

# fischer Product Range Direct Fastening



# Direct Fastening

## Power Drive F35 / F45 Stud Driver

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Power Drive F35 Stud Driver (8 mm tool)

PRODUCT DESCRIPTION

The Power Drive F35 Stud Driver is a safe tool that can be employed for a wide range of applications by professional, certified users for driving elements of the fischer accessories product range developed specially for this field of application into concrete, steel, solid brick and solid lime-sand brick.

YOUR BENEFITS AT A GLANCE

- Optimum adaptation
  - 3 cartridge strengths and 6-step power control
- Extremely flexible
  - Large selection of fastener elements for a wide range of fixing applications
- Short standstill times
  - Thanks to extremely simple care and maintenance
- High performance
  - up to 62 mm long fastener elements can be driven without predrilling

POWER DRIVE F35 STUD DRIVER



PTB  
S 818

Power Drive F35 Stud Driver

Type	Art. No.	Weight	Tool length (max.)	Maximum length of the fastener elements	Recommended maximum driving frequency	Power control	Packaging	Outer packing	Price
		[kg]	[mm]	[mm]	[studs/h]		[Qty.]	[Qty.]	[€]
F35	510000	2,35	340	62	500	3 cartridge strengths and 6-step power control by means of regulation knob	1	3	

Replacements for scope of supply and further accessories for F35

SPARE PARTS / ACCESSORIES

Item	Art. No.	Description	Packaging [Qty.]	Price [€]
1	510003	Stabilizer	1	
2	510005	Shear clip	5	
3a - 3e	510256	F35 cleaning kit: Brushes (4), Allen key (1)	1	
4	510017	Steel ball	5	
5	510258	Ear protector with strap	1	
6	510259	Safety goggles, standard model	1	
7	510001	F35 transport case	1	
1)	510002	F35 operating manual, EN	1	
1)	510250	F35 operating manual, DE	1	
1)	510251	F35 operating manual, PT	1	
1)	510252	F35 operating manual, ES	1	

1) not illustrated

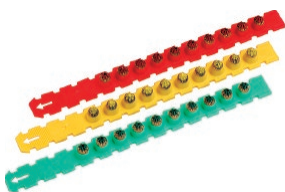


## FSC safety cartridge strips for F35

### PRODUCT DESCRIPTION

- Cartridges with 3 different power classes are available for the fischer Power Drive F35 Stud Driver.
- The cartridges can be distinguished by their colour.
- The power class of the fischer safety cartridges is shown as a number (see table / power class) on each cartridge package.
- The higher the number, the higher the power class.
- The power class is also indicated by the colour of the package, the label, a colour mark on the tip of each cartridge and the plastic strip.
- For users with colour blindness, a combination of numbers and colours is used on the package.

### FSC SAFETY CARTRIDGE STRIPS



FSC safety cartridge strips

Type	Art. No.	Test certificate number of the system approval	Size	Size	Colour of the cartridges	Power of the cartridges	Power class	Cartridges Also suitable for use in stud drivers from the following manufacturers:	Packaging	Price
			[mm]	[inch]		[DIN 7260]	[DIN 7260 / ANSI A10.3-2006]		[Qty.]	[€]
FSC GR	<b>510222</b>	PTB SY 818 FW13	6,8/11	.27	green	Low charge	3 / 3		100	
FSC YE	<b>510223</b>	PTB SY 818 FW14	6,8/11	.27	yellow	Medium charge	4 / 4		100	
FSC RE	<b>510225</b>	PTB SY 818 FW16	6,8/11	.27	red	Very high charge	6 / 5		100	

## Fastener elements for Power Drive F35

### STUD FN

#### Stud FN



- Smooth shaft
- High-strength steel
- Ballistic tip
- Mechanically galvanised (minimum surface thickness 8 µm)



Type	Art. No.	Head diameter	Head thickness	Shaft diameter	Shaft type	Shaft length	Max. thickness of part to be fixed in concrete C16/20	Maximum thickness of part to be fixed in concrete C20/25	Max. thickness of part to be fixed in concrete C30/37	Max. thickness of part to be fixed in steel f <sub>yk</sub> 360-510	Packaging	Price
		[mm]	[mm]	[mm]		[mm]	<sup>1</sup> fix [mm]	<sup>1</sup> fix [mm]	<sup>1</sup> fix [mm]	<sup>1</sup> fix [mm]	[Qty.]	[€]
FN 19	<b>510155</b>	<b>8,15</b>	1,7	3,7	smooth	19	-	-	-	7	200	
FN 22	<b>510156</b>	<b>8,15</b>	1,7	3,7	smooth	22	-	-	2	10	200	
FN 27	<b>510157</b>	<b>8,15</b>	1,7	3,7	smooth	27	-	2	7	15	200	
FN 32	<b>510158</b>	<b>8,15</b>	1,7	3,7	smooth	32	2	7	12	20	100	
FN 37	<b>510159</b>	<b>8,15</b>	1,7	3,7	smooth	37	7	12	17	25	100	
FN 42	<b>510160</b>	<b>8,15</b>	1,7	3,7	smooth	42	12	17	22	30	100	
FN 47	<b>510161</b>	<b>8,15</b>	1,7	3,7	smooth	47	17	22	27	35	100	
FN 52	<b>510162</b>	<b>8,15</b>	1,7	3,7	smooth	52	22	27	32	40	100	
FN 57	<b>510163</b>	<b>8,15</b>	1,7	3,7	smooth	57	27	32	37	45	100	
FN 62	<b>510164</b>	<b>8,15</b>	1,7	3,7	smooth	62	32	37	42	50	100	
FN 72	1) <b>510165</b>	<b>8,15</b>	1,7	3,7	smooth	72	42	47	52	60	100	
FN 97	1) <b>510166</b>	<b>8,15</b>	1,7	3,7	smooth	97	67	72	77	85	100	

1) These fastener elements exceed the maximum useful length of the fastener guide and have to be preloaded.

# Fastener elements for Power Drive F35

## STUD FNS



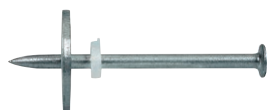
### Stud FNS

- Knurled shaft for maximum holding force in steel
- High-strength steel
- Ballistic tip
- Mechanically galvanised (minimum surface thickness 8 µm)



Type	Art. No.	Head diameter	Head thickness	Shaft diameter	Shaft type	Shaft length	Max. thickness of part to be fixed in concrete C16/20	Max. thickness of part to be fixed in concrete C20/25	Max. thickness of part to be fixed in concrete C30/37	Max. thickness of part to be fixed in steel $f_{yk}$ 360-510	Packaging	Price
		[mm]	[mm]	[mm]		[mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	[Qty.]	[€]
FNS 16	510167	8,15	1,7	3,7	knurled	16	-	-	-	4	200	
FNS 19	510168	8,15	1,7	3,7	knurled	19	-	-	-	7	200	

## STUD WITH WASHER FN-W25



### Stud with washer FN-W25

- Smooth shaft
- High-strength steel
- Ballistic tip
- Mechanically galvanised (minimum surface thickness 8 µm)



Type	Art. No.	Head diameter	Head thickness	Shaft diameter	Shaft type	Shaft length	Washer diameter	Max. thickness of part to be fixed in concrete C16/20	Max. thickness of part to be fixed in concrete C20/25	Max. thickness of part to be fixed in concrete C30/37	Max. thickness of part to be fixed in steel $f_{yk}$ 360-510	Packaging	Price
		[mm]	[mm]	[mm]		[mm]	[mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	[Qty.]	[€]
FN 22 W25	510182	8,15	1,7	3,7	smooth	22	25	-	-	2	10	100	
FN 27 W25	510183	8,15	1,7	3,7	smooth	27	25	-	2	7	15	100	
FN 32 W25	510184	8,15	1,7	3,7	smooth	32	25	2	7	12	20	100	
FN 37 W25	510185	8,15	1,7	3,7	smooth	37	25	7	12	17	25	100	
FN 42 W25	510186	8,15	1,7	3,7	smooth	42	25	12	17	22	30	100	
FN 47 W25	510187	8,15	1,7	3,7	smooth	47	25	17	22	27	35	100	
FN 52 W25	510188	8,15	1,7	3,7	smooth	52	25	22	27	32	40	100	
FN 62 W25	510189	8,15	1,7	3,7	smooth	62	25	32	37	42	50	100	
FN 72 W25	510190	8,15	1,7	3,7	smooth	72	25	42	47	52	60	100	

## STUD WITH STANDARD CEILING BRACKET FNC



### Stud with standard ceiling bracket FNC

- Smooth shaft
- High-strength steel
- Ballistic tip
- Mechanically galvanised (minimum surface thickness 8 µm)
- With integrated tophat
- High setting quality



Type	Art. No.	Head diameter	Head thickness	Shaft diameter	Shaft type	Shaft length	Max. thickness of part to be fixed in concrete C16/20	Max. thickness of part to be fixed in concrete C20/25	Max. thickness of part to be fixed in concrete C30/37	Max. thickness of part to be fixed in steel $f_{yk}$ 360-510	Packaging	Price
		[mm]	[mm]	[mm]		[mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	[Qty.]	[€]
FNC 27	510191	8,15	1,7	3,7	smooth	27	-	-	-	-	100	
FNC 32	510192	8,15	1,7	3,7	smooth	32	-	-	-	-	100	



# Fastener elements for Power Drive F35

## STUD WITH UNIVERSAL CEILING BRACKET FNC-V



Stud with universal ceiling bracket **FNC-V**

- Smooth shaft
- High-strength steel
- Ballistic tip
- Mechanically galvanised (minimum surface thickness 8 µm)

■ Universal fixing possibilities



Type	Art. No.	Head diameter	Head thickness	Shaft diameter	Shaft type	Shaft length	Max. thickness of part to be fixed in concrete C16/20	Max. thickness of part to be fixed in concrete C20/25	Max. thickness of part to be fixed in concrete C30/37	Max. thickness of part to be fixed in steel $f_{yk}$ 360-510	Packaging	Price
		[mm]	[mm]	[mm]		[mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	[Qty.]	[€]
FNC 32 V	<b>510193</b>	<b>8,15</b>	1,7	3,7	smooth	32	-	-	-	-	100	

## STUD WITH CEILING BRACKET (LIGHTWEIGHT VERSION) FNC-L



Stud with ceiling bracket (lightweight version) **FNC-L**

- Smooth shaft
- High-strength steel
- Ballistic tip
- Mechanically galvanised (minimum surface thickness 8 µm)

■ Light version of lower loads



Type	Art. No.	Head diameter	Head thickness	Shaft diameter	Shaft type	Shaft length	Max. thickness of part to be fixed in concrete C16/20	Max. thickness of part to be fixed in concrete C20/25	Max. thickness of part to be fixed in concrete C30/37	Max. thickness of part to be fixed in steel $f_{yk}$ 360-510	Packaging	Price
		[mm]	[mm]	[mm]		[mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	[Qty.]	[€]
FNC 22 L	<b>510194</b>	<b>8,15</b>	1,7	3,7	smooth	22	-	-	-	-	100	
FNC 27 L	<b>510195</b>	<b>8,15</b>	1,7	3,7	smooth	27	-	-	-	-	100	

## STUD WITH CONICAL WASHER FN-C



Stud with conical washer **FN-C**

- Smooth shaft
- High-strength steel
- Ballistic tip
- Mechanically galvanised (minimum surface thickness 8 µm)



Type	Art. No.	Head diameter	Head thickness	Shaft diameter	Shaft type	Shaft length	Washer diameter max.	Max. thickness of part to be fixed in concrete C16/20	Max. thickness of part to be fixed in concrete C20/25	Max. thickness of part to be fixed in concrete C30/37	Max. thickness of part to be fixed in steel $f_{yk}$ 360-510	Packaging	Price
		[mm]	[mm]	[mm]		[mm]	[mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	[Qty.]	[€]
FN 22 C16	<b>510196</b>	<b>8,15</b>	1,7	3,7	smooth	22	16	-	3	2	10	100	
FN 27 C23	<b>510197</b>	<b>8,15</b>	1,7	3,7	smooth	27	23	-	2	7	15	100	

# Fastener elements for Power Drive F35

## STUD WITH THREADED SHAFT FN-M6/W6-20



Stud with threaded shaft **FN-M6/W6-20**

- Smooth shaft
- High-strength steel
- Ballistic tip
- Mechanically galvanised (minimum surface thickness 8 µm)



Type	Art. No.	Head guard diameter	Thread length	Thread	Thread type	Shaft diameter	Shaft type	Shaft length	Max. thickness of part to be fixed in concrete C16/20	Max. thickness of part to be fixed in concrete C20/25	Max. thickness of part to be fixed in concrete C30/37	Max. thickness of part to be fixed in steel $f_{yk}$ 360-510	Packaging	Price
<b>Metric Thread</b>		[mm]	[mm]			[mm]		[mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	[Qty.]	[€]
FN 22 M6-20	<b>510208</b>	<b>8,15</b>	20	M6	Metric	3,7	smooth	22	12	12	12	12	100	
FN 27 M6-20	<b>510209</b>	<b>8,15</b>	20	M6	Metric	3,7	smooth	27	12	12	12	12	100	
FN 32 M6-20	<b>510210</b>	<b>8,15</b>	20	M6	Metric	3,7	smooth	32	12	12	12	12	100	
<b>Whitworth Thread</b>														
FN 22 W6-20	<b>510211</b>	<b>8,15</b>	20	W6/(1/4")	BSW	3,7	smooth	22	12	12	12	12	100	
FN 27 W6-20	<b>510212</b>	<b>8,15</b>	20	W6/(1/4")	BSW	3,7	smooth	27	12	12	12	12	100	
FN 32 W6-20	<b>510213</b>	<b>8,15</b>	20	W6/(1/4")	BSW	3,7	smooth	32	12	12	12	12	100	

## STUD WITH THREADED SHAFT FNS-M6/W6-20



Stud with threaded shaft **FNS-M6/W6-20**

- Knurled shaft for maximum holding force in steel
- High-strength steel
- Ballistic tip
- Mechanically galvanised (minimum surface thickness 8 µm)

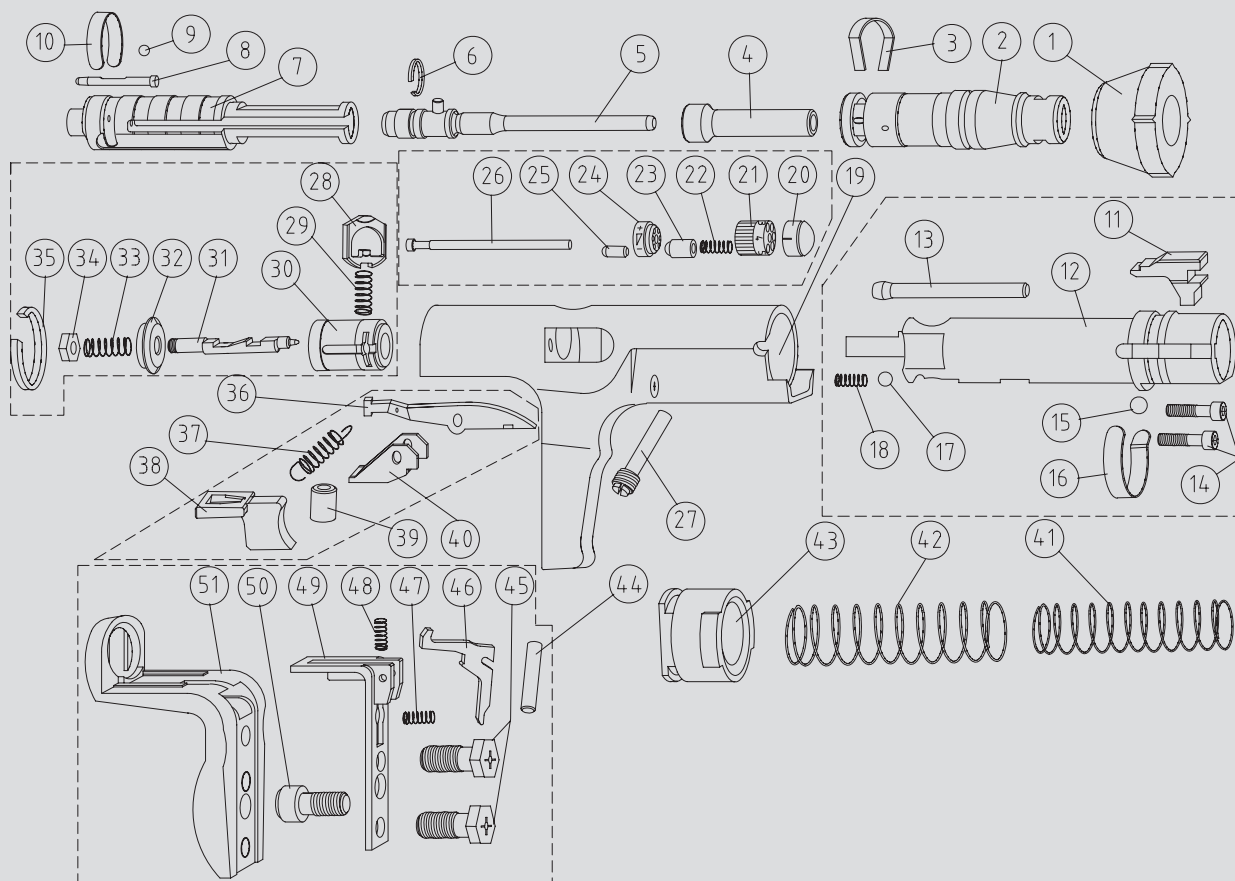


Type	Art. No.	Head guard diameter	Thread length	Thread	Thread type	Shaft diameter	Shaft type	Shaft length	Max. thickness of part to be fixed in concrete C16/20	Max. thickness of part to be fixed in concrete C20/25	Max. thickness of part to be fixed in concrete C30/37	Max. thickness of part to be fixed in steel $f_{yk}$ 360-510	Packaging	Price
<b>Metric Thread</b>		[mm]	[mm]			[mm]		[mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	[Qty.]	[€]
FNS 12 M6-20	<b>510218</b>	<b>8,15</b>	20	M6	Metric	3,7	knurled	12	12	12	12	12	100	
FNS 17 M6-28	<b>510219</b>	<b>8,15</b>	28	M6	Metric	3,7	knurled	17	20	20	20	20	100	
<b>Whitworth Thread</b>														
FNS 12 W6-20	<b>510220</b>	<b>8,15</b>	20	W6/(1/4")	BSW	3,7	knurled	12	12	12	12	12	100	
FNS 17 W6-28	<b>510221</b>	<b>8,15</b>	28	W6/(1/4")	BSW	3,7	knurled	17	20	20	20	20	100	

# Spare parts for Power Drive F35 Stud Driver

## SPARE PARTS

Power Drive F35 Stud Driver



Item	Art. No.	Description	Packaging [Qty.]	Price [€]
1	<b>510003</b>	Stabilizer	1	
2	<b>510004</b>	Baseplate 2/S-13 Standard	1	
3	<b>510005</b>	Shear clip	5	
4	<b>510006</b>	Fastener guide 2/F-3 Standard	5	
5	<b>510007</b>	Piston body assembly	5	
6	<b>510008</b>	Piston ring	10	
7	<b>510009</b>	Piston guide	1	
8	<b>510010</b>	Regulation pin	10	
9	<b>510011</b>	1/8" steel ball	10	
10	<b>510012</b>	C clip for piston guide	10	
11	<b>510013</b>	Piston stop	10	
12	<b>510014</b>	Steel liner assembly	1	
13	<b>510015</b>	Pressure pin	10	
14	<b>510016</b>	Front Allen cap screw M6x25	10	
15	<b>510017</b>	Steel ball	5	
16	<b>510018</b>	Annular ball spring	10	
17	<b>510019</b>	Strip pressure ball	10	
18	<b>510020</b>	Compression spring	10	
19	<b>510021</b>	Housing	1	
20	<b>510022</b>	Decorative bullet head	10	
21	<b>510023</b>	Regulation knob	5	
22	<b>510024</b>	Compression spring	10	
23	<b>510025</b>	Snap for knob head	10	
24	<b>510026</b>	Advance lever guide	5	
25	<b>510027</b>	Release lever pin	10	
26	<b>510028</b>	Release lever pin	10	

Item	Art. No.	Description	Packaging [Qty.]	Price [€]
27	<b>510029</b>	Threaded pin	10	
28	<b>510030</b>	Sear	10	
29	<b>510031</b>	Compression spring	10	
30	<b>510032</b>	Spring guide	5	
31	<b>510033</b>	Firing pin	10	
32	<b>510034</b>	Spring detent	10	
33	<b>510035</b>	Compression spring	10	
34	<b>510036</b>	Firing pin nut	10	
35	<b>510037</b>	Retention ring	10	
36	<b>510038</b>	Release lever	10	
37	<b>510039</b>	Advance lever spring	10	
38	<b>510040</b>	Trigger	5	
39	<b>510041</b>	Advance lever bushing	10	
40	<b>510042</b>	Advance lever guide	5	
41	<b>510043</b>	Firing pin spring (left-hand)	5	
42	<b>510044</b>	Firing pin spring (right-hand)	5	
43	<b>510045</b>	End cap	5	
44	<b>510046</b>	Release lever pin	10	
45	<b>510047</b>	Front cap screw	10	
46	<b>510048</b>	Release lever	10	
47	<b>510049</b>	Compression spring	10	
48	<b>510050</b>	Compression spring	10	
49	<b>510051</b>	Support strip assembly	10	
50	<b>510052</b>	Handle Allen screw	10	
51	<b>510053</b>	Rubber grip	1	
7-10	<b>510054</b>	Kit 1: Piston assembly guide	1	



# Power Drive F45 Stud Driver (12 mm tool)

## PRODUCT DESCRIPTION

The **Power Drive F45** Stud Driver is our most powerful fixing tool and the only stud driver on the market having an fastener guide with 12 mm diameter. It is a safe tool that can be employed for a wide range of applications by professional, certified users for driving elements of the fischer accessories product range developed specially for this field of application into concrete, steel, solid brick and solid lime-sand brick.

## YOUR BENEFITS AT A GLANCE

- Minimum backlash due to optimised element insertion
- For the toughest applications
  - The only stud driver for 12 mm studs
- Low noise level
  - Thanks to integrated silencer
- Optimum adaptation
  - 4 cartridge strengths and 6-step power control
- Maximum power
  - up to 72 mm long fastener elements can be driven without preloading

## POWER DRIVE F45 STUD DRIVER



PTB  
S 819

Power Drive **F45** Stud Driver

Type	Art. No.	Weight	Tool length (max.)	Maximum length of the fastener elements	Recommended maximum driving frequency	Power control	Packaging	Outer packing	Price
		[kg]	[mm]	[mm]	[studs/h]		[Qty.]	[Qty.]	[€]
F45	510070	3,10	350	72	500	4 cartridge strengths and 6-step power control by means of regulation knob	1	3	

# Replacements for scope of supply and further accessories for F45

## SPARE PARTS / ACCESSORIES

Item	Art. No.	Description	Packaging [Qty.]	Price [€]
1	510258	Ear protector with strap	1	
2	510147	Stabilizer	1	
3	510131	Holding ring	5	
4	510111	Rubber ring	5	
5	510108	Stop ring	5	
6a - 6d	510257	F45 cleaning kit: Brushes (3), thrust rod (1)	1	
7	510259	Safety goggles, standard model	1	
8	510071	F45 transport case	1	
1)	510072	F45 operating manual, EN	1	
1)	510253	F45 operating manual, DE	1	
1)	510254	F45 operating manual, PT	1	
1)	510255	F45 operating manual, ES	1	

1) not illustrated



## FSC safety cartridge strips for F45

### PRODUCT DESCRIPTION

- Cartridges with 4 different power classes are available for the fischer Power Drive F45 Stud Driver.
- The cartridges can be distinguished by their colour.
- The power class of the fischer safety cartridges is shown as a number (see table / power class) on each cartridge package.
- The higher the number, the higher the power class.
- The power class is also indicated by the colour of the package, the label, a colour mark on the tip of each cartridge and the plastic strip.
- For users with colour blindness, a combination of numbers and colours is used on the package.

### FSC SAFETY CARTRIDGE STRIPS



FSC safety cartridge strips

Type	Art. No.	Test certificate number of the system approval	Size	Size	Colour of the cartridges	Power of the cartridges	Power class	Cartridges Also suitable for use in stud drivers from the following manufacturers:	Packaging	Price
			[mm]	[inch]		[DIN 7260]	[DIN 7260 / ANSI A10.3:2006]		[Qty.]	[€]
FSC GR	<b>510222</b>	PTB SY 819 FW13	6,8/11	.27	green	Low charge	3 / 3		100	
FSC YE	<b>510223</b>	PTB SY 819 FW14	6,8/11	.27	yellow	Medium charge	4 / 4		100	
FSC RE	<b>510225</b>	PTB SY 819 FW16	6,8/11	.27	red	Very high charge	6 / 5		100	
FSC BL	<b>510227</b>	PTB SY 819 FW17	6,8/11	.27	black	Highest charge	7 / 6		100	

## Fastener elements for Power Drive F45

### STUD FK

#### Stud FK

- Smooth shaft
- High-strength steel
- Ballistic tip
- Mechanically galvanised (minimum surface thickness 8 µm)

- Steel washer Ø12 mm



Type	Art. No.	Washer diameter	Head diameter	Head thickness	Shaft diameter	Shaft type	Shaft length	Max. thickness of part to be fixed in concrete C16/20	Max. thickness of part to be fixed in concrete C20/25	Max. thickness of part to be fixed in concrete C30/37	Max. thickness of part to be fixed in steel f <sub>yk</sub> 360-510	Packaging	Price
		[mm]	[mm]	[mm]	[mm]		[mm]	t <sub>fix</sub> [mm]	t <sub>fix</sub> [mm]	t <sub>fix</sub> [mm]	t <sub>fix</sub> [mm]	[Qty.]	[€]
FK 16	<b>510262</b>	12	5,7	2,5	3,7	smooth	16	-	-	-	3	200	
FK 19	<b>510169</b>	12	5,7	2,5	3,7	smooth	19	-	-	-	5	200	
FK 22	<b>510170</b>	12	5,7	2,5	3,7	smooth	22	-	-	2	10	200	
FK 27	<b>510171</b>	12	5,7	2,5	3,7	smooth	27	-	2	7	15	200	
FK 32	<b>510172</b>	12	5,7	2,5	3,7	smooth	32	2	7	12	20	100	
FK 37	<b>510173</b>	12	5,7	2,5	3,7	smooth	37	7	12	17	25	100	
FK 42	<b>510174</b>	12	5,7	2,5	3,7	smooth	42	12	17	22	30	100	
FK 47	<b>510175</b>	12	5,7	2,5	3,7	smooth	47	17	22	27	35	100	
FK 54	<b>510176</b>	12	5,7	2,5	3,7	smooth	54	24	29	34	42	100	
FK 57	<b>510177</b>	12	5,7	2,5	3,7	smooth	57	27	32	37	45	100	
FK 62	<b>510178</b>	12	5,7	2,5	3,7	smooth	62	32	37	42	50	100	
FK 72	<b>510179</b>	12	5,7	2,5	3,7	smooth	72	42	47	52	60	100	
FK 82	<b>510263</b>	12	5,7	2,5	3,7	smooth	82	52	57	62	70	100	
FK 92	<b>510264</b>	12	5,7	2,5	3,7	smooth	92	62	67	72	80	100	

# Fastener elements for Power Drive F45

## STUD FKS



### Stud FKS

- Knurled shaft for maximum holding force in steel
- High-strength steel
- Ballistic tip
- Mechanically galvanised (minimum surface thickness 8 µm)



Type	Art. No.	Washer diameter	Head diameter	Head thickness	Shaft diameter	Shaft type	Shaft length	Max. thickness of part to be fixed in concrete C16/20	Max. thickness of part to be fixed in concrete C20/25	Max. thickness of part to be fixed in concrete C30/37	Max. thickness of part to be fixed in steel $f_{yk}$ 360-510	Packaging	Price
		[mm]	[mm]	[mm]	[mm]		[mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	[Qty.]	[€]
FKS 16	510180	12	5,7	2,5	3,7	knurled	16	-	-	-	4	100	
FKS 19	510181	12	5,7	2,5	3,7	knurled	19	-	-	-	7	100	

## THREADED STUD FK-M6/W6-20



### Threaded stud FK-M6/W6-20

- Smooth shaft
- High-strength steel
- Ballistic tip
- Mechanically galvanised (minimum surface thickness 8 µm)



Type	Art. No.	Washer diameter	Thread length	Thread	Thread type	Shaft diameter	Shaft type	Shaft length	Max. thickness of part to be fixed in concrete C16/20	Max. thickness of part to be fixed in concrete C20/25	Max. thickness of part to be fixed in concrete C30/37	Max. thickness of part to be fixed in steel $f_{yk}$ 360-510	Packaging	Price
		[mm]	[mm]			[mm]		[mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	[Qty.]	[€]
<b>Metric Thread</b>														
FK 22 M6-20	510202	12	20	M6	Metric	3,7	smooth	22	12	12	12	12	100	
FK 27 M6-20	510203	12	20	M6	Metric	3,7	smooth	27	12	12	12	12	100	
FK 32 M6-20	510204	12	20	M6	Metric	3,7	smooth	32	12	12	12	12	100	
<b>Whitworth Thread</b>														
FK 22 W6-20	510205	12	20	W6/(1/4")	BSW	3,7	smooth	22	12	12	12	12	100	
FK 27 W6-20	510206	12	20	W6/(1/4")	BSW	3,7	smooth	27	12	12	12	12	100	
FK 32 W6-20	510207	12	20	W6/(1/4")	BSW	3,7	smooth	32	12	12	12	12	100	

## THREADED STUD FKS-M6/W6-20



### Threaded stud FKS-M6/W6-20

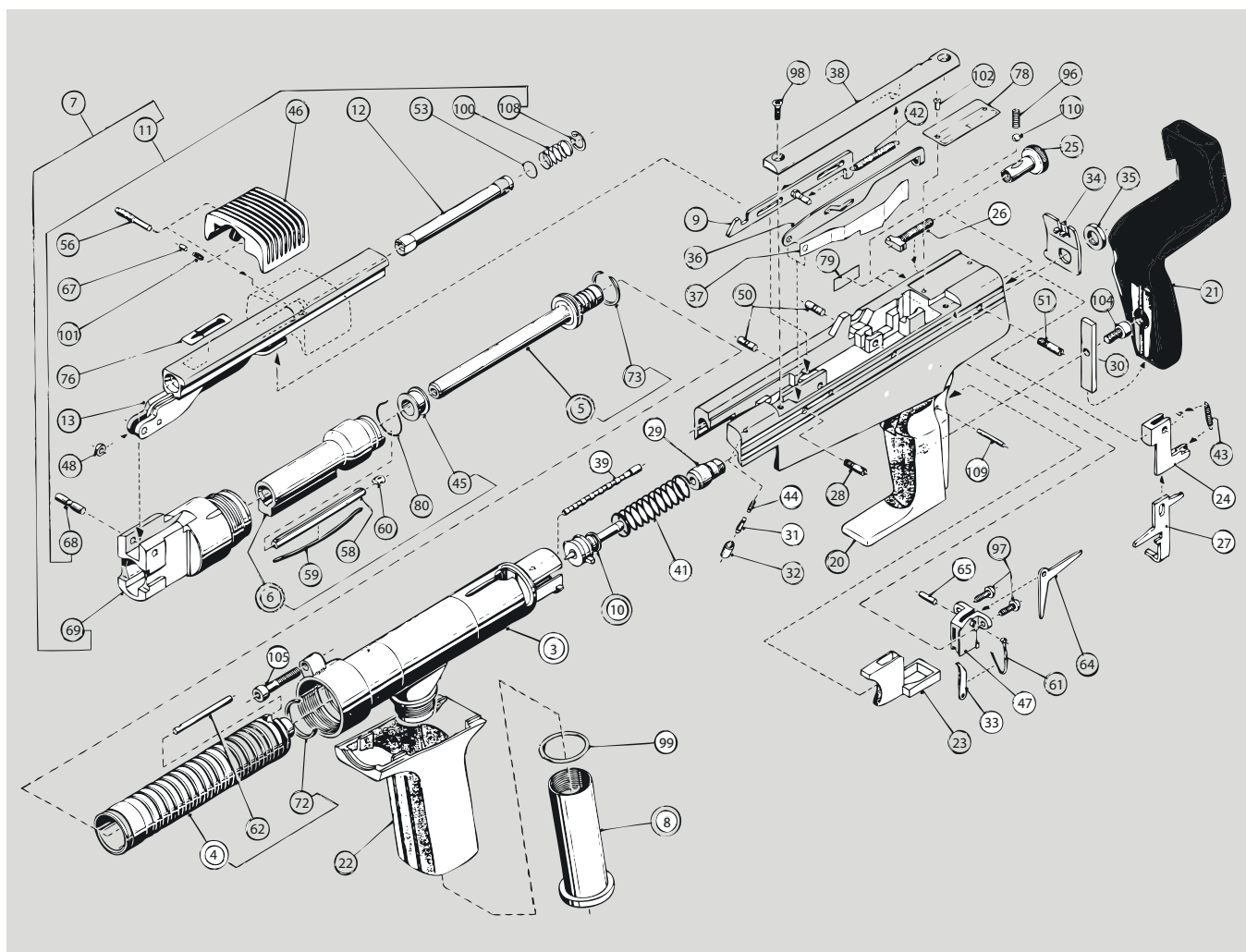
- Knurled shaft for maximum holding force in steel
- High-strength steel
- Ballistic tip
- Mechanically galvanised (minimum surface thickness 8 µm)



Type	Art. No.	Washer diameter	Thread length	Thread	Thread type	Shaft diameter	Shaft type	Shaft length	Max. thickness of part to be fixed in concrete C16/20	Max. thickness of part to be fixed in concrete C20/25	Max. thickness of part to be fixed in concrete C30/37	Max. thickness of part to be fixed in steel $f_{yk}$ 360-510	Packaging	Price
		[mm]	[mm]			[mm]		[mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	[Qty.]	[€]
<b>Metric Thread</b>														
FKS 12 M6-20	510214	12	20	M6	Metric	3,7	knurled	12	-	-	-	12	100	
FKS 17 M6-28	510215	12	28	M6	Metric	3,7	knurled	17	-	-	-	20	100	
<b>Whitworth Thread</b>														
FKS 12 W6-20	510216	12	20	W6/(1/4")	BSW	3,7	knurled	12	-	-	-	12	100	
FKS 17 W6-28	510217	12	28	W6/(1/4")	BSW	3,7	knurled	17	-	-	-	20	100	

# Spare parts for Power Drive F45 Stud Driver

## SPARE PARTS



Power Drive F45 Stud Driver

Item	Art. No.	Description	Packaging [Qty.]	Price [€]
3	<b>510073</b>	Steel insert assembly	1	
4	<b>510074</b>	Piston assembly guide	1	
5	<b>510075</b>	Piston 45/NK with ring	5	
6	<b>510076</b>	Fastener guide 45/F1	2	
7	<b>510077</b>	Fastener guide 45/S1	1	
8	<b>510078</b>	Silencer assembly	1	
9	<b>510079</b>	Loading slide assembly	5	
10	<b>510080</b>	Firing pin assembly	5	
11	<b>510081</b>	Loading lever assembly	1	
12	<b>510082</b>	Plunger assembly	5	
20	<b>510084</b>	Housing	1	
21	<b>510085</b>	Rubber grip	1	
22	<b>510086</b>	Shell	1	
23	<b>510087</b>	Trigger	5	
24	<b>510088</b>	Sear guide	5	
25	<b>510089</b>	Setting wheel	5	
26	<b>510090</b>	Release lever pin	5	
27	<b>510091</b>	Sear	10	
28	<b>510092</b>	Front cap screw	10	
29	<b>510093</b>	Spring guide	5	
30	<b>510094</b>	Support strip	5	
31	<b>510095</b>	Release lever pin	10	
32	<b>510096</b>	Advance lever bushing	10	

Item	Art. No.	Description	Packaging [Qty.]	Price [€]
33	<b>510097</b>	Magazine lock	10	
34	<b>510098</b>	Baseplate	5	
35	<b>510099</b>	Firing pin nut	10	
36	<b>510100</b>	Transport lever	5	
37	<b>510101</b>	Leaf spring	5	
38	<b>510102</b>	Cover plate	5	
39	<b>510103</b>	Release lever pin	10	
41	<b>510104</b>	Compression spring	10	
42	<b>510105</b>	Advance lever spring	10	
43	<b>510106</b>	Advance lever spring	10	
44	<b>510107</b>	Compression spring	10	
45	<b>510108</b>	Stop ring	5	
46	<b>510109</b>	Loading handle	1	
47	<b>510110</b>	Holder	5	
48	<b>510111</b>	Shear clip	5	
50	<b>510112</b>	Stud	10	
51	<b>510113</b>	Front cap screw	10	
52	<b>510144</b>	Loading lever	10	
53	<b>510114</b>	Washer	10	
56	<b>510115</b>	Threaded pin	10	
58	<b>510116</b>	Lock	5	
59	<b>510117</b>	Formed spring	10	
60	<b>510118</b>	Stud	10	



# Spare parts for Power Drive F45 Stud Driver

## SPARE PARTS

Item	Art. No.	Description	Packaging [Qty.]	Price [€]
61	510119	Formed spring	10	
62	510120	Pressure pin	10	
64	510121	Release lever	5	
65	510122	Roll pin	10	
67	510123	Friction pin	10	
68	510124	Stud	10	
69	510125	Holder 45/S1	1	
72	510126	Holding ring	10	
73	510127	Piston ring	10	
76	510128	Fastener symbol	10	
78	510129	Rating plate	1	
80	510131	Holding ring	5	

Item	Art. No.	Description	Packaging [Qty.]	Price [€]
96	510132	Compression spring 0.5 x 5.3 x 121	10	
97	510133	Self-tapping screw M4x12	10	
98	510134	Self-tapping screw M4x12	10	
99	510135	O-ring 32x3	10	
100	510136	Compression spring 1 x 12.5 x 21	10	
101	510137	Compression spring 0.5 x 2.8 x 21	10	
104	510139	Allen cap screw M6x12	10	
105	510140	Allen cap screw M6x30	10	
108	510141	Retention ring 13x1	10	
109	510142	Roll pin 3x24	10	
110	510143	Strip pressure ball	10	



Power Drive F45 Stud Driver

## Pins in magazine for 8 mm stud drivers with magazine

### PRODUCT DESCRIPTION

- The FN stud is suitable for the permanent and temporary fixing of fasteners in structural steel, concrete, solid brick and solid lime-sand brick.
- The FNS stud is designed for the permanent and temporary fixing of fasteners in structural steel.
- The studs are supplied in magazines with 10 studs.
- Studs in magazines can only be used in stud drivers having a suitable magazine.

### STUDS FN - IN MAGAZINE

#### Studs **FN** - in magazine



- Smooth shaft
- High-strength steel
- Ballistic tip
- Mechanically galvanised (minimum surface thickness 8 µm)



Type	Art. No.	Head diameter	Head thickness	Shaft diameter	Shaft type	Shaft length	Number of studs in magazine	Max. thickness of part to be fixed in concrete C16/20	Max. thickness of part to be fixed in concrete C20/25	Max. thickness of part to be fixed in concrete C30/37	Max. thickness of part to be fixed in steel $f_{yk}$ 360-510	Packaging	Price
		[mm]	[mm]	[mm]		[mm]	[Qty.]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	[Qty.]	[€]
FN 22 M	<b>510200</b>	<b>8,15</b>	1,7	3,7	smooth	22	10	-	-	2	10	200	
FN 27 M	<b>510201</b>	<b>8,15</b>	1,7	3,7	smooth	27	10	-	2	7	15	100	

### STUDS FNS - IN MAGAZINE

#### Studs **FNS** - in magazine



- Knurled shaft for maximum holding force in steel
- High-strength steel
- Ballistic tip
- Mechanically galvanised (minimum surface thickness 8 µm)



Type	Art. No.	Head diameter	Head thickness	Shaft diameter	Shaft type	Shaft length	Number of studs in magazine	Max. thickness of part to be fixed in concrete C16/20	Max. thickness of part to be fixed in concrete C20/25	Max. thickness of part to be fixed in concrete C30/37	Max. thickness of part to be fixed in steel $f_{yk}$ 360-510	Packaging	Price
		[mm]	[mm]	[mm]		[mm]	[Qty.]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	$t_{fix}$ [mm]	[Qty.]	[€]
FNS 16 M	<b>510198</b>	<b>8,15</b>	1,7	3,7	knurled	16	10	-	-	-	4	200	
FNS 19 M	<b>510199</b>	<b>8,15</b>	1,7	3,7	knurled	19	10	-	-	-	7	200	



## Explanation of the pictograms

### PTB APPROVAL SYMBOL



The fischer Power Drive F35 Stud Driver is type-approved and system-tested. The tool therefore bears the approval symbol of the PTB in square form with the approval number S 818. fischer thereby guarantees the conformity with the approved design. Faults discovered during use must be reported to the responsible head of the approvals authority (PTB) and to the office of the Permanent International Commission for Firearms Testing (C.I.P.).



The fischer Power Drive F45 Stud Driver is type-approved and system-tested. The tool therefore bears the approval symbol of the PTB in square form with the approval number S 819. fischer thereby guarantees the conformity with the approved design. Faults discovered during use must be reported to the responsible head of the approvals authority (PTB) and to the office of the Permanent International Commission for Firearms Testing (C.I.P.).

### MATERIAL SUITABILITY



fischer studs marked with this pictogram are suitable for applications in concrete, solid brick and solid lime-sand brick.

#### Fixing in concrete

##### Effective anchoring depth ( $h_{ef}$ )

For fixtures in concrete, the effective anchoring depth ( $h_{ef}$ ) is the determining factor for the selection of the appropriate fastener element. The effective anchoring depth ( $h_{ef}$ ) is dependent on the compressive strength of the concrete.

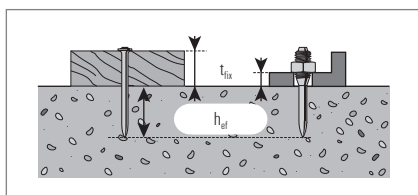
Compressive strength of concrete	Effective anchoring depth ( $h_{ef}$ )
C16/20	30 - 35 mm *
C20/25	25 - 30 mm *
C30/37	20 - 25 mm *

\* The values shown are indicative values. Several test fixings should be carried out in the base material to determine the exact values for the installation situation.

##### Correct shaft length of the fastener element

The correct shaft length ( $L$ ) is determined by the thickness of the part to be fixed ( $t_{fix}$ ) and the effective anchoring depth ( $h_{ef}$ ) using the following formula:

$$L = t_{fix} + h_{ef}$$



For fixtures with stud bolts, the necessary shaft length corresponds to the effective anchoring depth ( $h_{ef}$ ), the thickness of the part to be fixed ( $t_{fix}$ ) does not have to be taken into consideration.



fischer studs marked with this pictogram are suitable for applications in steel with a thickness  $\geq 4$  mm.

#### Fixing in steel

##### Effective anchoring depth ( $h_{ef}$ )

For fixtures in steel, the effective anchoring depth ( $h_{ef}$ ) is the determining factor for the selection of the appropriate fastener element. The effective anchoring depth ( $h_{ef}$ ) is dependent on the tensile strength of the steel.

Tensile strength of the steel ( $f_{uk}$ )	Effective anchoring depth ( $h_{ef}$ )
360 N/mm <sup>2</sup>	12 mm
510 N/mm <sup>2</sup>	10 mm

\* The values shown are indicative values. Several test fixings should be carried out in the base material to determine the exact values for the installation situation.

##### Correct shaft length of the fastener element

The correct shaft length ( $L$ ) is determined by the thickness of the part to be fixed ( $t_{fix}$ ) and the effective anchoring depth ( $h_{ef}$ ). If proper penetration of the base material is desired, an allowance of 6 mm must be made (see following formulae).

Correct shaft length without penetration of the base material:

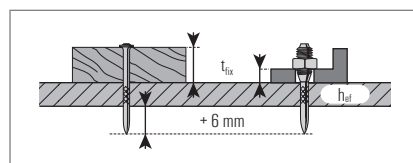
$$L = t_{fix} + h_{ef}$$

Correct shaft length with proper penetration of the base material:

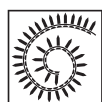
$$L = t_{fix} + h_{ef} + 6 \text{ mm}$$

For fixtures with stud bolts, the necessary shaft length corresponds to the effective anchoring depth ( $h_{ef}$ ) plus 6 mm allowance, the thickness of the part to be fixed ( $t_{fix}$ ) does not have to be taken into consideration.

$$L = h_{ef} + 6 \text{ mm}$$



### STUDS IN MAGAZINE



fischer studs marked with this pictogram are supplied in magazines with 10 studs and can only be used in stud drivers having a suitable magazine.

## fischer FIXPERIENCE.

### The design and information software suite.



- The modular design program includes engineering software and application modules.
- The software is based on international design standards (ETAG 001 and EC2, such as EC1, EC3 and EC5), including the national application documents. All common force and measurement units are available.
- Incorrect input will be recognized and the software gives tips to get a correct result. This ensures a safe and reliable design every time.
- The graphical display can easily be rotated through 360°, panned, tilted or zoomed as required.
- The 3D display gives a detailed and realistic image.
- The "live update" feature helps to keep the program up to date ensuring you are always working with the latest version.
- Free download and updates at [www.fischer.de/fixperience-en](http://www.fischer.de/fixperience-en)

## Our service to you.



We are available to you at any time as a reliable partner to offer technical support and advice:

- Our products range from chemical resin systems to steel anchors through to nylon anchors.
- Competence and innovation through own research, development and production.
- Global presence and active sales service in over 100 countries.
- Qualified technical consulting for economical and compliant fastening solutions. Also on-site at the construction site if requested.
- Training sessions, some with accreditation, at your premises or at the fischer ACADEMY.
- Design and construction software for demanding applications.

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