

Fittings



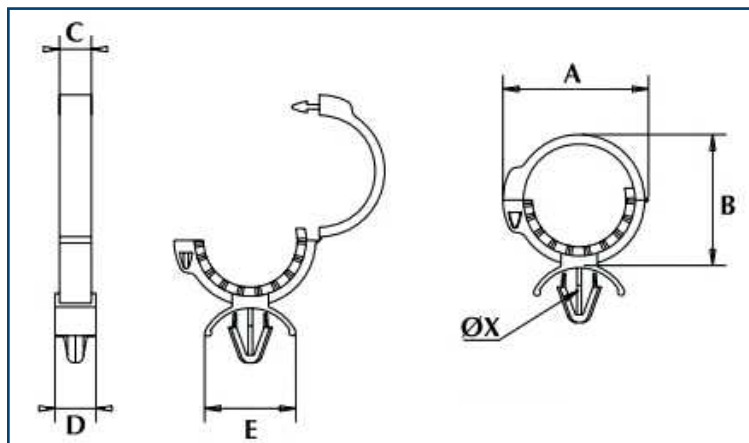
FASTENING ACCESSORIES

FASTENING ACCESSORIES are made to hold wire harnesses to the sheet metal of a vehicle to prevent them from moving.

Delfingen offers various fastening types in sizes from 0.7 mm to 2.5 mm. These fasteners can be used in oval or round hole openings and

accommodate various sheet metal thicknesses.

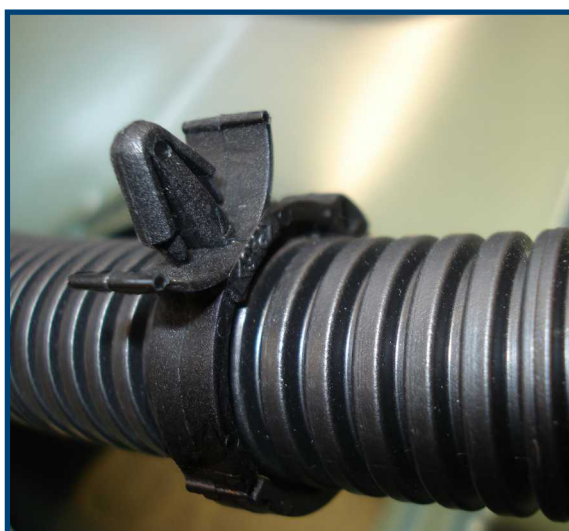
FASTENING ACCESSORIES are designed to fit over Delfingen convoluted tubes such as Soflex, Techniflex and the GAFMIL™ tubings and they are also compatible with our branching accessories.



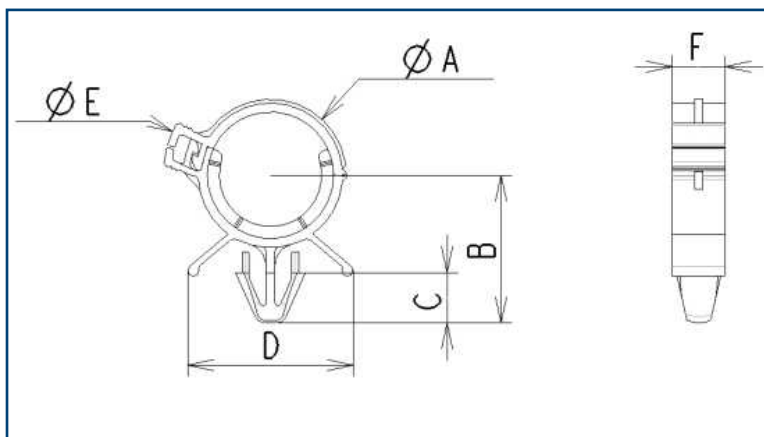
TR Clips are designed to fasten convoluted tubes to sheet metal through a round hole.

TR Clips snap and close directly onto the tube and the round anchor clasp is simply pushed in the hole.

Reference	Description	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Fastening mode	X (mm)
CTR 4.5	Round hole clip 4.5	11.8	11.8	6.2	6.2	20.0	Type 5	6 - 6,5
CTR 9	Round hole clip 9	20.9	20.0	7.0	7.4	20.0	Type 5	6 - 6,5
CTR 13	Round hole clip 13	26.0	24.6	7.0	7.1	20.0	Type 5	6 - 6,5
CTR 19	Round hole clip 19	31.8	29.8	7.0	9.3	20.0	Type 5	6 - 6,5
CTR 23	Round hole clip 23	35.8	34.7	7.0	9.1	20.0	Type 5	6 - 6,5
CTR 23AR	Round hole clip 23 AR	35.8	34.7	7.0	9.1	20.0	Type 5	6 - 6,5
CTR 11TR8	Clip 11 TR8	24.3	22.6	7.1	7.5	20.0	Type 6	8
CTR 13TR8	Clip 13 TR8	25.6	24.8	7.0	8.1	20.0	Type 6	8
CTR 16TR8	Clip 16 TR8	29.2	26.6	7.0	8.9	20.0	Type 6	8
CTR 19TR8	Clip 19 TR8	31.5	30.4	7.0	8.9	20.0	Type 6	8



Round hole clip 23 AR

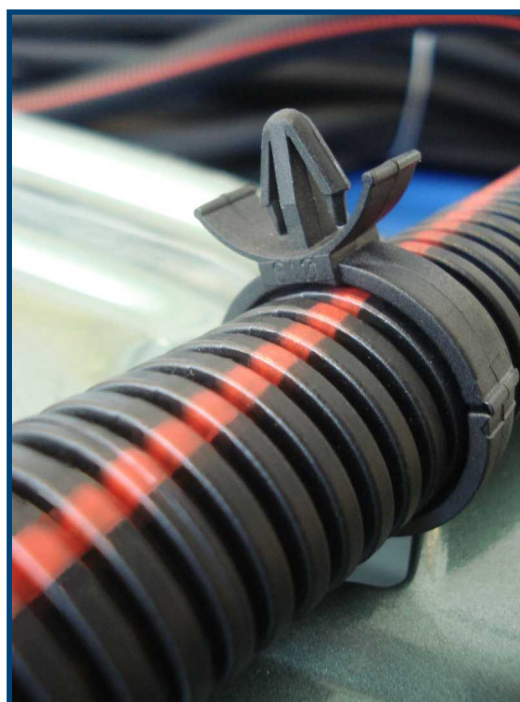


TRA Clips are similar to the TR range but with a lighter design.

TRA Clips meet the same requirements as the previous fastener.

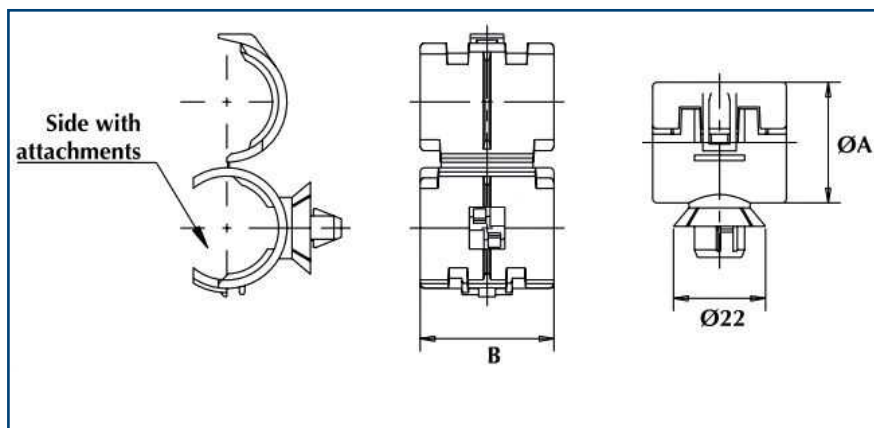
Reference	Description	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
CTRA 6	Round hole clip 6	12.8	16	6.7	20	20.5	6
CTRA 11	Round hole clip 11	20.2	19.6	6.7	22	28.5	7
CTRA 16	Round hole clip 16	24.9	21.85	6.7	24	32.5	8

Note: This accessory is only available in PA6 material. Other materials can be used upon request.



Characteristics

HG Clips are similar to TR Clips but they are made with a stronger fastening design, a larger shell to hold onto the tube, and a larger oval button clasp.



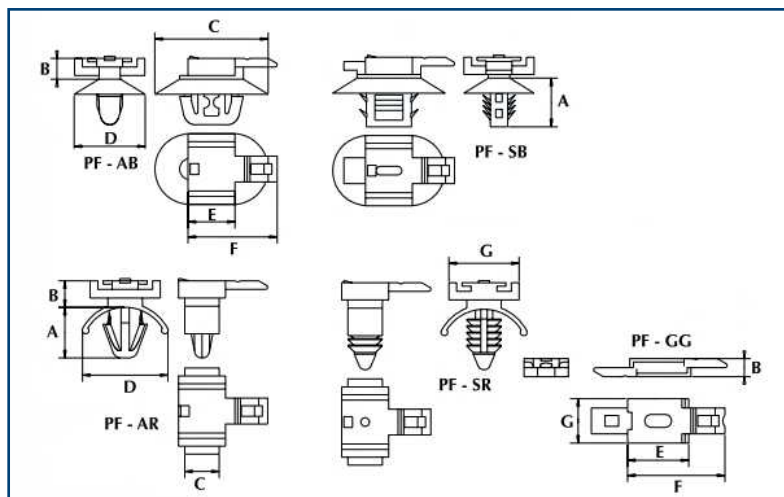
Reference	Description	Ø A (mm)	B (mm)	Fastening mode
CHG6	Clip HG 6	14	26	Type 8
CHG6P	Clip HGP 6*	14	26	Type 8
CHG9	Clip HG 9	17.5	32	Type 8
CHG11	Clip HG 11	20.5	32	Type 8
CHG13	Clip HG 13	23	32	Type 8
CHG16	Clip HG 16	25.5	32	Type 8
CHG19	Clip HG 19	29	32	Type 8
CHG23	Clip HG 23	33	32	Type 8
CHG23/26	Clip HG 23/26	33	32	Type 8
CHG29	Clip HG 29	40.6	32	Type 8

*This clip can adjust a 3 mm-thick sheet.



Characteristics

Slide bar clasps are designed to fit on other Delfingen accessories like tee fittings, collars, elbows, branching cross fittings and Y fittings. They are simply assembled with a sliding mechanism.

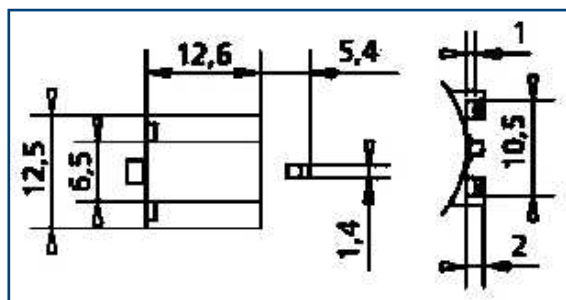


Ref.	Description	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Fastening type
PF-AR	Round anchor clasp	14.0	4.0	8.0	20.0	11.0	21.0	16.5	Type 5
PF-SR	Round christmas tree clasp	16.0	4.0	8.0	20.0	11.0	21.0	16.5	Type 7
PF-SB	Christmas tree button hole clasp	11.7	4.0	26.4	17.0	11.0	25.5	16.5	Type 9
PF-AB	Christmas tree button hole clasp	11.7	4.0	26.4	17.0	11.0	21.0	16.5	Type 8
PF-GG	Slide bar clasp	-	4.3	-	-	14.2	22.7	10.5	Type 2

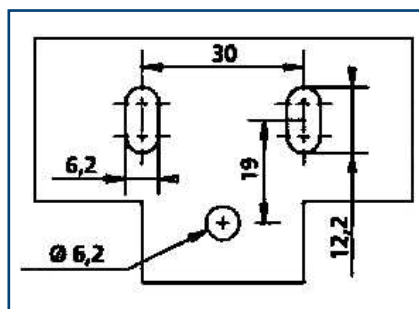
Note: This fastening accessory can be delivered in A16 boxes (300x200x120 mm) or in other sizes upon request.



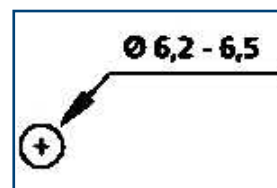
Type 1 & 2



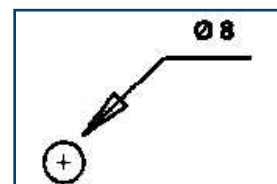
Type 3



Type 5 & 7

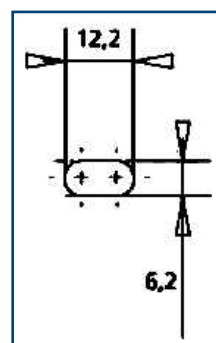


Type 6

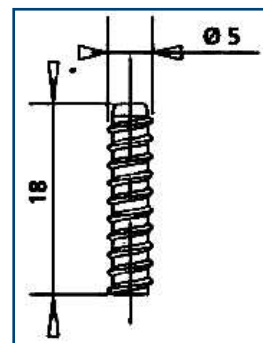


Type	Description
Type 0	No slide bar
Type 1	Slide bar
Type 2	Double slide bar
Type 3	3 spigots
Type 4	Type 1 + Type 8
Type 5	Ø 6.2 - 6.5 anchor spigot
Type 6	Ø 8 anchor spigot
Type 7	Ø 6.2 - 6.5 Christmas tree spigot
Type 8	Oblong anchor spigot // wiring harness
Type 9	Oblong Christmas tree spigot // wiring harness
Type 10	Oblong anchor spigot ⊥ wiring harness
Type 11	Oblong Christmas tree spigot ⊥ wiring harness
Type 12	On stud/screw

Type 8,9,10 & 11



Type 12



FASTENING ACCESSORIES can be delivered in A12 boxes (400x300x290mm) or in A16 boxes (300x200x120mm). Other sizes available upon request.

Characteristics	Specification	PA 6.6	PA 6
Mechanical Properties			
Density (g/cm³)	ISO 1183	1.14	1.10
Breaking strength (MPa)	ISO 527	65	60
Breaking elongation (%)	ISO 527	65	>45
Thermal Properties			
Min/Max continuous operating temperature (°C)	-	-30° / 125°	-30° / 125°
Maximum peak operating temperature (°C)	-	150	150
Flammability	FMVSS 302	Complies	Complies

Materials and fastening accessories have a good resistance to ultraviolet degradation and fungus as well as good chemical resistance.

Data & photos for information only, subject to modifications without notice.

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