

Guide unit

with plain bearings

Type FEN-...

with ball bearings:

Type FEN-...-KF

The guide unit is used to secure standard cylinders against piston rod rotation and from powerful torques.

It offers highly precise guidance when conveying workpieces and for other uses (handling technology).

Note:

Non-contacting proximity sensing is possible with cylinder types DSNU-...-A and DNU-...-A.

Accessories:

For non-contacting proximity sensing the following kits are required for attaching the proximity switches:

For cylinders DSNU-...-A
attachment kit SMBR-...

For cylinder type DNU-...-A with piston
dias. 32 to 50 mm

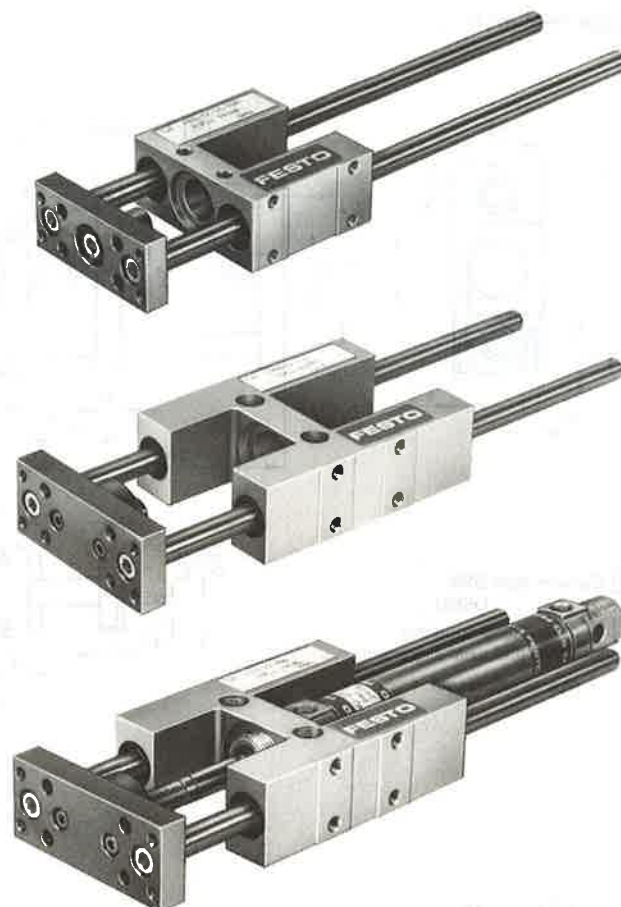
Order code

38 173 SMBU-1-B

with piston dias. 63 to 100 mm

Order code

36 174 SMBU-2-B



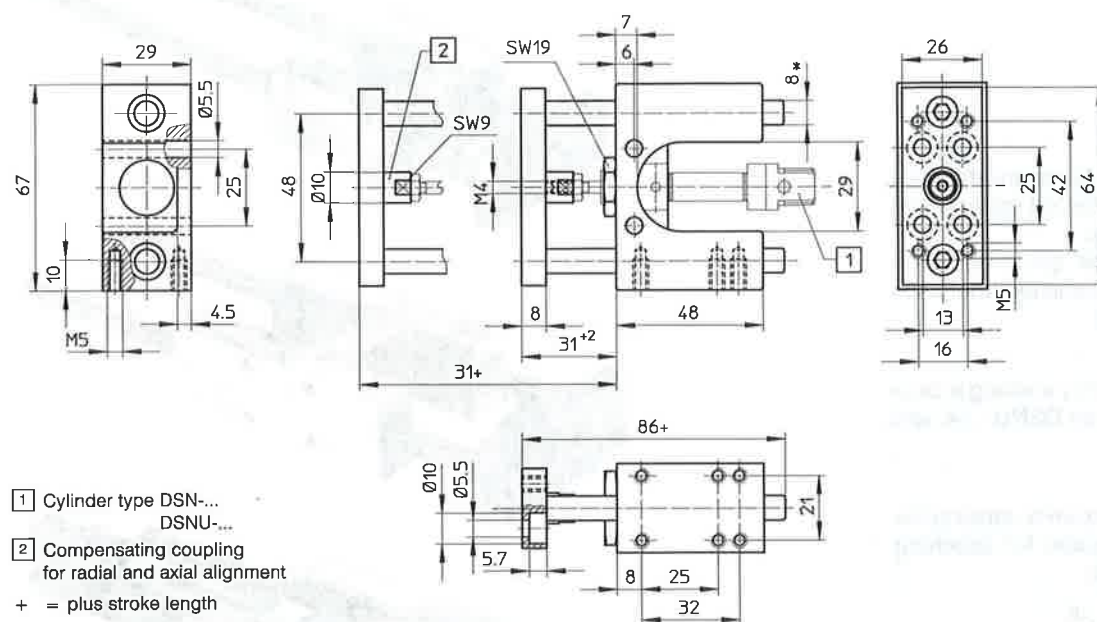
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Matching guide unit and cylinder

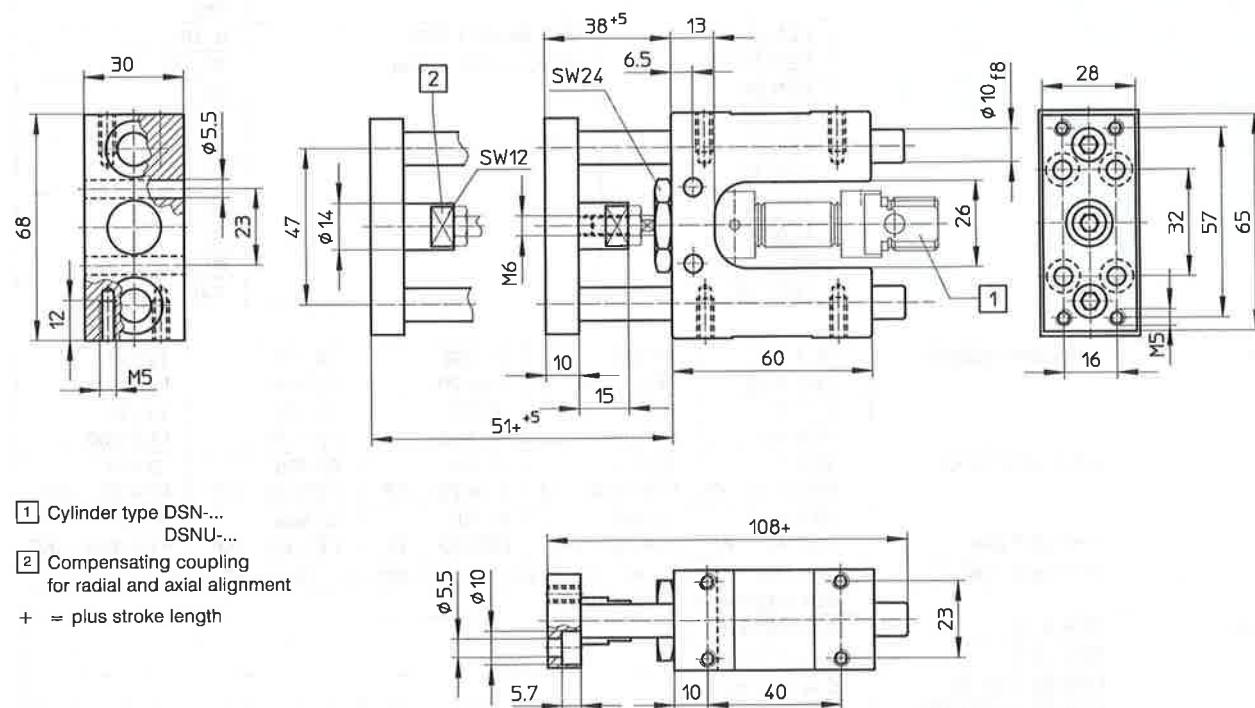
Type	for cylinder type	Piston dia. mm
FEN-8/10	DSN (sheet 1.230)	8, 10
FEN-12/16	DSNU (sheet 1.236)	12, 16
FEN-20		20
FEN-25		25
FEN-32	DNU (sheet 1.274)	32
FEN-40		40
FEN-50		50
FEN-63		63
FEN-80		80
FEN-100		100

Order code	with plain bearings	35 196 FEN-8/10-...	19 168 FEN-12/16-...	19 169 FEN-20-...	19 170 FEN-25-...	19 171 FEN-32-...
		19 172 FEN-40-...	19 173 FEN-50-...	19 174 FEN-63-...	19 175 FEN-80-...	19 176 FEN-100-...
	with ball bearings	35 197 FEN-8/10-...-KF	33 481 FEN-12/16-...-KF	33 482 FEN-20-...-KF	33 483 FEN-25-...-KF	33 484 FEN-32-...-KF
		33 485 FEN-40-...-KF	33 486 FEN-50-...-KF	33 487 FEN-63-...-KF	33 488 FEN-80-...-KF	33 489 FEN-100-...-KF
	Part No./Type					
	Example of order	Piston dia. 63 mm, stroke length 50 mm, with plain bearing = 19 174 FEN-63-50				
Loads	see diagram on sheet 1.330.1					
Stroke length	FEN-8/10	0 to 100 mm				
	FEN-12/16	0 to 200 mm				
	FEN-20, FEN-25	0 to 250 mm				
	FEN-32 to FEN-100	0 to 500 mm				
Temperature range	– 20 to +80 °C					
Materials	Guide: Al; Plate, Guide rods, coupling; steel Bearing: sintered bronze					
Weight kg		Ø 8/10:	Ø 12/16:	Ø 20:	Ø 25:	Ø 32:
		Ø 40:	Ø 50:	Ø 63:	Ø 80:	Ø 100:

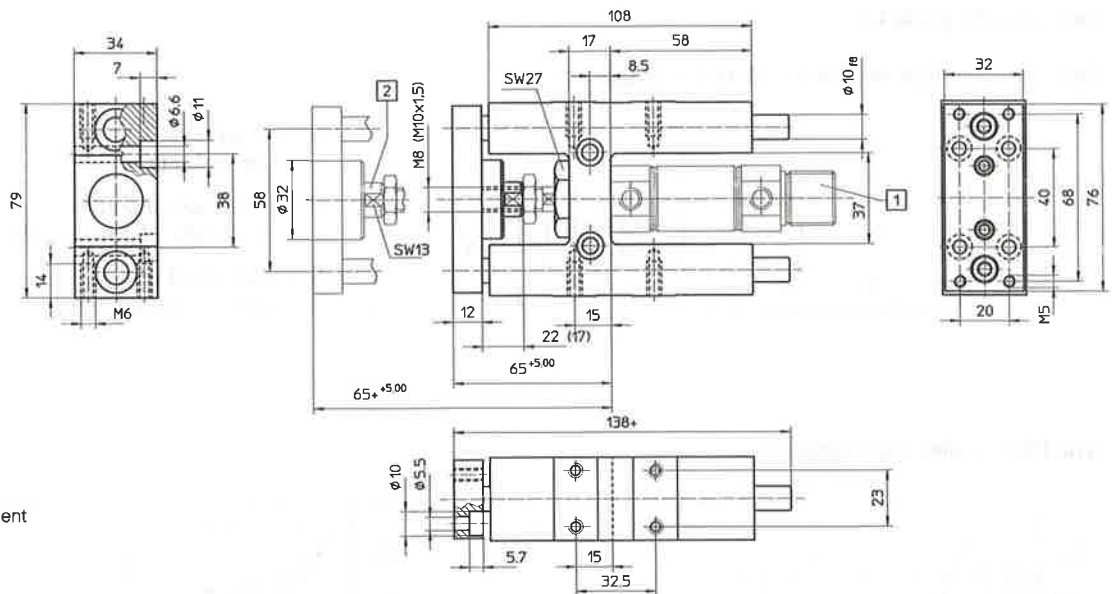
Type FEN-8/10-...



Type FEN-12/16-...

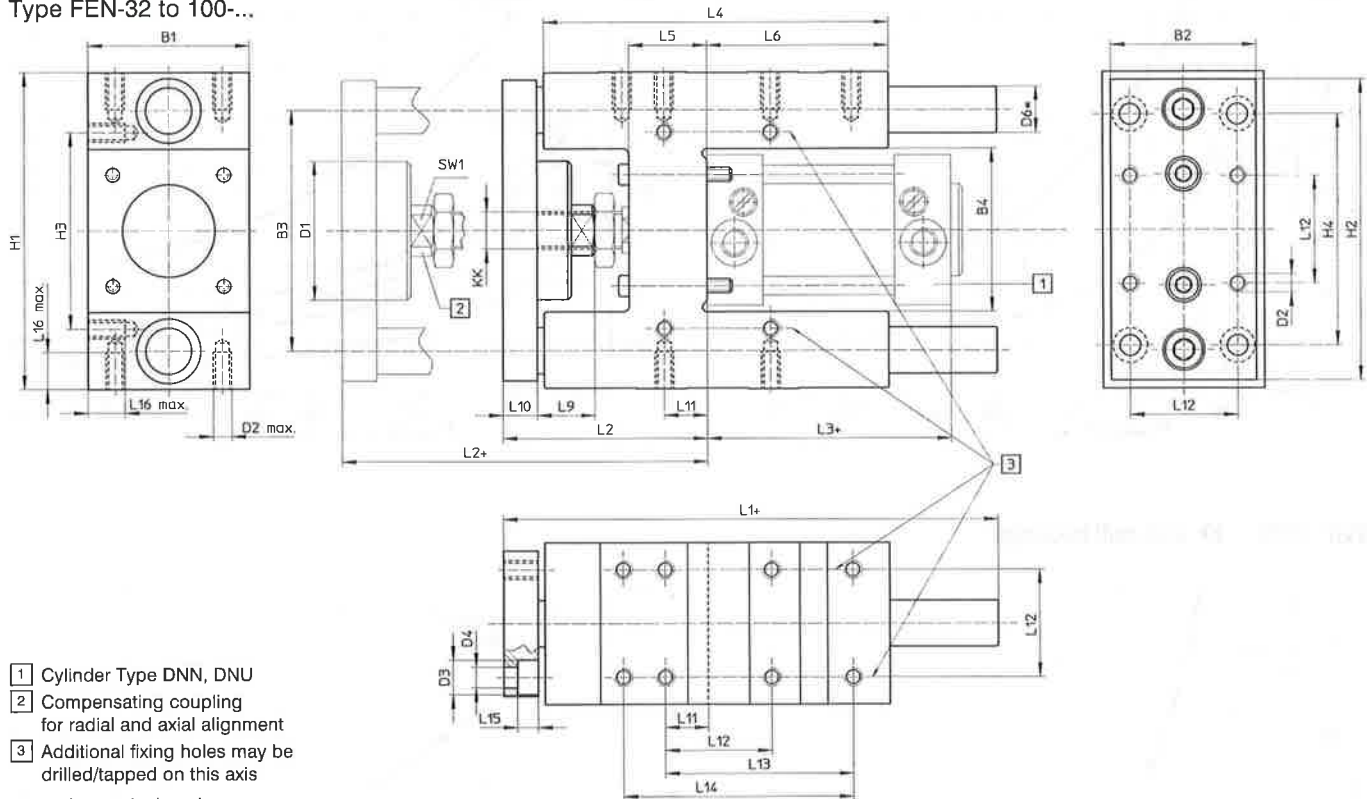


Type FEN-20-...
FEN-25-...



- 1 Cylinder Type DSN-...
DSNU-...
- 2 Compensating coupling
for radial and axial alignment
- + = plus stroke length

Type FEN-32 to 100-...



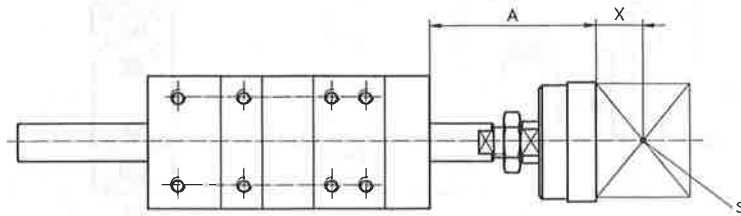
- 1 Cylinder Type DNN, DNU
- 2 Compensating coupling
for radial and axial alignment
- 3 Additional fixing holes may be
drilled/tapped on this axis
- + = plus stroke length

Type	B ₁	B ₂	B ₃	B ₄	D ₁ Ø	D ₂ Ø	D ₃ Ø	D ₄ Ø	D ₆ * Ø	H ₁	H ₂	H ₃	H ₄	KK	L ₁	L ₂	L ₃	L ₄	L ₅	L ₆
FEN- 32	50	45	74	50.5	45	M6	11	6.6	12	97	90	61	78	M10 x 1.25	155	67 ⁺⁵	94	125	24	76
FEN- 40	58	54	87	58.5	45	M6	11	6.6	16	115	110	69	84	M12 x 1.25	170	74 ⁺⁵	105	140	28	81
FEN- 50	70	63	104	70.5	60	M8	15	9	20	137	130	85	100	M16 x 1.5	188	89 ⁺¹⁰	106	150	34	79
FEN- 63	85	80	119	85.5	60	M8	15	9	20	152	145	100	105	M16 x 1.5	220	89 ⁺¹⁰	115	182	34	111
FEN- 80	105	100	148	106	78	M10	18	11	25	189	180	130	130	M20 x 1.5	258	110 ⁺¹⁰	124	215	40	128
FEN-100	130	120	172	131	78	M10	18	11	25	213	200	150	150	M20 x 1.5	263	115 ⁺¹⁰	134	220	40	128
Type	L ₉	L ₁₀	L ₁₁	L ₁₂	L ₁₃	L ₁₄	L ₁₅	L ₁₆	SW ₁											
FEN- 32	20	12	4.3	32.5	70.3	78	6.5	12	15											
FENG- 40	22	12	11	38	84	—	6.5	14	15											
FENG- 50	25	15	18.8	46.5	81.8	100	9	16	19											
FEN- 63	25	15	15.3	56.5	105	—	9	16	19											
FEN- 80	32	20	21	72	—	—	11	20	27											
FEN-100	32	20	24.5	89	—	—	11	20	27											

* FEN-...: f8
FEN-...-KF: h6

Loads on the guide unit

Maximum permissible load in relation to projection

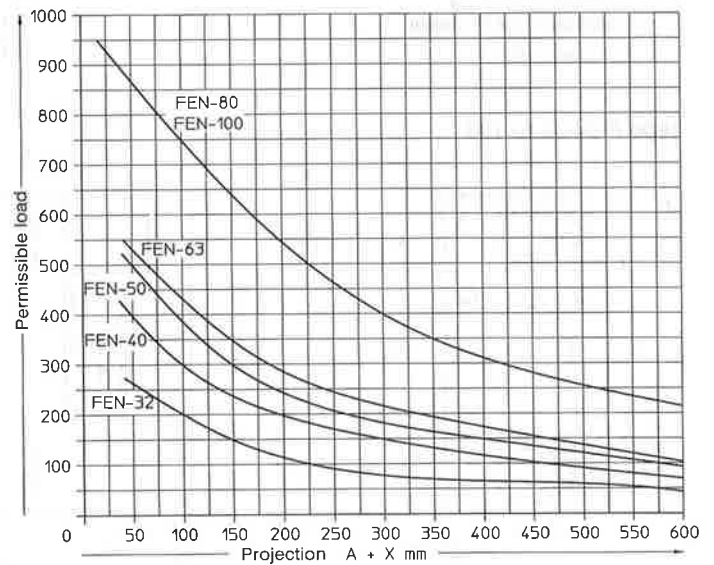
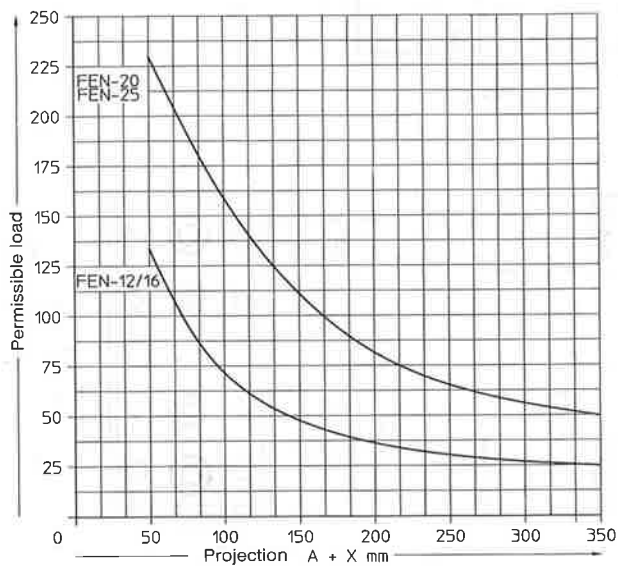


A = Projection
for deflection

X = Distance of centre
of gravity of permissible load

S = Centre of gravity
of permissible load

Type FEN-... with plain bearings



Type FEN-...-KF with ball bearings

