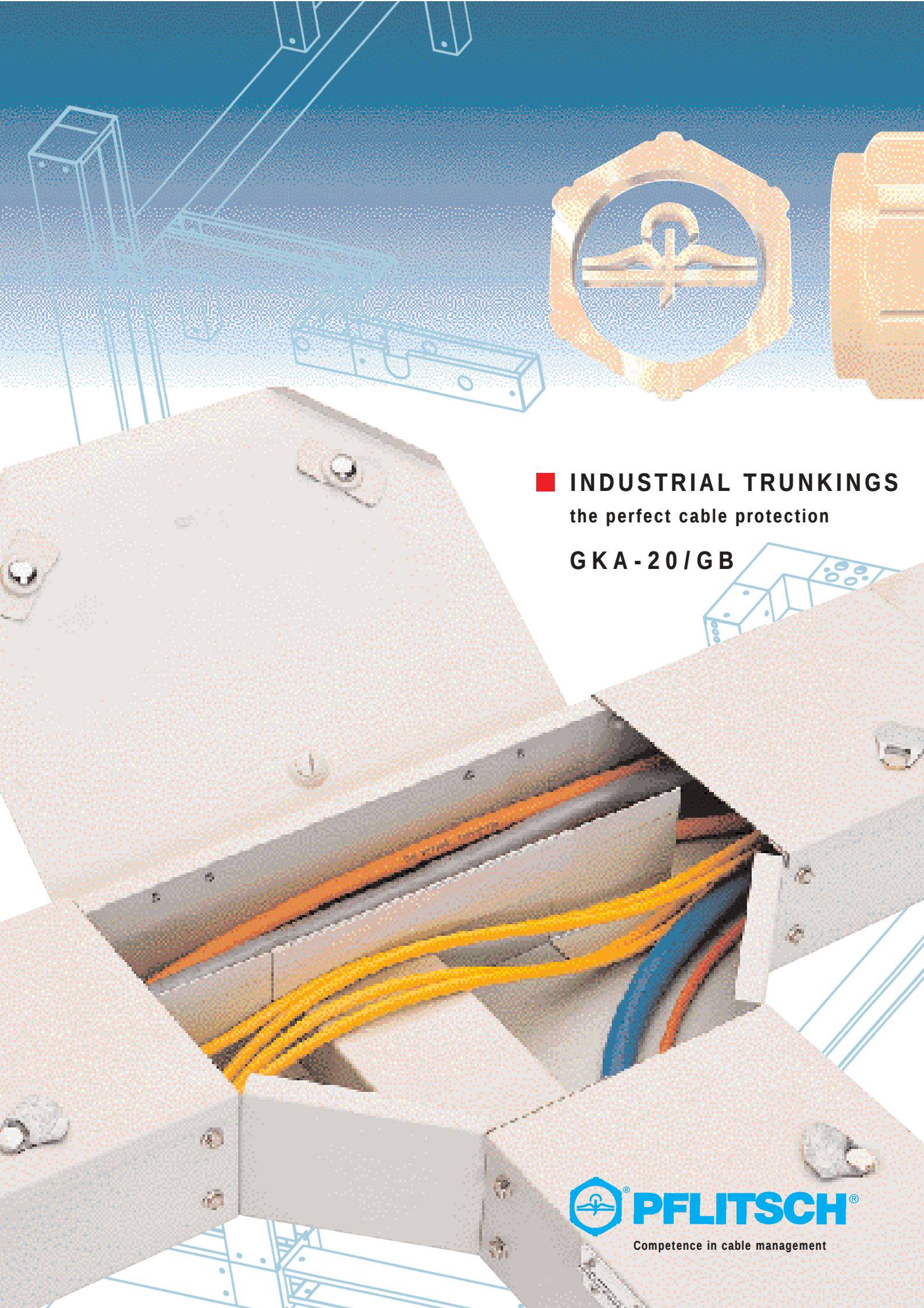




INDUSTRIAL TRUNKINGS
the perfect cable protection
GKA-20/GB

Portrait - Pflitsch and Partners

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Industrial Trunking

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Fixing support

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■ The Company



FOTO: BAVARIA

System component parts with a huge benefit and an extensive service - that make up the success of PFLITSCH-products. The specialist in cable routing is one of the forerunners of efficient solutions in installation and safety protective of cables in the industry. Today 6000 customers put their confidence in PFLITSCH-products.

Over **80 years experience in the market** are combined with the innovative PFLITSCH-solutions. More than 12.000 products - used as a system - can be arranged according to the individual customer requirements and arise a reliable and economical installation.

PFLITSCH - high tech in cable routing.
We are setting standards.

The four systems **mini trunking, industrial trunking, cable trays and media trunking** include more than 800 components which are supplied to the customer as system parts or already customized manufactured concerning size.

- Cable glands by metal or plastic materials offer numerous combinations of individual application areas.
- Electric cables are well protected in hoses.
- Assembly equipment, special tools and machines optimize the processing.



From the idea via the 3D-CAD design to the production in a modern plant for metal-and plastic processing and to a delivery according to the schedule - PFLITSCH does not leave anything to chance. That is plainly documented by the certification in accordance with **DIN EN ISO 9001**.

Materials and products are checked in our own quality laboratory. We participate in the European Standardization Committee and let the PFLITSCH-experiences run into forward-looking directives.

We see ourself as the trend-setter of the branches of industry, who is able to meet the current market demands.

The **UNI Dicht-system** is the forerunner for cable glands which can be individually combined by gland body and seal insert. **EMC-** and **Ex-** cable glands as a system are exemplary for the **innovation strength of PFLITSCH**.

For cable trunkings PFLITSCH offers an extensive service package which makes the topic "cable routing" safety and economical.

PFLITSCH is your partner in cable protection incl. system solutions.

A lot of well-known customers worldwide use our competence.

■ The Sales Strategy



To be on the spot is the declared aim of PFLITSCH. The closeness to the market and the dialog with the endusers today create the products and services which meet the requirements of tomorrow. All PFLITSCH in-house and external duty employees are well qualified contact persons who guarantee a competent service.

To support the customer PFLITSCH co-operate with technical consultants. In all states experienced representatives consult you.



The PFLITSCH-partners are in a position to generate solutions for your problem at your site. Always a realisation by using **system components** is the centre of view first.

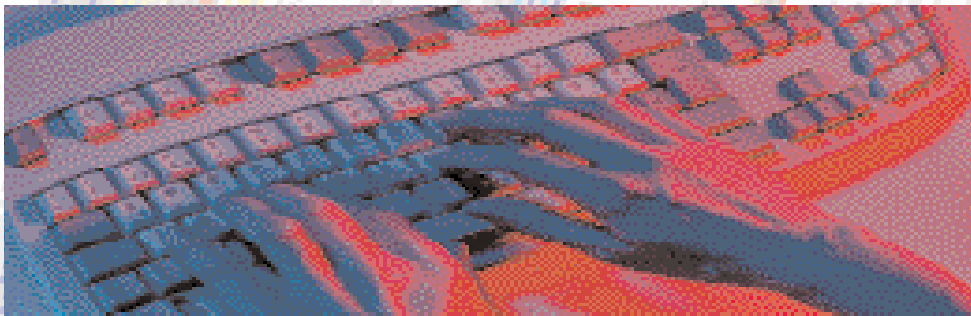
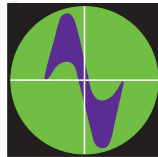
With regular trainings and sample parts used for technical presentations and as well specific software PFLITSCH supports his partners in Germany, Europe and Worldwide.



■ The Global Supplier



www.Pflit



Electrex

The world is our market. Therefore PFLITSCH uses his long term international relationships to be on spot with the products and service "Made in Europe".

In all industry areas PFLITSCH has competent representatives and importers at their disposal. The international sales net-work is constantly growing.

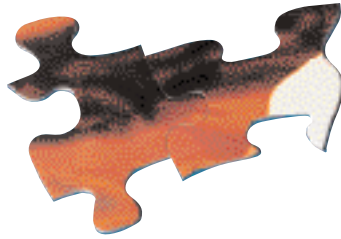
Product, company and product information can be retrieved via internet/intranet from the server system located at Hückeswagen.

Detailed catalogues in different languages are available for the customers. During international exhibitions we are prepared for technical dialogues.

INTEL



sch.de



■ The Partners

DIN EN



The concentration to the core business makes modern enterprises successful. For many years PFLITSCH cooperates with competent suppliers who have been specialized in different production engineering.

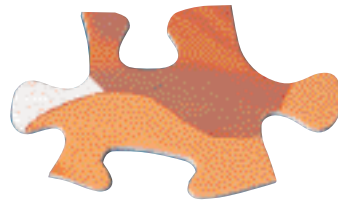
The partners are certified according to **DIN EN ISO 9001** and have the experiences which are needed.

PFLITSCH minds and activities are influenced European for a long period: DAVIS a subsidiary of the worldwide activ Wiremold-group, produces the components for the PFLITSCH-industrial trunkings. The Swedish producer DEFEM supplies the cable trays and the German Company GÖTZ is the specialist for the media trunking and special applications.



G Ö T Z
Blechbearbeitung





ISO 9001



ERICO®



STEELDESIGN

In cooperation with his partners
PFLITSCH is continuously
developing the cable trunking
program.

Today we offer more than 100
products made by steel plate
and stainless steel which is the
most extensive product range
in the market.



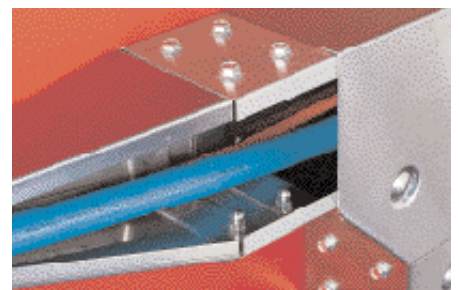
■ The Quality



The PFLITSCH understanding of Quality: High grade materials are used, precise processing, reproducible production flows, complete documentation and environmentally production methods.

In customer interest PFLITSCH thinks safety equipment, first class quality and perfect cable protection are important.

The technical installation of our products with domed bushes, potential equalization according to VED, vibration resistance and stability and as well burless inner edges trunkings and shaped parts are our standard. **The cable trunking system has been proved in industrial operative ranges for a long period.**





By means of accepted certifications, authorizations of the Deutsche Bahn, approvals of usage at all automobil manufactures etc. PFLITSCH sets new standards. These are references for the established high quality and customer benefit by using PFLITSCH-products.

The internal quality control guarantees a perfect quality of all products, which are delivered in resistant packages on schedule.

■ The Logistic

PFLITSCH supplies all system articles with a huge availability out of his well equipped warehouse.

Individual cable trunkings are designed in accordance with the customer specification, produced and are delivered on schedule.

If requested already finished customized incl. all shaped parts and corresponding documentation.

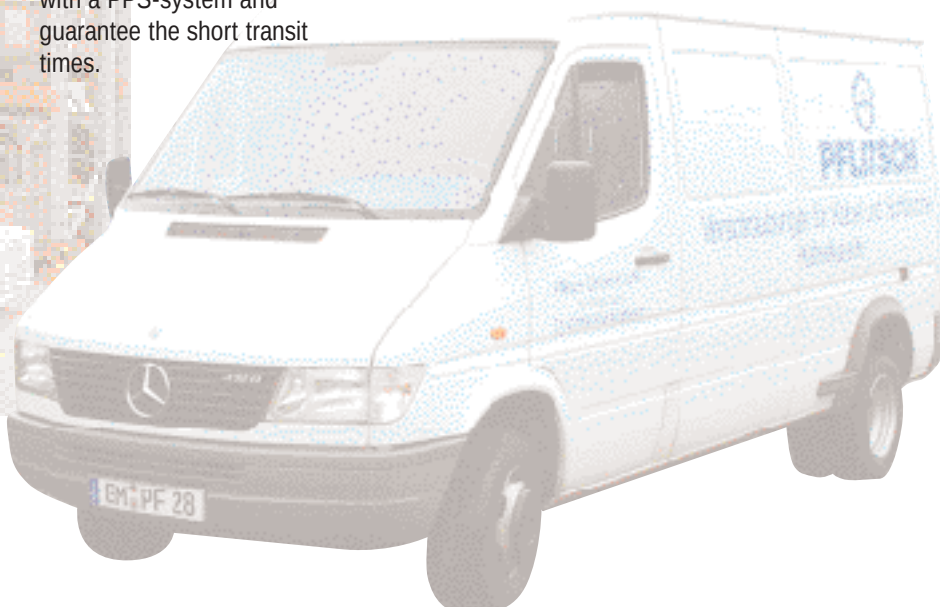




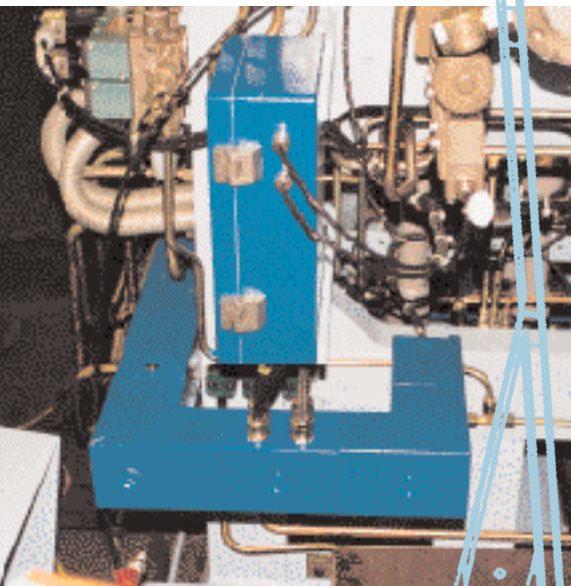
Computer-aided purchase orders turn to finish commodities which are delivered to endusers around the world.

Design, purchase department, production planning, production, quality control department and dispatch department operate combined with a PPS-system and guarantee the short transit times.

If requested the customer obtains a complete documentation of all system parts-information which are usual in the international business.

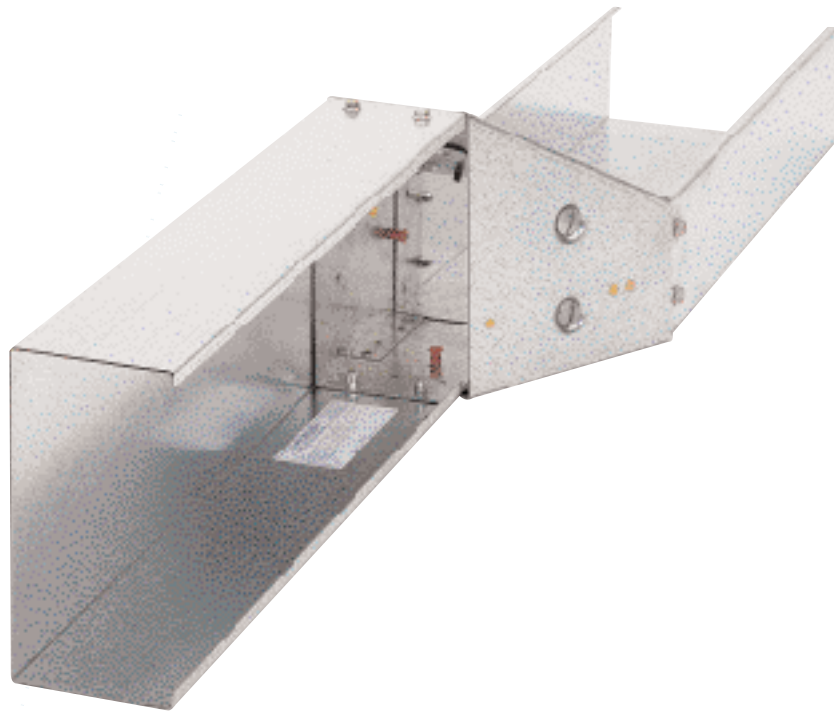
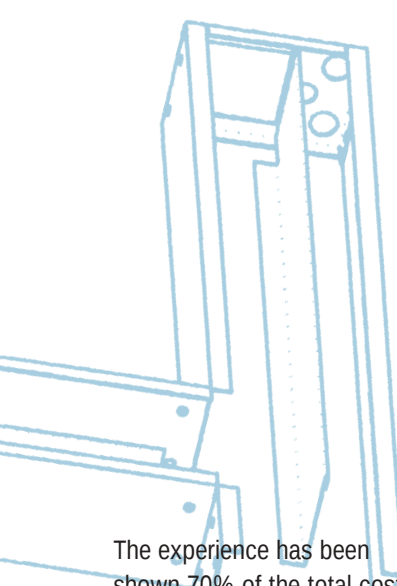
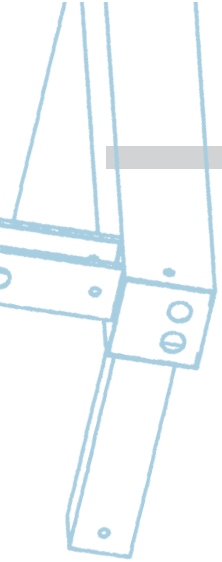


■ The Service



The PFLITSCH service consists to relieve the customer noticeable in routine-, planning- and installation activities. During the designing of equipments, machines or buildings the PFLITSCH specialists support the customers at site. The best route running of the trunking system is documented by sketches, drawings or dimensiones.

If requested the PFLITSCH-trunkings are assembled with cable-, hose- and angle glands which are available out of the huge PFLITSCH range of types. According to the technical preconditions the well-fitting trunking profiles will be fixed. The documentation includes drawings, parts lists and prices which enable the customer to get a clear valuation.

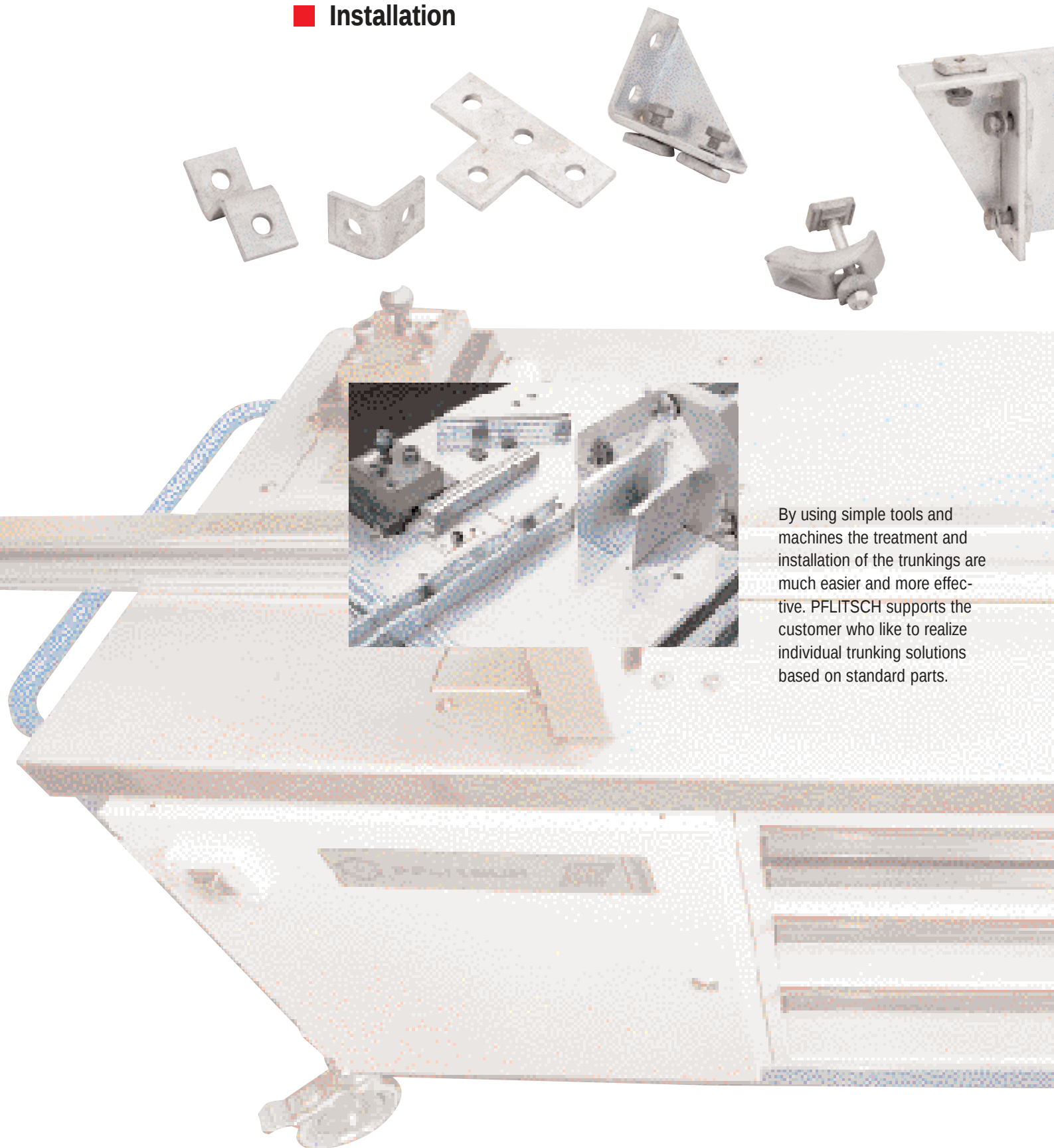


The experience has been shown 70% of the total cost of a cable trunking installation are allocated for planning and installation. The parts will be dispatched ready arranged for installation - by using that **PFLITSCH-Service** there are measurable advantageous.

If requested PFLITSCH-technicians install the trunkings at the customer site. Customers who are producing series equipment can order the trunking system by using the same order-no. as already purchased for the first application.



■ Installation



By using simple tools and machines the treatment and installation of the trunkings are much easier and more effective. PFLITSCH supports the customer who like to realize individual trunking solutions based on standard parts.

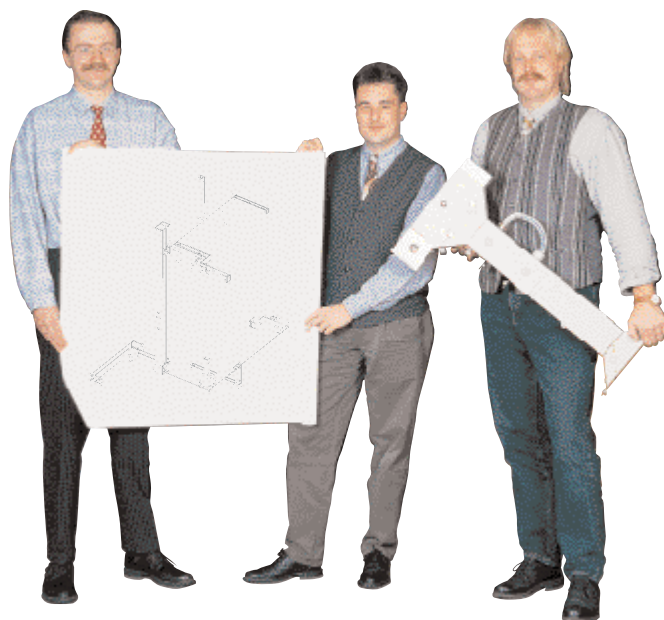


The PFLITSCH program includes fixing techniques to install the

- **industrial trunking**
- **mini trunking**
- **media trunking**
- **cable trays**

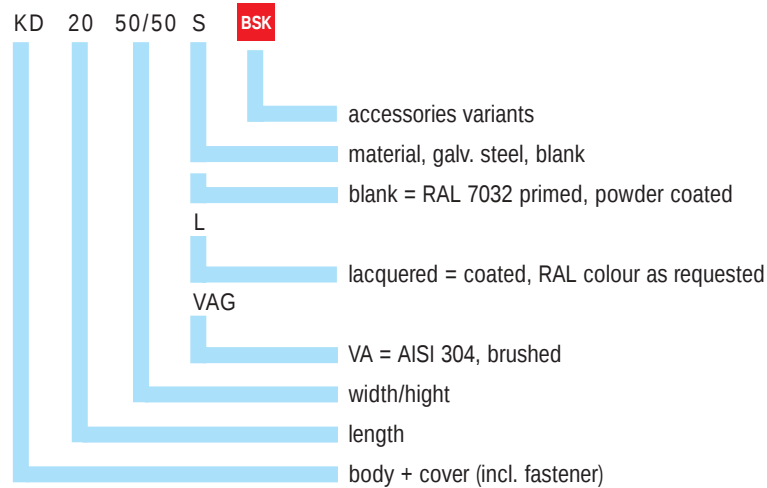
in each ambient optimal, reliable and economical.

The combination of system, service and installation service stands for the PFLITSCH capability.



Order Information Industrial Trunking

Part. No. Structure:

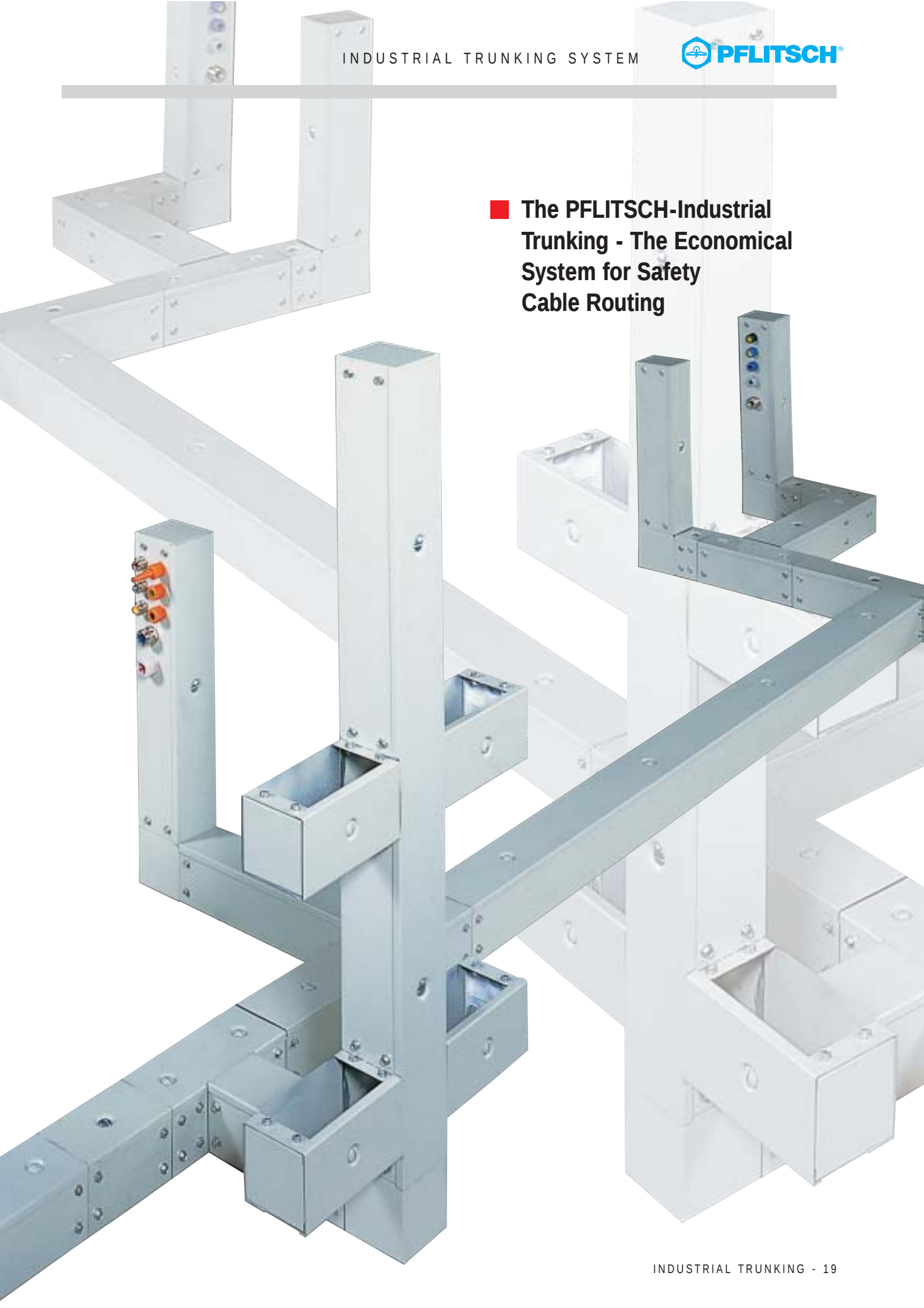


Index and Abbreviations

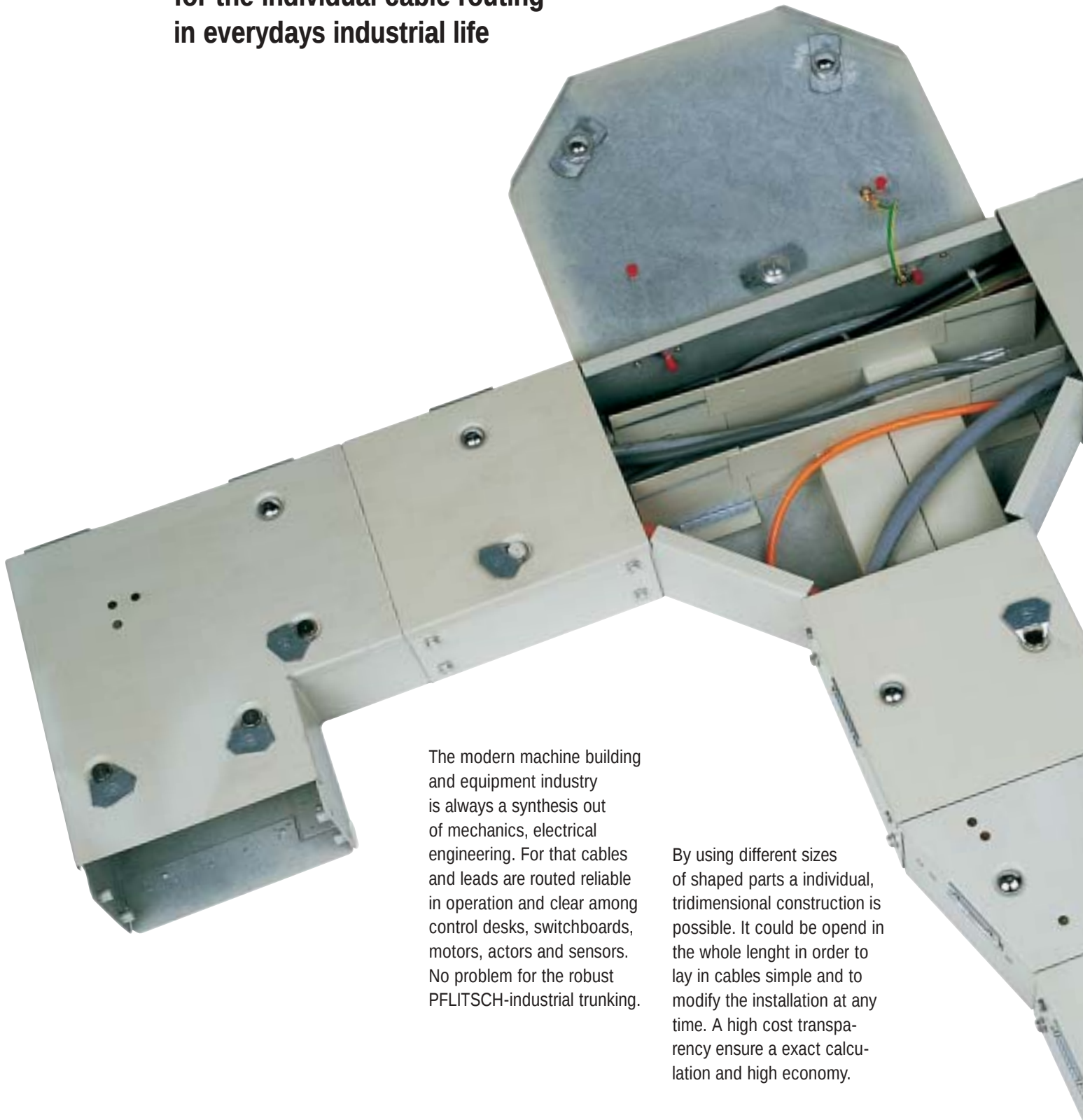
Part. No.	Designation	Page	Part. No.	Designation	Page	Part. No.	Designation	Page
AWV	Elbow bend - external access	38	KD10...BK	Side access plate with brush edge protection	45	TS TL	Telescope partition	46
BDA	Elbow bend - external access	38	KDF	Gusset intersection - top access	47	TVS	90° elbow tee - top access	36
BDF	Elbow bend - top access	38	KH	Cable retainer	50	TVU	90° elbow tee - rear access	37
BDI	Elbow bend - internal access	38	KS	Universal edge protection	45	TW	Gusset tee - access converter	42
BK	Edge protection brush	45	KS..E	Edge protection steel	44	TWI	90° gusset tee - top/internal access	43
BSK	Cover brace system	32	KS..PE	Edge protection plastic	43	TZ	Trunking partition return Z edge	48
DF	Off stand bracket	40	KS..S	Side access	45	ÜFK	Compartment flyover	49
D2	Cover with fastener	30	KW	In-line access converter	42	ÜFT	Compartment tee - flyover	49
D2...ORV	Plain cover	30	KWL	In-line graduated converter (LH)	44	ÜSE	Flexible steel duct end flange	51
DS	Hinge system	33	KWM	In-line graduated converter	44	ÜSK	Flexible steel duct coupler	51
EDA	Elbow bend - external access	35	KWR	In-line graduated converter (RH)	44	VA	Fitting coupler	37
EDF	90° elbow legged bend - top access	35	MV	Fastener indent blank assembly	33	VI	Internal coupler	31
EDFV	Adjustable legged bend top access	47	PHR	Cover brace provision with bonding	32	VI KR	Flexible steel retainer	50
EF	End flange - four sided	40	RF	Graduate reducer - top access	41	VL	Coupler plate	39
EFO	End flange - three sided	40	RV	Fastener assembly	31	WADF	90° gusset bend - top/rear access	34
EFP	End flange periscope	47	RV..OMS	Fastener with turn-clip system	33	WDA	Gusset bend - external access	34
EKA	External end cap	41	SD	Vibration flexible joint	47	WDF	Gusset bend - top access	34
EKI	Internal end cap	41	SF	Adjustable support	40	WDI	Gusset bend - internal access	34
EKI...BK	Access end cap with brush edge protection	45	SVI	Extendent coupler	31	WMS	Fastener ident tool	31
EKIR	Elbow reducer - top access	41	TDA	Gusset tee - rear access	36	WRD DH	Quick fix tool	31
EVI	Elbow bend - internal access	35	TDF	Gusset tee - top access	36	WSBK	Magnetic cap assembly tool	31
EVL	Elbow bend - top access (LH)	35	TDI	Gusset tee - internal access	36	WTDA	Flat faced tee/bend converter	43
EVR	Elbow bend - top access (RH)	35	TFDF	Gusset flange - top access	37	WTW	90° elbow tee/bend - access converter	42
FS	Flexible steel duct	51	TFE	Graduated gusset flange - top access	37	WW	Gusset bend - access converter	42
HTW	Compartment partition coupler	48	TL	Trunking partition	48	WWT	90° tee/bend converter	43
IWV	Elbow bend - internal access	39	TS	Telescope	46	WZ	Hand punch	31
K2	Trunking body	30	TSK	Telescope short	46	ZE	Vertical cable support	50
KD	Trunking body incl. lid	30	TSKH	Telescope short-half	46			

BSK	= Cover brace provision	52/53	OMS	= Hinged cover with turn clip	56/57	Other sizes	= Available sections	60
PHR	= Cover brace provision with bonding	52/53	DS	= Hinged cover with fastener	56/57	System dimensions	= Refer to data sheets	61/66
FMS	= Hinged cover with toggle catch	54/55	HD	= Heavy-duty	58/59	Small and connection parts		67
						Product range, overview		68/69
						Examples of application		70/71

■ **The PFLITSCH-Industrial
Trunking - The Economical
System for Safety
Cable Routing**

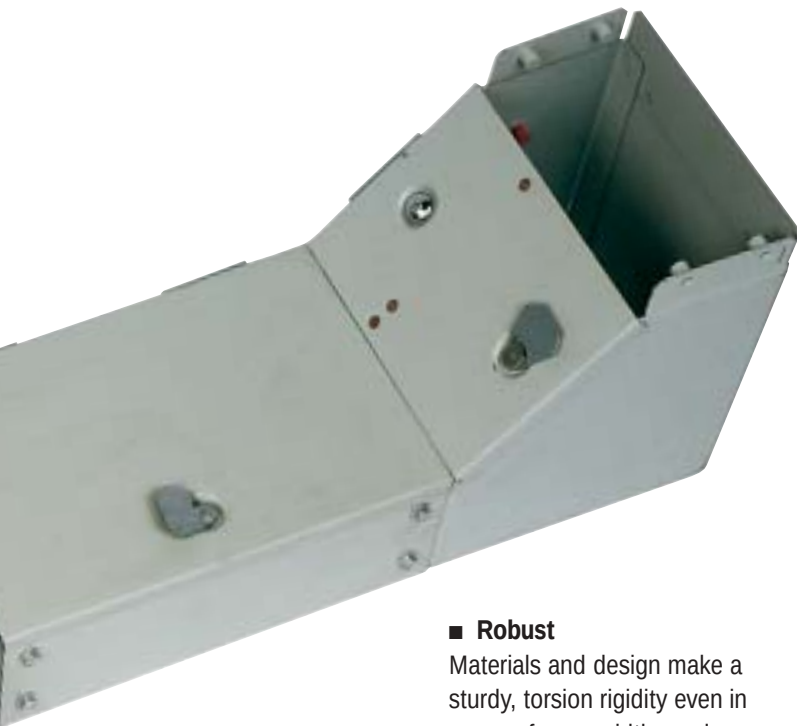


■ **The PFLITSCH-Industrial Trunking
for the individual cable routing
in everyday industrial life**



The modern machine building and equipment industry is always a synthesis out of mechanics, electrical engineering. For that cables and leads are routed reliable in operation and clear among control desks, switchboards, motors, actors and sensors. No problem for the robust PFLITSCH-industrial trunking.

By using different sizes of shaped parts a individual, tridimensional construction is possible. It could be opened in the whole length in order to lay in cables simple and to modify the installation at any time. A high cost transparency ensure a exact calculation and high economy.



The plus features are self-evident:

■ Long life

The robust standard parts of the trunking made from galvanised/powder coated metal sheets ensure a long life of the installation. For special applications i.e. food industry or outside installations we offer stainless steel types.

■ Robust

Materials and design make a sturdy, torsion rigidity even in cases of span widths and long distances of routing.

■ Practical

The industrial trunking can be opened in the whole length to lay in or remove cables simple.

■ Covered

The industrial trunking is totally covered because of the lids and of the more than 100 shaped parts for angles, T-parts, converter and telescopes.

■ Mounting friendliness

The industrial trunking will be delivered finished customized if requested. Measurement, crosscutting and fitting are dropped. In finishing at your site a trunking is burrless cutted in seconds by using of our **MaxiCut** cutting machine.

■ robust constructed

■ perfect up to in details

■ save mounting time

■ assemblies perfect in all dimensions

■ Accurate to size

Out of parts which are manufactured accurate to size and are prepared for all routings a covered, proper and reliable cable routing results.

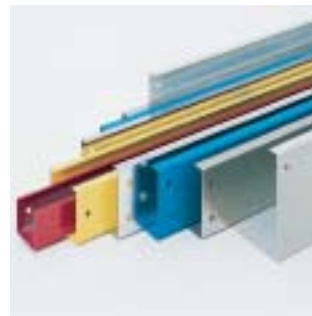
■ Cost transparent

If requested PFLITSCH delivers the industrial trunkings finished customised according to drawings. Our customer reduces his mounting time and gets a exact cost transparency.

The PFLITSCH Industrial trunking is convincing in the individual design, gives excellent installation results and is **economical**.



■ The Industrial Trunking - designed robusted



The PFLITSCH-Industrial trunking is the optimal mechanical total protection for cables and wires and can be opened at the whole routing. **The efforts by pulling through of cables is a thing of the past.** The lid position can be adjusted according to the requirement of each machine and is executed in top-, external or internal access.

Ex works there are six practical sizes, square and rectangular, available, dependent on the needed capacity and max filling factor:

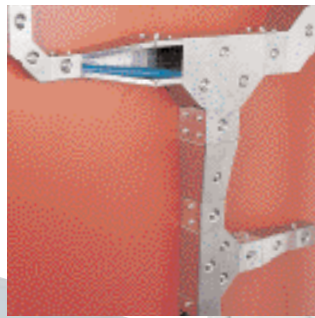
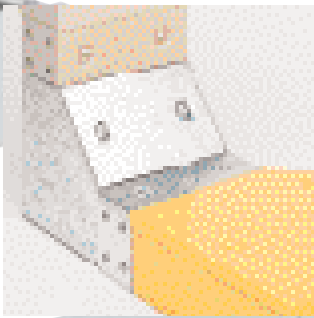
50 x 50 mm
75 x 75 mm
100 x 100 mm
150 x 100 mm
200 x 100 mm
300 x 150 mm

According to customer requests further **system components** and load resistance

Other sizes

HD

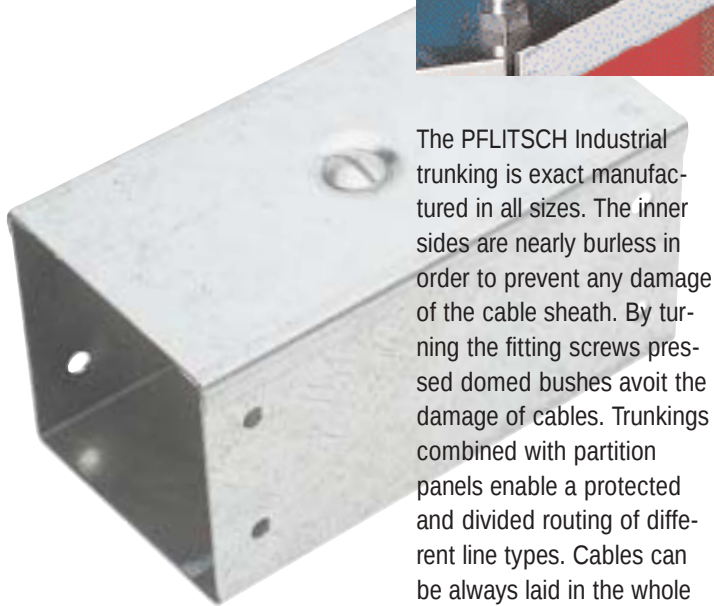
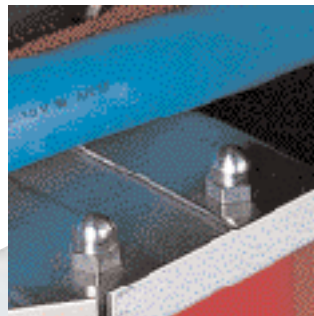
Heavy Duty applications are available. Together with the about 100 shaped parts like connections sleeves, elbows, intersections, bonds, flanges, tee-parts individual trunking systems for each area of application can be combined economical.



Galvanised steel or stainless steel material optimal for a long life and corrosion resistant is used. Trunking bodies, lids and shaped parts are delivered galvanised stainless or galvanised primed for later spraying at the customer. The undercoat RAL 7023 (light grey) is already suited to be used as a finished coating in a lot of usages. If requested by the customer the trunkings are powder coated in all RAL-colours.

For food-, chemical-, medical- or pharmacy applications PFLITSCH offers stainless steel trunkings and shaped parts.

■ The Industrial Trunking - perfect cable protection

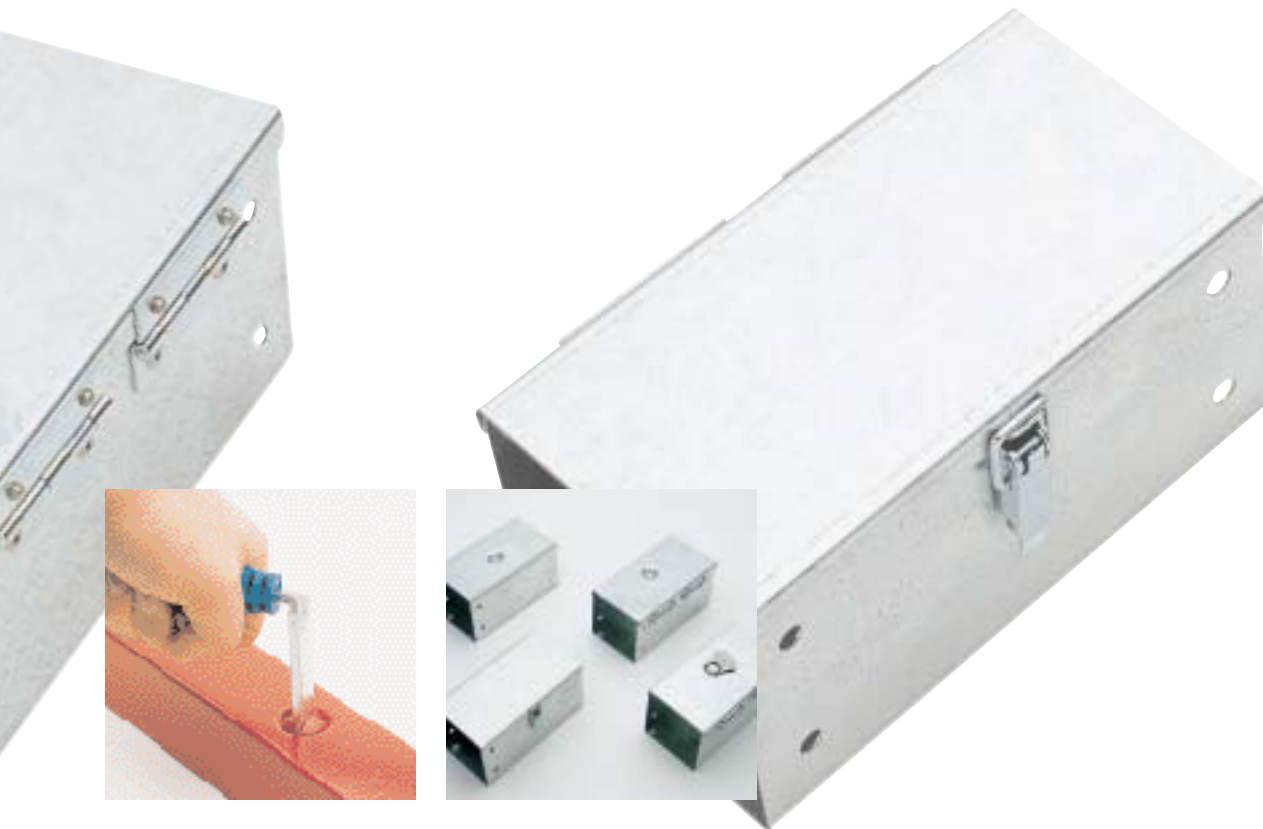


The PFLITSCH Industrial trunking is exact manufactured in all sizes. The inner sides are nearly burless in order to prevent any damage of the cable sheath. By turning the fitting screws pressed domed bushes avoid the damage of cables. Trunkings combined with partition panels enable a protected and divided routing of different line types. Cables can be always laid in the whole trunking length-also at elbow bends and tee accesses.

Flyover inter-sections which are routing the cables at divided floors take care for an organised cable routing at intersections. Going through and outgoing cables find space in different areas without spoiling. Together with telescopes, reducers, conversion adapters and variable adjustable elbow bends industrial installations are realized economical and technical reliable.

The earth potential equalization between the different trunking bodies and the shape parts is effected without additional efforts by turning of the components aid by the ratched-locking screw. At the assembly of electrical machineries or at the inserting of conductors only with base isolation the earth potential equalization between trunking bodies and lids has to be effected by using **flexible earth potential equalization connections** which are screwed with M6 domed bushes inside of the trunking body and lid.

PHR



The lid is closed by a fastener with the trunking body. The fastening screw is located in a pan without projecting and that no scratches are caused. The position can be controlled external. The fastener is handled by the practical PFLITSCH button wrench. In order to fix the lid at the trunking body four alternatives are available according to the customer's request.

We offer the following lid fixings:

- **inner safety cord**

BSK

- **hinge with fastener**

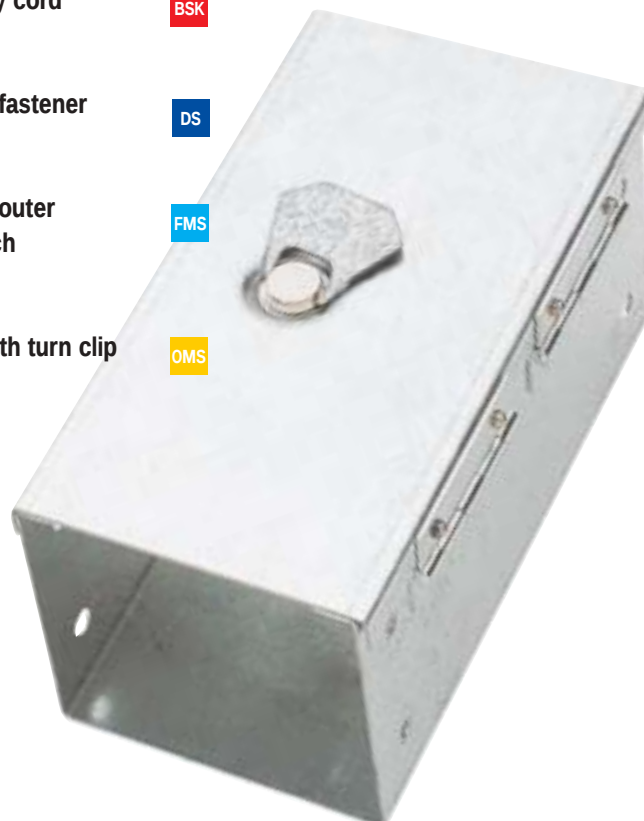
DS

- **hinge with outer toggle catch**

FMS

- **fastener with turn clip and hinge**

OMS



■ **The Industrial Trunking
- reduce assembly time**



The robust PFLITSCH trunking system is designed for maximum mounting friendliness and operating reliability. All connections parts and shaped parts have pressed, self-locking nuts. Therefore a single-man assembly is possible. Based on the domed bushes the inlaid cables are protected against mechanical damages.

Pre-manufactured inner-, outer - and stabilizing connections combined with the domed bushes ensure a stable connection of the trunking bodies and the shaped parts among each other.



As well as the dividing with partitions the industrial trunking can be combined with the PFLITSCH Mini-Trunking system which gives a trunking in trunking solution and sensitive cables are protected twice. The mini trunking is only fixed with retaining clips at the industrial trunking.

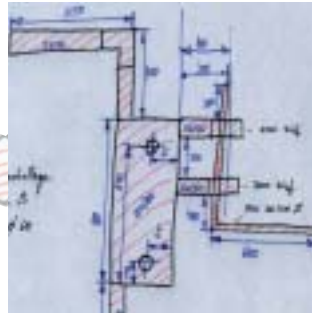


The PFLITSCH trunkings and shaped parts are standardized protected against corrosion by a robust Epoxy-powder coating. To protect the cover during the transport, storage and manufacturing against damages the trunkings and the lids are delivered with a self-adhesive PE foil.



A PE protection edge protects the connection sleeves of the shaped parts. The disposal of all PFLITSCH packing materials is easy.

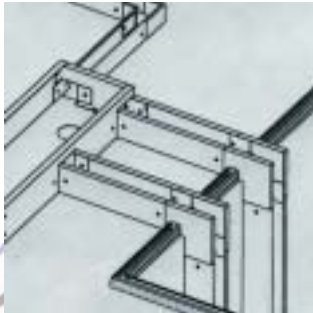
■ The Customized Industrial Trunking - the assembly perfect in all sizes



Standard parts are always cheaper than single parts. We guarantee a continuous quality on a high level. The PFLITSCH Industrial trunking programm is setting standards.

Out of the well equipped PFLITSCH warehouse all trunkings, shaped parts and accessories are available.

To start with the design we only need a machine drawing with a sketched trunking routing. By using a modern 3 D-CAD system PFLITSCH designs the complete trunking system. Right from the beginning there is a high planning assurance. Especially if there is a complex project the 3 D design gives enourmes advantages. The trunking routing will be designed optimal and free of any collision.



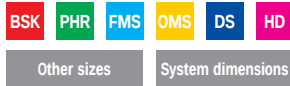
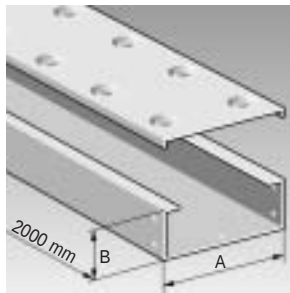
The customer can order the complete trunking routing under one order no. for his equipment. By using a integrated calculation program the whole project cost are transparent right from the beginning - a additional point of economy. The important details are documented on the drawings and show the optimal construction sequence of the trunking. Each group gets a corresponding item-no. by using a table.

At customers site PFLITSCH takes the measurements, projects the components by Laptop and 3D software, draw up the trunking routing and if requested PFLITSCH installs the trunking system.

Who likes to treat the cable trunking by himself finds practical cutting machines and tools further described in the catalogue processing.

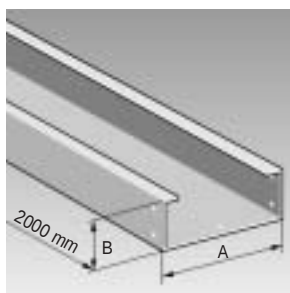
The **Technical annex** includes detailed industrial trunking measurements.

System dimensions

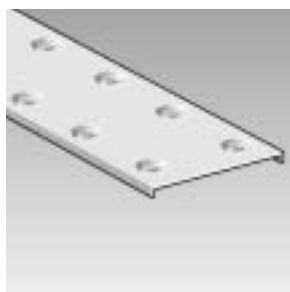
Cable trunking: body + cover
KD20


2000 mm length	gal., steel	gal., steel primed	gal., steel coated	AISI 304, brushed	
Nom. dim. (AxB)	Part. No.	Part. No.	Part. No.	Part. No.	
50 x 50	KD20 50/ 50 S	KD20 50/ 50	KD20 50/ 50 L	KD20 50/ 50 VAG	1
75 x 75	KD20 75/ 75 S	KD20 75/ 75	KD20 75/ 75 L	KD20 75/ 75 VAG	1
100 x 100	KD20 100/100 S	KD20 100/100	KD20 100/100 L	KD20 100/100 VAG	1
150 x 100	KD20 150/100 S	KD20 150/100	KD20 150/100 L	KD20 150/100 VAG	1
200 x 100	KD20 200/100 S	KD20 200/100	KD20 200/100 L	KD20 200/100 VAG	1
300 x 150	KD20 300/150 S	KD20 300/150	KD20 300/150 L	KD20 300/150 VAG	1

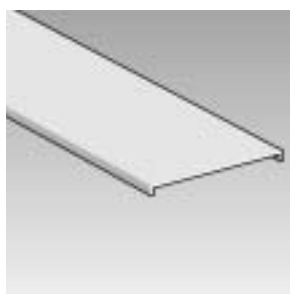
Optional lengths: 500 mm part.-no. KD 5...
1000 mm part.-no. KD10...
1500 mm part.-no. KD15...

Trunking body
K2


2000 mm length	gal., steel	gal., steel primed	gal., steel coated	AISI 304, brushed	
Nom. dimension	Part. No.	Part. No.	Part. No.	Part. No.	
50 x 50	K2 50/ 50 S	K2 50/ 50	K2 50/ 50 L	K2 50/ 50 VAG	1
75 x 75	K2 75/ 75 S	K2 75/ 75	K2 75/ 75 L	K2 75/ 75 VAG	1
100 x 100	K2 100/100 S	K2 100/100	K2 100/100 L	K2 100/100 VAG	1
150 x 100	K2 150/100 S	K2 150/100	K2 150/100 L	K2 150/100 VAG	1
200 x 100	K2 200/100 S	K2 200/100	K2 200/100 L	K2 200/100 VAG	1
300 x 150	K2 300/150 S	K2 300/150	K2 300/150 L	K2 300/150 VAG	1

Cover with fastener
D2


2000 mm length	gal., steel	gal., steel primed	gal., steel coated	AISI 304, brushed	
Nom. dimension	Part. No.	Part. No.	Part. No.	Part. No.	
50	D2 50 S	D2 50	D2 50 L	D2 50 VAG	1
75	D2 75 S	D2 75	D2 75 L	D2 75 VAG	1
100	D2 100 S	D2 100	D2 100 L	D2 100 VAG	1
150	D2 150 S	D2 150	D2 150 L	D2 150 VAG	1
200	D2 200 S	D2 200	D2 200 L	D2 200 VAG	1
300	D2 300 S	D2 300	D2 300 L	D2 300 VAG	1

Plain cover
D2 ORV


2000 mm length	gal., steel	gal., steel primed	gal., steel coated	AISI 304, brushed	
Nom. dimension	Part. No.	Part. No.	Part. No.	Part. No.	
50	D2 50 S ORV	D2 50 ORV	D2 50 L ORV	D2 50 VAG ORV	1
75	D2 75 S ORV	D2 75 ORV	D2 75 L ORV	D2 75 VAG ORV	1
100	D2 100 S ORV	D2 100 ORV	D2 100 L ORV	D2 100 VAG ORV	1
150	D2 150 S ORV	D2 150 ORV	D2 150 L ORV	D2 150 VAG ORV	1
200	D2 200 S ORV	D2 200 ORV	D2 200 L ORV	D2 200 VAG ORV	1
300	D2 300 S ORV	D2 300 ORV	D2 300 L ORV	D2 300 VAG ORV	1

BSK = Cover brace provision

PHR = Cover brace provision with bonding

FMS = Hinged cover with toggle catch

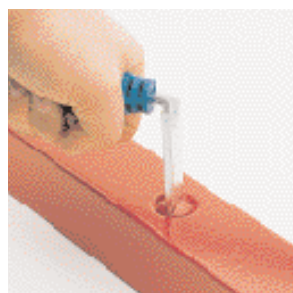
OMS = Hinged cover with turn clip

DS = Hinged cover with fastener

HD = Heavy-duty

Other sizes = Available sections

System dimensions = Refer to data sheets

Quick fix tool**WRD DH**

Part. No.	
WRD DH	1

Disengage fastener and remove Mini trunking covers.

Hand punch**WZ 8**

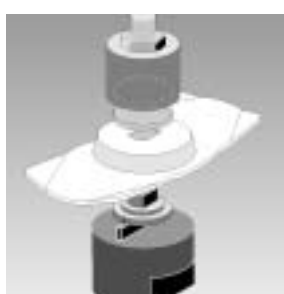
Part. No.		
WZ 8	tool	1
ESTM 5,0	punch Ø 5,0	1
ESTM 6,3	punch Ø 6,3	1
ESTM 8,0	punch Ø 8,0	1

Easy punching with adjustable location stops.

Fastener ident tool**WMS 30**

Part. No.	
WMS 30	1

Requires Ø 13 mm pre-punch.

Magnetic cap assembly tool**WSBK 20M**

Part. No.	
WSBK 20M	1

Button assembly tool WGH 20

Part. No.	
WGH 20	1

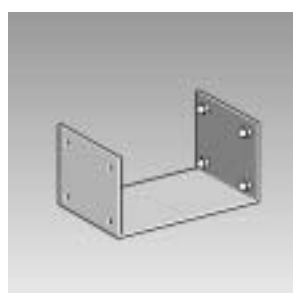
Fastener assembly**RV...BK**

gal., steel	AISI 304	
Part. No.	Part. No.	
RV 50 BK	RV 50 BK VA	50
RV 75 BK	RV 75 BK VA	50
RV 100 BK	RV 100 BK VA	50

Three-part assembly.

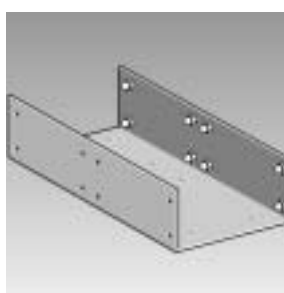
Sundry fixings**M6**

Part. No.	
1 SZSS M6x10 VA	100
Flanged hex.hd. set screw	
2 LFS M6x10 VA	100
Button head	
3 SZSM M6 VA	100
Flanged full nut	

Internal coupler**VI**

gal., steel	AISI 304	
Part. No.	Part. No.	
VI 50/ 50 S	VI 50/ 50 VA	1
VI 75/ 75 S	VI 75/ 75 VA	1
VI 100/100 S	VI 100/100 VA	1
VI 150/100 S	VI 150/100 VA	1
VI 200/100 S	VI 200/100 VA	1
VI 300/150 S	VI 300/150 VA	1

Couple for connection of body lengths.
Fitted with selflocking bushes.
Max. support centres 2 m.

Extendet coupler**SVI**

gal., steel	AISI 304	
Part. No.	Part. No.	
SVI 50/ 50 S	SVI 50/ 50 VA	1
SVI 75/ 75 S	SVI 75/ 75 VA	1
SVI 100/100 S	SVI 100/100 VA	1
SVI 150/100 S	on request	1
SVI 200/100 S	"	1
SVI 300/150 S	"	1

Generally has internal coupler for use with support centres up to 4 m. Use drilling jig part. no. ... BS SVI 50/300. For load diagrams see page 58.

Standard cover

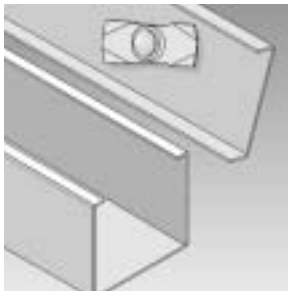


Fig.1

Covers with fasteners ex-works. The fasteners on the trunking return. Used by most all mayor automotive manufactures.

For your benefit: All customers' individual can be retrofitted from the standard range.

PFLITSCH custom product department produces all standard variants from, see pages 52-57.

Optional internal cover accessories



Cover brace system

BSK

BSK

Nom. dimension	Part. No.	L	
50 x 50	BSK 130	130 mm	25
75 x 75			
100 x 100			
150 x 100	BSK 180	180 mm	25
200 x 100			
300 x 150			

Unit = 25 pieces safety cords
50 pieces stover nuts

Fig. 2
Stud can be fitted into 2m length on request and can be fitted with 2 x red protective cap and 1 x yellow.

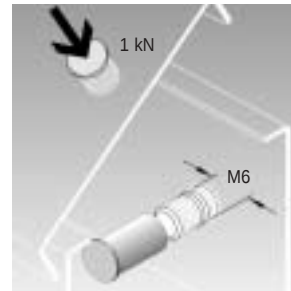


Fig. 3
Stud fixing detail



Cover brace provision with bonding

PHR

PHR

Trunking assembly

Nom. dimension	Part. No.	□	L	
50 x 50	PHR 145	4 mm²	145 mm	25
75 x 75				
100 x 100				
150 x 100	PHR 195	6 mm²	195 mm	25
200 x 100				
300 x 150				

6-piece kit: H 07 VK green/yellow ...mm², crimped with two cable lugs (ring eyelets), two M6 nuts as per DIN 986, two serrated lock washers as per DIN 6798, one self-adhesive label.
1 unit = 25 x 6-piece kit.

Note:

To avoid flexible bond becoming subject to load two cover bracers must always be fitted. PFLITSCH custom fitted department fits the all bonding system, see pages 52 - 53. For further details see page 61.

Optional external cover accessories

FMS**Toggle catch****KHV**

Part. No.



KHV 50-300

25

The lid is secured by hinges. The toggle retainer is produced from the cover return.

Note:

PFLITSCH custom products department mounts this external cover accessory.

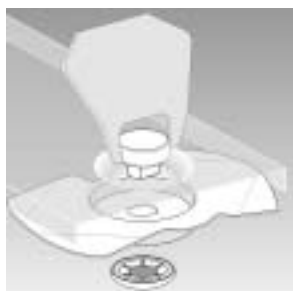


Fig. 1

Installation of fasteners with turn-clips enable cover to be removed manually without tools (no danger of injury). Used by GM.

Fastener with turn-clip system**OMS****RV...OMS**

Nom. dimension	Part. No.	Mounting	
50 x 50	RV 50 OMS	single-row	25
75 x 75	RV 75 OMS	single-row	25
100 x 100	RV 100 OMS	single-row	25
150 x 100			
200 x 100	RV 75 OMS	single-row	25
300 x 150			

Four part assembly.



Fig. 2
Manuell cover fixing detail.

The cover is visible secured by hinges on the outside, see Fig. 2.

Note:

PFLITSCH custom products department mounts various fasteners with turn-clip and hinges, see pages 56-57.

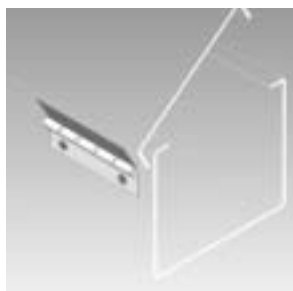
Hinge system**DS****DS**

Nom. dimension	Part. No.	R = Sweep radius	
50 x 50		55 mm	50
75 x 75	DS 40 OMS	80 mm	50
100 x 100		106 mm	50
150 x 100		157 mm	50
200 x 100	DS 60 OMS	207 mm	50
300 x 150		309 mm	50

Loose covers - see page 30 - for vertical installation we recommend two hinges for additional fixing.

Note:

PFLITSCH custom products department mounts hinges, see pages 56 - 57.

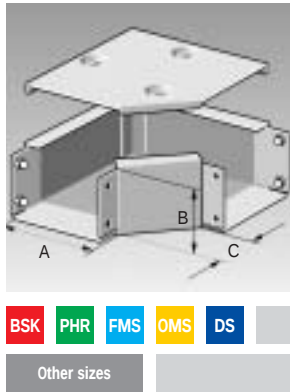
**Fastener indent blank assembly****MV**

Part. No.



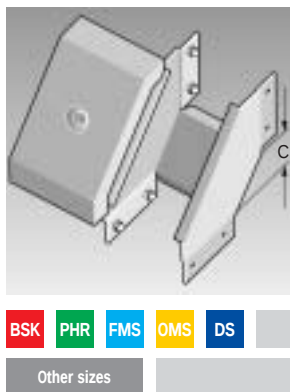
MV 9

50

Gusset bend - top access
WDF


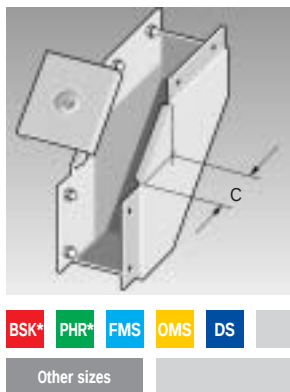
A x B	gal., steel	gal., steel primed	gal., steel coated	AISI 304, brushed	
Nom. dimension	Part. No.	Part. No.	Part. No.	Part. No.	
50 x 50	WDF 50/ 50 S	WDF 50/ 50	WDF 50/ 50 L	WDF 50/ 50 VAG	1
75 x 75	WDF 75/ 75 S	WDF 75/ 75	WDF 75/ 75 L	WDF 75/ 75 VAG	1
100 x 100	WDF 100/100 S	WDF 100/100	WDF 100/100 L	WDF 100/100 VAG	1
150 x 100	WDF 150/100 S	WDF 150/100	WDF 150/100 L	WDF 150/100 VAG	1
200 x 100	WDF 200/100 S	WDF 200/100	WDF 200/100 L	WDF 200/100 VAG	1
300 x 150	WDF 300/150 S	WDF 300/150	WDF 300/150 L	WDF 300/150 VAG	1

90° produced in arc form for sizes up to 100x100 mm and full-cornead gusset bend (or shown) for other sizes. System dimension C, see page 61.

Gusset bend - external access
WDA


	gal., steel	gal., steel primed	gal., steel coated	AISI 304, brushed	
Nom. dimension	Part. No.	Part. No.	Part. No.	Part. No.	
50 x 50	WDA 50/ 50 S	WDA 50/ 50	WDA 50/ 50 L	WDA 50/ 50 VAG	1
75 x 75	WDA 75/ 75 S	WDA 75/ 75	WDA 75/ 75 L	WDA 75/ 75 VAG	1
100 x 100	WDA 100/100 S	WDA 100/100	WDA 100/100 L	WDA 100/100 VAG	1
150 x 100	WDA 150/100 S	WDA 150/100	WDA 150/100 L	WDA 150/100 VAG	1
200 x 100	WDA 200/100 S	WDA 200/100	WDA 200/100 L	WDA 200/100 VAG	1
300 x 150	WDA 300/150 S	WDA 300/150	WDA 300/150 L	WDA 300/150 VAG	1

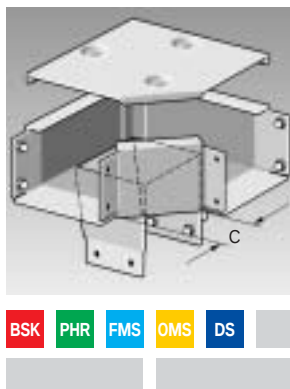
90° produced in arc form for sizes up to 100x100 mm and full-cornead gusset bend (or shown) for other sizes. System dimension C, see page 61.

Gusset bend - internal access
WDI


	gal., steel	gal., steel primed	gal., steel coated	AISI 304, brushed	
Nom. dimension	Part. No.	Part. No.	Part. No.	Part. No.	
50 x 50	WDI 50/ 50 S	WDI 50/ 50	WDI 50/ 50 L	WDI 50/ 50 VAG	1
75 x 75	WDI 75/ 75 S	WDI 75/ 75	WDI 75/ 75 L	WDI 75/ 75 VAG	1
100 x 100	WDI 100/100 S	WDI 100/100	WDI 100/100 L	WDI 100/100 VAG	1
150 x 100	WDI 150/100 S	WDI 150/100	WDI 150/100 L	WDI 150/100 VAG	1
200 x 100	WDI 200/100 S	WDI 200/100	WDI 200/100 L	WDI 200/100 VAG	1
300 x 150	WDI 300/150 S	WDI 300/150	WDI 300/150 L	WDI 300/150 VAG	1

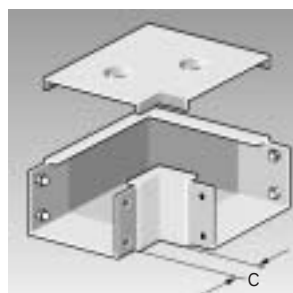
90° produced in arc form for sizes up to 100x100 mm and full-cornead gusset bend (or shown) for other sizes. System dimension C, see page 61.

* as of 150/100

90° gusset bend - top/rear access
WADF


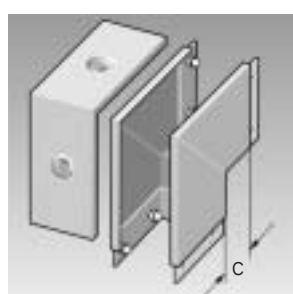
	gal., steel	gal., steel primed	gal., steel coated	AISI 304, brushed	
Nom. dimension	Part. No.	Part. No.	Part. No.	Part. No.	
150 x 100	WADF 150/100 S	WADF 150/100	WADF 150/100 L		1
200 x 100	WADF 200/100 S	WADF 200/100	WADF 200/100 L		1
300 x 150	WADF 300/150 S	WADF 300/150	WADF 300/150 L		1

As WDF ... rear unit which can be fitted in 4 different positions.

90° elbow legged bend - top access**EDF**

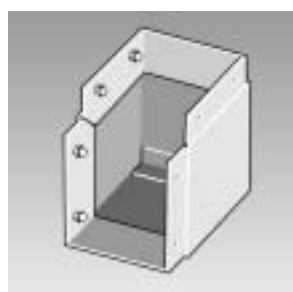
Nom. dimension	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, brushed Part. No.	
50 x 50	EDF 50/ 50 S	EDF 50/ 50	EDF 50/ 50 L	On request	1
75 x 75	EDF 75/ 75 S	EDF 75/ 75	EDF 75/ 75 L	"	1
100 x 100	EDF 100/100 S	EDF 100/100	EDF 100/100 L	"	1
150 x 100	EDF 150/100 S	EDF 150/100	EDF 150/100 L	"	1
200 x 100	EDF 200/100 S	EDF 200/100	EDF 200/100 L	"	1
300 x 150	EDF 300/150 S	EDF 300/150	EDF 300/150 L	"	1

90° bend, system dimension c, see page 61.

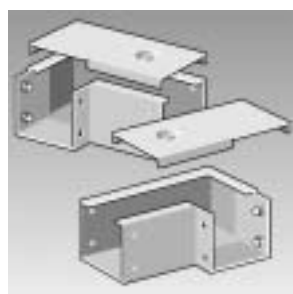
Elbow bend - external access**EDA**

Nom. dimension	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, brushed Part. No.	
50 x 50	EDA 50/ 50 S	EDA 50/ 50	EDA 50/ 50 L	On request	1
75 x 75	EDA 75/ 75 S	EDA 75/ 75	EDA 75/ 75 L	"	1
100 x 100	EDA 100/100 S	EDA 100/100	EDA 100/100 L	"	1
150 x 100	EDA 150/100 S	EDA 150/100	EDA 150/100 L	"	1
200 x 100	EDA 200/100 S	EDA 200/100	EDA 200/100 L	"	1
300 x 150	EDA 300/150 S	EDA 300/150	EDA 300/150 L	"	1

90° bend.

Elbow bend - internal access**EVI**

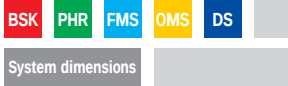
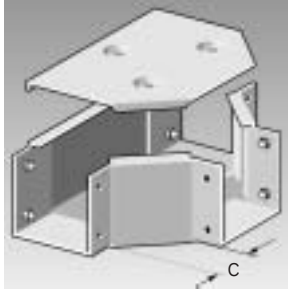
Nom. dimension	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, brushed Part. No.	
50 x 50	EVI 50/ 50 S	EVI 50/ 50	EVI 50/ 50 L	On request	1
75 x 75	EVI 75/ 75 S	EVI 75/ 75	EVI 75/ 75 L	"	1
100 x 100	EVI 100/100 S	EVI 100/100	EVI 100/100 L	"	1
150 x 100	EVI 150/100 S	EVI 150/100	EVI 150/100 L	"	1
200 x 100	EVI 200/100 S	EVI 200/100	EVI 200/100 L	"	1
300 x 150	EVI 300/150 S	EVI 300/150	EVI 300/150 L	"	1

Elbow bend - top access (LH/RH)**EVL / EVR**

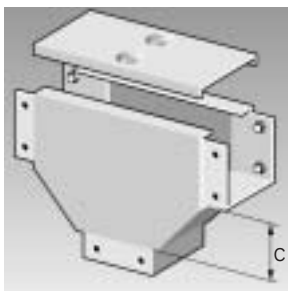
Nom. dimension	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, brushed Part. No.	
50 x 50	EVL 50/ 50 S	EVL 50/ 50	EVL 50/ 50 L	On request	1
75 x 75	EVL 75/ 75 S	EVL 75/ 75	EVL 75/ 75 L	"	1
100 x 100	EVL 100/100 S	EVL 100/100	EVL 100/100 L	"	1
150 x 100	EVL 150/100 S	EVL 150/100	EVL 150/100 L	"	1
200 x 100	EVL 200/100 S	EVL 200/100	EVL 200/100 L	"	1
300 x 150	EVL 300/150 S	EVL 300/150	EVL 300/150 L	"	1

90° branch to the left.

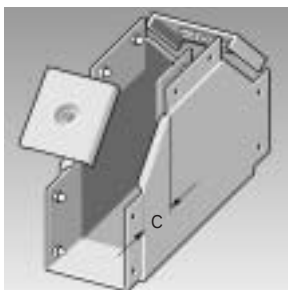
90° branch to the **right** = Part.-No. : EVR .../...

Gusset tee - top access
TDF


Nom. dimension	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, brushed Part. No.	
50 x 50	TDF 50/ 50 S	TDF 50/ 50	TDF 50/ 50 L	TDF 50/ 50 VAG	1
75 x 75	TDF 75/ 75 S	TDF 75/ 75	TDF 75/ 75 L	TDF 75/ 75 VAG	1
100 x 100	TDF 100/100 S	TDF 100/100	TDF 100/100 L	TDF 100/100 VAG	1
150 x 100	TDF 150/100 S	TDF 150/100	TDF 150/100 L	TDF 150/100 VAG	1
200 x 100	TDF 200/100 S	TDF 200/100	TDF 200/100 L	TDF 200/100 VAG	1
300 x 150	TDF 300/150 S	TDF 300/150	TDF 300/150 L	TDF 300/150 VAG	1

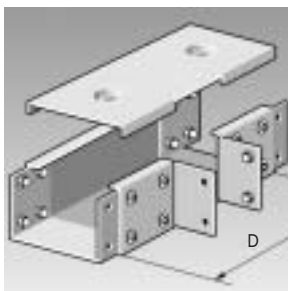
Gusset tee - rear access
TDA


Nom. dimension	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, brushed Part. No.	
50 x 50	TDA 50/ 50 S	TDA 50/ 50	TDA 50/ 50 L	TDA 50/ 50 VAG	1
75 x 75	TDA 75/ 75 S	TDA 75/ 75	TDA 75/ 75 L	TDA 75/ 75 VAG	1
100 x 100	TDA 100/100 S	TDA 100/100	TDA 100/100 L	TDA 100/100 VAG	1
150 x 100	TDA 150/100 S	TDA 150/100	TDA 150/100 L	TDA 150/100 VAG	1
200 x 100	TDA 200/100 S	TDA 200/100	TDA 200/100 L	TDA 200/100 VAG	1
300 x 150	TDA 300/150 S	TDA 300/150	TDA 300/150 L	TDA 300/150 VAG	1

Gusset tee - internal access
TDI


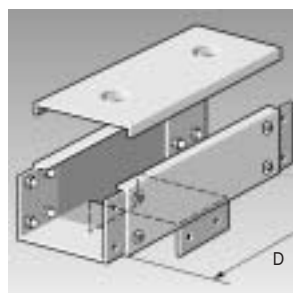
* as of 150/100

Nom. dimension	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, brushed Part. No.	
50 x 50	TDI 50/ 50 S	TDI 50/ 50	TDI 50/ 50 L	On request	1
75 x 75	TDI 75/ 75 S	TDI 75/ 75	TDI 75/ 75 L	"	1
100 x 100	TDI 100/100 S	TDI 100/100	TDI 100/100 L	"	1
150 x 100	TDI 150/100 S	TDI 150/100	TDI 150/100 L	"	1
200 x 100	TDI 200/100 S	TDI 200/100	TDI 200/100 L	"	1
300 x 150	TDI 300/150 S	TDI 300/150	TDI 300/150 L	"	1

90° elbow tee - top access
TVS


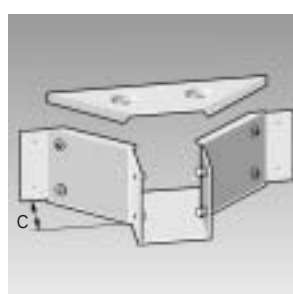
Nom. dimension	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, brushed Part. No.	
50 x 50	TVS 50/ 50 S	TVS 50/ 50	TVS 50/ 50 L	On request	1
75 x 75	TVS 75/ 75 S	TVS 75/ 75	TVS 75/ 75 L	"	1
100 x 100	TVS 100/100 S	TVS 100/100	TVS 100/100 L	"	1
150 x 100	TVS 150/100 S	TVS 150/100	TVS 150/100 L	"	1
200 x 100	TVS 200/100 S	TVS 200/100	TVS 200/100 L	"	1
300 x 150	TVS 300/150 S	TVS 300/150	TVS 300/150 L	"	1

Body and cover (6-part) each mounted with
2 pieces connection sleeve 90° Part.-No. VL 90/... and
2 pieces internal coupler sleeve Part. No. VI .../....

90°elbow tee - rear access**TVU**

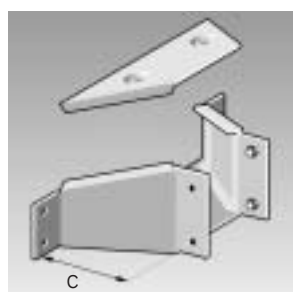
Nom. dimension	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, brushed Part. No.	
50 x 50	TVU 50/ 50 S	TVU 50/ 50	TVU 50/ 50 L	On request	1
75 x 75	TVU 75/ 75 S	TVU 75/ 75	TVU 75/ 75 L	"	1
100 x 100	TVU 100/100 S	TVU 100/100	TVU 100/100 L	"	1
150 x 100	TVU 150/100 S	TVU 150/100	TVU 150/100 L	"	1
200 x 100	TVU 200/100 S	TVU 200/100	TVU 200/100 L	"	1
300 x 150	TVU 300/150 S	TVU 300/150	TVU 300/150 L	"	1

Body and cover (4-part) each mounted with 2 pieces
internal coupler sleeve, part. No. VI .../...

Gusset flange - top access**TFDF**

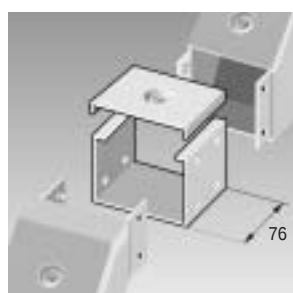
Nom. dimension	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, brushed Part. No.	
50 x 50	TFDF 50/ 50 S	TFDF 50/ 50	TFDF 50/ 50 L	TFDF 50/ 50 VAG	1
75 x 75	TFDF 75/ 75 S	TFDF 75/ 75	TFDF 75/ 75 L	TFDF 75/ 75 VAG	1
100 x 100	TFDF 100/100 S	TFDF 100/100	TFDF 100/100 L	TFDF 100/100 VAG	1
150 x 100	TFDF 150/100 S	TFDF 150/100	TFDF 150/100 L	TFDF 150/100 VAG	1
200 x 100	TFDF 200/100 S	TFDF 200/100	TFDF 200/100 L	TFDF 200/100 VAG	1
300 x 150	TFDF 300/150 S	TFDF 300/150	TFDF 300/150 L	TFDF 300/150 VAG	1

Side branch, for large cable radii, 4-part. Can be internally flange-mounted.

Graduated gusset flange - top access**TFE**

B / A ₁ x B ₁	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	
50 / 150 x 100	TFE 50150100 S	TFE 50150100	TFE 50150100 L	1
75 / 150 x 100	TFE 75150100 S	TFE 75150100	TFE 75150100 L	1
75 / 200 x 100	TFE 75200100 S	TFE 75200100	TFE 75200100 L	1
100 / 300 x 150	TFE 100300150 S	TFE 100300150	TFE 100300150 L	1

Side branch, for large cable radii, 4-part. Can be internally flange-mounted.

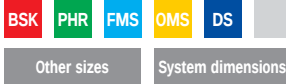
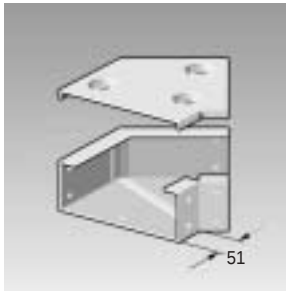
Fitting coupler**VA**

Nom. dimension	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, brushed Part. No.	
50 x 50	VA 50/ 50 S	VA 50/ 50	VA 50/ 50 L	VA 50/ 50 VAG	1
75 x 75	VA 75/ 75 S	VA 75/ 75	VA 75/ 75 L	VA 75/ 75 VAG	1
100 x 100	VA 100/100 S	VA 100/100	VA 100/100 L	VA 100/100 VAG	1
150 x 100	VA 150/100 S	VA 150/100	VA 150/100 L	VA 150/100 VAG	1
200 x 100	VA 200/100 S	VA 200/100	VA 200/100 L	VA 200/100 VAG	1
300 x 150	VA 300/150 S	VA 300/150	VA 300/150 L	VA 300/150 VAG	1

Combines 2 fittings.

Elbow bend - top access

BDF

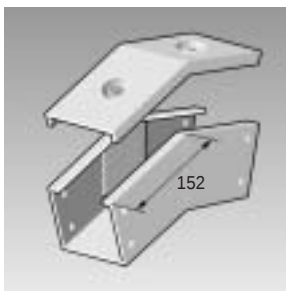


Nom. dimension	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, brushed Part. No.	
50 x 50	BDF 50/ 50 S	BDF 50/ 50	BDF 50/ 50 L	BDF 50/ 50 VAG	1
75 x 75	BDF 75/ 75 S	BDF 75/ 75	BDF 75/ 75 L	BDF 75/ 75 VAG	1
100 x 100	BDF 100/100 S	BDF 100/100	BDF 100/100 L	BDF 100/100 VAG	1
150 x 100	BDF 150/100 S	BDF 150/100	BDF 150/100 L	BDF 150/100 VAG	1
200 x 100	BDF 200/100 S	BDF 200/100	BDF 200/100 L	BDF 200/100 VAG	1
300 x 150	BDF 300/150 S	BDF 300/150	BDF 300/150 L	BDF 300/150 VAG	1

45° bend, 2-part, mounting with 2 pieces of internal coupler sleeve part. No.VI .../... S
custom bends from 20° to 40° on request.

Elbow bend - external access

BDA

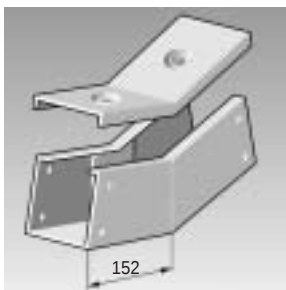


Nom. dimension	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, brushed Part. No.	
50 x 50	BDA 50/ 50 S	BDA 50/ 50	BDA 50/ 50 L		1
75 x 75	BDA 75/ 75 S	BDA 75/ 75	BDA 75/ 75 L		1
100 x 100	BDA 100/100 S	BDA 100/100	BDA 100/100 L		1
150 x 100	BDA 150/100 S	BDA 150/100	BDA 150/100 L		1
200 x 100	BDA 200/100 S	BDA 200/100	BDA 200/100 L		1
300 x 150	BDA 300/150 S	BDA 300/150	BDA 300/150 L		1

45° bend, 2-part, mounting with 2 pieces of internal coupler sleeve part. No.VI .../... S
custom bends from 20° to 40° on request.

Elbow bend - internal access

BDI

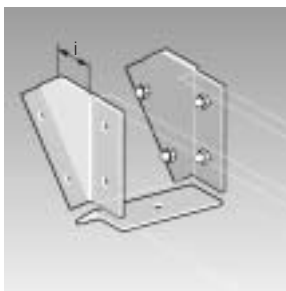


Nom. dimension	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, brushed Part. No.	
50 x 50	BDI 50/ 50 S	BDI 50/ 50	BDI 50/ 50 L		1
75 x 75	BDI 75/ 75 S	BDI 75/ 75	BDI 75/ 75 L		1
100 x 100	BDI 100/100 S	BDI 100/100	BDI 100/100 L		1
150 x 100	BDI 150/100 S	BDI 150/100	BDI 150/100 L		1
200 x 100	BDI 200/100 S	BDI 200/100	BDI 200/100 L		1
300 x 150	BDI 300/150 S	BDI 300/150	BDI 300/150 L		1

45° bend, 2-part, mounting with 2 pieces of internal coupler sleeve part. No.VI .../... S
custom bends from 20° to 40° on request.

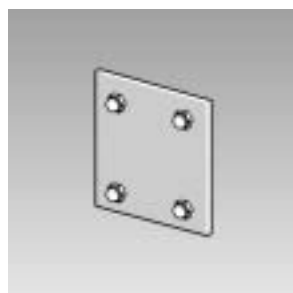
Elbow bend - external access

AWV



Nom. dimension	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, brushed Part. No.	
50 x 50	AWV 50/ 50 S	AWV 50/ 50	AWV 50/ 50 L	AWV 50/ 50 VAG	1
75 x 75	AWV 75/ 75 S	AWV 75/ 75	AWV 75/ 75 L	AWV 75/ 75 VAG	1
100 x 100	AWV 100/100 S	AWV 100/100	AWV 100/100 L	AWV 100/100 VAG	1
150 x 100	AWV 150/100 S	AWV 150/100	AWV 150/100 L	AWV 150/100 VAG	1
200 x 100	AWV 200/100 S	AWV 200/100	AWV 200/100 L	AWV 200/100 VAG	1
300 x 150	AWV 300/150 S	AWV 300/150	AWV 300/150 L	AWV 300/150 VAG	1

45° bend, 3-part. Allow cover length to project by dimension i.

180° coupler plate**VL 180**

	gal., steel	gal., steel primed	gal., steel coated	AISI 304, brushed	
Nom. dimension	Part. No.	Part. No.	Part. No.	Part. No.	
50	VL 180/ 50 S			VL 180/ 50 VA	1
75	VL 180/ 75 S			VL 180/ 75 VA	1
100	VL 180/100 S			VL 180/100 VA	1
150	VL 180/150 S			VL 180/150 VA	1

For mounting bends, back-entries etc. - may replace fittings, bushes fitted.

135° coupler plate**VL 135**

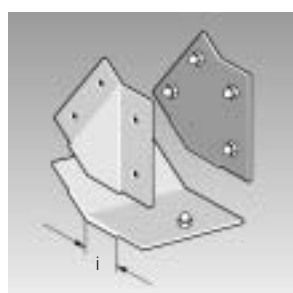
	gal., steel	gal., steel primed	gal., steel coated	AISI 304, brushed	
Nom. dimension	Part. No.	Part. No.	Part. No.	Part. No.	
50	VL 135/ 50 S			VL 135/ 50 VA	1
75	VL 135/ 75 S			VL 135/ 75 VA	1
100	VL 135/100 S			VL 135/100 VA	1
150	VL 135/150 S			VL 135/150 VA	1

For mounting 135°/45° bends, back-entries etc. - may replace fittings, order bushes extra.

90° coupler plate**VL 90**

	gal., steel	gal., steel primed	gal., steel coated	AISI 304, brushed	
Nom. dimension	Part. No.	Part. No.	Part. No.	Part. No.	
50	VL 90/ 50 S			VL 90/ 50 VA	1
75	VL 90/ 75 S			VL 90/ 75 VA	1
100	VL 90/100 S			VL 90/100 VA	1
150	VL 90/150 S			VL 90/150 VA	1

For mounting bends, back-entries etc. - may replace fittings, order bushes extra.

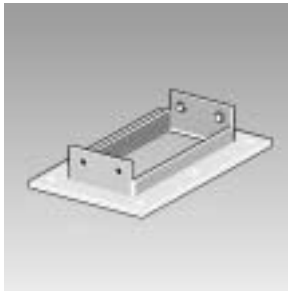
Elbow bend - internal access**IWV**

	gal., steel	gal., steel primed	gal., steel coated	AISI 304, brushed	
Nom. dimension	Part. No.	Part. No.	Part. No.	Part. No.	
50 x 50	IWV 50/ 50 S	IWV 50/ 50	IWV 50/ 50 L	IWV 50/ 50 VAG	1
75 x 75	IWV 75/ 75 S	IWV 75/ 75	IWV 75/ 75 L	IWV 75/ 75 VAG	1
100 x 100	IWV 100/100 S	IWV 100/100	IWV 100/100 L	IWV 100/100 VAG	1
150 x 100	IWV 150/100 S	IWV 150/100	IWV 150/100 L	IWV 150/100 VAG	1
200 x 100	IWV 200/100 S	IWV 200/100	IWV 200/100 L	IWV 200/100 VAG	1
300 x 150	IWV 300/150 S	IWV 300/150	IWV 300/150 L	IWV 300/150 VAG	1

45° bend, 3-part.

Other sizes

System dimensions

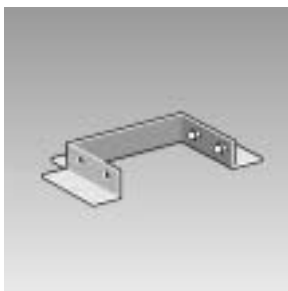
End flange - four sided
EF


Other sizes

System dimensions

Nom. dimension	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, brushed Part. No.	
50 x 50	EF 50/ 50 S	EF 50/ 50	EF 50/ 50 L	EF 50/ 50 VAG	1
75 x 75	EF 75/ 75 S	EF 75/ 75	EF 75/ 75 L	EF 75/ 75 VAG	1
100 x 100	EF 100/100 S	EF 100/100	EF 100/100 L	EF 100/100 VAG	1
150 x 100	EF 150/100 S	EF 150/100	EF 150/100 L	EF 150/100 VAG	1
200 x 100	EF 200/100 S	EF 200/100	EF 200/100 L	EF 200/100 VAG	1
300 x 150	EF 300/150 S	EF 300/150	EF 300/150 L	EF 300/150 VAG	1

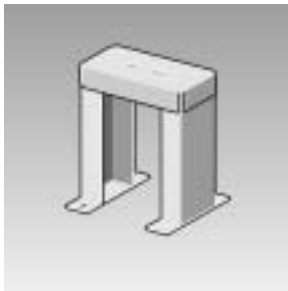
Multi-purpose fitting which may be used as a foot or connection between a trunking and an enclosure.

End flange - three sided
EFO


System dimensions

Nom. dimension	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, brushed Part. No.	
50 x 50	EFO 50/ 50 S	EFO 50/ 50	EFO 50/ 50 L		1
75 x 75	EFO 75/ 75 S	EFO 75/ 75	EFO 75/ 75 L		1
100 x 100	EFO 100/100 S	EFO 100/100	EFO 100/100 L		1
150 x 100	EFO 150/100 S	EFO 150/100	EFO 150/100 L		1
200 x 100	EFO 200/100 S	EFO 200/100	EFO 200/100 L		1
300 x 150	EFO 300/150 S	EFO 300/150	EFO 300/150 L		1

Generally as EF, with access on one side.

Off stand bracket
DF


System dimensions

Nom. dimension	gal., steel Part. No..	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, brushed Part. No.	
200 mm	DF 200 S	DF 200	DF 200 L		1

Adjustable off stand bracket
DFV

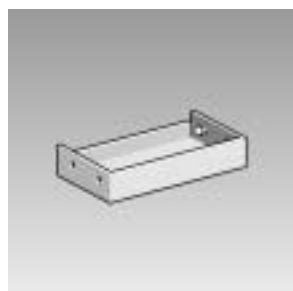
Nom. dimension	Part. No	Part. No	Part. No	
200 ± 25 mm	DFV 200 S	DFV 200	DFV 200 L	1

Load: max. 300 KN.

Adjustable support
SF

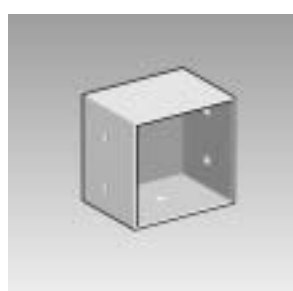

zinc/crour passivatet			zinc/crour passivatet		
Nom. dimension (height)	Part. No		Nom. dimension (height)	Part. No	
200 ± 25 mm	SF 200	1	450 ± 50 mm	SF 450	1
250 ± 50 mm	SF 250	1	500 ± 50 mm	SF 500	1
300 ± 50 mm	SF 300	1	1000 ± 50 mm	SF 1000	1
350 ± 50 mm	SF 350	1	1800 ± 50 mm	SF 1800	1
400 ± 50 mm	SF 400	1			

Head and foot plate can be bolted on.
Load: max. 20 KN

Internal end cap**EKI**

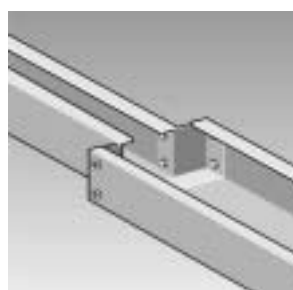
Nom. dimension	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, brushed Part. No.	
50 x 50	EKI 50/ 50 S	EKI 50/ 50	EKI 50/ 50 L	EKI 50/ 50 VAG	1
75 x 75	EKI 75/ 75 S	EKI 75/ 75	EKI 75/ 75 L	EKI 75/ 75 VAG	1
100 x 100	EKI 100/100 S	EKI 100/100	EKI 100/100 L	EKI 100/100 VAG	1
150 x 100	EKI 150/100 S	EKI 150/100	EKI 150/100 L	EKI 150/100 VAG	1
200 x 100	EKI 200/100 S	EKI 200/100	EKI 200/100 L	EKI 200/100 VAG	1
300 x 150	EKI 300/150 S	EKI 300/150	EKI 300/150 L	EKI 300/150 VAG	1

Closure of trunking bodies.

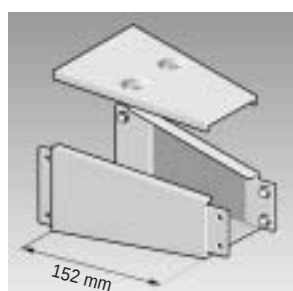
External end cap**EKA**

Nom. dimension	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, brushed Part. No.	
50 x 50	EKA 50/ 50 S	EKA 50/ 50	EKA 50/ 50 L		1
75 x 75	EKA 75/ 75 S	EKA 75/ 75	EKA 75/ 75 L		1
100 x 100	EKA 100/100 S	EKA 100/100	EKA 100/100 L		1
150 x 100	EKA 150/100 S	EKA 150/100	EKA 150/100 L		1
200 x 100	EKA 200/100 S	EKA 200/100	EKA 200/100 L		1
300 x 150	EKA 300/150 S	EKA 300/150	EKA 300/150 L		1

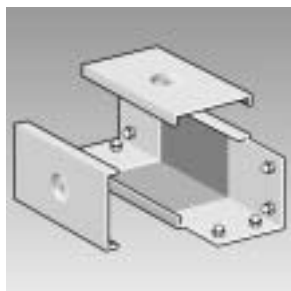
Closure of unused fitting entries.

Elbow reducer - top access**EKIR**

Nom. dimension A x B / A ₁ x B ₁	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, brushed Part. No.	
75x 75/ 50x 50	EKIR 75 75 50 50 S	EKIR 75 75 50 50	EKIR 75 75 50 50 L	On request	1
100x100/ 50x 50	EKIR 100 100 50 50 S	EKIR 100 100 50 50	EKIR 100 100 50 50 L	"	1
100x100/ 75x 75	EKIR 100 100 75 75 S	EKIR 100 100 75 75	EKIR 100 100 75 75 L	"	1
150x100/100x100	EKIR 150 100 100 100 S	EKIR 150 100 100 100	EKIR 150 100 100 100 L	"	1
200x100/100x100	EKIR 200 100 100 100 S	EKIR 200 100 100 100	EKIR 200 100 100 100 L	"	1
300x150/200x100	EKIR 300 150 200 100 S	EKIR 300 150 200 100	EKIR 300 150 200 100 L	"	1

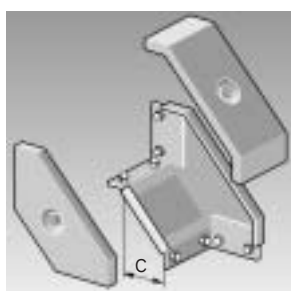
Graduate reducer - top access**RF**

Nom. dimension A x B / A ₁ x B ₁	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, brushed Part. No.	
75x 75/ 50x 50	RF 75 75 50 50 S	RF 75 75 50 50	RF 75 75 50 50 L	On request	1
100x100/ 50x 50	RF 100 100 50 50 S	RF 100 100 50 50	RF 100 100 50 50 L	"	1
100x100/ 75x 75	RF 100 100 75 75 S	RF 100 100 75 75	RF 100 100 75 75 L	"	1
150x100/100x100	RF 150 100 100 100 S	RF 150 100 100 100	RF 150 100 100 100 L	"	1
200x100/100x100	RF 200 100 100 100 S	RF 200 100 100 100	RF 200 100 100 100 L	"	1
200x100/150x100	RF 200 100 150 100 S	RF 200 100 150 100	RF 200 100 150 100 L	"	1
300x150/100x100	RF 300 150 100 100 S	RF 300 150 100 100	RF 300 150 100 100 L	"	1
300x150/150x100	RF 300 150 150 100 S	RF 300 150 150 100	RF 300 150 150 100 L	"	1
300x150/200x100	RF 300 150 200 100 S	RF 300 150 200 100	RF 300 150 200 100 L	"	1

In-line access converter
KW


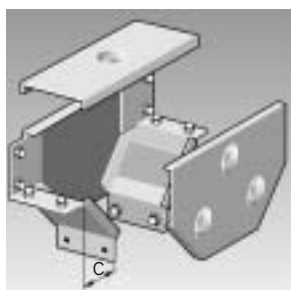
Nom. dimension	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, brushed Part. No.	
50 x 50	KW 50/ 50 S	KW 50/ 50	KW 50/ 50 L		1
75 x 75	KW 75/ 75 S	KW 75/ 75	KW 75/ 75 L		1
100 x 100	KW 100/100 S	KW 100/100	KW 100/100 L		1

Turns the cover position of square trunking by 90°, 3-part.

Gusset bend - access converter
WW


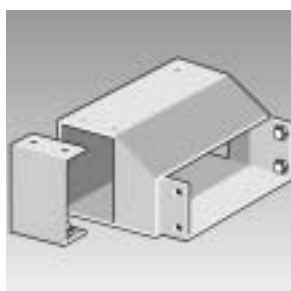
Nom. dimension	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, brushed Part. No.	
50 x 50	WW 50/ 50 S	WW 50/ 50	WW 50/ 50 L		1
75 x 75	WW 75/ 75 S	WW 75/ 75	WW 75/ 75 L		1
100 x 100	WW 100/100 S	WW 100/100	WW 100/100 L		1

Turns the cover position of square trunking by 90°, 3-part.

Gusset tee - access converter
TW


Nom. dimension	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, brushed Part. No.	
50 x 50	TW 50/ 50 S	TW 50/ 50	TW 50/ 50 L		1
75 x 75	TW 75/ 75 S	TW 75/ 75	TW 75/ 75 L		1
100 x 100	TW 100/100 S	TW 100/100	TW 100/100 L		1

Turns the cover position of square trunking by 90°, 3-part.

90° elbow tee/bend - access converter
WTW


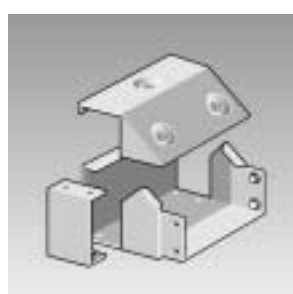
Nom. dimension	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, brushed Part. No.	
A x B / A ₁ x B ₁					
150x100/150x100	WTW 150/100 S	WTW 150/100	WTW 150/100 L		1
200x100/200x100	WTW 200/100 S	WTW 200/100	WTW 200/100 L		1
300x150/300x150	WTW 300/150 S	WTW 300/150	WTW 300/150 L		1

Turns the cover position of rectangular trunking by 90°. Partical cable access only.

90° gusset tee - top/internal access**TWI**

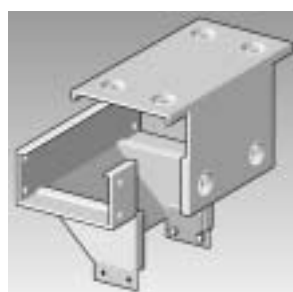
	gal., steel	gal., steel primed	gal., steel coated	AISI 304, brushed	
Nom. dimension	Part. No.	Part. No.	Part. No.	Part. No.	
50 x 50	TWI 50/ 50 S	TWI 50/ 50	TWI 50/ 50 L		1
75 x 75	TWI 75/ 75 S	TWI 75/ 75	TWI 75/ 75 L		1
100 x 100	TWI 100/100 S	TWI 100/100	TWI 100/100 L		1

Turns the cover position by 90°.

90° tee/bend converter**WWT**

	gal., steel	gal., steel primed	gal., steel coated	AISI 304, brushed	
Nom. dimension	Part. No.	Part. No.	Part. No.	Part. No.	
150 x 100	WWT 150/100 S	WWT 150/100	WWT 150/100 L		1
200 x 100	WWT 200/100 S	WWT 200/100	WWT 200/100 L		1
300 x 150	WWT 300/150 S	WWT 300/150	WWT 300/150 L		1

Turns the cover position of rectangular trunking by 90°. Full cable access only.

Flat faced - tee/bend converter**WTDA**

	gal., steel	gal., steel primed	gal., steel coated	AISI 304, brushed	
Nom. dimension	Part. No.	Part. No.	Part. No.	Part. No.	
150 x 100	WTDA 150/100 S	WTDA 150/100	WTDA 150/100 L		1
200 x 100	WTDA 200/100 S	WTDA 200/100	WTDA 200/100 L		1
300 x 150	WTDA 300/150 S	WTDA 300/150	WTDA 300/150 L		1

Turns the cover position of rectangular trunking by 90°. Full cable access only.

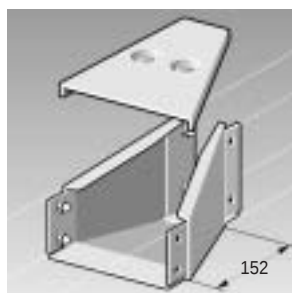
Edge protection plastic**KSP**

	colour black	
Nom. dimension	Art.-Nr.	
50 x 50	KSP 50/ 50	25
75 x 75	KSP 75/ 75	25
100 x 100	KSP 100/100	10

Plastic cable protection at the end of the trunking engaging coupler holes with cable access.

In-line graduated converter

KWM

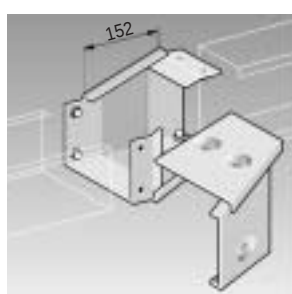


Nom. dimension	gal., steel	gal., steel primed	gal., steel coated	AISI 304, brushed	
A x B	Part. No.	Part. No.	Part. No.	Part. No.	
150 x 100	KWM 150/100 S	KWM 150/100	KWM 150/100 L		1
200 x 100	KWM 200/100 S	KWM 200/100	KWM 200/100 L		1
300 x 150	KWM 300/150 S	KWM 300/150	KWM 300/150 L		1

Turns the trunking position by 90°.

In-line graduated converter (L/H)

KWL

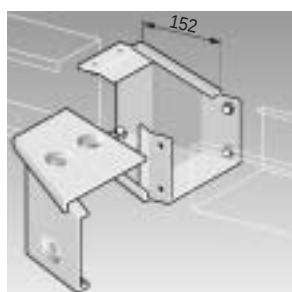


Nom. dimension	gal., steel	gal., steel primed	gal., steel coated	AISI 304, brushed	
	Part. No.	Part. No.	Part. No.	Part. No.	
150 x 100	KWL 150/100 S	KWL 150/100	KWL 150/100 L		1
200 x 100	KWL 200/100 S	KWL 200/100	KWL 200/100 L		1
300 x 150	KWL 300/150 S	KWL 300/150	KWL 300/150 L		1

Turns the trunking position by 90°, 3-part.

In-line graduated converter (R/H)

KWR



Nom. dimension	gal., steel	gal., steel primed	gal., steel coated	AISI 304, brushed	
	Part. No.	Part. No.	Part. No.	Part. No.	
150 x 100	KWR 150/100 S	KWR 150/100	KWR 150/100 L		1
200 x 100	KWR 200/100 S	KWR 200/100	KWR 200/100 L		1
300 x 150	KWR 300/150 S	KWR 300/150	KWR 300/150 L		1

Turns the trunking position by 90°, 3-part.

Edge protection steel

KS E



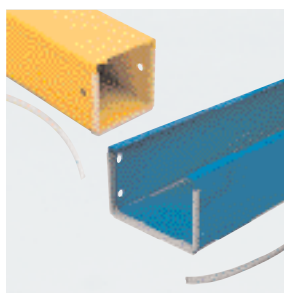
Nom. dimension	gal., steel	gal., steel primed	gal., steel coated	AISI 304, brushed	
	Part. No.	Part. No.	Part. No.	Part. No.	
50 x 50	KS E 50/ 50 S	KS E 50/ 50	KS E 50/ 50 L		1
75 x 75	KS E 75/ 75 S	KS E 75/ 75	KS E 75/ 75 L		1
100 x 100	KS E 100/100 S	KS E 100/100	KS E 100/100 L		1
150 x 100	KS E 150/100 S	KS E 150/100	KS E 150/100 L		1

Vibration resistant, 3-sided edge protection, can be bolted on.

Edge protection brush**BK**

Height	Part. No.	
20	BK 20 PA	25 m
30	BK 30 PA	25 m

For material thickness = 1 to 1.6 mm.

**Universal edge protection****KS**

Height	Part. No.	
7,1	KS 38	50 m
9,2	KS 54	50 m

 Part. No. KS 38
 Colour: transparent
 Material: PP

 Part. No. KS 54
 Colour: Grey
 Material: PVC covered, with a flexible metal core.
**Access end cap with brush edge protection****EKI BK**

	gal., steel	gal., steel primed	gal., steel coated	AISI 304, brushed	
Nom. dimension	Part. No.	Part. No.	Part. No.	Part. No.	
100 x 100	EKI BK 100/100 S	EKI BK 100/100	EKI BK 100/100 L		1
150 x 100	EKI BK 150/100 S	EKI BK 150/100	EKI BK 150/100 L		1
200 x 100	EKI BK 200/100 S	EKI BK 200/100	EKI BK 200/100 L		1
300 x 150	EKI BK 300/150 S	EKI BK 300/150	EKI BK 300/150 L		1

2-part, providing full cable access

**Side access plate with brush edge protection****KD10 BK**

	gal., steel	gal., steel primed	gal., steel coated	AISI 304, brushed	
Nom. dimension	Part. No.	Part. No.	Part. No.	Part. No.	
100 x 100	KD 10 BK 100/100 S	KD 10 BK 100/100	KD 10 BK 100/100 L		1
150 x 100	KD 10 BK 150/100 S	KD 10 BK 150/100	KD 10 BK 150/100 L		1
200 x 100	KD 10 BK 200/100 S	KD 10 BK 200/100	KD 10 BK 200/100 L		1
300 x 150	KD 10 BK 300/150 S	KD 10 BK 300/150	KD 10 BK 300/150 L		1



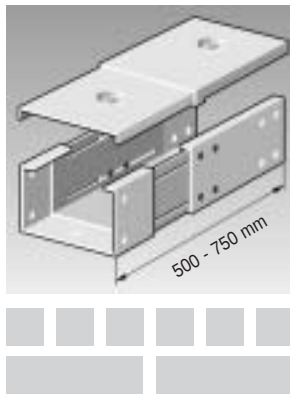
Trunking body/lid 1.000 mm long, component edge protection 2-parts, full cable access.

Side access**KS S**

	gal., steel	gal., steel primed	gal., steel coated	AISI 304, brushed	
Nom. dimension	Part. No.	Part. No..	Part. No.	Part. No.	
50 x 50	KS S 50/ 50 S	KS S 50/ 50	KS S 50/ 50 L		1
75 x 75	KS S 75/ 75 S	KS S 75/ 75	KS S 75/ 75 L		1
100 x 100	KS S 100/100 S	KS S 100/100	KS S 100/100 L		1
150 x 100	KS S 150/100 S	KS S 150/100	KS S 150/100 L		1

Vibration resistant, 3-sided edge protection, can be bolted on.



Telescope
TS


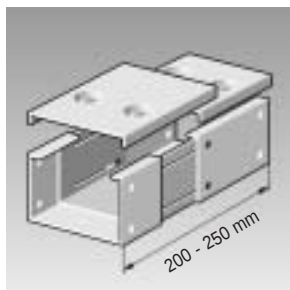
Nom. dimension	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, brushed Part. No.	
50 x 50	TS 50/ 50 S	TS 50/ 50	TS 50/ 50 L	On request	1
75 x 75	TS 75/ 75 S	TS 75/ 75	TS 75/ 75 L	"	1
100 x 100	TS 100/100 S	TS 100/100	TS 100/100 L	"	1
150 x 100	TS 150/100 S	TS 150/100	TS 150/100 L	"	1
200 x 100	TS 200/100 S	TS 200/100	TS 200/100 L	"	1
300 x 150	TS 300/150 S	TS 300/150	TS 300/150 L	"	1

Varies installation dimensions from 500 to 750 mm length, 4-parts.
Tool: drilling jig Art. No. BSTS 310.

Telescope partition
TS TL

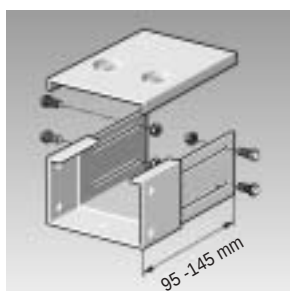

Nom. dimension	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, brushed Part. No.	
50	TS TL 50 S				1
75	TS TL 75 S				1
100	TS TL 100 S				1
150	TS TL 150 S				1

Varies installation dimensions from 500 to 750 mm length, 2-parts. Assembly in telescope part. no. .../... with 2 pcs. retainer for 1/2 partition see page 48.

Telescope short
TSK


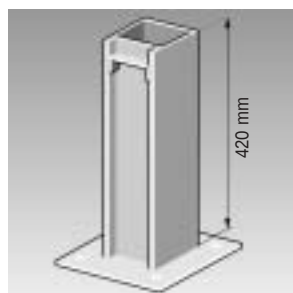
Nom. dimension	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, brushed Part. No.	
50 x 50	TSK 50/ 50 S	TSK 50/ 50	TSK 50/ 50 L		1
75 x 75	TSK 75/ 75 S	TSK 75/ 75	TSK 75/ 75 L		1
100 x 100	TSK 100/100 S	TSK 100/100	TSK 100/100 L		1
150 x 100	TSK 150/100 S	TSK 150/100	TSK 150/100 L		1
200 x 100	TSK 200/100 S	TSK 200/100	TSK 200/100 L		1
300 x 150	TSK 300/150 S	TSK 300/150	TSK 300/150 L		1

Varies installation dimensions from 200 to 250 mm length, 4-parts.

Telescope short - half
TSKH


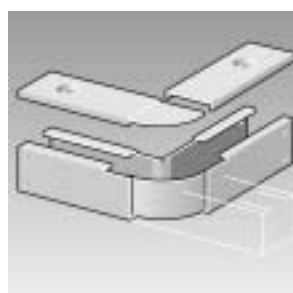
Nom. dimension	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel primed Part. No.	AISI 304, brushed Part. No.	
50 x 50	TSKH 50/ 50 S	TSKH 50/ 50	TSKH 50/ 50 L		1
75 x 75	TSKH 75/ 75 S	TSKH 75/ 75	TSKH 75/ 75 L		1
100 x 100	TSKH 100/100 S	TSKH 100/100	TSKH 100/100 L		1
150 x 100	TSKH 150/100 S	TSKH 150/100	TSKH 150/100 L		1
200 x 100	TSKH 200/100 S	TSKH 200/100	TSKH 200/100 L		1
300 x 150	TSKH 300/150 S	TSKH 300/150	TSKH 300/150 L		1

Varies trunking body lengths by ± 25 mm, 2-parts. Screws/nuts not included.

End flange Periscope**EFP**

	gal., steel	gal., steel primed	gal., steel primed	AISI 304, brushed	
Nom. dimension	Part. No.	Part. No.	Part. No.	Part. No.	
50 x 50	EFP 50/ 50 S	EFP 50/ 50 S	EFP 50/ 50 L		1
75 x 75	EFP 75/ 75 S	EFP 75/ 75 S	EFP 75/ 75 L		1
100 x 100	EFP 100/100 S	EFP 100/100 S	EFP 100/100 L		1
150 x 100	EFP 150/100 S	EFP 150/100 S	EFP 150/100 L		1
200 x 100	EFP 200/100 S	EFP 200/100 S	EFP 200/100 L		1
300 x 150	EFP 300/150 S	EFP 300/150 S	EFP 300/150 L		1

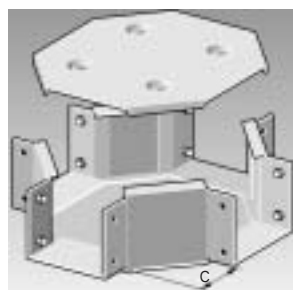
Variable connection to boxes, operating cabinets, etc.
with internal lid and closure piece, 3-parts.
Immerses into trunking bodies, draw in cable.

Adjustable legged bend top access**EDFV**

System dimensions

	gal., steel	gal., steel primed	gal., steel primed	AISI 304, brushed	
Nom. dimension	Part. No.	Part. No.	Part. No.	Part. No.	
50 x 50	EDFV 50/ 50 S	EDFV 50/ 50	EDFV 50/ 50 L		1
75 x 75	EDFV 75/ 75 S	EDFV 75/ 75	EDFV 75/ 75 L		1
100 x 100	EDFV 100/100 S	EDFV 100/100	EDFV 100/100 L		1
150 x 100	EDFV 150/100 S	EDFV 150/100	EDFV 150/100 L		1
200 x 100	EDFV 200/100 S	EDFV 200/100	EDFV 200/100 L		1
300 x 150	EDFV 300/150 S	EDFV 300/150	EDFV 300/150 L		1

Trunking body/bend with 2 pcs lid is infinitely variable from 180° to 90°.
Rear wall spring steel, 3-parts.

Gusset intersection - top access**KDF**

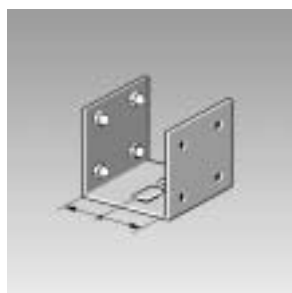
	gal., steel	gal., steel primed	gal., steel primed	AISI 304, brushed	
Nom. dimension	Part. No.	Part. No.	Part. No.	Part. No.	
50 x 50	KDF 50/ 50 S	KDF 50/ 50	KDF 50/ 50 L		1
75 x 75	KDF 75/ 75 S	KDF 75/ 75	KDF 75/ 75 L		1
100 x 100	KDF 100/100 S	KDF 100/100	KDF 100/100 L		1
150 x 100	KDF 150/100 S	KDF 150/100	KDF 150/100 L		1
200 x 100	KDF 200/100 S	KDF 200/100	KDF 200/100 L		1
300 x 150	KDF 300/150 S	KDF 300/150	KDF 300/150 L		1

4-way branch in arc shape, 2-parts.

Vibration flexible joint**SD**

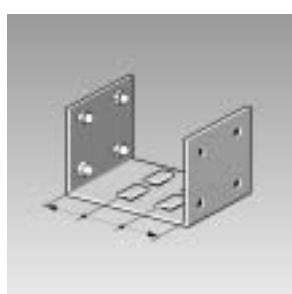
	gal., steel	gal., steel primed	gal., steel primed	AISI 304, brushed	
Nom. dimension	Part. No.	Part. No.	Part. No.	Part. No.	
100 x 100	SD 100/100 S	SD 100/100	SD 100/100 L		1
150 x 100	SD 150/100 S	SD 150/100	SD 150/100 L		1
200 x 100	SD 200/100 S	SD 200/100	SD 200/100 L		1

Neutralises vibrations between trunking bodies. Can also be used as a flexible bend.
material: MR, colour: black, draw in cable.

Two compartment partition coupler
HTW1


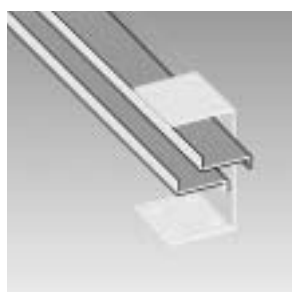
	gal., steel	gal., steel primed	gal., steel coated	AISI 304,	
Nom. dimension	Part. No.	Part. No.	Part. No.	Part. No.	
75 x 75	HTW1 75/ 75 S			On request	1
100 x 100	HTW1 100/100 S			"	1
150 x 100	HTW1 150/100 S			HTW1 200/100 VA	1
200 x 100	HTW1 200/100 S			HTW1 300/150 VA	1
300 x 150	HTW1 300/150 S			On request	1

For attachment of 1 pce. of partition, Z or L shape.
Use 2 pces. of retainer on 2m, same design as internal connection sleeve.

Three compartment partition coupler
HTW2


	gal., steel	gal., steel primed	gal., steel coated	AISI 304,	
Nom. dimension	Part. No.	Part. No.	Part. No.	Part. No.	
100 x 100	HTW2 100/100 S			HTW2 100/100 VA	1
150 x 100	HTW2 150/100 S			HTW2 150/100 VA	1
200 x 100	HTW2 200/100 S			HTW2 200/100 VA	1
300 x 150	HTW2 300/150 S			HTW2 300/150 VA	1

For attachment of 2 pces. of partition, Z or L shape.
Use 2 pces. of retainer on 2m, same design as internal connection sleeve.

Trunking partition return Z edge
TZ2


	gal., steel	gal., steel primed	gal., steel coated	AISI 304,	
Height	Part. No.	Part. No.	Part. No.	Part. No.	
50 mm	TZ2 50 S				1
75 mm	TZ2 75 S				1
100 mm	TZ2 100 S				1
150 mm	TZ2 150 S				1

Separates cables in trunking bodies. Z shape, length = 2000 mm.

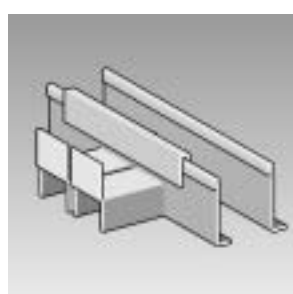
Trunking partition safe edge
TL2


	gal., steel	gal., steel primed	gal., steel coated	AISI 304,	
Height	Part. No.	Part. No.	Part. No.	Part. No.	
50 mm	TL2 50 S			TL2 50 VA	1
75 mm	TL2 75 S			TL2 75 VA	1
100 mm	TL2 100 S			TL2 100 VA	1
150 mm	TL2 150 S			TL2 150 VA	1

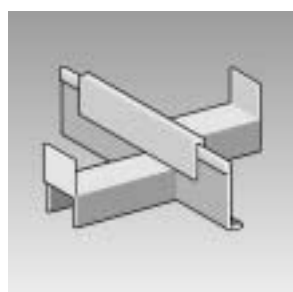
Separates cables in trunking bodies length = 2000 mm.

Two compartment tee - flyover**ÜFT1**

Nom. dimension	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, Part. No.	
50 x 50	ÜFT1 50 S				1
75 x 75	ÜFT1 75 S				1
100 x 100	ÜFT1 100 S				1
150 x 100	ÜFT1 150 S				1
200 x 100	ÜFT1 200 S				1
300 x 150	ÜFT1 300 S				1

Three compartment tee-flyover**ÜFT2**

Nom. dimension	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, Part. No.	
75 x 75	ÜFT2 75 S				1
100 x 100	ÜFT2 100 S				1
150 x 100	ÜFT2 150 S				1
200 x 100	ÜFT2 200 S				1
300 x 150	ÜFT2 300 S				1

Two compartment intersection flyover**ÜFK1**

Nom. dimension	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, Part. No.	
50 x 50	ÜFK1 50 S				1
75 x 75	ÜFK1 75 S				1
100 x 100	ÜFK1 100 S				1
150 x 100	ÜFK1 150 S				1
200 x 100	ÜFK1 200 S				1
300 x 150	ÜFK1 300 S				1

Three compartment intersection flyover**ÜFK2**

Nom. dimension	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, Part. No.	
75 x 75	ÜFK2 75 S				1
100 x 100	ÜFK2 100 S				1
150 x 100	ÜFK2 150 S				1
200 x 100	ÜFK2 200 S				1
300 x 150	ÜFK2 300 S				1

Vertical cable support
ZE

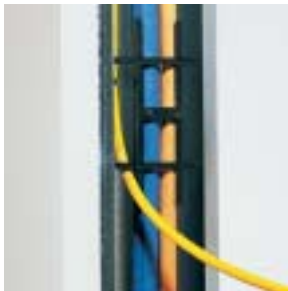

Nom. dimension	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, Part. No.	
50	ZE 50 S				1
75	ZE 75 S				1
100	ZE 100 S				1
150	ZE 150 S				1
200	ZE 200 S				1
300	ZE 300 S				1

The space-saving retention through cable ties.
Retention bridge is clipped on M6 domed bushes.
Can be worked on one or several layers.

Flexible steel retainer
VI KR


Nom. dimension	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, Part. No.	
100 x 100	VI KR 100/100 CK				1
150 x 100	VI KR 150/100 CK				1
200 x 100	VI KR 200/100 CK				1
300 x 150	VI KR 300/150 CK				1

Cables will not drop down in vertical trunking bodies or in overhead assembly.
Assembly: As internal connection sleeves, or loosely insertable into trunking bodies.

Plastic cable retainer
KH


Nom. dimension	Part. No.	for widths A	
50 x 75	KH 50/ 75	50 und 75 mm	10
100 x 150	KH 100/150	100 und 150 mm	10

Self-locking, material: PP, black.

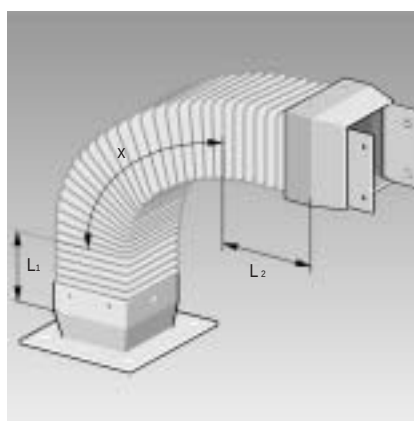
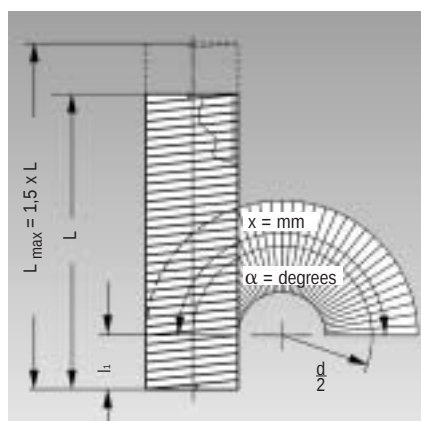
Steel cable retainer
KH


Nom. dimension	gal., steel Part. No.	gal., steel primed Part. No.	gal., steel coated Part. No.	AISI 304, Part. No.	
200 mm	KH 200 S				1
300 mm	KH 300 S				1

Flexible steel duct**FS**

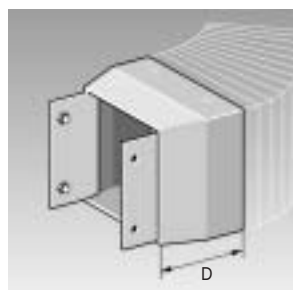
		gal., steel		
Nom. dimension	Part. No.		$\frac{d}{2}$ min	Roll length
50 x 50	FS 50/ 50 S		110	≈ 25 m
85 x 85	FS 85/ 85 S		180	≈ 25 m
115 x 115	FS 115/115 S		290	≈ 25 m
170 x 95	FS 170/ 95 S		400/230	≈ 25 m

We supply lengths as required.
Ends soldered. Delivery length: stretched.



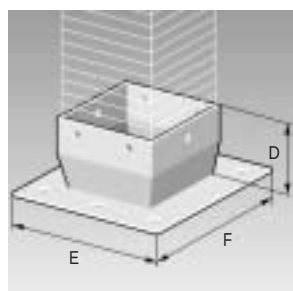
$$L = x + L_1 + L_2$$

$$x = \frac{\pi \cdot d \cdot \alpha}{360^\circ}$$

Flexible steel duct coupler**ÜSK**

		gal., steel	gal., steel primed	gal., steel coated		
Nom. dimension	Part. No.	Part. No.	Part. No.	D		
50 x 50	ÜSK 50/ 50 S	ÜSK 50/ 50	ÜSK 50/ 50 L	70		1
75 x 75	ÜSK 75/ 75 S	ÜSK 75/ 75	ÜSK 75/ 75 L	90		1
115 x 115	ÜSK 115/115 S	ÜSK 115/115	ÜSK 115/115 L	90		1
150 x 100	ÜSK 150/100 S	ÜSK 150/100	ÜSK 150/100 L	90		1

Connection of trunking bodies to flexible duct, fig. see above.
Rivets: Part. No. PBN 3.2.

Flexible steel duct end flange**ÜSE**

		gal., steel	gal., steel primed	gal., steel coated			
Nom. dimension	Part. No.	Part. No.	Part. No.	D	E x F		
50 x 50	ÜSE 50/ 50 S	ÜSE 50/ 50	ÜSE 50/ 50 L	70	89 x 89		1
75 x 75	ÜSE 75/ 75 S	ÜSE 75/ 75	ÜSE 75/ 75 L	90	114 x 114		1
115 x 115	ÜSE 115/115 S	ÜSE 115/115	ÜSE 115/115 L	90	140 x 140		1
170 x 95	ÜSE 170/ 95 S	ÜSE 170/ 95	ÜSE 170/ 95 L	90	140 x 228		1

Attachment: Rivet to the flexible hose, Part. No. PBN 3.2.
Flange on to outside of the box.

Customised lid guard internal

Internal lid guard

The trunking body is closed as standard by internal fasteners.

As an additional safeguard, we mount a...



Internal lid guard with safety cord

... **BSK**

Part. No. **BSK 130, BSK 180** see page 32.

Pressed-in M6 set bolts hold

- in trunking bodies 1 pce./m per side

- in mouldings 2 pces./m each per side

Safety cords, internal with 2 eyelets.

For your benefit:

Lids with minimum space requirements.

Material: Polyamide, Ø 6 mm

Color: Black/tracer red

Tensile strength: 400 N

Ordering example:

Bend external access: 50 x 50, primed and mounted with internal lid guard

Add Part. No.: **BDA 50/50 BSK**

For a list of all available articles, see page 53.



Earth potential equalisation for lids

... **PHR**

Earth potential equalisation

Assembly with pawl safety-screws in domed bushes causes a live metallic connection to be generated, see page 61. Requirements for a safe productive conductor connection are met between bodies without any additional earth potential equalisation. For small dimensions, up to incl. 50 x 50 mm, we mount open set nuts with self-locking.

Each individual trunking body part, e.g. lid, must be permanently connected to a protective conductor (hinges are not adequate for this):

- for basic-insulated conductors
- for installation of electrical equipment

Connection must be secured against undoing itself.



For part. No. **PHR 145, PHR 195** see page 32.

With trunking bodies and mouldings, 1 pce.

Equal-potential connectors HO 7 VK green/yellow ... mm² per side is mounted on pressed-in M6 set bolts.

The earth potential equalisation has been inspected by TÜV-Rheinland in accordance with EN 60204 section 1, VDE 0113: 1986-2.13.3

Ordering example:

Bend external access 50 x 50, primed and mounted with equal potential.

Add Part. No.: **BDA 50 x 50 PHR**

For a list of all available articles, see page 53.

Note:

We assemble building kit:

Earth potential equalisation internal with 2 safety cords, as the lid load cannot be taken up by the protective conductor.



Standard range, list of articles

referring to Pages 52 + 32

 Internal lid guard with safety cord

 Internal lid guard with safety cord
and earth potential equalisation

Part. No.	Designation	Page	50/50	75/75	100/100	150/100	200/100	300/150
AWV...	Elbow bend - external access	38						
BDA...	Elbow bend - external access	38						
BDF...	Elbow bend - top access	38						
BDI...	Elbow bend - internal access	38						
EDA...	Elbow bend - external access	35						
EDF...	90° elbow legged bend - top access	35						
EDFV...	Adjustable legged bend top access	47						
EF...	End flange - four sided	40						
EFO...	End flange - three sided	40						
EFP...	End flange periscope	47						
EKA...	External end cap	41						
EKI...	Internal end cap	41						
EKI..BK...	Access end cap with brush edge protection	45						
EKIR...	Elbow reducer - top access	41						
EVI...	Elbow bend - internal access	35						
EVL...	Elbow bend - top access (LH)	35						
EVR...	Elbow bend - top access (RH)	35						
IWV...	Elbow bend - internal access	39						
KD10...BK...	Side access plate with brush edge protection	45						
KD...	Trunking body incl. lid	30						
KDF...	Gusset intersection - top access	47						
KW...	In-line access converter	42						
KWL...	In-line graduated converter (LH)	44						
KWM...	In-line graduated converter	44						
KWR...	In-line graduated converter (RH)	44						
RF...	Graduate reducer - top access ¹⁾	41						
TDA...	Gusset tee - rear access	36						
TDF...	Gusset tee - top access	36						
TDI...	Gusset tee - internal access	36						
TFDF...	Gusset flange - top access	37						
TFE...	Graduated gusset flange - top access	37						
TS...	Telescope	46						
TSK...	Telescope short	46						
TSKH...	Telescope short-half	46						
TVS...	90° elbow tee - top access	36						
TVU...	90° elbow tee - rear access	37						
TW...	Gusset tee - access converter	42						
TWI...	90° gusset tee - top/internal access	43						
VA...	Fitting coupler	37						
VL...	Coupler plate	39						
WADF...	90° gusset bend - top/rear access	34						
WDA...	Gusset bend - external access	34						
WDF...	Gusset bend - top access	34						
WDI...	Gusset bend - internal access	34						
WTDA...	Flat faced tee/bend converter	43						
WTW...	90° elbow tee/bend - access converter	42						
WW...	Gusset bend - access converter	42						
WWT...	90° tee/bend converter	43						

¹⁾ all sizes can be realised

Customised lid guard external

External lid guard

The trunking body is closed as standard by internal fasteners.



Fig. 1

External lid guard with hinge and toggle catch

... FMS

Hinge Part. Nos. DS 40, DS 60

- in trunking bodies 1 pce./m
- in mouldings 1/2 pce. each and 1/2 pce. toggle catches

Part. No. KHV 50-300 secure the lid on the outside.

Material: St. galv.

For your benefit:

The lid condition "secured" and "closed" can be checked from outside.

Notes:

Select a lid without fastener:

Part. No. D2 50 S ORV see pages 30.

For mouldings, remove fasteners and insert trough closure:

Part. No. MV 9 see page 33.

The counter retainer to the toggle switch is sawn from the lid and notched as a hook.

According to VED standards, only sheathed cables may be inserted.

Ordering example:

Bend external access: 50 x 50, primed and mounted with external lid guard.

Add Part. No.: **BDA 50/50 FMS**

For a list of all available articles, see page 55.

The lid is only secured with a hinge with the fasteners being kept.
See page 57.



Fig. 2: Customisation of a cable trunking/moulding lid guard, by courtesy of Fiat.

Standard range, list of articles

referring to pages 54 + 33

FMS Lid guard with hinge and toggle catch

Part. No.	Designation	Page	50/50	75/75	100/100	150/100	200/100	300/150
AWV...	Elbow bend - external access	38						
BDA...	Elbow bend - external access	38	■	■	■	■	■	■
BDF...	Elbow bend - top access	38	■	■	■	■	■	■
BDI...	Elbow bend - internal access	38	■	■	■	■	■	■
EDA...	Elbow bend - external access	35	■	■	■	■	■	■
EDF...	90° elbow legged bend - top access	35	■	■	■	■	■	■
EDFV...	Adjustable legged bend top access	47						
EF...	End flange - four sided	40						
EFO...	End flange - three sided	40						
EFP...	End flange periscope	47						
EKA...	External end cap	41						
EKI...	Internal end cap	41						
EKI BK...	Access end cap with brush edge protection	45						
EKIR...	Elbow reducer - top access	41						
EVI...	Elbow bend - internal access	35						
EVL...	Elbow bend - top access (LH)	35	■	■	■	■	■	■
EVR...	Elbow bend - top access (RH)	35	■	■	■	■	■	■
IWV...	Elbow bend - internal access	39						
KD10 BK...	Side access plate with brush edge protection	45			■	■	■	■
KD...	Trunking body incl. lid	30	■	■	■	■	■	■
KDF...	Gusset intersection - top access	47	■	■	■	■	■	■
KW...	In-line access converter	42	■	■	■			
KWL...	In-line graduated converter (LH)	44				■	■	■
KWM...	In-line graduated converter	44				■	■	■
KWR...	In-line graduated converter (RH)	44				■	■	■
RF...	Graduate reducer - top access ¹⁾	41	■	■	■	■	■	■
TDA...	Gusset tee - rear access	36	■	■	■	■	■	■
TDF...	Gusset tee - top access	36	■	■	■	■	■	■
TDI...	Gusset tee - internal access	36	■	■	■	■	■	■
TFDF...	Gusset flange - top access	37	■	■	■	■	■	■
TFE...	Graduated gusset flange - top access	37				■	■	■
TS...	Telescope	46	■	■	■	■	■	■
TSK...	Telescope short	46						
TSKH...	Telescope short-half	46						
TVS...	90° elbow tee - top access	36	■	■	■	■	■	■
TVU...	90° elbow tee - rear access	37	■	■	■	■	■	■
TW...	Gusset tee - access converter	42	■	■	■			
TWI...	90° gusset tee - top/internal access	43	■	■	■			
VA...	Fitting coupler	37	■	■	■	■	■	■
VL...	Coupler plate	39						
WADF...	90° gusset bend - top/rear access	34				■	■	■
WDA...	Gusset bend - external access	34	■	■	■	■	■	■
WDF...	Gusset bend - top access	34	■	■	■	■	■	■
WDI...	Gusset bend - internal access	34	■	■	■	■	■	■
WTDA...	Flat faced tee/bend converter	43				■	■	■
WTW...	90° elbow tee/bend - access converter	42						
WW...	Gusset bend - access converter	42	■	■	■			
WWT...	90° tee/bend converter	43				■	■	■

¹⁾ Only comes with toggle touch.

Customised lid guard external, lid locking without tools

In this model, the lid is secured externally by hinges and the fasteners are opened with turn clips without any tools being necessary, meeting special safety regulations.



Fastener with turn clips

RV... OMS

2 pces. hinge Part. Nos. DS 40, DS 60

- in trunking bodies 1 pce./m
- in mouldings 1/2 pce. each and 1... pce. fasteners with turn clips
- Part. No. RV 50 OMS etc. see page 33 close the lids.

Ordering example:

Bend external access 50 x 50, primed and mounted with fastener and turn clips/hinge.

Add Part. No.: **BDA 50/50 OMS**

For a list of all available articles, see page 57.

Note:

Remove standard fastener, assemble building kits RV...OMS... and DS...

According to VED standards, only sheathed cables may be inserted.

For your benefit:

The lid condition "secured" and "closed" can be checked from outside. The lids can be opened or closed by hand - there is no danger of injury from tools dropping down. (Opel Bulletin LVE 1).



Hinge

... DS

The lid is secured with hinges, see page 33, with the standard fasteners being kept.

Ordering example:

Bend external access: 50 x 50, primed and mounted with 2 pces. of hinge.

Add Part. No.: **BDA 50/50 DS**

For a list of all available articles, see page 57.

Standard range, list of articles

referring to pages 56 + 33

 OMS Lid guard with fastener, turn clips + hinge

 DS Lid guard with fastener + hinge

Part. No.	Designation	Page	50/50	75/75	100/100	150/100	200/100	300/150
AWV...	Elbow bend - external access	38						
BDA...	Elbow bend - external access	38						
BDF...	Elbow bend - top access	38						
BDI...	Elbow bend - internal access	38						
EDA...	Elbow bend - external access	35						
EDF...	90° elbow legged bend - top access	35						
EDFV...	Adjustable legged bend top access	47						
EF...	End flange - four sided	40						
EFO...	End flange - three sided	40						
EFP...	End flange periscope	47						
EKA...	External end cap	41						
EKI...	Internal end cap	41						
EKI BK...	Access end cap with brush edge protection	45						
EKIR...	Elbow reducer - top access	41						
EVI...	Elbow bend - internal access	35						
EVL...	Elbow bend - top access (LH)	35						
EVR...	Elbow bend - top access (RH)	35						
IWV...	Elbow bend - internal access	39						
KD10 BK....	Side access plate with brush edge protection	45						
KD...	Trunking body incl. lid	30						
KDF...	Gusset intersection - top access	47						
KW...	In-line access converter	42						
KWL...	In-line graduated converter (LH)	44						
KWM...	In-line graduated converter	44						
KWR...	In-line graduated converter (RH)	44						
RF...	Graduate reducer - top access ¹⁾	41						
TDA...	Gusset tee - rear access	36						
TDF...	Gusset tee - top access	36						
TDI...	Gusset tee - internal access	36						
TFDF...	Gusset flange - top access	37						
TFE...	Graduated gusset flange - top access	37						
TS...	Telescope	46						
TSK...	Telescope short	46						
TSKH...	Telescope short-half	46						
TVS...	90° elbow tee - top access	36						
TVU...	90° elbow tee - rear access	37						
TW...	Gusset tee - access converter	42						
TWI...	90° gusset tee - top/internal access	43						
VA...	Fitting coupler	37						
VL...	Coupler plate	39						
WADF...	90° gusset bend - top/rear access	34						
WDA...	Gusset bend - external access	34						
WDF...	Gusset bend - top access	34						
WDI...	Gusset bend - internal access	34						
WTDA...	Flat faced tee/bend converter	43						
WTW...	90° elbow tee/bend - access converter	42						
WW...	Gusset bend - access converter	42						
WWT...	90° tee/bend converter	43						

¹⁾ All part. nos. can be realised. ²⁾ Execution OMS without hinge.

Static loads

Load diagram

Deflection support width 2 m

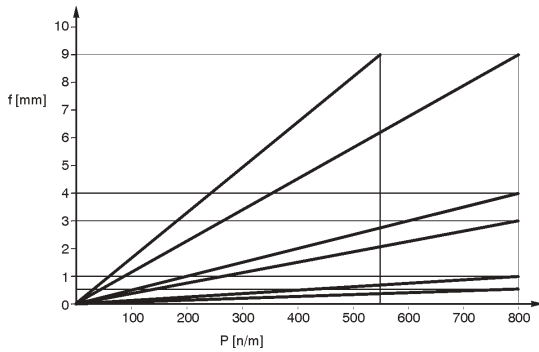


Fig. 1

Deflection

Deflection of the trunking body line on assembly with connection sleeves Part. No.: VI../..S, support width 2 m. The trunking bodies are separated in the centre between the supports.

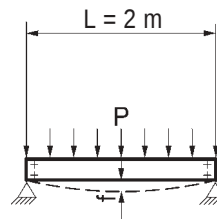


Fig. 2

Load diagram

Deflection support width 4 m

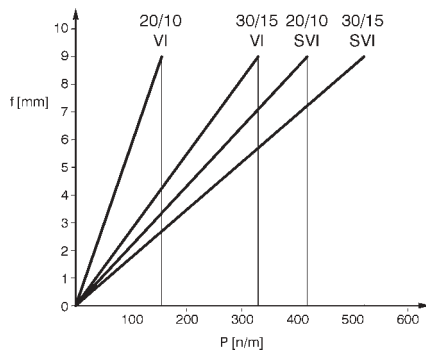


Fig. 3

Deflection of the trunking body line on assembly with stabilising connections Part. No.: SVI../..S, support width 4 m. The trunking bodies are separated in the centre between the supports.

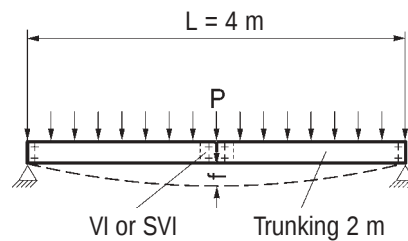


Fig. 4



Load resistance

Cable trunkings and lids from the standard range can withstand load resistance of 800 N without damage. You can attain greater load resistance with trunking bodies/mouldings from the "Heavy Duty" ... HD range, see page 59.

Please note: Makes the lids anti-slip.

Standard range, list of articles

referring to page 58

HD Heavy Duty = increased load resistance of cable trunking

Ordering example: BDF 50/50 HD S

Part. No.	Designation	Page	50/50	75/75	100/100	150/100	200/100	300/150
AWV...	Elbow bend - external access	38						
BDA...	Elbow bend - external access	38						
BDF...	Elbow bend - top access	38	2.0	2.0	2.0	2.5	2.5	2.5
BDI...	Elbow bend - internal access	38						
EDA...	Elbow bend - external access	35						
EDF...	90° elbow legged bend - top access	35	2.0	2.0	2.0	2.5	2.5	2.5
EDFV...	Adjustable legged bend top access	47						
EF...	End flange - four sided	40						
EFO...	End flange - three sided	40						
EFP...	End flange periscope	47						
EKA...	External end cap	41						
EKI...BK...	Access end cap with brush edge protection	45						
EKIR...	Elbow reducer - top access	41						
EVI...	Elbow bend - internal access	35						
EVL...	Elbow bend - top access (LH)	35	2.0	2.0	2.0	2.5	2.5	2.5
EVR...	Elbow bend - top access (RH)	35	2.0	2.0	2.0	2.5	2.5	2.5
IWV...	Elbow bend - internal access							
KD...	Trunking body incl. lid	30	2.0	2.0	2.0	2.5	2.5	2.5
KDF...	Gusset intersection - top access	47	2.0	2.0	2.0	2.5	2.5	2.5
KW...	In-line access converter	42						
KWL...	In-line graduated converter (LH)	44						
KWM...	In-line graduated converter	44						
KWR...	In-line graduated converter (RH)	44						
RF...	Graduate reducer - top access ¹⁾	41	2.0	2.0	2.0	2.5	2.5	2.5
TDA...	Gusset tee - rear access	36						
TDF...	Gusset tee - top access	36	2.0	2.0	2.0	2.5	2.5	2.5
TDI...	Gusset tee - internal access	36						
TFDF...	Gusset flange - top access	37	2.0	2.0	2.0	2.5	2.5	2.5
TFE...	Graduated gusset flange - top access	37						
TS...	Telescope	46						
TSK...	Telescope short	46						
TSKH...	Telescope short-half	46						
TVS...	90° elbow tee - top access	36						
TVU...	90° elbow tee - rear access	37						
TW...	Gusset tee - access converter	42						
TWI...	90° gusset tee - top/internal access	43						
WADF...	90° gusset bend - top/rear access	34						
VA...	Fitting coupler	37	2.0	2.0	2.0	2.5	2.5	2.5
WDA...	Gusset bend - external access	34						
WDF...	Gusset bend - top access	34	2.0	2.0	2.0	2.5	2.5	2.5
WDI...	Gusset bend - internal access	34	2.0	2.0	2.0	2.5	2.5	2.5
WTDA...	Flat faced tee/bend converter	43						
WTW...	90° elbow tee/bend - access converter	42						
WW...	Gusset bend - access converter	42						
WWT...	90° tee/bend converter	43						

Material thicknesses may be combined between the trunking bodies and lids. For mouldings, we supply all the lids in standard material thicknesses.

* We supply the moulding lids in HD execution on request.

We supply further equipment: **BSK** **PHR** **FMS** **OMS** **DS** on request.

Standard range, list of articles

+ Other sizes

Part. No.	Designation	Page	38/25	50/25	50/50	75/75	100/50	100/100	150/50	150/100	150/150	200/100	200/200	300/150	300/225	400/150	600/150
AWV...	Elbow bend - external access	38															
BDA...	Elbow bend - external access	38															
BDF...	Elbow bend - top access	38															
BDI...	Elbow bend - internal access	38															
EDA...	Elbow bend - external access	35															
EDF...	90° elbow legged bend - top access	35															
EDFV...	Adjustable legged bend top access	47															
EF...	End flange - four sided	40															
EFO...	End flange - three sided	40															
EFP...	End flange periscope	47															
EKA...	External end cap	41															
EKI...	Internal end cap	41															
EKI BK...	Access end cap with brush edge protection	45															
EKIR...	Elbow reducer - top access	41															
EVI...	Elbow bend - internal access	35															
EVL...	Elbow bend - top access (LH)	35															
EVR...	Elbow bend - top access (RH)	35															
HTW...	Compartment partition coupler	48															
IWV...	Elbow bend - internal access	39															
KD10 KSB...	Side access plate with brush edge protection	45															
KD...	Trunking body incl. lid	30															
KDF...	Gusset intersection - top access	47															
KW...	In-line access converter	42															
KWL...	In-line graduated converter (LH)	44															
KWM...	In-line graduated converter	44															
KWR...	In-line graduated converter (RH)	44															
RF...	Graduate reducer - top access ¹⁾	41															
SVI...	Extendet coupler	31															
TDA...	Gusset tee - rear access	36															
TDF...	Gusset tee - top access	36															
TDI...	Gusset tee - internal access	36															
TFDF...	Gusset flange - top access	37															
TFE...	Graduated gusset flange - top access	37															
TL./TZ...	Trunking partition	48															
TS...	Telescope	46															
TSK...	Telescope short	46															
TSKH...	Telescope short-half	46															
TVS...	90° elbow tee - top access	36															
TVU...	90° elbow tee - rear access	37															
TW...	Gusset tee - access converter	42															
TWI...	90° gusset tee - top/internal access	43															
VA...	Fitting coupler	37															
VI	Internal coupler	31															
VL...	Coupler plate	39															
WADF...	90° gusset bend - top/rear access	34															
WDA...	Gusset bend - external access	34															
WDF...	Gusset bend - top access	34															
WDI...	Gusset bend - internal access	34															
WTDA...	Flat faced tee/bend converter	43															
WTW...	90° elbow tee/bend - access converter	42															
WW...	Gusset bend - access converter	42															
WWT...	90° tee/bend converter	43															

¹⁾ Further sizes available.

Delivery period: ■ Standard = ex warehouse □ = 4 Weeks

System dimensions

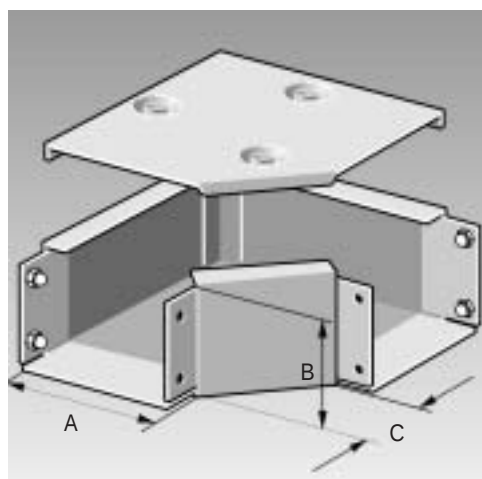


Fig. 1

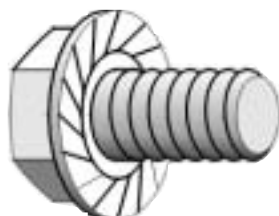


Fig. 2

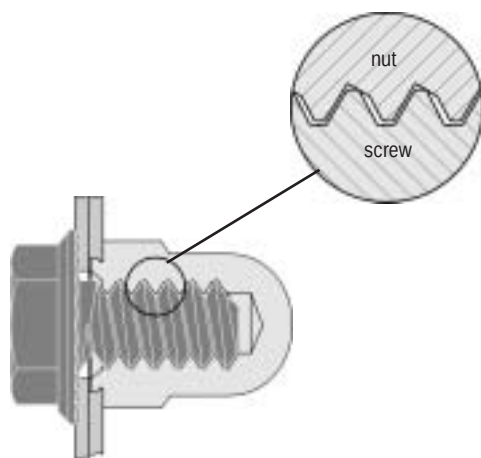


Fig. 3

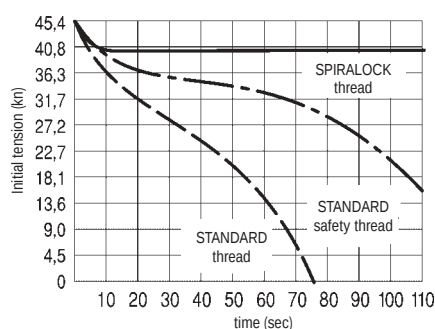


Fig. 4

System dimensions of all industrial trunking body mouldings.

Nom. dim.	System dim.	Material thickness
A x B	C	S
50 x 50	35 mm	1,2 mm
75 x 75	53 mm	1,2 mm
100 x 100	71 mm	1,2 mm
150 x 100	101 mm	1,6 mm
200 x 100	101 mm	1,6 mm
300 x 150	101 mm	1,6 mm

Marking

Self-adhesive label on each component. Your drawing, material or item No. can be provided for easy assembly on request.

Note: We can emboss your parts numbers.

Mechanical connection elements = earth potential equalisation

Connection between the cable trunking and moulding is made by means of connection sleeves each with 1 or 2 pcs. of safety domed bush Part No. SSHM M6 VA and pawl safety screws Part No. SZSS M6 x 10 VA.

All connection sleeves and mouldings have these pressed-in set nuts with mechanical self-locking, thus also providing potential equalisation.

Use of these closed domed bushes ensures perfect and reliable edge protection. Self-locking is the result of the special internal thread "spiral lock".

In conjunction with pawl safety screws Part No. SZSS M6 x 10 VA, not only reliable connection between the components is ensured, but earth potential equalisation as well.

The radially effective pawls underneath the screw head penetrate the surface of the work piece and attain the securing described and the earth potential equalisation as well as protection against becoming undone.

Inspection: TÜV Rheinland dated 13.9.1995

In accordance with:

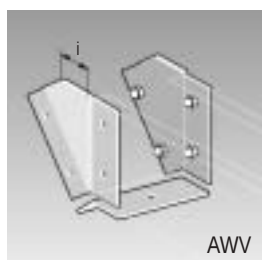
DIN VDE 0100 - 540 / VDE 0100 Section 540

DIN EN 60204 - 1 / VDE 0113 Section 1

Type of protection: IP43 (..3 only with correct assembly)

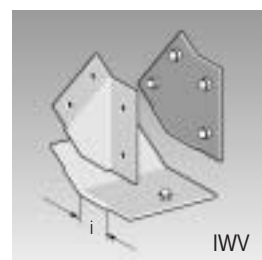
System dimensions

System dimensions

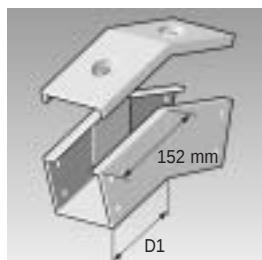


AWV

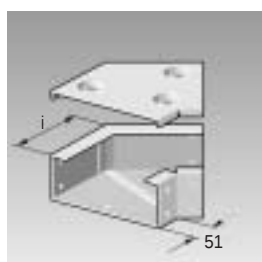
Part. No.	A x B	I
AWV/IWV	50 x 50	20
AWV/IWV	75 x 75	31
AWV/IWV	100 x 100	42
AWV/IWV	150 x 100	42
AWV/IWV	200 x 100	42
AWV/IWV	300 x 150	63



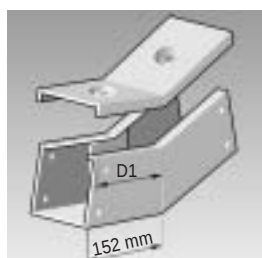
IWV



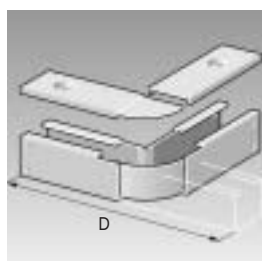
Part. No.	A x B	D1
BDA	50 x 50	132
BDA	75 x 75	125
BDA	100 x 100	110
BDA	150 x 100	110
BDA	200 x 100	110
BDA	300 x 150	90



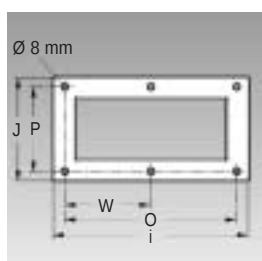
Part. No.	A x B	I
BDF	50 x 50	72
BDF	75 x 75	82
BDF	100 x 100	93
BDF	150 x 100	114
BDF	200 x 100	135
BDF	300 x 150	177



Part. No.	A x B	D1
BDI	50 x 50	132
BDI	75 x 75	125
BDI	100 x 100	110
BDI	150 x 100	110
BDI	200 x 100	110
BDI	300 x 150	90



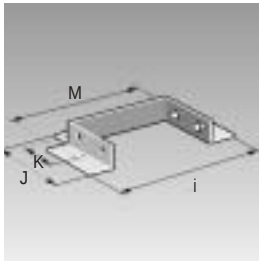
Part. No.	A x B	D
EDFV	50 x 50	384
EDFV	75 x 75	464
EDFV	100 x 100	544
EDFV	150 x 100	700
EDFV	200 x 100	860
EDFV	300 x 150	1180



Part. No.	A x B	I	J	O	P	W
EF	50 x 50	89	89	70	70	
EF	75 x 75	114	114	95	95	
EF	100 x 100	140	140	121	121	
EF	150 x 100	197	146	175	124	87,5
EF	200 x 100	248	146	225	124	112,5
EF	300 x 150	349	197	327	175	163,5

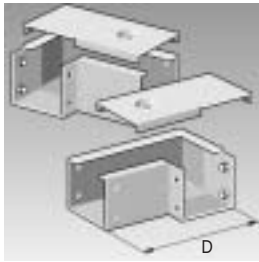
System dimensions

System dimensions

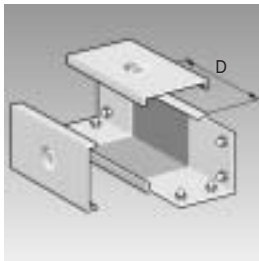


Nom. dimensions

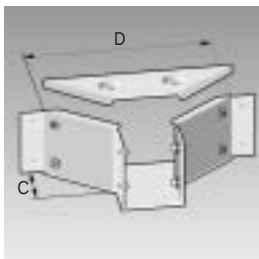
Part. No.	A x B	I	J	K	M
EFO	50 x 50	105	74	40	77
EFO	75 x 75	130	99	52	100
EFO	100 x 100	155	124	65	127
EFO	150 x 100	205	124	68	185
EFO	200 x 100	256	124	68	235
EFO	300 x 150	358	175	93	338



Part. No.	A x B	D
EVL/EVR	50 x 50	127
EVL/EVR	75 x 75	152
EVL/EVR	100 x 100	203
EVL/EVR	150 x 100	254
EVL/EVR	200 x 100	305
EVL/EVR	300 x 150	457

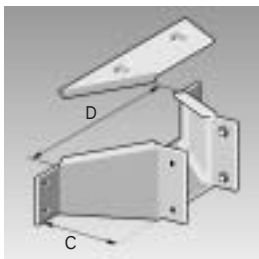


Part. No.	A x B	D
KW	50 x 50	75
KW	75 x 75	100
KW	100 x 100	150

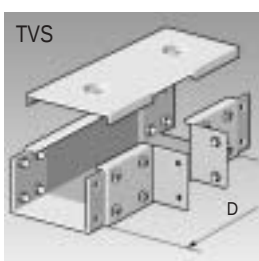


Part. No.	A x B	C	D
TFDF	50 x 50	53 ¹⁾	157
TFDF	75 x 75	53	182
TFDF	100 x 100	71	244
TFDF	150 x 100	101	354
TFDF	200 x 100	101	405
TFDF	300 x 150	101	528

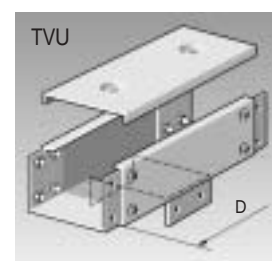
¹⁾ Please note: System deviation



Part. No.	A	C	D
TFE 50150100	150 x 100	101	354
TFE 75150100	150 x 100	101	354
TFE 75200100	200 x 100	101	403
TFE 100300150	300 x 150	152	530



Part. No.	A x B	D
TVS/TVU	50 x 50	203
TVS/TVU	75 x 75	228
TVS/TVU	100 x 100	254
TVS/TVU	150 x 100	304
TVS/TVU	200 x 100	355
TVS/TVU	300 x 150	457



Lid guard/fastener

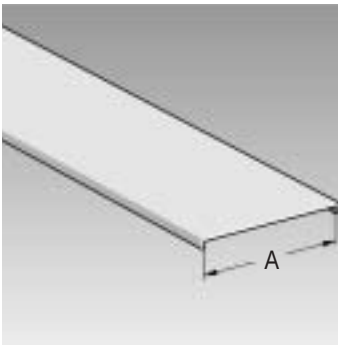


Fig. 1

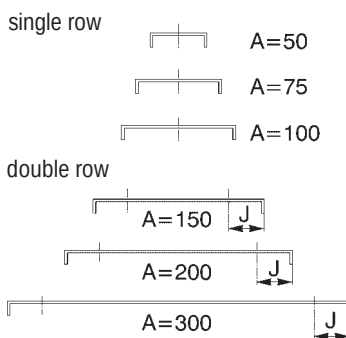


Fig. 2



Fig. 3

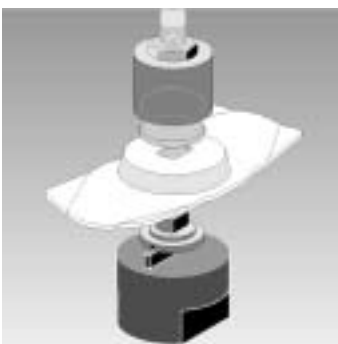


Fig. 4

Fastener

When mounting fasteners in lids Part. No.: D2...ORV (see Fig. 1), the following distance are to be maintained:

In the centre - for nominal sizes 50, 75 and 100 mm each with 4 fasteners Part. No.: RV 50, RV 75 and RV 100.

Double-rows for nominal sizes 150, 200 and 300 mm each with 8 fasteners Part No.: RV 75 distance to edge J = 40 mm, see Fig. 2.

Fastener ident tool

Troughs are embossed in lid Part. No.: D2...OMS with tool Part. No.: WMS 30. A trough is embossed between the stamp and matrix by a bore hole Ø 13 mm, see Fig. 3.

Fastener assembly

The fastener comprises 3 componentes: The fastener RV, fastener screw and axle spring disc with protective cap. The counter retainer Part. No.: WGH 20, retains the fastener screw. The axle spring disc is pressed onto the fastener screw with the fastener in between with the magnetic cap assembly tool Part No.: WSBK, see Fig. 4.

Material information

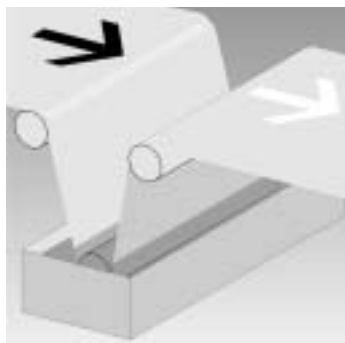


Fig. 1

Material: Stainless steel

Under the article designation ...VAG, we supply the material 1.4301 brushed (AISI 304) - please ask for the specifications sheet.

Material: Galvanised steel

Under the article designation ... S, we supply cable trunking and moulding made of material No. 1. 0226 with zinc coating 275g/m^2 on either side, i.e. with a layer thickness of at least $15.4\text{ }\mu\text{m}$.

The hot-dip-galvanised sheet is produced on continuous sheet galvanising plants by the Sendzimir method. Zinc provides our products with a long service life, with good corrosion protection, see Fig. 1. This material falls in line with the standards DIN EN 10142 and DIN 55928 (corrosion protection). Zinc is electrochemically more negative (basier) than steel, the upshot being that when damaged the surrounding zinc "cathodically protects" the uncovered steel. Zinc oxidation products only have a slight increase in volume of a few per cent. This property is important when galvanised surfaces are coated with enamel or powder. When being trimmed, punched and processed, uncovered steel areas are cathodically protected up to a material thickness of approx. 1.5 mm. Rust will not form on scratches or pores; on the contrary, to a certain degree zinc will even "heal" minor damage.

Surface coating

Galvanised steel sheet has a surface containing grease as a result of the production process, necessitating degreasing prior to surface coating. As a primer, we apply a powder coating on the outside with a coating thickness of min. $40\text{ }\mu\text{m}$ in RAL 7032 made of an epoxy-polyester mixture. This high-grade primer is used as a final coat by many customers (relatively mar-resistant).

The powder coating thickens at the cut edges, see Fig. 2.3, offering best possible protection against sharp edges - an important aspect of industrial and operational safety. According to Fig. 2.2, wet varnish only thickens on the surfaces, thus not providing increased edge protection.

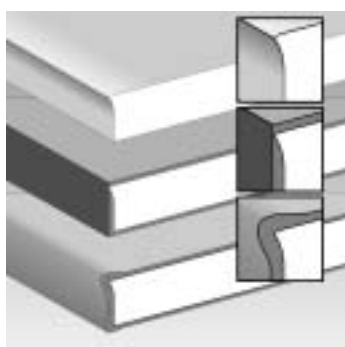


Fig. 2.1

Fig. 2.2

Fig. 2.3

Note:

Galvanised steel sheet has sharp edges as a result of the production process (danger of injury), see Fig. 2.1.

Surface protection

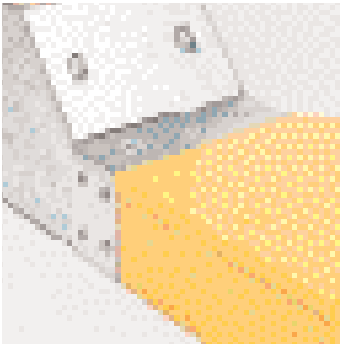


Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5

Powder coating

To provide corrosion protection, an epoxy-powder coating is applied on the outside, for special applications on the inside as well.

These coating powders are thermo-cross-linked on the basis of epoxide resin as per DIN 55690. They are implemented for electrostatic plastic coating of iron and steel, see Fig. 1. This powder is characterised by excellent chemical resistance, optimum mechanical properties and high UV resistance. The range comprises a host of RAL colours in glossy, silk gloss and matt finish. Course and fine structures are likewise available. The surface required is produced according to the customers' specifications.

Example:

Colour: RAL 9010
Degree of gloss: M = matt
HR = silk gloss
GL = glossy

The coating thickness is 60 - 100 µm, depending on the colour shade and degree of gloss concerned, see Fig. 2.

Surface protection

The lid and trunking body surface are each provided with protective foil, so that the painted layer is not damaged or soiled during transport and assembly, see Fig. 3. Special, reusable edge protection clips (material: PE) are fixed on to the moulding connection sleeves, see Fig. 4.

It goes without saying that the materials used for surface protection meet all ecological requirements and disposal regulations.

Waste code as per TA refuse: 57128 (polyolefine).

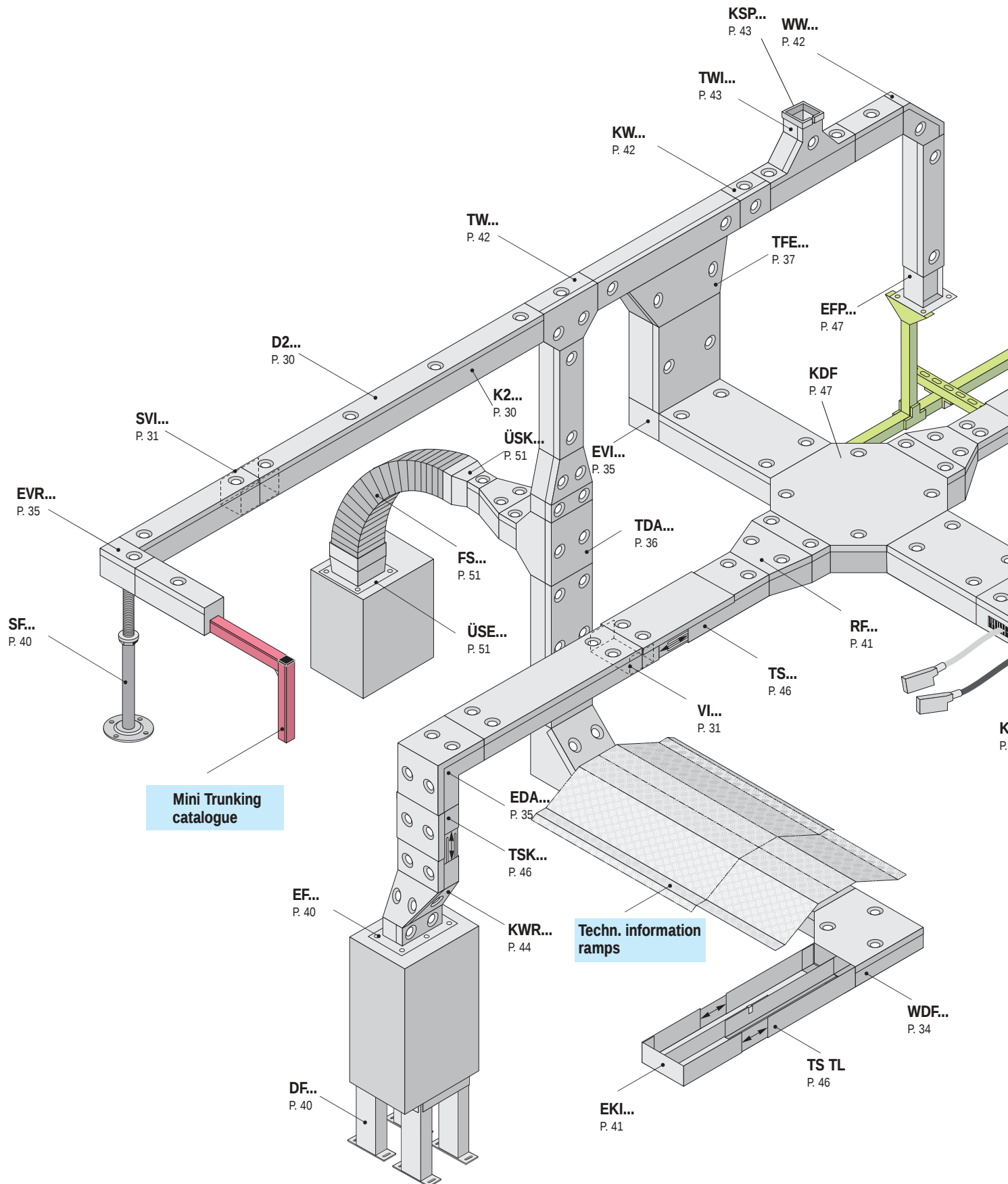
Packaging

Long products are wrapped in a sturdy stretch foil made of PE and laid horizontally on a Europa pallet and provided with edge protection at the ends. For the forwarding agent, they remain visible as hollow bodies (nonstackable), see Fig. 5. We package mouldings in corrugated cardboard cartons with sturdy intermediary paper layers. We transport large quantities of trunking bodies in special transport stands which are also ideally suited for storage and removal.

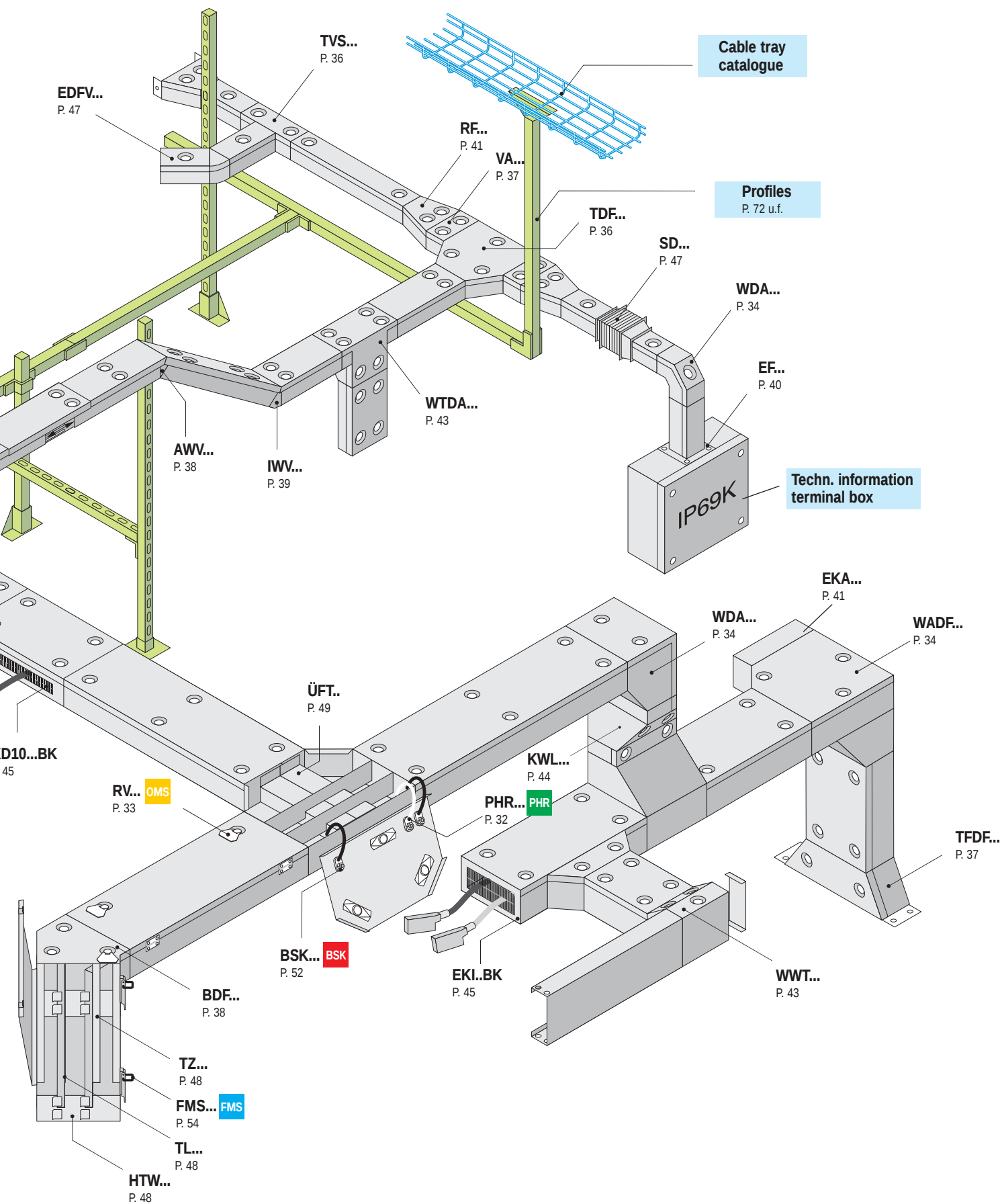
Small and connection parts

	Designation	Page	Part. No.	Material	Dimension	VE
	Pawl safety-screw	31	SZSS M6 x 10 VA	AISI 304	M6 x 10	100
	Raised countersunk head screw	31	LFS M6 x 10 VA	AISI 304	M6 x 10	100
	Set bolt	-	SBE M6	Galvanized steel	M6 x 8	100
	Pawl safety-nut	31	SZSM M6 VA	AISI 304	M6	100
	Self-locking nut	-	SSM M6	Galvanized steel	M6	100
	Domed bush "spiral lock"	-	SSSM M6	Galvanized steel	M6	100
		-	SSHM M6 VA	AISI 304	M6	100
	Earth potential equal.connection	32	PHR 145	H07VK 4 mm²	145 mm	25
			PHR 195	H07VK 6 mm²	195 mm	25
	Safety cord	32	BSK 130	Polyamide	130mm	25
			BSK 180	Polyamide	180 mm	25
	Fastener turn with clip	33	RV... OMS	br/steel		25
	Fastener complete	31	RV... BK	Galv. Al Cu/steel		50
	Trough closure	33	MV 9	Galv. Al Cu/steel		50
	Toggle catch	33	KHV 50 - 300	Galvanized steel		25
	Blind rivet - diverse	-	PBN ...	Galvanized steel	Ø 4,0 x 8	100
	Hinge	33	DS 40	Galvanized steel	40 mm breit	50
			DS 60	Galvanized steel	60 mm breit	50
	Brush edge protection	45	BK 20 PA	Polyamide	20 mm	50 m
			BK 30 PA	Polyamide	30 mm	50 m
	Edge protection flexible	45	KS 38	PP	38 mm	50 m
			KS 54	PVC-st.	54 mm	50 m
Tools						
	Hand dedurrer	-	HE 150			
	Punch pliers	31	WZ 8			
	Replacement stamp	31	ESTM 5,0; 6,3; 8,0			
	Trough punch	31	WMS 30			
	Magnet retainer	31	WSBK 20 M			
	Counter retainer	31	WGH 20			
	Button wrench	31	WRD DH			
	Drilling jig	46	BSTS 310			
	Drilling jig	31	BS SVI 50/300			
	(also see Catalogue: Working)					

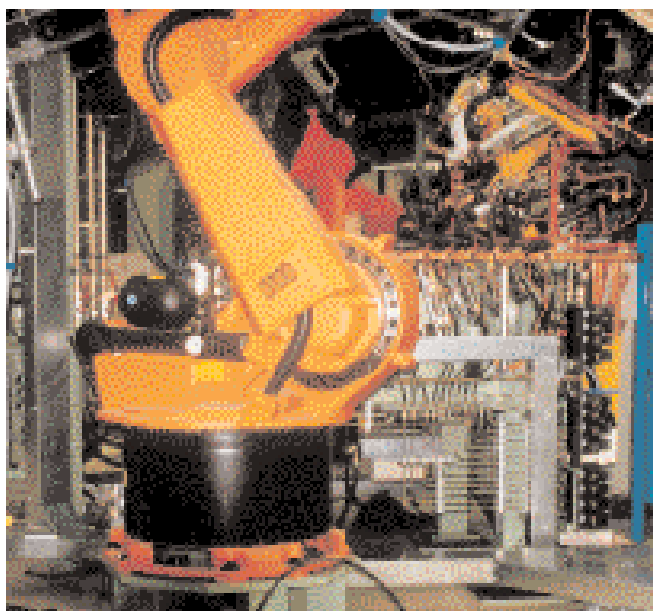
Product range, overview



Product range, overview



■ The Industrial Trunking - examples of application



Production of the A class

Photograph by courtesy: DaimlerChrysler, D-Rastatt



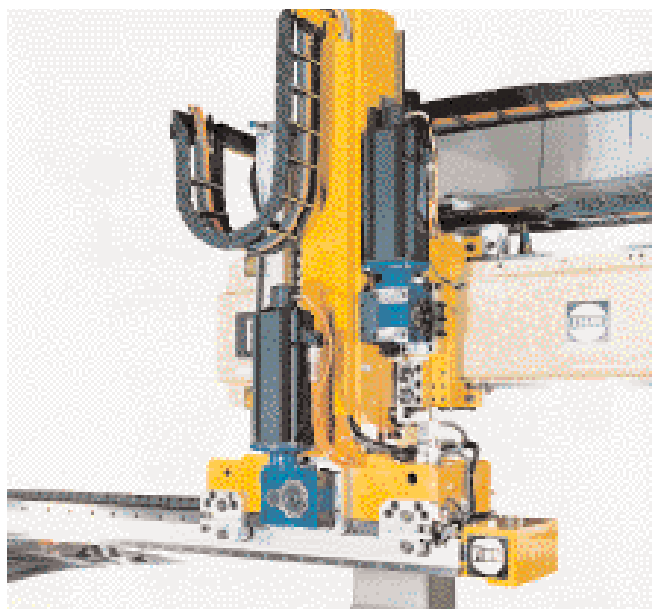
Filter installation

Photograph by courtesy: Knoll, D-Saulgau



CNC lathe N range

Photograph by courtesy: NILES-SIMMONS, D-Chemnitz

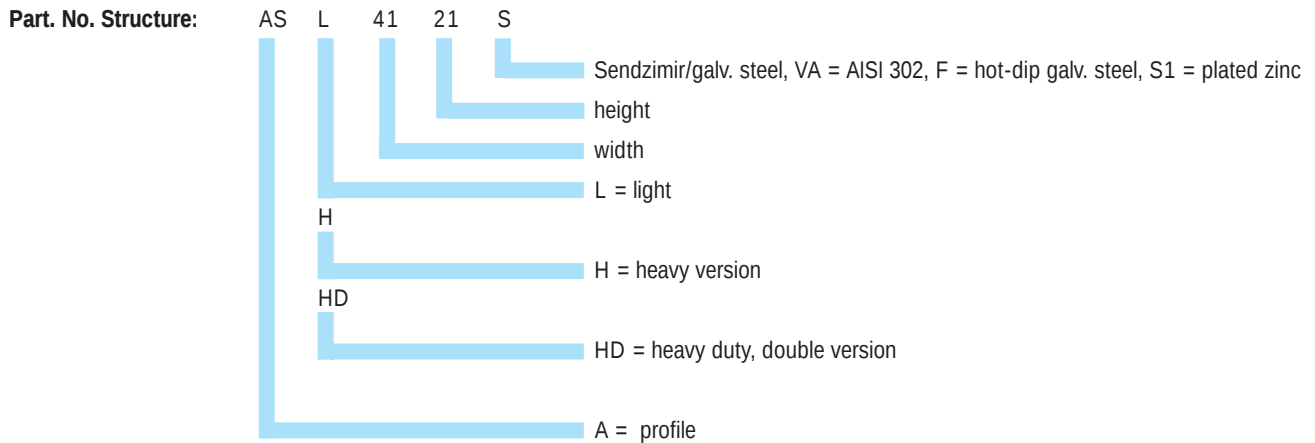


Fibro Speedshuttle for press automation

Photograph by courtesy: Fibro, D-Haßmersheim



Order Information Fixing Support



Index and Abbreviations: PFLITSCH Fixing Support

Part.-No.	Designation	Page	Part. No.	Designation	Page
AK....	Cantilever	80	VE GAW	Angle Bracket	81
AS...	Profiles	78-79	VE GK 18/8	Chain 18/8 mm	85
BS	Clamping System	82-83	VE GS	Threaded Rod	85
BS KE C	Clamping Component BS...C	82	VE KK 28/9	Chain 28/9 mm	85
BS KE C...	Clamping System	82	VE KVF	Cross Over Bracket	81
BS KE C... G	Clamping System variable	82	VE NG 3	Hooks	85
BS KE G	Clamping element	83	VE SE	Wide Tee Angle Bracket	81
BS KE L	Clamping component offset version	82	VE SH 2	Hooks	85
BS LKE	Clamping component light version	82	VE SKM	Nut	85
BS LKE G	Clamping element light version	83	VE TVF	Tee Bracket	81
BS LKE V	Clamping element variable	83	VE US	Washer	85
BS TTE	Kit component	83	VE VAW	Heavy Angel Bracket	81
BT...	Fixing Clips	84	VE WF	Right Angle Bracket	81
VE	Brackets	81	VE ZV 4121	Z-Bracket for profile 4121	81
VE AAF	Wing Support Bracket	81	VE ZV 4141	Z-Bracket for profile 4141	81
VE AF 4141	Single base support for profile 4141	81			
VE AF 4182	Single base support for profile 4182	81			
VE AFUA	Strut Nut for profile 4141	85			
VE AFUD	Strut Nut for profile 4121	85			
VE AFUM	Strut Nut	85			
VE ASF	Anchor Bolt	85			
VE ASV	Profile Bracket	81			
VE AV	External Bracket	81			
VE AW	Angle Bracket	81			
VE AWV 4182	Offset tee bracket for profile 4182	81			

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Installation advice	88/89
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 Fixing Support**Profiles**

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Cantilevers

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Fixing Elements

Page 81 + 85

Fixing Clips

Page 84

Clamping Systems

Page 82 - 83

■ The PFLITSCH Fixing support - for all trunkings

- one source
- safety
- simple mounted
- economical solution



There are different installation conditions for cables and lines at buildings and machines and a lot of know how is required. To make it easy PFLITSCH offers a matched and high quality fixing system which grant mounting and operating safety.

Complicated special designs are not necessary, PFLITSCH is the one source for you.

The plus features:

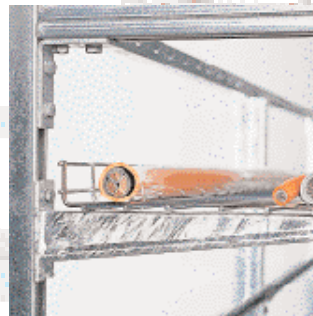
- **variety**
Profiles, contilevers, fixing elements, clips and more are available for different requirements: Mini trunking for the electronic industry, Industrial-trunking for the machine and equipment industry, Media-trunking for buildings and transportation systems and as well cable trays for the open cable routing.

**■ high-quality**

PFLITSCH uses high-quality and practical fixing systems. For each product there are load ratings for typical usages. In case of material nature and corrosion protection you get a maximum.

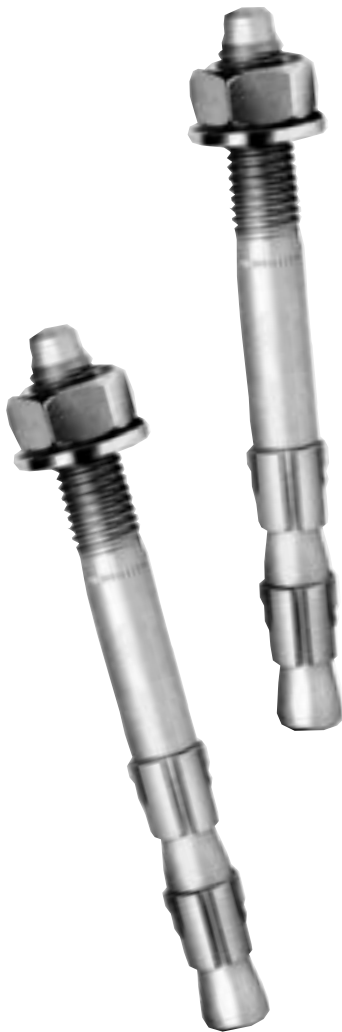
**■ rational**

Short mounting times based on a pre-assembly with a lot of components like nuts, clips and screws. All parts can be mounted with standard tools.

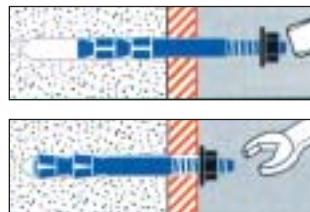
**■ economical**

Time is money. Therefore you find here the necessary fixings for each PFLITSCH-trunking.

Our personal offers the optimal parts if requested for your own usage. If some part is not mentioned we offer according to your request the appropriate fixing solution of inner and outer installation.



■ For safe bolting - the Upat MAX Express-anchor



Mounting

- Drill and clean the anchor hole according to the instructions on the package
- Hit the anchor through the component into the bore hole
- Tighten up the nut with tested dynamometric key

Field of application:

The rapid assembly anchor is excellently suited for bolting and series assembly. The Upat Max Express-anchor is a further development of the legendary Upat EXA Express-anchor and is approved without restrictions for attachments in cracked concrete up to 6 KN. It is suitable for use in industrial construction, assembly rails, suspension struts and for heavy cable trays or pipe installations. The execution in A 4 stainless steel enables outside usage as well in industrial atmospheres.

Function:

The Upat Express-anchor is hit into the bore hole, the two spreading elements expanding against the wall of the bore hole by internal stress. When the nut is tightened the two cones are withdrawn into the spreading elements, expanding them and pressing them against the building material.

Safety:

Should concrete be cracked the bore hole expands minimally. Immediately the two cones spread the spreading element and the anchor being optimally clamped in the bore hole.

Suitable building materials:

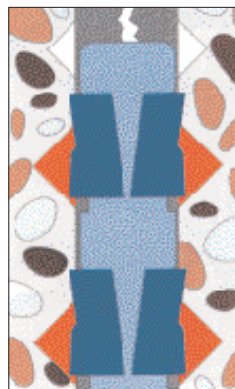
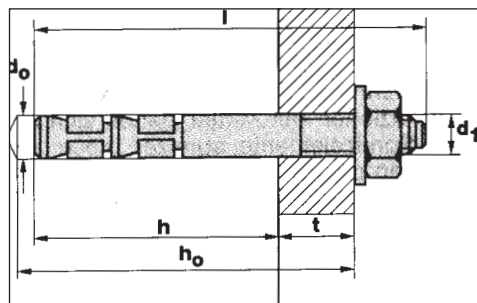
Concrete (approval), natural stone.

Permissible loads:

Approved by DIBt Berlin according to design method "A" and "B" in cracked concrete from 1.5 to 6.0 KN. Planning designers will be provided with the approval data and rating concept on request. The rating software Upat cc plan according to design method "A" is also available.

Mode of assembly:

Bolting.



The special coating on the cones causes the spreading elements to immediately expand if the anchor becoming slack. This means that the Upat MAX Express-anchor is capable of compensating for any cracks in the bore hole.

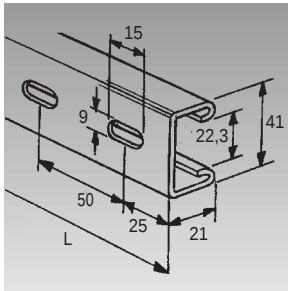
Upat MAX Express-Anchor

Permissible Load	Part. No.	Thread-Ø = drill-Ø	Max. attachment thickness	Overall length	Drilling depth with connec. component	Settling depth	Torque	
kN		$d_1 = d_0$ mm	t mm	l mm	h_0 ≥ mm	h ≥ mm	Nm	Pce.
1.5	UP MAX 8/ 10	8	10	83	80	61	15	50
	UP MAX 8/ 25	8	25	98	95	61	15	50
	UP MAX 8/ 50	8	50	123	120	61	15	50
	UP MAX 8/100	8	100	173	170	61	15	50
2.5	UP MAX 10/ 15	10	15	100	95	70	35	50
	UP MAX 10/ 25	10	25	110	105	70	35	50
	UP MAX 10/ 50	10	50	135	130	70	35	50
	UP MAX 10/100	10	100	185	180	70	35	50
	UP MAX 10/150	10	150	235	230	70	35	25
3.5	UP MAX 12/ 20	12	20	119	110	81	60	25
	UP MAX 12/ 50	12	50	149	140	81	60	25
	UP MAX 12/100	12	100	199	190	81	60	25
	UP MAX 12/150	12	150	249	240	81	60	25
6.0	UP MAX 16/ 25	16	25	142	130	94	90	20
	UP MAX 16/ 50	16	50	167	155	94	90	20
	UP MAX 16/100	16	100	217	205	94	90	20
	UP MAX 16/150	16	150	267	255	94	90	20

Permissible load "perm. F" (Design method "B" distances and component thickness.

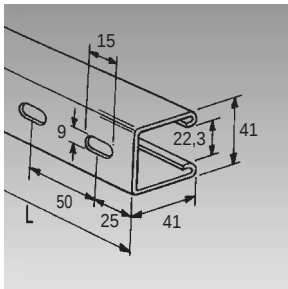
Part. No.	Tensile force and pressure zone ≥ m25 N/mm²	Centre gal.	Distance A4	Edge distance galv.	Edge distance A4	Component thickness
	kN	a ≥ mm	a ≥ mm	a ≥ mm	a ≥ mm	d ≥ mm
UP MAX M8	1,5	16	16	8	8	10
UP MAX M10	2,5	20	20	15	12	11
UP MAX M12	3,5	24	24	15	14	13
UP MAX M16	6,0	32	42	16	21	15

1610 kN = 1000 kp

Profile: AS... Light version, 41 x 21 mm
L 4121


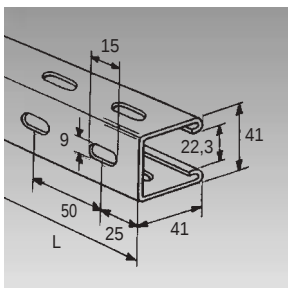
Part. No.	Width	Height	Length (L)	Material	Thickness	
AS L 4121 S	41 mm	21 mm	3000 mm	electrogalv. steel	1,5 mm	1
AS L 4121 F	41 mm	21 mm	3000 mm	hot-dip galv. steel	1,5 mm	1
AS L 4121 VA	41 mm	21 mm	3000 mm	AISI 302	1,5 mm	1

Holes on back.

Profile: AS... Light version, 41 x 41 mm
L 4141


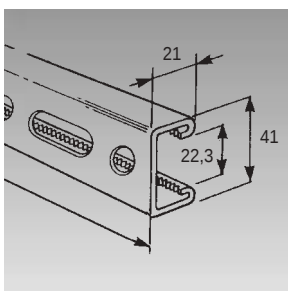
Part. No.	Width	Height	Length (L)	Material	Thickness	
AS L 4141 S	41 mm	41 mm	3000 mm	electrogalv. steel	1,5 mm	1
AS L 4141 F	41 mm	41 mm	3000 mm	hot-dip galv. steel	1,5 mm	1
AS L 4141 VA	41 mm	41 mm	3000 mm	AISI 302	1,5 mm	1

Holes on back.

Profile: AS... Light version, 41 x 41 mm incl. side holes
L 4141 SL


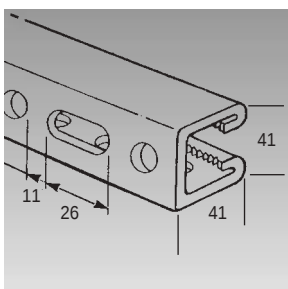
Part. No.	Width	Height	Length (L)	Material	Thickness	
AS L 4141 SL S	41 mm	21 mm	3000 mm	electrogalv. steel	1,5 mm	1
AS L 4141 SL F	41 mm	21 mm	3000 mm	hot-dip galv. steel	1,5 mm	1
AS L 4141 SL VA	41 mm	21 mm	3000 mm	AISI 302	1,5 mm	1

Holes on three sides.

Profile: AS... Heavy version, 41 x 21 mm
H 4121


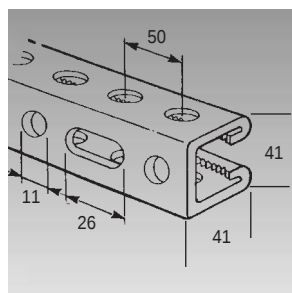
Part. No.	Width	Height	Length (L)	Material	Thickness	
AS H 4121 S	41 mm	21 mm	3000 mm	electrogalv. steel	1,5 mm	1
AS H 4121 F	41 mm	21 mm	3000 mm	hot-dip galv. steel	1,5 mm	1
AS H 4121 VA	41 mm	21 mm	3000 mm	AISI 302	1,5 mm	1

Holes on back, serrated.

Profile: AS... Heavy version, 41 x 41 mm
H 4141


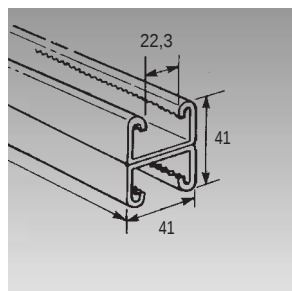
Part. No.	Width	Height	Length (L)	Material	Thickness	
AS H 4141 S	41 mm	41 mm	3000 mm	electrogalv. steel	1,5 mm	1
AS H 4141 F	41 mm	41 mm	3000 mm	hot-dip galv. steel	1,5 mm	1
AS H 4141 VA	41 mm	41 mm	3000 mm	AISI 302	1,5 mm	1

Holes on back, serrated.

Profile: AS... Heavy version, 41 x 41 mm incl. side holes**H 4141 SL**

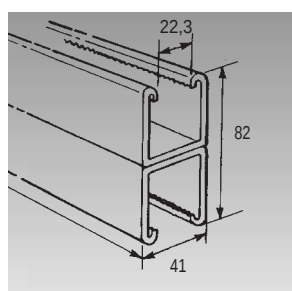
Part. No.	Width	Height	Length (L)	Material	Thickness	
AS H 4141 SL S	41 mm	41 mm	3000 mm	electrogalv. steel	2,5 mm	1
AS H 4141 SL F	41 mm	41 mm	3000 mm	hot-dip galv. steel	2,5 mm	1
AS H 4141 SL VA	41 mm	41 mm	3000 mm	AISI 302	2,5 mm	1

Holes on three sides, serrated.

Profile: AS... Heavy duty, 41 x 41 mm**HD 4141**

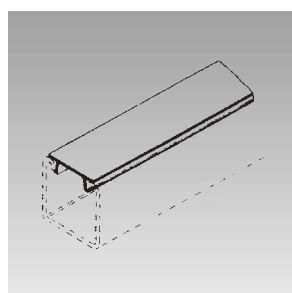
Part. No.	Width	Height	Length (L)	Material	Thickness	
AS HD 4141 S	41 mm	41 mm	3000 mm	electrogalv. steel	2,5 mm	1
AS HD 4141 F	41 mm	41 mm	3000 mm	hot-dip galv. steel	2,5 mm	1
AS HD 4141 VA	41 mm	41 mm	3000 mm	AISI 302	2,5 mm	1

Double profile AS 4141.

Profile: AS... Heavy duty, 41 x 82 mm**HD 4182**

Part. No.	Width	Height	Length (L)	Material	Thickness	
AS HD 4182 S	41 mm	82 mm	3000 mm	electrogalv. steel	2,5 mm	1
AS HD 4182 F	41 mm	82 mm	3000 mm	hot-dip galv. steel	2,5 mm	1
AS HD 4182 VA	41 mm	82 mm	3000 mm	AISI 302	2,5 mm	1

Double profile AS 4141.

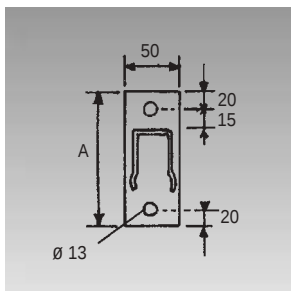
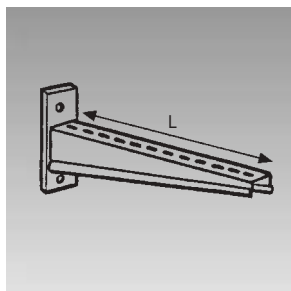
Cover**D 41**

Part. No.	Width	Length (L)	Material	Thickness	
AS D 41 S	41 mm	3000 mm	electrogalv. steel	1,5 mm	1

Note! Material description see page 87.
Load ratings see page 86.

Cantilever: AK... Light version for mounting at walls

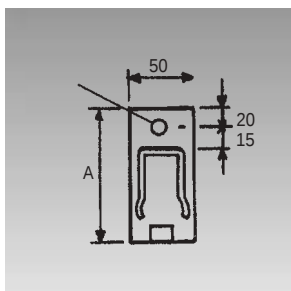
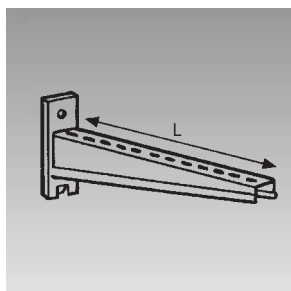
LW



Part. No.	Length (L)	A	Material	
AK LW 160 F	160 mm	120 mm	hot-dip galv. steel	1
AK LW 210 F	210 mm	120 mm	hot-dip galv. steel	1
AK LW 260 F	260 mm	120 mm	hot-dip galv. steel	1
AK LW 310 F	310 mm	136 mm	hot-dip galv. steel	1
AK LW 410 F	410 mm	136 mm	hot-dip galv. steel	1
AK LW 510 F	510 mm	160 mm	hot-dip galv. steel	1
AK LW 610 F	610 mm	160 mm	hot-dip galv. steel	1

Cantilever: AK... Light version incl. securing

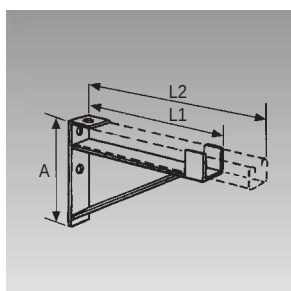
LS



Part. No.	Length (L)	A	Material	
AK LS 160 F	160 mm	100 mm	hot-dip galv. steel	1
AK LS 210 F	210 mm	100 mm	hot-dip galv. steel	1
AK LS 260 F	260 mm	100 mm	hot-dip galv. steel	1
AK LS 310 F	310 mm	116 mm	hot-dip galv. steel	1
AK LS 410 F	410 mm	116 mm	hot-dip galv. steel	1
AK LS 510 F	510 mm	140 mm	hot-dip galv. steel	1
AK LS 610 F	610 mm	140 mm	hot-dip galv. steel	1

Cantilever

SE

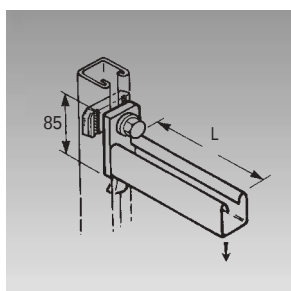


To adapt 41 x 41 mm strut profiles.
Wall or strut profile mounting applications.

Part. No.	Length (L)	A	Material	
AK SE F	240 mm	152 mm	hot-dip galv. steel	1

Cantilever arm 4141 incl. securing

HS

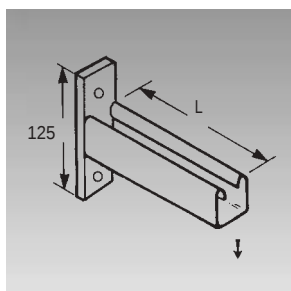


For rapid installation on to profiles 41 x 21 mm and 41 x 41 mm.
- nuts/screws pre-mounted

Part. No.	Length (L)	Material	
AK 4141 HS 150 F	150 mm	hot-dip galv. steel	1
AK 4141 HS 300 F	300 mm	hot-dip galv. steel	1
AK 4141 HS 450 F	450 mm	hot-dip galv. steel	1
AK 4141 HS 600 F	600 mm	hot-dip galv. steel	1
AK 4141 HS 750 F	750 mm	hot-dip galv. steel	1

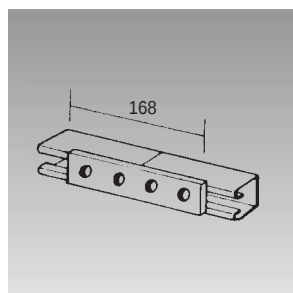
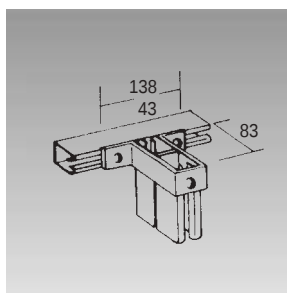
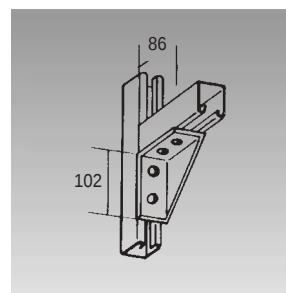
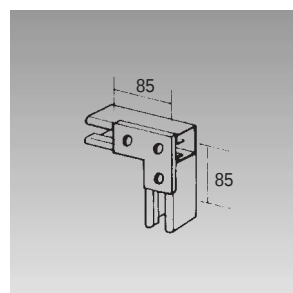
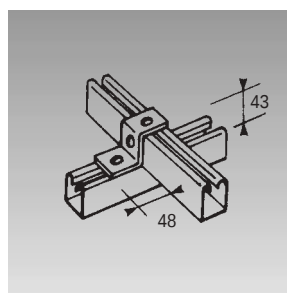
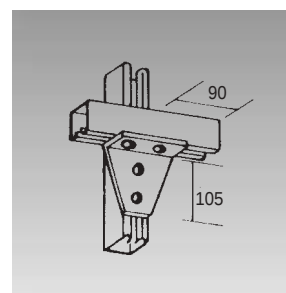
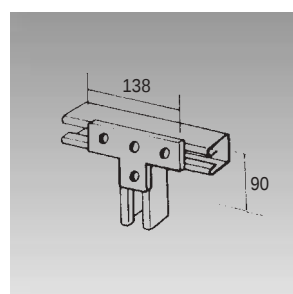
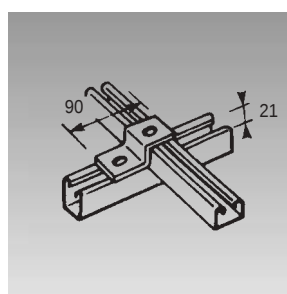
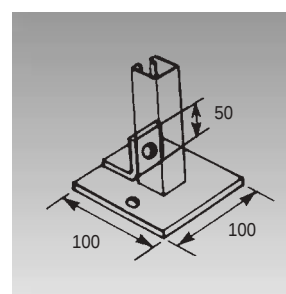
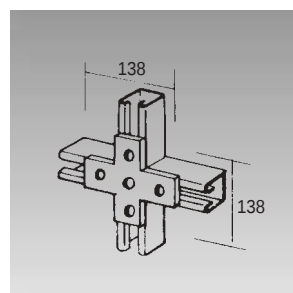
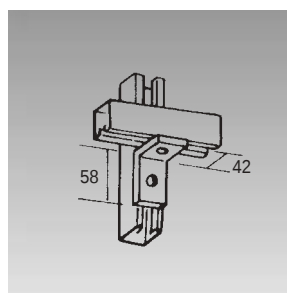
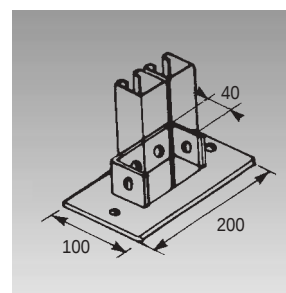
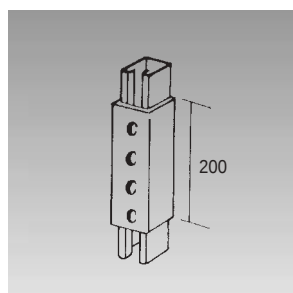
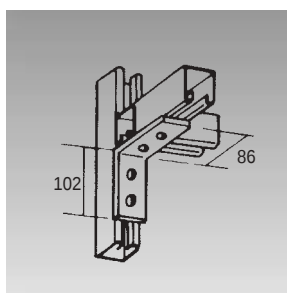
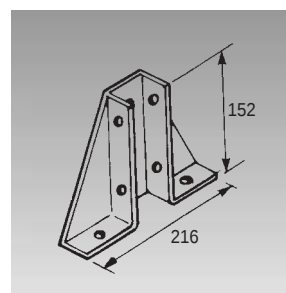
Cantilever arm 4141 for mounting at walls

HW



Wall mounting bracket on profile 41 x 41 mm.
- nuts/screws pre-mounted

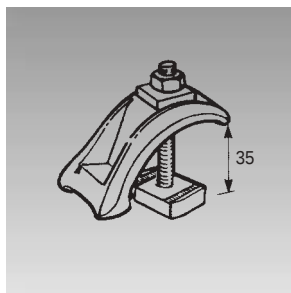
Part. No.	Length (L)	Material	
AK 4141 HW 150 F	150 mm	hot-dip galv. steel	1
AK 4141 HW 300 F	300 mm	hot-dip galv. steel	1
AK 4141 HW 450 F	450 mm	hot-dip galv. steel	1
AK 4141 HW 600 F	600 mm	hot-dip galv. steel	1
AK 4141 HW 750 F	750 mm	hot-dip galv. steel	1

Profile Bracket**ASV**
 Part. No.
 VE ASV F
Offset Tee Bracket**AWV**
 Part. No.
 VE AWV 4182 F
 for profile 4182
Heavy Angle Bracket**VAW**
 Part. No.
 VE VAW F
Rightangle Bracket**WF**
 Part. No.
 VE WF F
Z - Bracket**ZV**
 Part. No.
 VE ZV 4141 F
 for profile 4141
Wide Tee Angle Bracket**SE**
 Part. No.
 VE SE F
Tee Bracket**TVF**
 Part. No.
 VE TVF F
Z - Bracket**ZV**
 Part. No.
 VE ZV 4121 F
 for profile 4121
Single base support**AF**
 Part. No.
 VE AF 4141 F
 for profile 4141
Cross over Bracket**KVF**
 Part. No.
 VE KVF F
Angle Bracket**AW**
 Part. No.
 VE AW F
Double base support**AF**
 Part. No.
 VE AF 4182 F
 for profile 4182
External Bracket**AV**
 Part. No.
 VE AV 4121 F
 VE AV 4141 F
 for profiles 4121
 and 4141
Angle Bracket**GAW**
 Part. No.
 VE GAW F
Wing Support Bracket**AAF**
 Part. No.
 VE AAF4141 F
 VE AAF4182 F

All products: material hot dip galvanized steel.

Clamping Component BS ... C

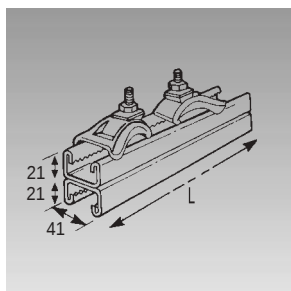
KE C



Part. No.	Material	
BS KE C F	hot-dip galv. steel	1
BS KE C VA	AISI 302	1

Clamping System

TW

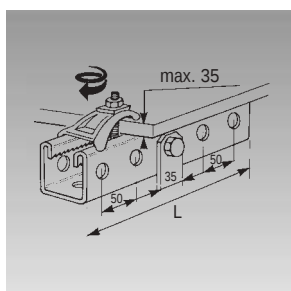


Part. No.	Length (L)	Material		Part. No.	Length (L)	Material	
BS TW 300 F	300 mm	hot-dip galv. steel	1	BS TW C 300 VA	300 mm	AISI 302	1
BS TW 400 F	400 mm	hot-dip galv. steel	1	BS TW C 400 VA	400 mm	AISI 302	1
BS TW 500 F	500 mm	hot-dip galv. steel	1	BS TW C 500 VA	500 mm	AISI 302	1
BS TW 600 F	600 mm	hot-dip galv. steel	1	BS TW C 600 VA	600 mm	AISI 302	1
BS TW 800 F	800 mm	hot-dip galv. steel	1	BS TW C 800 VA	800 mm	AISI 302	1

Double profile 4121 incl. 2 clamping elements.

Clamping System, variable

TV



Part. No.	Length (L)	Material	
BS TV 300 G S	300 mm	electro galv. steel	1
BS TV 400 G S	400 mm	electro galv. steel	1
BS TV 500 G S	500 mm	electro galv. steel	1

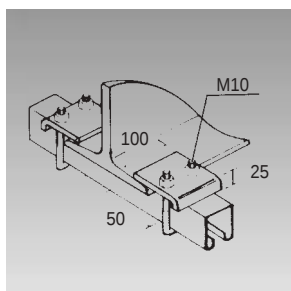
For the suspension of heavy components from inclined beam flanges.

- Multidirectional universal clamp
- For beam flanges up to 35 mm thickness
- Serrated profile

Beam flange angle: max 45°, suspension angle: max. 30°.

Clamping component light version

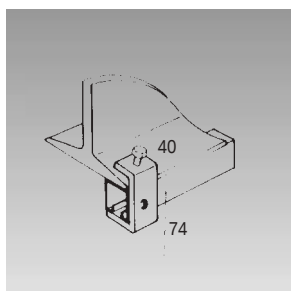
LKE



Part. No.	Material	
BS LKE 4121 F	hot-dip galv. steel	1 for profile 4121
BS LKE 4141 F	hot-dip galv. steel	1 for profile 4141
BS LKE 8241 F	hot-dip galv. steel	1 for profile 8241

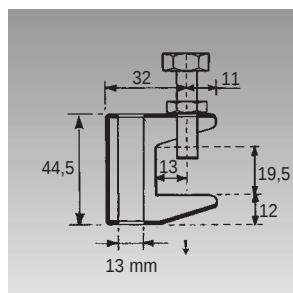
Clamping component offset version

KE L



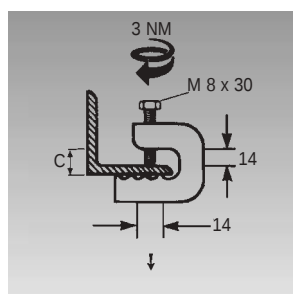
Part. No.	Material	
BS KE L F	hot-dip galv. steel	1

Incl. cone pointed bolt M12 x 40 mm.

Clamping-element**KE G**

Part. No.	Material	
BS KE G S	electrogalv. steel	1

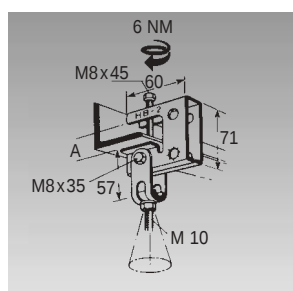
For suspending services via threaded rods up to a max. load 400 kg with safety factor of 4 :1.
For beam flanges up to 19,5 mm thickness.
Uds, UL and FM certification.

Clamping-element light version**LKE G**

Part. No.	Material	
BS LKE G F	hot-dip galv. steel	1

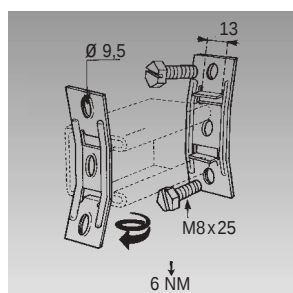
Part. No.	Material	
BS LKE G VA	AISI 302	1

For suspension of services via threaded rods (incl. nuts) or mounting of pipes (incl. clamp)
For beam flanges up to 45 mm thickness

Clamping-element, variable**LKE V**

Part. No.	Material	
BS LKE V S	electrogalv. steel	1

For lighter applications, Beam flanges up to 24 mm thickness.

Kit-component**TTE**

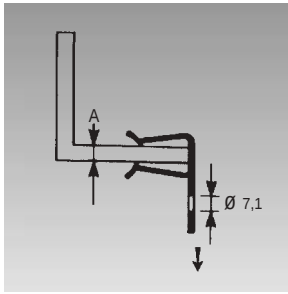
Part. No.	Material	
BS TTE S1	steel, plated zinc	1

For securing services inside of H or C section beams.
The Kit contains two preformed mounting plates and two bolts M 8 x 25.

Installation instructions see page 88.

Fixing Clips: BT ...Clip

FSK



Part. No.	Material thickness	
BT FSK 2H4 S1	A = 2 - 3 mm	100
BT FSK 4H24 S1	A = 3 - 8 mm	100
BT FSK 4H58 S1	A = 8 - 14 mm	100
BT FSK 4H912 S1	A = 14 - 20 mm	100

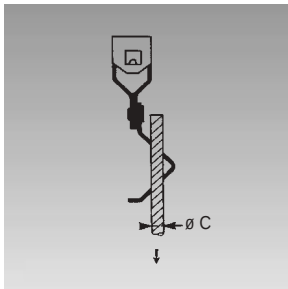
Part. No.	Material thickness	
BT FSK 2H4 VA	A = 2 - 3 mm	100
BT FSK 4H24 VA	A = 3 - 8 mm	100
BT FSK 4H58 VA	A = 8 - 14 mm	100
BT FSK 4H912 VA	A = 14 - 20 mm	100

For suspending or attaching services to metal beams by chains or wires etc.

- Spring steel or stainless steel
- Profile thickness: max 20 mm
- Simply hammered into position

Clip

FSK



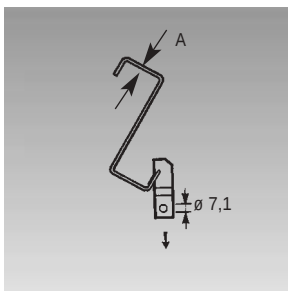
Part. No.	Material thickness	Ø	
BT FSK M6 MA S1	A = ≤ 2,8	M 6	100
BT FSK M8 MA S1	A = ≤ 2,8	M 8	100
BT FSK M10 MA S1	A = ≤ 2,8	M 10	100

For rapid services with threaded rods.

- For fast and accurate height adjustment, simply squeeze the spring steel component.

Clip

FSK



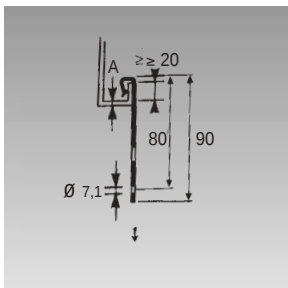
Part. No.	Material thickness	
BT FSK 122 S1	A = ≤ 2,8 mm	100

For the suspension of chain and wire from purlin section.

Profile thickness: max 2.8 mm, Return flange height: max 15 mm.

Clip

FSK



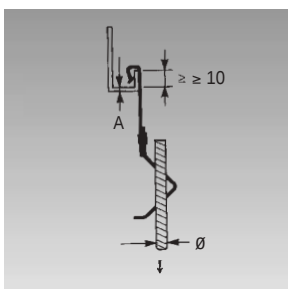
Part. No.	Material thickness	
BT FSK VF S1	A = 1,5 - 6 mm	100

Spring steel clip for suspending services from angle section or purlines by chain or wire etc.

- For profiles of 1.5 to 6 mm thickness.

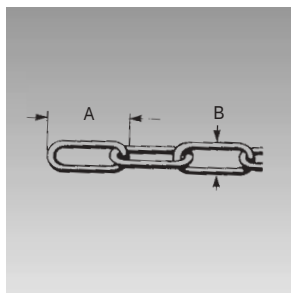
Clip

FSK

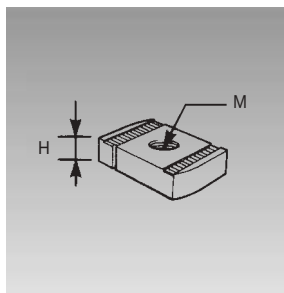


Part. No.	Material thickness	
BT FSK V5 S1	A = < 4 mm	100

For suspension from purlin and angle section with threaded rod. (up to M10)

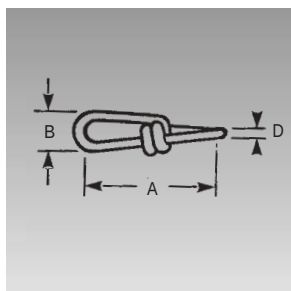
Fixing elements : VE... chain 18 x 8 mm**GK**

Part. No.	A X B	
VE GK 18/8 S	18 x 8 mm	30 m

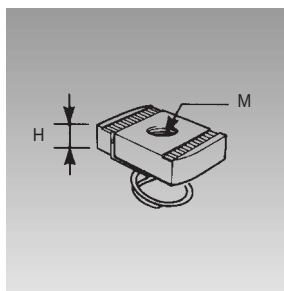
Strut Nut**AFUM**

Part. No.	Thread	
VE AFUM M8 S	M8	100
VE AFUM M10 S	M10	100
VE AFUM M12 S	M12	100

For profile 41 x 41 mm
and 41 x 21 mm.

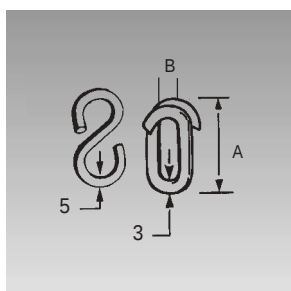
Chain 28 x 9 mm**KK**

Part. No.	A X B	
VE KK 28/9 S	28 x 9 mm	30 m

Strut Nut for profile 4121**AFUD**

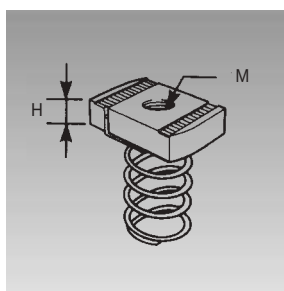
Part. No.	Thread	
VE AFUD M 8 S	M8	100
VE AFUD M10 S	M10	100
VE AFUD M12 S	M12	100

With short spring 41 x 21 mm.

Hooks**SH/NG**

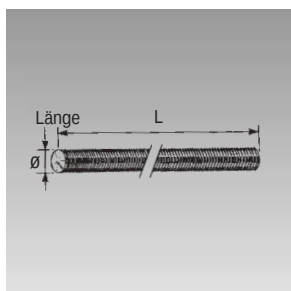
Part. No.	A X B	
VE SH 2 S	Ø 5 mm	100
VE NG 3 S	28 x 9 mm	100

For suspending chains,
perforated up to 40kg.

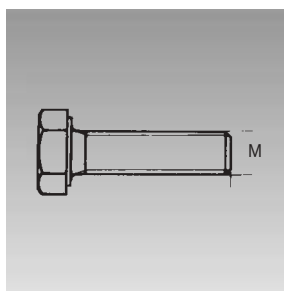
Strut Nut for profile 4141**AFUA**

Part. No.	Thread	
VE AFUA M8 S	M8	100
VE AFUA M10 S	M10	100
VE AFUA M12 S	M12	100

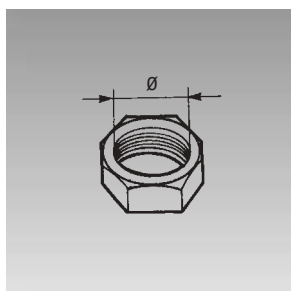
With long spring 41 x 41 mm.

Threaded Rod**GS**

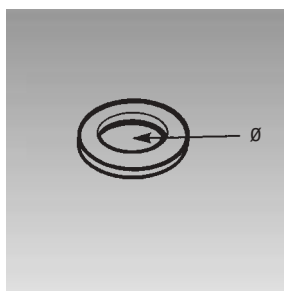
Part. No.	Length	Thrd.	
VE GS 8 S	1000 mm	M8	1
VE GS 8 VA	"	M8	1
VE GS 10 S	"	M10	1
VE GS 10 VA	"	M10	1
VE GS 12 S	"	M12	1
VE GS 12 VA	"	M12	1

Anchor bolt**ASF**

Part. No.	Thread	
VE ASF M8 S	M8	100
VE ASF M10 S	M10	100
VE ASF M12 S	M12	100

Nut**SKM**

Part. No.	Thrd.	
VE SKM M 8 S	M8	100
VE SKM M10 S	M12	100
VE SKM M12 S	M12	100

Washer**US**

Part. No.	for Thrd.	
VE US 8 S	M8	100
VE US 10 S	M10	100
VE US 12 S	M12	100

Loading diagramme

Profiles

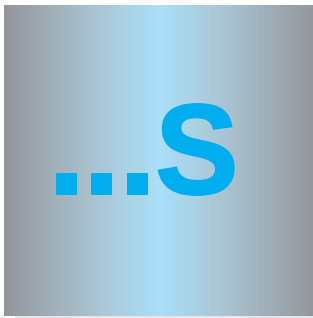
				= A			
				= B			
				= C			
Lg./mm	A/kg	B/kg	C/kg				
Part.-No. AS L 4121 s. page 78							
500	85	170	64				
1000	42	84	32				
1500	27	55	21				
2000	20	40	15				
3000	12	25	9				
6000	3						
Part.-No. AS L 4141 s. page 78							
500	253	506	190				
1000	126	252	94				
1500	83	166	62				
2000	62	123	46				
3000	40	79	30				
6000	16	32	12				
Part.-No. AS L 4141 SL s. page 78							
500	249	498	187				
1000	124	248	93				
1500	82	164	62				
2000	61	121	46				
3000	39	78	30				
6000	16	31	12				

				= A			
				= B			
				= C			
Lg./mm	A/kg	B/kg	C/kg				
Part.-No. AS H 4121 s. page 78							
500	382	763	286				
1000	190	380	143				
1500	126	251	94				
2000	93	186	70				
3000	60	120	45				
6000	24	48	19				
Part.-No. AS H 4141 s. page 78							
500	85	170	64				
1000	42	84	32				
1500	27	55	21				
2000	20	40	15				
3000	12	25	9				
6000	3						
Part.-No. AS H 4141 SL s. page 79							
500	374	749	281				
1000	186	373	140				
1500	123	246	93				
2000	91	183	69				
3000	59	118	45				
6000	24	48	19				

				= A			
				= B			
				= C			
Lg./mm	A/kg	B/kg	C/kg				
Part.-No. AS HD 4141 s. page 79							
500	358	715	268				
1000	177	355	133				
1500	117	234	88				
2000	86	172	65				
3000	54	109	42				
6000	19	39	16				
Part.-No. AS HD 4182 s. page 79							
500	1141	2282	856				
1000	569	1137	427				
1500	377	754	283				
2000	280	561	211				
3000	183	365	138				
6000	80	159	62				

■ Materials / Surface coating

Part. No. ...



■ Corrosion protection

Elektro plated zinc.

The anti-corrosion protection consists of an electrolytically applied zinc coating with a layer thickness of 8-15 micron. This protection will withstand 90 hours saltspray test to DIN 50021, ISO/R 1456-1970, ASTM B 117-90.

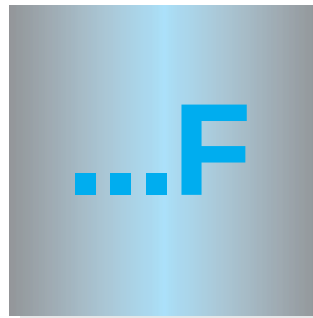


■ Stainless steel

Spring steel stainless steel fasteners are made of austenitic stainless steel type X12 Cr Ni 17-7 (AISI 302, Standard no. 1.4310, according to DIN 17224

Note:

Because stainless steel is susceptible to stress corrosion in chloride environments it is forbidden to use these ERICO-fixing products in chloride environments.



■ Hot dip galvanized zinc

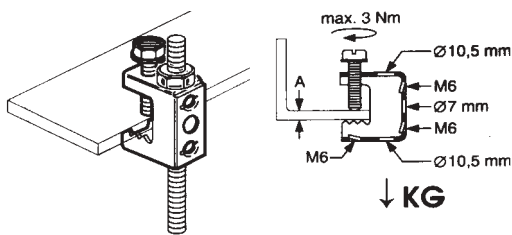
Protection against corrosion is provided by hot dip galvanizing in accordance with DIN 50976+Zn-D, BS 729, NFA 91-121, NEN 1275. The zinc layer thickness is 50-70 micron (350-500 g/m²).



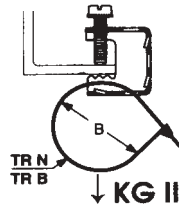
■ Plated zinc

The anti-corrosion protection consists of a coating of mechanically deposited zinc with a layer thickness of approx. 25 micron and a transparent sealer. The corrosion resistance of the system is 500 hours against red rust for a saltspray test as per DIN 50021, ISO/R 1456-1970 and ASTM B 117-90.

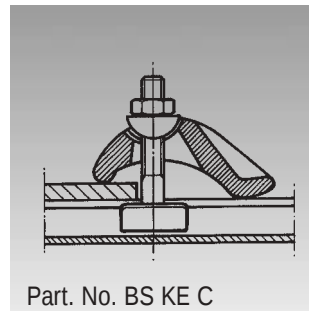
■ Installation advice



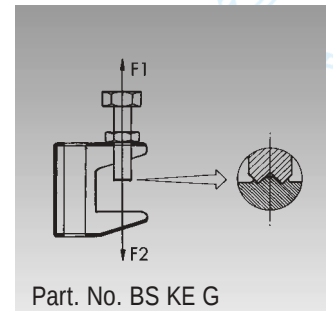
Part. No. BS KE G



Part. No. BS LKE G



Part. No. BS KE C



Part. No. BS KE G

Description:

For the installation of this fixing, some technical aspects have to be taken into consideration. In particular the torque required and general technical information as indicated in the installation instructions.

Screw size	Manual force N	Wrench lenght mm
M 6	375	110
M 8	380	120
M10	390	170
M12	400	260
M16	430	530

Indirect clamp

In this application, the bolt setting forces are transferred to the clamping component. Bolts to tensile stress are 8.8 grade high tensile steel, to EN 20898-1-1991.

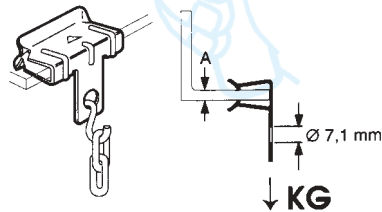
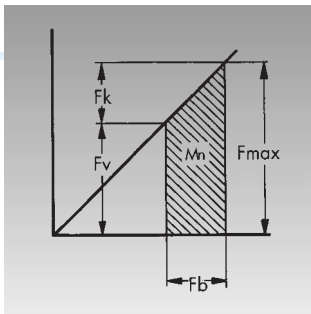
In most application, clamping components are tightened with an open-ended or ring spanner. The table below gives a "guideline value" derived from experience for the force and leverage lenght required for grades 6.8 and 8.8.

Direct clamp

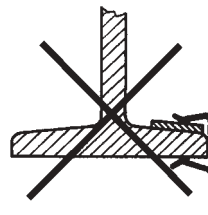
The 8.8 grade high tensile steel screw has a cupped or hollow cone point of contact to DIN 78. This ensures a constant contact pressure with a high resistance to loosening or unscrewing.

The endurance of a clamped connection is determined by the torque required. By tightening the bolt, an initial stress F_1 is applied to the clamp. If the initial stress F_1 and the load F_2 are on or close to the same axis or close to each other.

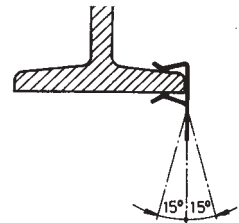
The useful load F_2 decreases in inversion proportion to the increase in the initial stress. F_1 . Or in other words: If the torque specified in the data are exceeded, the useful load is reduced accordingly.



Part. No. BT FSK...



Do not insert any secondary component between the beam and the clip.



Up to a 15 degree inclination from the vertical axis is acceptable.

Description:

Clips are manufactured from heat treated spring steel and, as a single or combined fixing system will primarily apply to steel beam applications.

The fixing method relies on the use of the spring retention force, loads up to 90 kg (with a 4:1 safety factor) can be carried through the clamping force.

Explanation of the diagram:

- pre-tension F_v
- clamping force F_k
- max. spring tension F_{max}
- clamping range F_b
- usable action of spring M_n

Installation advice:

The installation of spring steel clips is simply and easy. In each box you will find a clear instruction sheet with all appropriate technical information.

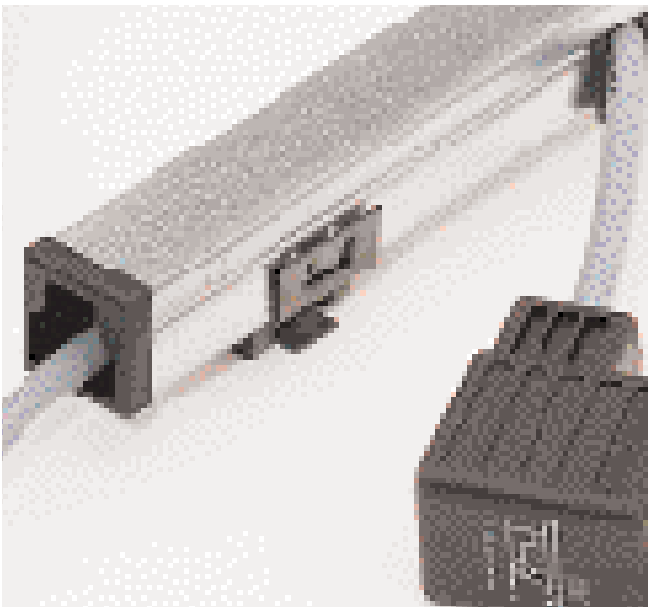
Basic guidelines:

- We do not recommend the installation of clips onto aluminium sections :
- Because aluminium is a softer material, the clamping effect would be reduced.
 - The bi metal connection between the aluminium and zinc coated clips would create a galvanic corrosive reaction causing the aluminium to corrode.

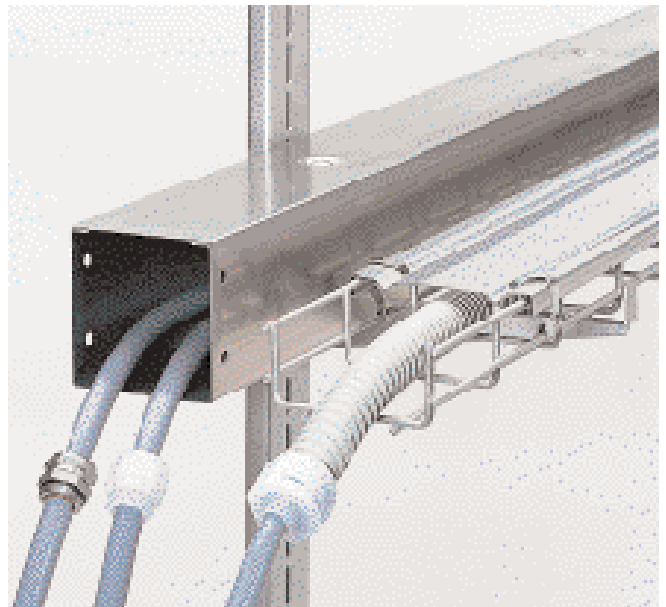
Never apply additional hot dip galvanising to spring steel clips :

- This would reduce or eliminate the spring steel retention force.
- The appropriate corrosion protection has already been applied.

■ Fixing Support - Praxis Examples



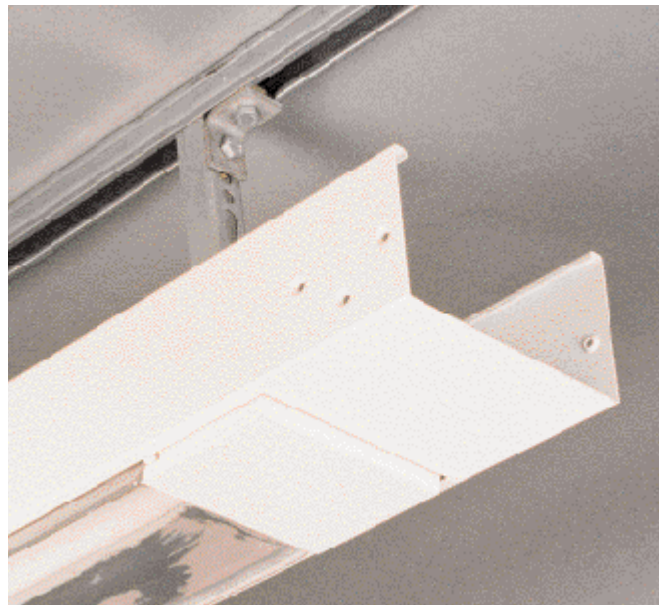
Fixing of Mini Trunking: Retaining Clip



Industrial Trunking and Cable Tray stainless steel



Fixing of Cable Trays



Fixing of Media Trunking

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