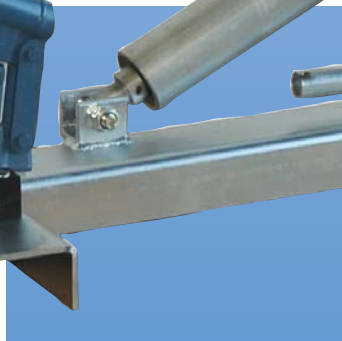
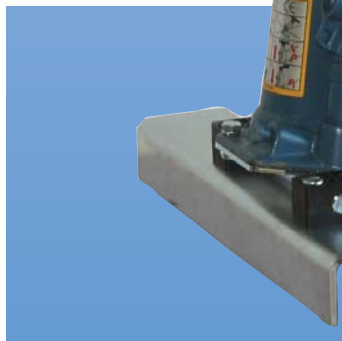
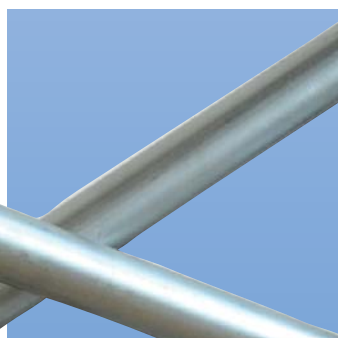
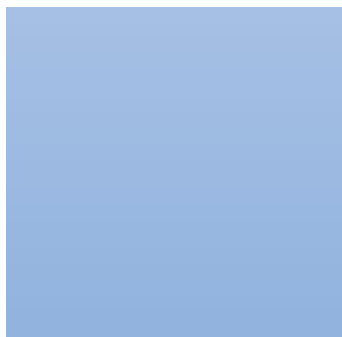
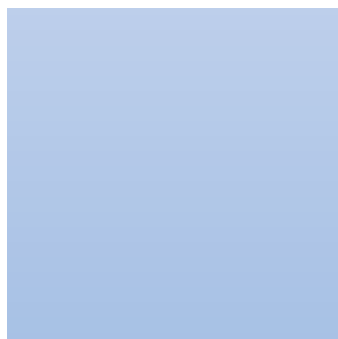
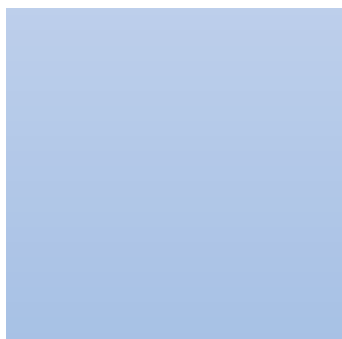
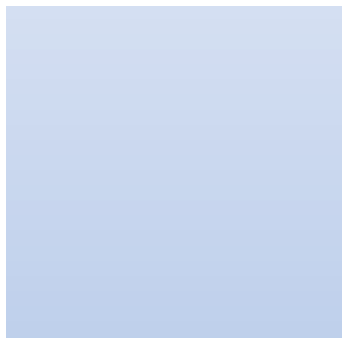


## Pipe laying rollers

## Pipe mounting devices





**Pipe laying roller for pipes up to D 1500 mm**

**Pipe pulling equipment**

**Pipe mounting tools**

**Pipe screw sockets and mounting tools**

**Conduit cleaning brushes and calibres**

**Lubricant for pipes and cables gel and liquid**

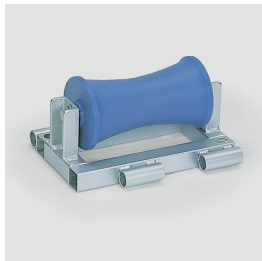
**Pipe calibration and leakage-test units**



## Pipe roller

Pipe roller, 1 steel-roller with ball bearings, steel construction galvanized, with base plate.

Code	Type	Roller-D	Mat.	D-OD	SWL	L/W/H mm	kg
201080	TRS 1-300	120/76/185	Steel	to 300	200 kg	320x235x145	5,20



## Pipe roller

Pipe roller, 1 polyamide-roller with friction bearings, steel construction galvanized

Code	Type	Roller-D	Mat.	D-OD	SWL	L/W/H mm	kg
201100	TRP 1-500	115/75x200	Poly.	to 500	200 kg	270x200x145	5,30



## Pipe roller

Pipe roller, 1 steel-roller with ball bearings, steel construction galvanized.

Code	Type	Roller-D	Mat.	D-OD	SWL	L/W/H mm	kg
201125	TKS 1-160	120/76/145	Steel	to 160	200 kg	250x230x240	4,20



## Pipe roller

Pipe roller, 1 base- 2 lateral alu-rollers and bearings for special aluminium, steel construction galvanized.

Code	Type	Roller-D	Mat.	D-OD	SWL	L/W/H mm	kg
201172	TKR 3-160	50	Alu	to 160	150 kg	300x250x250	5,40



## Fixing nails

Fixing nails steel galvanized for fixing of all cable and pipe rollers to the ground.

Code	Type	Steel-D	Length	kg
205690	BN 30	16	30 cm	0,50
205710	BN 50	16	50 cm	1,05



## Pipe roller

Pipe roller, 2 high wattage-steel-rollers D 60 with ball bearings. Steel construction galvanized

Code	Type	Roller-D	Mat.	D-OD	SWL	L/W/H mm	kg
201250	TVR 2-500	60x200	Steel	to 500	1000 kg	540x395x205	12,60
201270	TVR 2-760	60x360	Steel	to 760	1000 kg	880x395x256	20,40



## Pipe roller hydr. adjustable

Pipe roller hydr. height adjustable for pipe diam. up to 1500 mm, 2 high wattage-steel-rollers D 60 with ball bearings. Steel construction galvanized

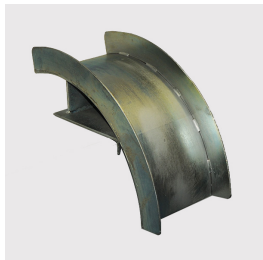
Code	Type	Roller-D	Mat.	D-OD	SWL	L/W/H mm	kg
201280	TVH 2-1500	60x630	Steel	to 1500	1000 kg	960x395x300	33,40



## Leading-in funnel

Cable leading-in funnel, flexible metal hose for introducing all kind of cables into ducts in any position. Two mounted steel ropes lengthwise avoid damaging the flexible hose. During introducing of the cable the cables can be lubricated automatically and evenly on their whole length. Steel galvanized. These funnels can be supplied in different diameters and lengths.

Code	Type	For D-ID	Length	Safety	kg
273050	MET 75/30	69-72	3,00 m	2 steel ropes	10,40
273100	MET 98/18	98-100	1,80 m	2 steel ropes	8,80
273108	MET 98/40	98-100	4,00 m	2 steel ropes	12,90



## Protective cable bows

Protective bow for pulling-in multiple ducts, steel sheet galv.

Code	Type	For multiple ducts	Width	kg
209230	RSB 200	2x35+2x28	200	7,00



## Pulling head

Pulling head for multiple conduits D 40 and 32 mm into ducts of D 110 mm.

Code	Type	For D-D	Max. Pull	kg
273129	MZK 4/40	2x35+2x28	16 kN	1,40



## Duct pulling grip

Duct pulling grip for pulling multiple conduits into ducts of D 110 mm. Opening D 85-100, Length 1650 mm.

Code	Type	Cap.-D	kN	L1/L2	kg
273270	MR 100/1	85-100	83,7	1500/1650	1,20



## Pipe pulling heads

Pipe pulling heads for pulling in of PE-HD-pipes PN 6 and PN 10. Steel galvanized, without sealing. With sealing see PDF-Drawing, available on request.

Code	Type	D-ID	Max. pull	kg
273131	RZK 32	25- 28	4 kN	0,40
273132	RZK 40	31- 36	5 kN	0,54
273133	RZK 50	39- 47	6 kN	1,20
273134	RZK 63	49- 60	10 kN	1,55
273136	RZK 75	59- 70	11 kN	2,20
273138	RZK 90	71- 85	16 kN	3,85
273140	RZK 110	87-103	25 kN	7,80
273142	RZK 125	99-116	32 kN	12,60
273144	RZK 140	111-130	40 kN	14,10
273146	RZK 160	127-148	53 kN	19,40
27314610	RZK 180	144-166	53 kN	22,00



## Mounting tool for ducts

Mounting device for conduit sleeves, steel construction galvanized.

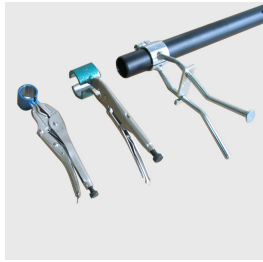
Code	Type	D-OD	kg
239400	MRM 32	32	2,50
239410	MRM 40	40	2,70
239420	MRM 50	50	2,85
239430	MRM 110	110	8,00



## Mounting tool for halved ducts

Mounting device for closing halved conduits, steel construction galvanized.

Code	Type	D-OD	kg
239440	MGK 32	32	0,41
239445	MGK 40	40	0,44
239450	MGK 50	50	0,47
239470	MGK 110	110	2,80
239480	MGK 125	125	2,80



## Rounding tongs

Rounding tongs for correcting deformed conduits.

Code	Type	D-OD	kg
273240	RZA 32	32	0,65
273245	RZA 40	40	0,70
273250	RZA 50	50	1,20



## Conduit cutters

Conduit cutters for plain cuts.

Code	Type	D-OD	Length	kg
273171	MRS 43	to 42	215	0,45
273172	MRS 50	to 50	265	0,60
273173	MRS 63	to 63	285	0,70
273174	MRS 75	to 75	485	1,60



## Burring tools

Burring tools for in- and outside of plastic conduits.

Paring knife MSM 40, for separating multiple conduits.

Code	Type	D-OD	Burring	Mat.	kg
273185	MRA 63	20-63	only extern	Poly.	0,25
273180	MRE 50	28-50	ext. /intern	Alu	0,43
273200	MSM 40	Paring knife	---	Steel	0,50



## Conduit and cable slitter

Conduit slitter for lengthwise and circumferential slitting of plastic conduits and cable covers. Complete reinforced steel version. In case 195x75x45 mm.

Code	Type	To wall thickness	---	kg
255905	KMS 6	6	195x75x45	0,35
255910	ERM 6	Spare knife	---	0,03



## Spanner

Spanner (pair) for screw socket fittings.

Code	Type	D-OD	Material	kg
273420	MS 1640	16- 40	Plastic	0,14
273440	MS 4075	40- 75	Alu	0,60
273460	MS 63125	63-125	Alu	1,75



## Screw socket fittings

Screw socket fittings for plastic conduits, air and water tight. Safest connection for blowing-in fibre optic cables.

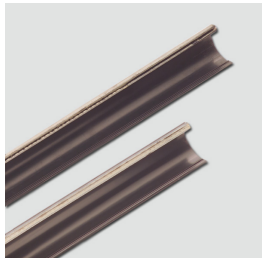
Code	Type	D-OD	Press.	kg
273520	SM 3232	32-32	PN 16	0,19
273530	SM 4040	40-40	PN 16	0,33
273540	SM 5050	50-50	PN 16	0,47
273550	SM 6363	63-63	PN 16	0,76
273616	RM 4032	Reduction 40 to 32	PN 16	0,25
273620	RM 5032	Reduction 50 to 32	PN 16	0,33
273630	RM 5040	Reduction 50 to 40	PN 16	0,50
273670	RM 6350	Reduction 63 to 50	PN 16	0,73



## Conduit union

Screwed conduit union, length 1,20 m, PN 10. If this union is mounted before blowing in the first cable, it can be opened and closed again anytime e.g. for blowing-in further cables in the same duct.

Code	Type	D-OD	Press.	Length	kg
273720	RV 3240	32	PN 10	1,20 m	0,86
273730	RV 4050	40	PN 10	1,20 m	1,46



## Halved conduits

Halved conduits, for completion split sockets for halved conduits and mounting tools, see code 239.440-450 are necessary.

Code	Type	D-OD	Length	kg
273702	KHR 32	32	2,00 m	0,72
273705	KHR 40	40	2,00 m	0,92
273711	KHR 50	50	2,00 m	1,24



## Split sockets

Split sockets for closing halved conduits.

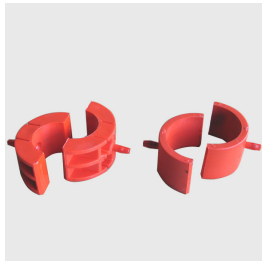
Code	Type	D-OD	kg
273713	KHM 32	32	0,27
273714	KHM 40	40	0,29
273715	KHM 50	50	0,32



## Conduit cutting tool

Conduit cutting and bevelling tool, clamping jaws for smaller tubes to D 40 mm see below.

Code	Type	For ducts to	kg
239010	ROC 110	OD 110	1,80
239240	SP 1116	Spare knife reinforced for ROC 110-160	0,01



## Clamping jaws

Clamping jaws for ROC 110 and ROC 160 for smaller ducts

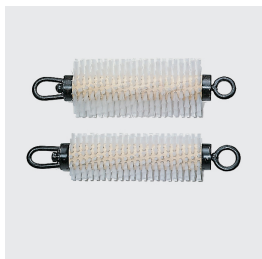
Code	Type	For device	For ducts to	kg
239020	SPA 90	ROC 110	D 90	0,30
239030	SPA 75	ROC 110	D 75	0,30
239040	SPA 63	ROC 110	D 63	0,30
239050	SPA 50	ROC 110	D 50	0,30
239070	SPA 40	ROC 110	D 40	0,30



## Cases for cutting tools

Case for conduit cutting and bevelling tool ROC 110 and ROC 160

Code	Type	For device	kg
239130	RK 110	ROC 110	1,20



## Conduit brushes, nylon

Conduit brushes synthetic bristles the ext. diameter should be approx. 5-10 mm smaller than the int. diameter of the duct.

Code	Type	OD	Brush-L	Total-L	kg
230328	RNB 57	57	195	315	0,90
230350	RNB 77	77	250	410	1,00
230355	RNB 85	85	250	410	1,20
230360	RNB 92	92	250	410	1,20
230370	RNB 97	97	250	410	1,20
230390	RNB 117	117	250	410	1,60
230420	RNB 147	147	250	410	2,10
230480	RNB 197	197	250	410	2,50





## Conduit calibre balls

Conduit calibre balls, Polyamide, two pcs. special short length for passing narrow duct bows. The ball-Ø should be approx. 80-85 % of the nominal internal diam. of the duct.

Code	Type	D	D-ID	Calibre-L	Connection	kg
231250	KGP 37/37	37	40-45	2x37	Clipper	0,32
231255	KGP 55/55	55	60-70	2x55	Clipper	0,44



## Conduit calibre

Conduit calibre of polyamide. The calibre diameter should be approx. 80-95 % of the nominal internal diameter of the duct. Please ask your customer which calibre diameter he expects.

Code	Type	OD	D-ID	Calibre-L	Total-L	kg
231270	KDP 50/36	36	40-45	110	190	0,30
231280	KDP 63/45	45	51-56	150	230	0,45
231290	KDP 75/55	55	61-71	200	300	0,85
231310	KDP 90/65	65	74-84	200	300	1,00
231350	KDP 110/85	85	90-104	200	310	1,10
231360	KDP 110/90	90	100-104	200	310	1,20
231380	KDP 125/95	95	102-104	250	350	1,60
231400	KDP 125/105	105	113-118	250	350	2,10
231410	KDP 140/115	115	126-132	250	350	3,10
231420	KDP 150/125	125	134-144	250	350	3,60
231425	KDP 160/130	130	134-150	250	350	3,90
231430	KDP 160/135	135	144-155	250	350	3,40
231450	KDP 180/150	150	160-170	250	350	5,00
231460	KDP 200/165	165	180-190	250	350	6,00
231470	KDP 225/185	185	200-225	250	360	7,30



## Lubricant gel for cable and ducts

Lubricant gel like, for medium up to heaviest cables, up to 80 % friction reducing. Also suitable to reduce strongly the friction pulling-in ducts in ducts.

For lubrication unique and ultimate classification, Water pollution class - non-hazardous, acc. to VCI-Conception. Safety data sheets are available.

Code	Type	Pack. drums	Units	kg
235140	J-128V	1 pail 3,8 l	Single pail	4,00
235142	J-128V	4 pails à 3,8 l	Single pail	17,00
235150	J-640V	1 pail 19 l	Single pail	20,00
235152	J-640V	33 pails 19 l	1 Pallet	685,00



### Lubricant pump

Lubricant pump driven by an external screw driver, for mounting on the pails J-640V or on the barrel SP-640V. Three different ration settings allow the user to pump lubricants with a variety of viscosities, from liquids to gels. Most lubricants can be pumped directly to the conduit or onto the cable during installation. Two hand-free applicators for conduits from diameter 40 to 150 mm are included.

Code	Type	Capability	Hose	kg
235335	LP-D5	5 l/min.	3 m	2,00



### Lubricant liquid for cables and ducts

Lubricant liquid, for medium up to heaviest cables, excellent distribution on the cable and in the duct, up to 80 % friction reducing. Also suitable to reduce strongly the friction pulling-in ducts in ducts.

For lubrication unique and ultimate classification, Water pollution class - non-hazardous, acc. to VCI-Conception. Safety data sheets are available.

Code	Type	Pack. drums	Units	kg
235200	SP-128V	1 bottle 3,8 l	single bottle	4,00
235202	SP-128V	4 bottles 3,8 l	single bottle	17,00
235220	SP-640V	1 pail 19 l	single pail	20,00
235222	SP-640V	33 pails 19 l	1 Pallet	685,00
235230	SP-190V	1 barrel 190 l	Barrel	220,00



### Low air pressure tests

The new pressure test device combines three test methods in one electronic device. ?General test rules? individual selectable acc. requirements from the customer. The requirement from Deutsche Telekom acc. ?ZTV-TKNETZ 40?. The low-pressure test acc. EN 1610:2015 as well as worksheet DWA-A-139:2009

The low-pressure test is exclusively performed for leakage test of cable ducts with small wall-thickness. Those are being used for pulling of various cable types. The target is to proof the tightness against intrusion of groundwater, sand, sediments, etc. Those elements soils the protective ducts and complicate the pulling of cables.

With regards to the test methods those refers to the existing requirement of acceptance of waste water drain and ducts. For the testing of protective ducts the version ?air? will be used only. Customers request low-pressure test of protective ducts against DIN EN 1610:2015 and acc. procedure ?air? in the version LC or LD.

- According which test method is determined by the customer "General test rules".
- Version LC, test pressure 0,1 bar (100 mbar, 10 kPa), duration 3 min, permitted pressure drop 15 mbar (1,5 kPa)
- Version LD, test pressure 0,2 bar (200 mbar, 20 kPa), duration 1,5 min, permitted pressure drop 15 mbar (1,5 kPa)

Code	Type	Explanation	kg
231710	Low pressure	See the following devices	0,00



## High and low air pressure testing devices

The DPG 17U Universal pressure test device for test of cable ducts with regards to protective ducts and subducts working in the range of 0-7 bar. The operation is made by a 7" colour-graphic-touch display. The new device support the user through a simple and menu-driven operation. With the help of a matrix (table) three different test methods can be selected. Those are ?General test rules? individual selectable acc. requirements from the customer, the requirement from Deutsche Telekom acc. ?ZTV-TKNETZ 40? and the low-pressure test acc. ?EN 1610:2015?. This results in a maximum support for the user.

The result of the pressure test is summarized in a clear test protocol with three core areas. The test protocol will be stored on the device and can be loaded by a USB-interface to a customary PC. ?

The left shown 1. protocol shows a passed test ?Test criteria fulfilled? ?

The left shown 2. protocol shows a failed test ?Test criteria not fulfilled?

- Upper area: General data like: Contracting company with name of operator, construction site, duct, temperature, times, measurement data with calibration status
- Middle area: Result of the pressure test through colour-marked message: "Test criteria fulfilled" or "Test criteria not fulfilled"
- Lower area: Graph with the two phases settling time and main test

Code	Type	Designation	Press.	Application	kg
231740	DPG 17U	Universal pressure test device	0-7 bar	Cable conduits	6,40



## Pressed air connectors

Low-pressure connection unit for pressure test of 1 cable duct for power- and fibre cable installation.

The low-pressure test is exclusively performed for leakage test of cable ducts with small wall-thickness. Those are being used for pulling of various cable types. Thereby the DN 110 is the most frequently used protective duct. The range of avail-able connection accessories is from duct-ID 70 until 200 mm.

Code	Type	Designation	Connection	Press.	kg
231757	NDA 02	Air distribution	1	0-1,5 bar	21,00



## Shut-off bladder Mini

Shut-off bladders to lock off the pipeline to be tested. Shut-off bladders are used on the opposite side of the test location. The short dimensions of the Mini version allow space-saving installation of pipe bends also.

Code	Type	For pipe-ID	Cyl.-D	Cyl.-L	Total-L	kg
231768	SBM 7/10	70-100	68	130	175	0,40
231770	SBM 8/15	80-150	72	120	170	0,40
231772	SBM 12/20	125-200	115	150	195	0,80



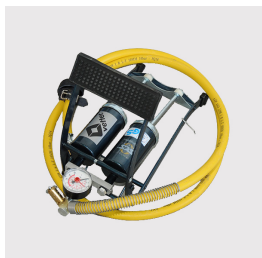
## Test bladder Mini

Test bladders Mini for testing and shutting off pipes for low pressure testing.

Air coupling (brass) standard for bladder extension. Air coupling (chromed) special CE-standard 10.4 mm, for inflating the duct.

Code	Type	For pipe-ID	Cyl.-D	Cyl.-L	Total-L	kg
231776	PBM 4/07	40-70	38	155	215	0,40
231778	PBM 7/10	70-100	68	190	340	1,10

231780	PBM 10/15	100-150	90	150	300	1,33
231782	PBM 15/20	150-200	145	195	345	2,83



## Foot pump with double stroke

Foot pump with double stroke and safety valve 2.5 bar to inflate SBM shut-off bladders and PBM test bladders. The use of a second foot pump for the second pipe end saves considerable installation time.

Code	Type	Press.	kg
231786	FP 2.5	2,5 bar	2,54



## Duct calibration set

Conduit calibration and leakage-test unit. Calibration and leakage-test before starting the cable blowing-in procedure is the safest guarantee for successful installation of fibre optic cables. Unit consisting of:

- Compressed air regulator with adjustable tripod.
- 5 m high pressure hose, calibre D 35, transmitter, for duct-D 50x4,6.
- All other diam. of calibres are available, please see extensions below.
- With conduit plug and catch box for the piston.
- With electronic detector 33 kHz . Compl. set in alu-case 780x380x330.
- Max. pressure setting 2-3 bar.

Code	Type	D-ID	kg
231601	RKV 40	40-41	27,00



## Calibre extension set

Supplementary extension set for calibration and leakage test unit.

Code	Type	D-ID	kg
231602	RKVE 33	33-34	2,60
231603	RKVE 27	27-28	2,00



## Calibre housings

Calibre housings of polyamide with sleeve rings, without transmitter. Calibre length 145 mm, total length 250 mm

Code	Type	Calibre D/L/total	Air max.	D-ID	kg
231644	MKV 45	45/145/250	2-3 bar	51-52	0,45
231646	MKV 35	35/145/250	2-3 bar	40-41	0,36
2316475	MKV 28	28/145/250	2-3 bar	33-34	0,29
231648	MKV 25	25/145/250	2-3 bar	27-28	0,32



## Miniature transmitter D 18 mm

Miniature transmitter D 18x88 mm, incl. battery, suitable for all a. m. calibres.

Code	Type	D/L	Frequ.	Thread	Depth	Cap.	kg
231621	SKS 18N	18/88	33 kHz	M 10	8,0 m	20 h	0,23
097300307	Spare-	battery	3,6V	--	--	20h	0,01



## Conduit plug for duct-OD

Conduit plug for fixing on duct-OD with hose safety coupling applicable for duct calibration, duct pressure tests, duct cleaning etc.

Code	Type	D-OD	Press.	kg
2316513	KRA 32	32 mm	0-7 bar	0,50
231651	KRA 40	40	to 6 bar	0,84
231650	KRA 50	50	to 6 bar	0,90
231649	KRA 63	63	to 6 bar	1,00
2316541	KRA 110	110 mm	0-7 bar	3,20



## Sealing plug

Conduit sealing plug applicable for duct pressure tests.

Code	Type	D-OD	Press.	kg
273569	ENSA 20	20	to 6 bar	0,07
273572	ENSA 32	32	to 6 bar	0,10
273575	ENSA 40	40	to 6 bar	0,23
273580	ENSA 50	50	to 6 bar	0,29
273585	ENSA 63	63	to 6 bar	0,40
273586	ENSA 110	110	to 6 bar	1,93