cable from the drum. Positioned between the manhole and the cable drum the cable runs automatically to the centre over two angled steel rollers. The robust steel construction can be folded together to enable easy and safe transportation.

Manhole cable guide bows, pulleys and tensioning bars are all constructed from robust steel. They are all completely galvanized and have long working lives even under tough conditions. The rollers are made of particularly abrasion-resistant aluminium alloy and run on maintenance free dirt and soil proof ball bearings. Tensioning bars are available in various lengths for the different manhole sizes. The guide bow can therefore be moved to various positions.

Sometimes the cable has to be pulled upwards, sometimes downwards, or even around the corner. This is almost impossible without the right roller. With the suitable roller, however, this task can be handled simply and economically.

CABLE ROLLERS AND GUIDES

**ROLLERS AND GUIDES FOR UNDER GROUND
ROLLERS AND GUIDES FOR ABOVE GROUND
PULLEYS AND GUIDES FOR OVER HEAD APPLICATIONS**



VA202.710

Edge Roller
Steel-Turning
Ø 200/120x90mm

VA274.060

Cable Shaft
Entrance Roller
with Snout*
Synthetic Rollers

VA209.220

Protective Cable
Bow (two pieces)
with Clamp *

VA209.520

Cable Lead-In
Tube for Conduit*

VA513.050

Snatch-Pulley
Aluminium
With Spring Hook
Ø 115/80x18/25mm

VA548.240

Snatch blocks
Steel Construction
with Safety Hook*

VA533.750

Tandem Connection
2x SR 580 Working/
Breaking Load 90 kN*



VA202.600

Cable Angle Roller
With 3 Steel-Rollers
Ø 120/76x145

VA202.624

Cable Angle Roller
with 3 Steel-Rollers
Ø 120/76x174

VA202.421

Cable Laying Roller
Steel/Base Plate
Cable-Ø 100

VA202.110

Cable Guide Roller
3 Steel Adjustable

VA202.400

Cable Laying Roller
Aluminium*

VA278.780

Cable Tray Curve
4 Steel Rollers

VA202.911

Cable Lead in Roller
3 Steel 45°
700mm Radius



VA201.125

Pipe Roller
1 Steel*
Up to 160mm

VA209.880

Cable Lead in Tube
4 Steel Roller
With Clamp*

VA201.250

Pipe Roller
2 Steel*
pipe Ø 500 mm

VA202.160

Mounting Base
to ER 4-100

VA202.700

Edge Roller
Steel Fixed

VA203.250

Cable Protection
1 Steel Roller
incl. Spindle

VA202.310

Cable Laying Roller
Aluminium
with Base Plate*



VA202.417

Cable Laying Roller
Plastic Ø 142/
60x148/172mm
width 220mm

VA202.470

Cable Laying Roller
Cylindrical Steel
Ø 80x216 Up to
Ø 170 cable

VA201.100

Pipe Roller
1 Poly Ø 115/
75x200 for pipe
Ø 500 mm, 200 kp

VA202.501

Cable Laying Roller
Aluminium for
Slight Curvatures
for cable Ø 120

VA202.090

Cable Run Out
2 Rollers
500mm long

VA202.855

Cable Diversion 45°
5 Steel Roller for
cable up to Ø 130

VA202.760

Cable Entrance Roller
3 Steel Ø 120/
76x145 R = 700
for cable Ø 130

****NOTE: VARIOUS UNITS AVAILABLE AS PER PIPE DIAMETER AND CABLE DIAMETER APPLICATIONS****

CABLE ROLLERS AND GUIDES

**ROLLERS AND GUIDES FOR UNDER GROUND
ROLLERS AND GUIDES FOR ABOVE GROUND
PULLEYS AND GUIDES FOR OVER HEAD APPLICATIONS**



VA209.140

Protective Cable
Bow for Sharp
Edges ϕ 100mm

VA202.820

Cable Angle Roller
6 Cast Steel ϕ 120/
76x145mm for
Cable ϕ 130

VA209.180

Protective Cable
Bow with Handle
and Stop ϕ 100mm

VA202.300

Cable Laying Roller
Aluminium ϕ 90/
50x100mm width
155 for cable ϕ 80

VA202.600

Cable Angle Roller
3 Steel ϕ 120/
76x145mm for
cable ϕ 100

VA203.300

Cable Brace Roller
1 Aluminium ϕ 125/
60x145mm
without brace

VA202.414

Cable Laying Roller
Steel ϕ 120/
76x185mm width
250 cable ϕ 120



VA209.540

Cable Lead In
Tube with Clamp*

VA203.500

Cable Guide
Aluminium Roller
 ϕ 220/100x140mm
Without Brace
For cable ϕ 110

VA202.200

Guide Roller Solid
4 Steel for cable up
to ϕ 100 fixed

VA202.130

Cable Guide Roller
4 Aluminium*

VA201.170

Pipe Roller
1 Base 2 Lateral
Aluminium for
Pipe ϕ 160mm

VA202.670

Cable Angle Roller
3 Steel for Cable
up to ϕ 160mm

VA209.740

Cable & Rope Lead
In Roller*



B1 - A0400069

Cable Roller with Base Plate
including drill hole & bearings
Cable- ϕ 100



B2 - A040006

Cable Roller with Base Plate
including turned up lip & bearings
Cable- ϕ 100



****NOTE: VARIOUS UNITS AVAILABLE AS PER PIPE DIAMETER AND CABLE DIAMETER APPLICATIONS****

CABLE GRIPS

TECHNICAL INFORMATION:

ATS Cable Grips are hand woven using stranded galvanized high tensile steel wire for standard applications, or stainless steel high tensile wire for special applications where a weather resistant material is preferable. Our suppliers manufacture a range of 'non-conductive' grips made from a durable man-made fibre of high tensile strength.

As they are made by hand, ATS Cable Grips are never affected by machine damage. The grips are thoroughly inspected at each stage of the manufacturing process by skilled operators.

Substantial safety ratios have been applied to all quoted minimum-breaking strengths. Additional safety factors, determined by application, should be applied. ATS recommends a minimum safety factor of 3/1 for horizontal pulls and 5/1 for overhead pulling. Due to metal fatigue, any M.B.S. printed will decrease in value after usage.

M.B.S. will decrease by approximately 10% for Stainless Steel.

PULLING GRIPS:

These grips are used whenever a cable or other cylindrical object needs to be pulled. The most common types are for the overhead cable installation on pylons, or underground installation in trenches. Additionally, pulling grips can make drain installation fast and efficient.

Our supplier produces a range of standard pulling grips in a range from 6mm to 180mm in diameter. ATS grips vary in pulling strengths through differing types to suit every application.

When pulling light loads, ATS recommends that a single weave (light duty) grip be used. For heavier, more challenging loads double or triple weave models (general and heavy duty) are ideal.

During the installation of long lengths of reeled electric cable, a dangerous torque may develop. To prevent this, it is recommended that a line swivel of the appropriate rated strength be used, allowing the cable to rotate freely, ensuring safe installation.

For the installation of longer cable lengths, ATS offer special 'Lace-Up' grips which are fastened at intermediate intervals along the cables length. The grips ensure an even load distribution and assist cable control.

Standard lengths of 600mm or 900mm are suitable for most applications, but ATS can readily supply special grips to order.

CABLE GRIPS

GRIP/STOCKING WITH SINGLE/DOUBLE EYE FOR CABLE HAULING:

**** PLEASE NOTE: SAFETY FACTOR OF 2 ON PULLING FORCE ****

CABLE GRIP WITH SINGLE EYE:

- galvanized steel strand
- back woven ends



SINGLE EYE PULLING STOCKINGS

Flexible eye as standard, double weave, general duty

RANGE (mm):	CODE:	L=600mm	CODE:	L=900mm	M.B.S (kg)
6 - 10	109 000	106/6	-	-	1504
8 - 16	109 025	106/8	109 054	109/8	1504
10 - 20	109 001	106/10	109 020	109/10	1860
20 - 30	109 002	106/20	109 019	109/20	2256
25 - 38	109 023	106/25	109 049	109/25	3696
30 - 40	109 003	106/30	109 018	109/30	3696
40 - 50	109 004	106/40	109 010	109/40	5490
50 - 65	109 005	106/50	109 011	109/50	5490
65 - 80	109 006	106/65	109 012	109/65	7320
80 - 95	109 007	106/80	109 013	109/80	7320
95 - 110	109 008	106/95	109 014	109/95	10613
110 - 130	-	-	109 015	109/110	10613
130 - 150	-	-	109 016	109/130	10613
150 - 180	-	-	109 017	109/150	12736

CABLE GRIP WITH DOUBLE EYE:

- open front
- galvanized steel strand
- back woven ends



DOUBLE EYE PULLING STOCKINGS

Flexible eye as standard, double weave, general duty

RANGE (mm):	CODE:	L=600mm	CODE:	L=900mm	M.B.S (kg)
10 - 20	109 100	206/10	109 121	209/10	1860
20 - 30	109 101	206/20	109 120	209/20	2256
25 - 38	109 130	206/25	109 129	209/25	3696
30 - 40	109 102	206/30	109 122	209/30	3696
40 - 50	109 103	206/40	109 109	209/40	5490
50 - 65	109 104	206/50	109 110	209/50	5490
65 - 80	109 105	206/65	109 111	209/65	7320
80 - 95	109 106	206/80	109 112	209/80	7320
95 - 110	109 107	206/95	109 113	209/95	10613
110 - 130	109 108	206/110	109 114	209/110	10613
130 - 150	-	-	109 115	209/130	10613
150 - 180	-	-	109 116	209/150	12736
180 - 210	-	-	109 117	209/180	15276

LINE SWIVELS

LINE SWIVEL – 0505/00505A SERIES:

DCD Line Swivels are typically constructed with a thrust bearing for tensile load and a radial bearing for bending load. They combine a high safe working load with a compact design. All sizes incorporate an oil seal and are manufactured from high strength Stainless Steel.

DCD has recently added Locking Line Swivels to their product line. These are typically constructed with a Bronze thrust bearing for tensile load and a radial bearing for bending load. They combine a high safe working load with a compact design. Due to the use of a Bronze bearing in place of a Roller bearing, rotation will only continue up to a certain load, much less than the Safe Working Load. Once past this point, then rotation will only occur when pulling tension is relieved.

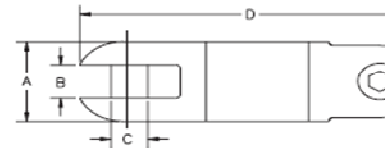
Sizes 00505-020 and larger are supplied with a grease point for lubrication. This is particularly useful in overhead applications where high speed rotation is possible.

All sizes of both types are pull tested to verify the 3:1 safety factor and all (swiveling) sizes are fully capable of rotation at full working load. Test certificates are available upon request.

Sizes 00505-025 and larger are supplied with hexagon Clevis Pins. Smaller sizes have slotted Clevis Pins.

For clevis detail and pin replacement see catalog sheet series 00000 (page 2). Under no circumstances should alternate Clevis Pins be used.

Note: Line swivels are not designed to run around bull wheels and severe damage or injury may be incurred if this is done.



Part No. Swiveling	Part No. Non-Swiveling	*Underground Safe Working Load	**Overhead Safe Working Load	A	B	C	D	Weight	Standard Clevis Pins
00505-005	—	750 lb.	450 lb.	5/8"	9/32"	3/16"	2-1/2"	0.13 lb.	00005-SLT
00505-010	00505-010A	2,250 lb.	1,350 lb.	7/8"	3/8"	5/16"	3-3/8"	0.34 lb.	00010-SLT
00505-015	00505-015A	3,500 lb.	2,100 lb.	1"	13/32"	3/8"	3-7/8"	0.50 lb.	00015-SLT
00505-020	00505-020A	5,000 lb.	3,000 lb.	1-1/4"	17/32"	13/32"	4-3/4"	1.00 lb.	00020-SLT
00505-025	00505-025A	7,000 lb.	4,200 lb.	1-3/8"	9/16"	1/2"	5-1/8"	1.40 lb.	00025-HEX
00505-027	00505-027A	9,000 lb.	5,400 lb.	1-1/2"	19/32"	1/2"	5-5/8"	1.70 lb.	00025-HEX
00505-030	00505-030A	10,000 lb.	6,000 lb.	1-5/8"	11/16"	5/8"	6"	2.10 lb.	00030-HEX
00505-035	00505-035A	15,000 lb.	9,000 lb.	2"	25/32"	11/16"	7"	3.80 lb.	00035-HEX
00505-040	—	25,000 lb.	15,000 lb.	2-3/8"	1-1/32"	7/8"	10-5/16"	7.80 lb.	00040-HEX
00505-041†	—	30,000 lb.	18,000 lb.	2-3/8"	1-1/32"	7/8"	10-5/16"	7.80 lb.	00040-HEX
00505-045†	—	50,000 lb.	30,000 lb.	3"	1-3/16"	1-1/8"	13-3/4"	17.00 lb.	00045-HEX
00505-050†	—	62,500 lb.	37,500 lb.	3-3/4"	1-1/2"	1-1/4"	15-9/16"	34.00 lb.	00050-HEX

†These swivels are made from Alloy Steel with a black oxide finish, all others are Stainless Steel.

*Safety factor is 3:1

**Safety factor is 5:1



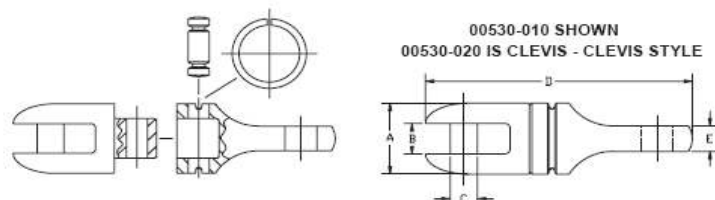
BREAK AWAY LINE SWIVELS

MIN-E-MAX BREAKAWAY CONNECTOR – 00530 SERIES:

The purpose of this product is to protect the utility being installed from overload. Typically, they would be used during the installation of Fiber Optic cable or very small gas ducting where the connector can be pre-set to breakaway at a pre-determined load thus protecting the fibers or the duct.

The patented system for changing the breakaway pins allows the same connector or swivel to be used with a variety of different breakaway pins. Changing a pin takes just seconds.

*See chart below for details of Breakaway Pin Kits.



Part No.	A	B	C	D	E	Use Breakaway Pin Kits in:	Weight
00530-010	7/8"	3/8"	5/16"	3-1/16"	5/16"	GROUP B*	0.25 lb.
00530-020	1-1/4"	1/2"	3/4"	5-1/16"		GROUP C*	1.00 lb.

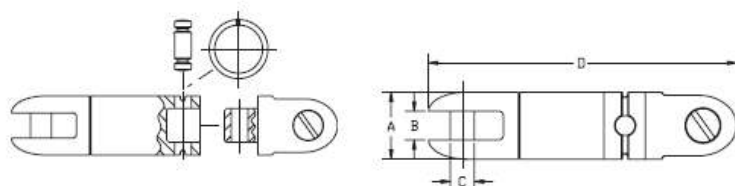


Canadian Patent #2109849
US Patent # 5122007

BREAKAWAY SWIVEL – 00550 SERIES:

The purpose of this product is identical to the above connector except that it incorporates a swivel. These products are available in 3 different sizes, each with a different capacity range.

See chart below for details of Breakaway Pin Kits.



Part No.	A	B	C	D	Use Breakaway Pin Kits in:	Weight
00550-005	5/8"	9/32"	3/16"	3-1/4"	GROUP A	0.17 lb.
00550-010	7/8"	3/8"	5/16"	4-1/16"	GROUP B	0.42 lb.
00550-020	1-1/4"	17/32"	13/32"	5-9/16"	GROUP C	1.20 lb.



Patent #2109849
US Patent # 5122007

BREAKAWAY PIN KITS FOR BOTH – 00530/00550 SERIES PRODUCTS:

Breakaway Pin Kits for Group A and B are supplied in bags of 10 pins and 10 retaining clips. For Group C pins are supplied in bags of 5 pieces. Breakaway values are guaranteed to +/- 10%.

GROUP A		
Part No.	Breaking Point	Colour Code
00555-002	200 lb.	WHITE
00555-0034	340 lb.	RED
00555-004	400 lb.	YELLOW
00555-0045	450 lb.	BLUE
00555-006	600 lb.	ORANGE
00555-007	675 lb.	BLACK

GROUP B		
Part No.	Breaking Point	Colour Code
00535-002	200 lb.	WHITE
00535-004	400 lb.	YELLOW
00535-006	600 lb.	ORANGE
00535-008	800 lb.	GREY
00535-010	1,000 lb.	RED

GROUP C		
Part No.	Breaking Point	Colour Code
00555-018	1,800 lb.	GREEN
00555-020	2,000 lb.	BLUE
Other Custom sizes up to 4000 lb. maximum.		

PIPE INSPECTION CAMERA SYSTEM

COMPLETE CAMERA OUTFIT:

CODE:

KIS 47/30

DESCRIPTION:

Picture right shows the outfit with both the 90m and 120m Rod and Reel.
The standard is 60m length with a rod diameter of 7.5mm which contains 6 conductors.
The Control box contains all the functions needed to control the Camera, built in electronic length measuring and a keyboard for data entry.
Screen size: 175 x 137mm.
Operates on 240V AC and 12 Volt DC power
Dimensions: 19.8kg/H430/W480/D300mm



SWIVEL HEAD CAMERA:

WIWA 501-422-S

Swivel function is unique to this camera.
Lets you see in nearly any direction (except back).
Swivels 160 degrees up/down & rotates a full 360 degrees.
Inbuilt LED's which also swivel in any direction.
Camera focus from "0" to infinite and can withstand pressure up to 5 Bar.
Dimensions: 51.5mm diameter and 126mm long.
Can be supplied as self leveling extra cost applies.



TECHNICAL DATA SWIVEL HEAD CAMERA:

Video Signal:	50 Hz 75 Ohm Pal
CCD:	542x586 pixel 380 lines
Luminous Sensitivity:	1 Lux
Illumination:	24 High speed LED's
Housing:	D 47mm x L 119mm
Weight:	222 grams
Max Pressure:	5 Bar

BOREHOLE INSPECTION CAMERA SYSTEM

COMPLETE CAMERA OUTFIT:

CODE: DESCRIPTION:

600.000	RS-20 Multimedia Control Box Colour TFT-Monitor 10" (220mm x 135mm) Pal/NTSC, Rotate, swing, focus, dimmer Plugs: Camera, Video-In/Out, Keyboard, USB, Data & Length H510mm x W370mm x D140mm,	
601-000	1 x Battery-option (Operating time 4 hours)	
100 204-58	1 x Lead ST/ST 8 pole 5m one-sided with spring-actuated lock	
005 001-0	1 x Cable Drum to 100m with Slip Ring transducer (without cables & way counter)	
501 311	Electronic length measurement allows current camera position displayed on multimedia box	
006-201	1 x Video cable 60m (blue PUR-Coat) GRP-socket 5 contacts	
006-47-gfk-2	RS-10 colour camera head diameter 47mm, high-grade aluminium housing length 111mm, axially for an unlimited swivelling, vertically over 220 degrees tiltable, illuminating along whilst swivelling, sharpness from 0 to infinite - 5 Bar Pressure Resistant	
100 500-4	Housing protection RS-10 completely for 51.5mm dome	



****NOTE: TRIPOD INFORMATION & PRICING AVAILABLE UPON REQUEST****

INSPECTION CAMERAS

LIGHT WEIGHT CAMERA CONTROL BOX:

CODE:

WIWA 600-000

DESCRIPTION:

Light weight compact briefcase style
TFT type monitor screen
USB output for direct feed to memory stick
Also for displaying on lap top or computer
(Video card required)
Fan cooled PCB/CPU



COLOUR MINI CAMERA:

Colour mini cam 22mm diam. with 12 LED's
Fibreglass rod 4.5mm x 30m with fittings
Colour Monitor with 150mm LCD screen + controls
Battery and charger allows about 2 hours work
Recharge in 2 ½ hours
Connecting cable monitor to reel
Aluminium carry case



VS-33 MINI CAMERA:

003 008

Stainless Steel Body 24mm diameter
Body length 60mm
Overall length including spring 130mm
Illuminating with 12 LED
Standard Item with MM-01 System
Connection suits also RS-20 System
With 7.4mm or 9mm standard rod



MINI BLACK & WHITE INSPECTION CAMERA

KIT INCLUDES:

- 15cm black and white monitor.
- AC/DC power supply.
- 12 volt battery.
- German made 4.5mm x 30m fibreglass (traceable) rod with 4 conductors.
- Compact reel with rubber handle and slipping.
- Carry case included.
- AV input/ output.
- Korean made Black and White Infrared camera with 8 LED lights.



PART NO: SWJ-2188

APPLICATIONS:

1. Sewage infrastructure
2. Drainage pipes
3. Internal wall cavity inspection
4. Sub surface inspection
5. Chimneys
6. Air conditioning ducts
7. Plumbers
8. Electricians
9. Aeronautical applications
10. Pest Inspections

EASY USE:

1. Just unwind and push through pipe
2. View and record if necessary
3. Simply rewind and stow



MINI CAMERA ACCESSORIES

- Korean made black and white infrared camera.
- Camera is fitted with 8 LED lights.
- Camera vision 60 deg
- 15cm length including spring and connector.
- 23mm diameter
- 1/8 bar pressure capabilities
- Allows submersion of 5m in water



PART NO: SWJ-2151

PROTECTOR BALL FOR CAMERA HEAD:

PART NO: SWJ-2157

CONNECTOR CABLE FROM REEL TO MONITOR:

PART NO: SWJ-2154

METAL CARRY CASE FOR PROTECTION:

PART NO: SWJ-2155

Dimensions L 57cm H 37cm W 19cm

Weight full 10kg

BLACK & WHITE 15cm MONITOR:

PART NO: SWJ-2152

Dimensions L 19cm H 16cm W 15cm

RECHARGEABLE BATTERY:

PART NO: SWJ-2156

ROD & REEL ASSEMBLY:

PART NO: SWJ-2153

Diameter 33cm width 11cm

POWER ADAPTORS:

PART NO: SWJ-2158 (Monitor)

PART NO: SWJ-2159 (for Battery with Clips)



MINI COLOUR INSPECTION CAMERA

PIPE & WALL INSPECTION CAMERA:

CODE:

DESCRIPTION:

SWJ-3188-D

Pipe Video Inspection System (4.5mm x 30m)

The portable video pipe inspection system is for pipes from 30mm Ø upwards. The kit consists of a water resistant 22mmØ x 152mm colour CCD camera - with a field view of 60° and 8 LED's; a high resolution 7" LCD monitor - with DVR function for video and image recording via USB; 4.5mm x 30m reel of fibreglass cable; internal battery, AC/DC power supply and is integrated in a heavy duty plastic carrying case.



- » Color CCD Camera 1/4" sharp CCD
- » 8 Highlight IR LEDS
- » Horizontal Resolution: 420TV Line
- » Video Output: 1Vp-p75Ohms
- » View Angle: 60°



- » 7" TFT LCD Monitor
- » 5"H x 7-4/5"W x 1"D
- » 320 x 960 Pixel
- » Power Supply: 12V
- » -60°F-120°F Operating temperature



- » 1) 65 Feet Fiberglass Rod Cable
- » 2) 100 Feet Fiberglass Rod Cable
- » 3) 130 Feet Fiberglass Rod Cable
- » 5-1/4" Rubber Covered Handle
- » 12-4/5" Wheel Diameter



- » 12v/4500mAh Li-ion Battery
- » Dc12v 1200mA Output
- » Ac90-260v Switch Adaptor Charge
- » Battery Level Display
- » Charge Indicate



- » Remote Control(DVR Use Only)



- » Each set in ABS Plastic Case
- » DVR With USB Port
- » Case Size: 51.1x43x18cm
- » Carton Size: 59x28x51.5cm(1pcs)

LARGE COLOUR INSPECTION CAMERA

PIPE & WALL INSPECTION CAMERA:

CODE:

DESCRIPTION:

SWJ-3288

Pipe Video Inspection System (9.0mm x 120m)

The portable video pipe inspection system is for pipes from 60mm Ø upwards. The kit consists of a water resistant 50mm Ø x 80mm colour self-levelling CCD camera – with a field view of 60° and 18 highlight white LED's; a high resolution 7" LCD monitor - with DVR function for video and image recording via USB; 9.0mm x 120m reel of fibreglass cable; internal battery, AC/DC power supply and is integrated in a heavy duty plastic carrying case.



MONITOR

- » 7" TFT LCD Monitor
- » 5"H x 7-4/5"W x 1"D
- » 320 x 960 Pixel
- » Power Supply: 12V
- » -60°F-120°F Operating temperature



CAMERA

- » 18 highlight white LEDs
- » Image sensor: 1/4" Sharp CCD Color
- » Minimum Illumination: 0.8Lux
- » Auto Balance Picture



CABLE

- » 1) Stainless Wheel With Special Structure
- » 2) Connector To Monitor
- » 3) 60/120m Fiberglass Rod Cable
- » Meter Counter Device
- » Size: (l)770x(h)830x(w)360mm



BATTERY

- » 12v/4500mAh Li-on Battery
- » Ac90-260v Switch Adaptor Charge
- » Battery Level Display
- » Charge Indicate



CAMERA PROTECTOR

- » Center Protector Size
- » 1) Ø220 X L79 (mm)
- » 2) Ø140 X L79 (mm)
- » 3) Ø90 X L79 (mm)



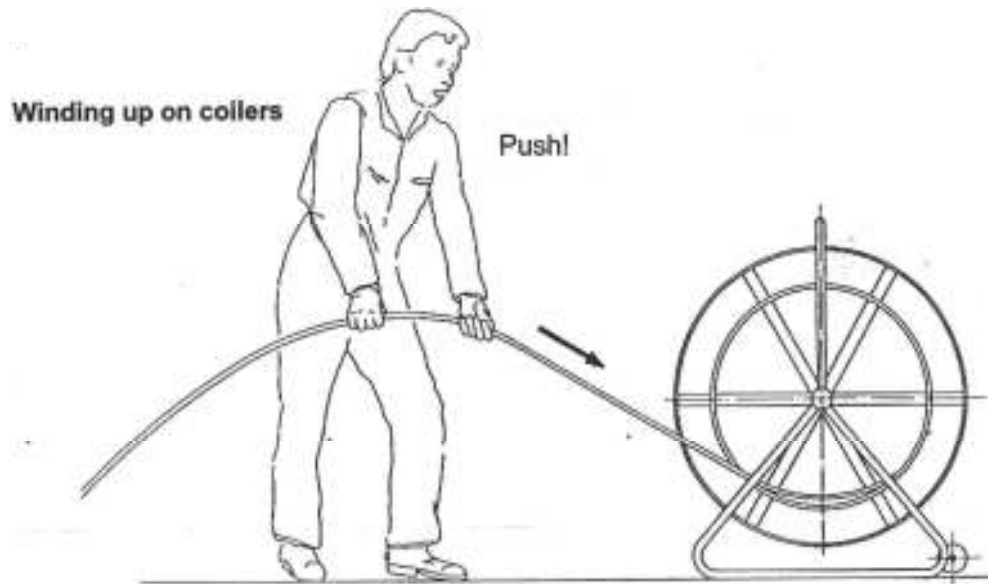
BOX

- » Each set in ABS Plastic Case
- » DVR With USB Port
- » Case Size: 51.1x43x18cm
- » Carton Size: 59x28x51.5cm


FITTING REPLACEMENT ROD

ATTENTION:

1. The best way of winding on a replacement rod is to fully unwind first.
2. Secure the rod and remove bindings.
3. Unwind coil fully.
4. Replacement rod can now be fitted with out twisting.

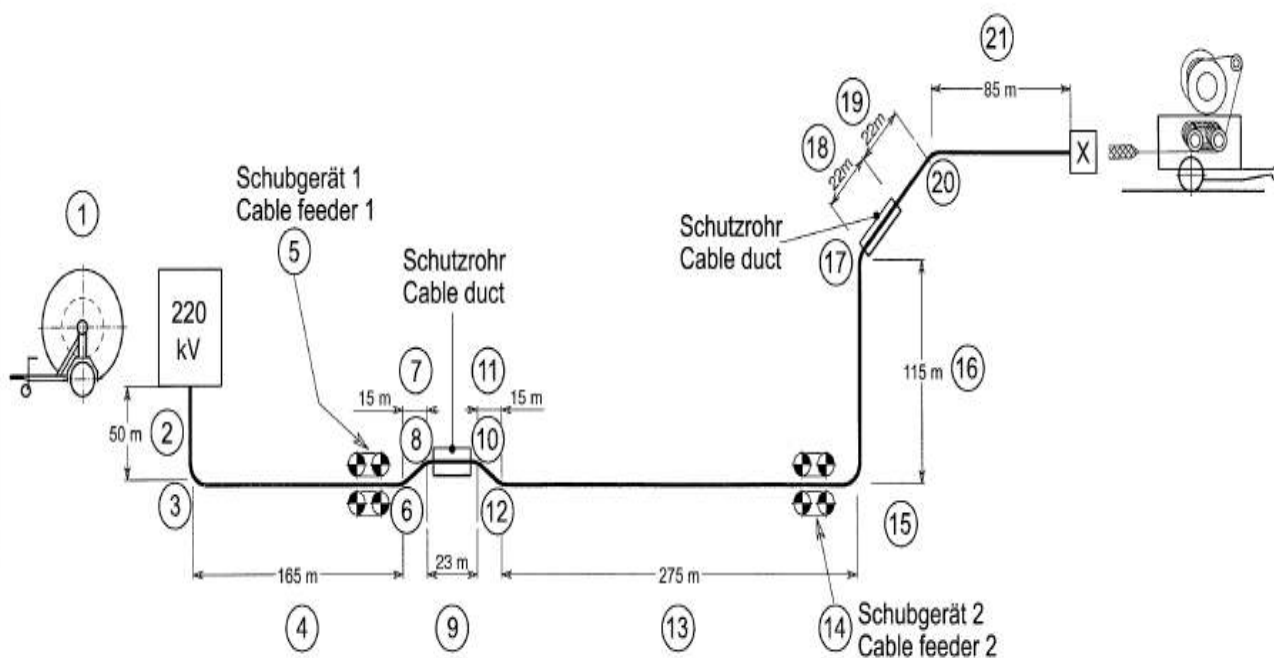


EXAMPLE OF CABLE LAYING CALCULATION SHEET

Cable pull calculation											
State: 10.03.2009											
Client/Project:		Example - write protected for your own copies									
Cable-details:		220 kV, 1600 mm ² CU, Ø 114 mm, 23,0 kg/m									
Drum position:		A				Winch position: B					
Cable feeders:		see below Element "5"									
Cable weight (kg/m)		23,00				Starting load - pulling from the drum				1	
Cable-Ø (mm)		114,00				Straight on duct or up / down slope				2	
Bend.fact.-c-Ø x (25-30)		25				Straight on roller or up / down slope				3	
Duct int. diameter		160,00				Vertical pull, fill in length and height m				4	
µ in conduits		0,25				Cable feeder DF 5 H				5	
µ on cable rollers		0,15				Reserved for DF 5 H				6	
µ optional		1,00				Optional load / friction				7	
Starting load (kg)		50,00				Min. bending radius of this cable				2850	
No. 10											
Pos.	Elem. 1-7 Bows in °	Cable- length m	Diff. in level m	Line-pull daN	On Cable daN	Cumul. m	Radial Fakt	Radial daN	Corner- rollers	Lubricant Litres	
1	1			50	50						
2	3	20		69	119	20					
3	90				133		1,40	187	9		
4	3	165		569	703	185					
5	6				703						
6	15				717		0,30	215	2		
7	3	15		52	768	200					
8	15				784		0,30	235	2		
9	2	23	-5	17	801	223				0,4	
10	15				817		0,30	245	2		
11	3	15	5	167	984	238					
12	15				1003		0,30	301	2		
13	3	275		949	1952	513					
14	6				1952						
15	90				2186		1,40	3061	9		
16	3	115		397	2583	628					
17	45				2738		0,80	2191	5		
18	2	22		127	2865					0,4	
19	3	22		76	2941						
20	45				3117		0,80	2494	5		
21	3	85		293	3410	757					
22											
23											
24											
25											
26											
27											
28											
29											
30											
Results											
Total cable length approx.		m	757		Remarks				Erstellt:		Gepüft:
Nos. of curves		pcs.	8								
Nos. of corner rollers		pcs.	36		Adm. pull on conductor daN						
Max. line pull		daN	3410		Adm. radial on rollers daN 1 m				750		
Max. radial pressure		daN	3061		Adm radial in tubes daN 1 m				1000		
Quantity of lubricant		litre	0,7		Calculated press. daN per 1 m						

SEE PLANS NEXT PAGE

Trassenplan / Layout of cable line



①.....②① Pos. in Kabelzugberechnung
Pos. in Cable pull calculation

				VETTER GMBH Kabelverlegungstechnik D-73037 Leinfelden	Maßstab %	
				Datum	Name	
		Bearb.	26.04.2004	M.Milchbar	Trassenplan / Layout of cable line	
		Gegpr.	<u>28.04.04</u>	<u>Uwe W.</u>	Erd-Kabelverlegung 220 kV	
		Nrunt			Underground cable laying 220 kV	
					400.001.53 - 3	
Zust.	Anwendung	Datum	Name	CAD - PZ	CAD - Milchbar	Blatt

[illegible]

