



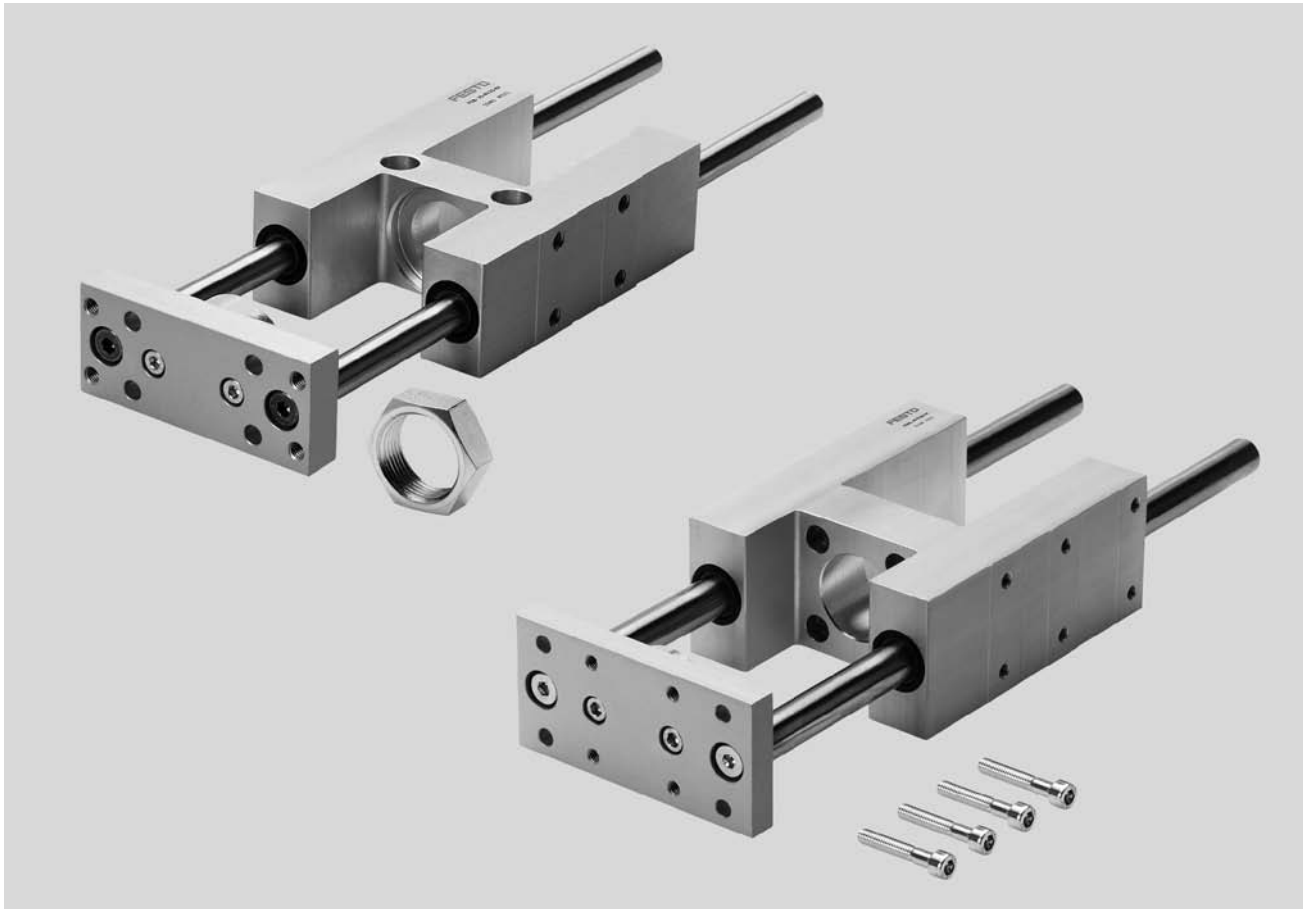
- High-precision guiding for types DSNU, DNC and DNG cylinders
- Protects cylinders against rotation due to torque loads
- Plain-bearing and recirculating ball bearing guide versions available

Product range overview				
Function	Version	Type	For piston Ø [in]	Stroke [in]
For DSNU cylinders Ø 5/16 to 1 inch	Plain-bearing guide	FEN	5/16, 3/8, 1/2, 5/8, 3/4, 1	0.04 ... 10.0
	KF Recirculating ball bearing guide	FEN	5/16, 3/8, 1/2, 5/8, 3/4, 1	0.04 ... 10.0
For DNC and DNG cylinders	Plain-bearing guide	FENG	1-1/4, 1-5/8, 2, 2-1/2, 3, 4	0.4 ... 20.0
	KF Recirculating ball bearing guide	FENG	1-1/4, 1-5/8, 2, 2-1/2, 3, 4	0.4 ... 20.0

Guide units FEN/FENG for Inch Series cylinders

Product range overview

FESTO



Description

Guide units FEN and FENG provide high precision guidance for workpiece handling and other handling applications.

Guide unit FEN for DSNU cylinders.
Applicable pneumatic cylinders:

- \varnothing 5/16 ... 1 inch: DSNU

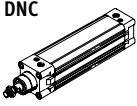
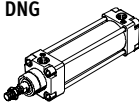
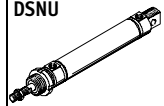
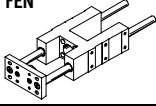
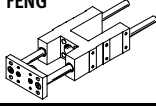
Guide unit FENG for cylinders DNC and DNG.

Applicable pneumatic cylinders:

- Profile cylinder DNC
- Tie-rod cylinder DNG

Guide units FEN/FENG for Inch Series cylinders

Product range overview

Overview			
Guided unit	Cylinder		
	DNC 	DNG 	DSNU 
FEN 	-	-	■ Ø 5/16 ... 1
FENG 	■	■	-

Position sensing

When the cylinders DSNU-...-A or DNG-...-A are used, the piston position can be detected by proximity

sensors. These sensors require mounting kits which are listed in the table on the right.

Cylinder	Piston Ø	Mounting kits
DNG-...-A	1-1/4 ... 2	SMB-2-B
	2-1/2 ... 4	SMB-3-B
DSNU-...-A	5/16 ... 1	SMBR-...
DNC-...-A	1-1/4 ... 4	SMB-8-FENG-...

Note

The cylinders DNC-...-A have integrated sensor slots and thus do not normally require mounting kits. However, when a cylinder DNC-...-A is combined with the guide unit FENG,

the mounting kit SMB-8-FENG-... is required due to the covered front mounting position of the proximity sensor.

Guide units FEN/FENG for Inch Series cylinders

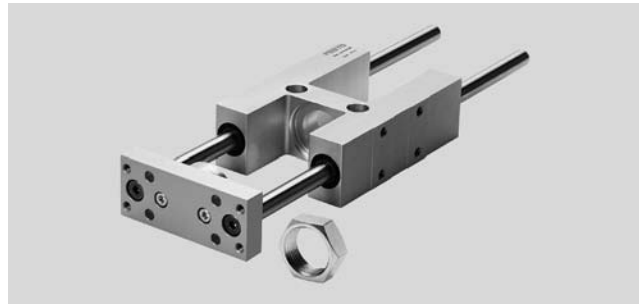
Technical data

FEN

⊘ - Diameter
5/16 ... 1 inch

┆ - Stroke length
0.0 ... 10 inch

- For use with DSNU
- Plain bearing guide
- Recirculating ball bearing guide (-KF)

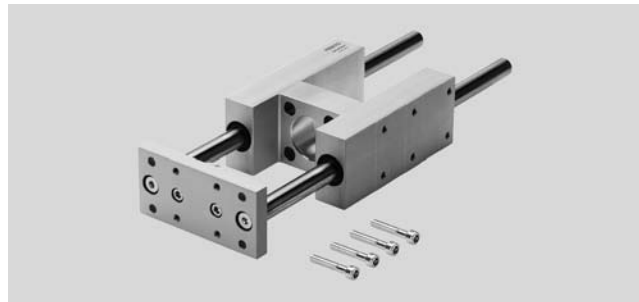


FENG

⊘ - Diameter
1-1/4 ... 4 inch

┆ - Stroke length
0.04 ... 20 inch

- For use with DNC or DNG
- Plain bearing guide
- Recirculating ball bearing guide (-KF)



General technical data		
Ambient temperature	[°F]	-4 ... +176 °F

Product weight FEN [oz]				
Piston Ø	5/16, 3/8	1/2, 5/8	3/4	1
With plain bearing guide				
Product weight at 0 inch stroke	11.7	17.3	30.8	30.6
Additional weight per 1 inch stroke	0.9	1.2	1.2	1.2
With recirculating ball bearing guide				
Product weight at 0 inch stroke	10.6	15.1	29.2	28.7
Additional weight per 1 inch stroke	1.0	1.3	1.3	1.3

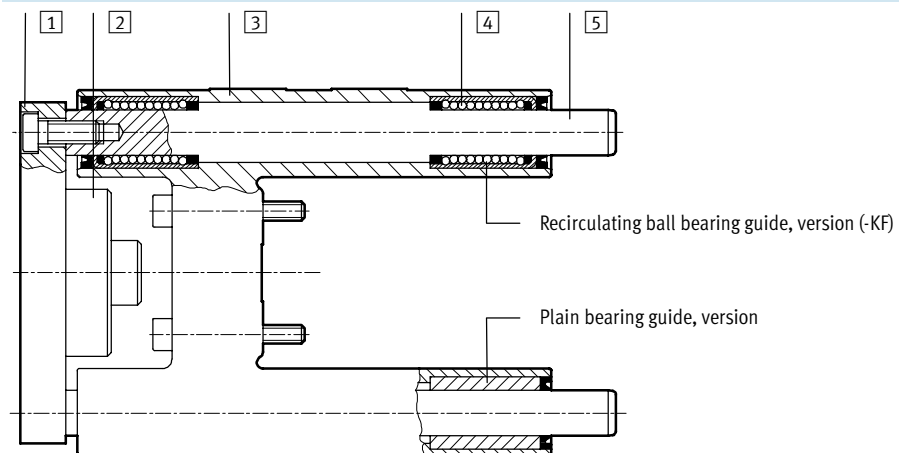
Product weight FENG [oz]						
Piston Ø	1-1/4	1-5/8	2	2-1/2	3	4
With plain bearing guide						
Product weight at 0 inch stroke	55.4	87.5	147.8	195.4	378.1	473.4
Additional weight per 1 inch stroke	1.5	2.8	4.2	4.3	6.3	6.3
With recirculating ball bearing guide						
Product weight at 0 inch stroke	54.0	83.6	142.2	190.8	367.9	458.2
Additional weight per 1 inch stroke	1.6	2.9	4.5	4.4	7.2	7.2

Guide units FEN/FENG for Inch Series cylinders

Technical data

Materials

Sectional view

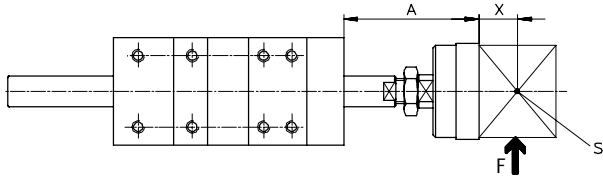


	FEN/FENG with plain bearing guide	FEN/FENG with recirculating ball bearing guide (KF)
1 Yoke plate	Aluminum	Aluminum
2 Coupling	Steel	Steel
3 Guide	Aluminum	Aluminum
4 Bearing	Sintered bronze	Steel
5 Guide rods	Steel	Steel
- Note on material	-	Free of copper, PTFE and silicone

Guide units FEN/FENG for Inch Series cylinders

Technical data

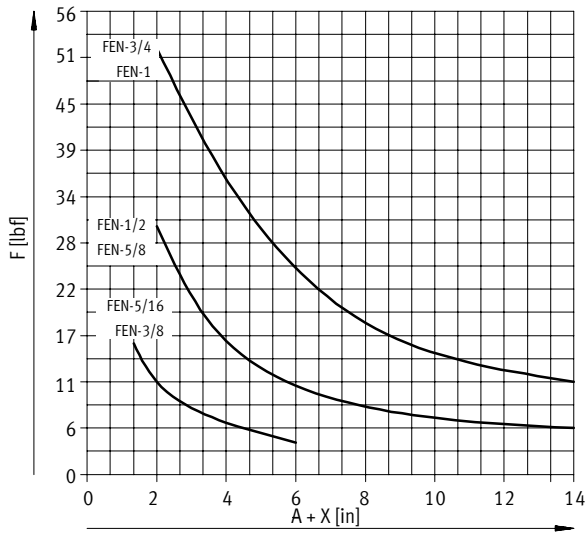
Max. working load F as a function of cantilever extension A



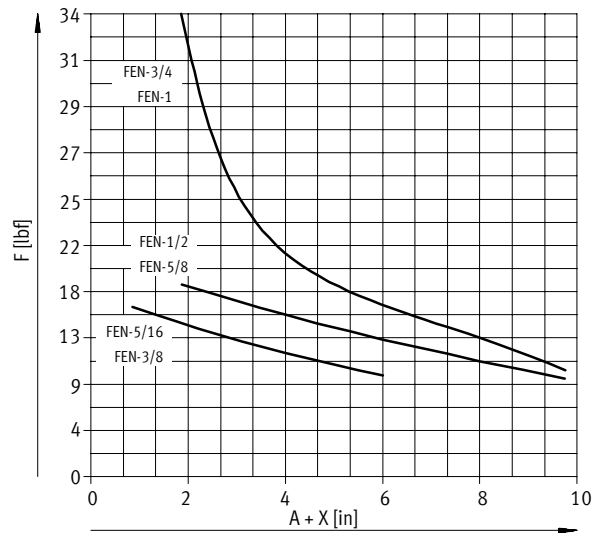
- A = Cantilever extension
- X = Distance for center of gravity of working load
- S = Center of gravity of working load

FEN-5/16 ... 1

with plain bearing guide

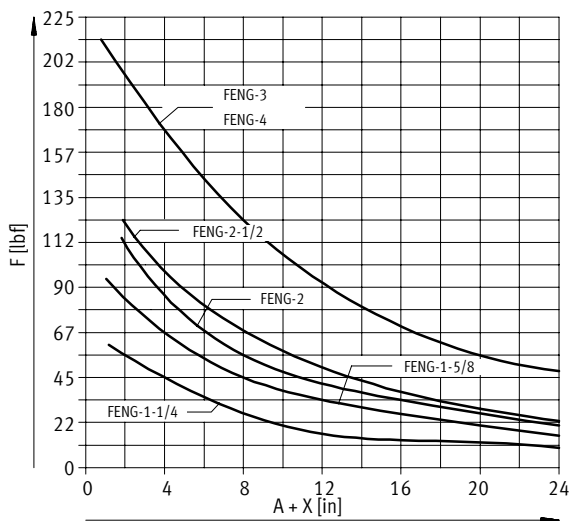


with recirculating ball bearing guide

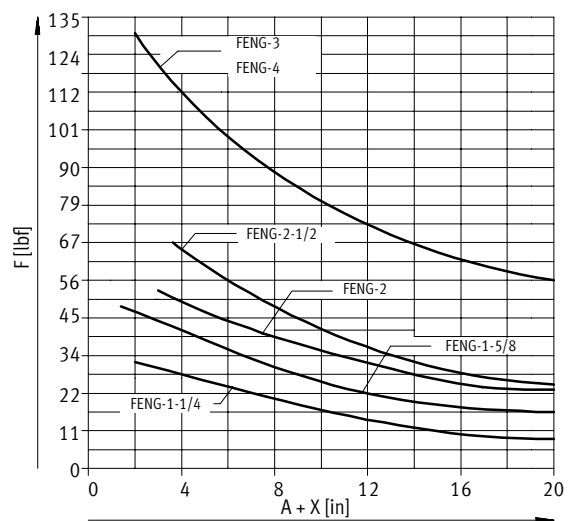


FENG-1-1/4 ... 4

with plain bearing guide



with recirculating ball bearing guide



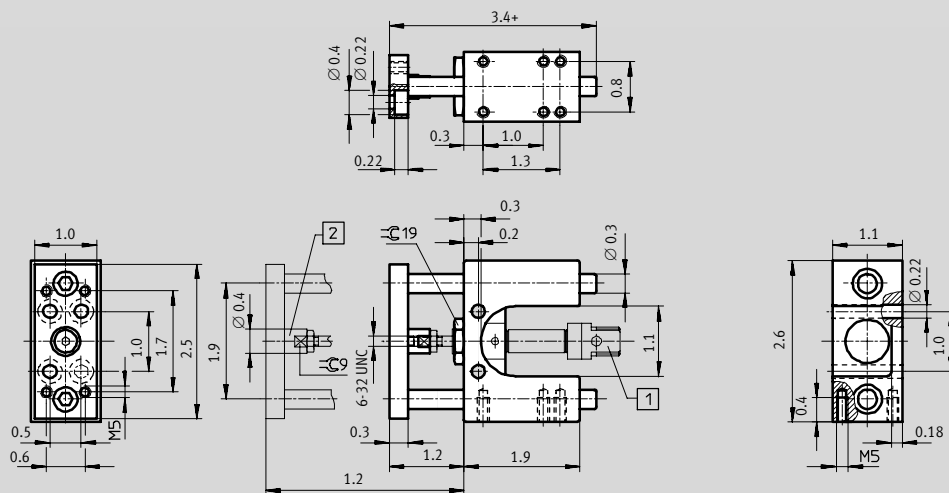
Dimensions are in inch, unless noted otherwise.

Guide units FEN/FENG for Inch Series cylinders

Technical data

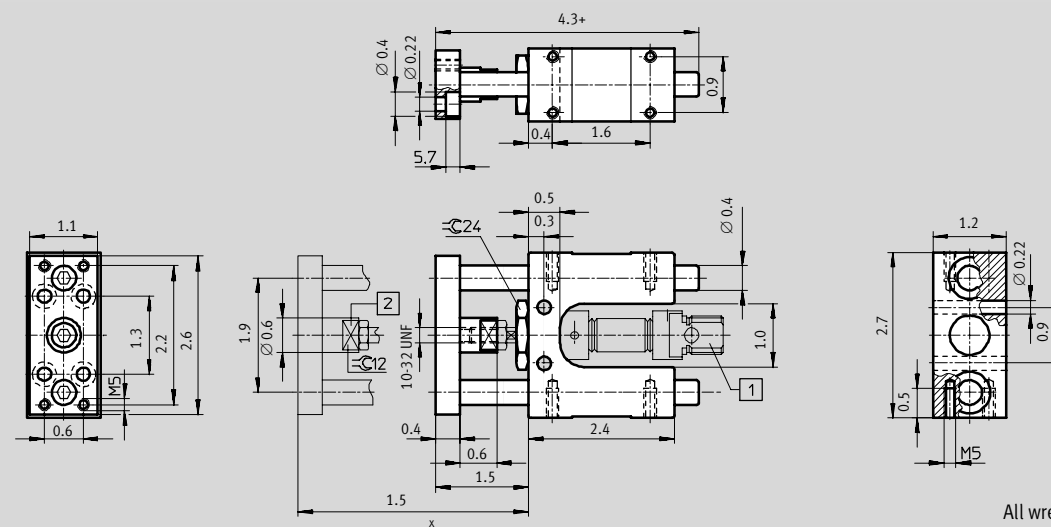
Dimensions

FEN-5/16, 3/8



All wrench dimensions are metric

FEN-1/2, 5/8



All wrench dimensions are metric

- 1 Cylinders DSNU
- 2 Compensating coupling for radial and axial alignment

+ = plus stroke length

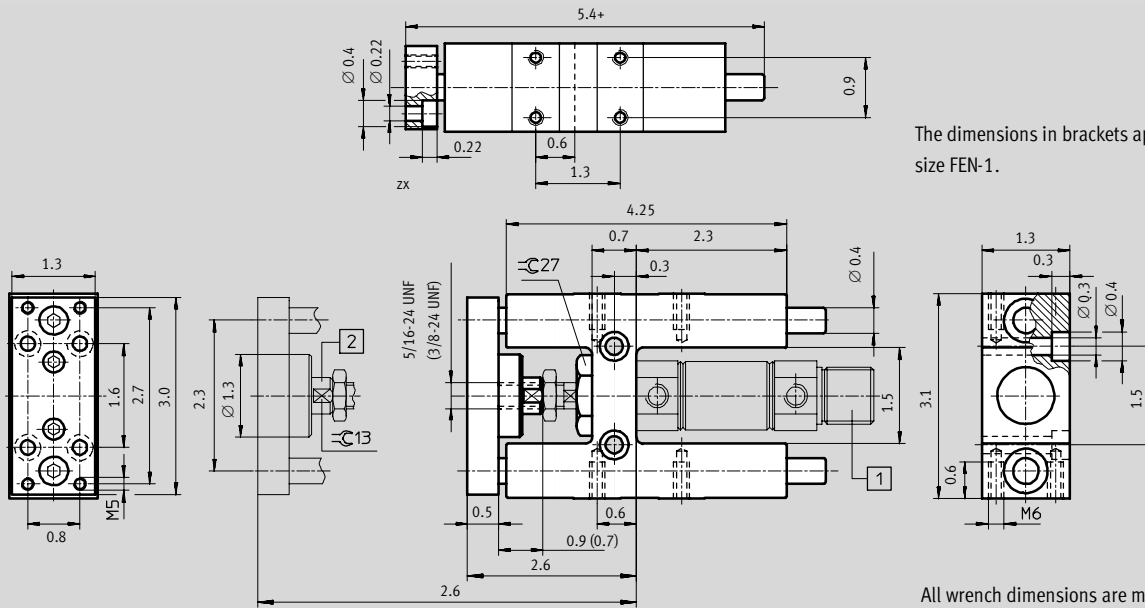
Dimensions are in inch, unless otherwise noted.

Guide units FEN/FENG for Inch Series cylinders

Technical data

Dimensions

FEN-3/4, 1



The dimensions in brackets apply to size FEN-1.

All wrench dimensions are metric

- 1 Cylinders DSNU
- 2 Compensating coupling for radial and axial alignment

+ = plus stroke length

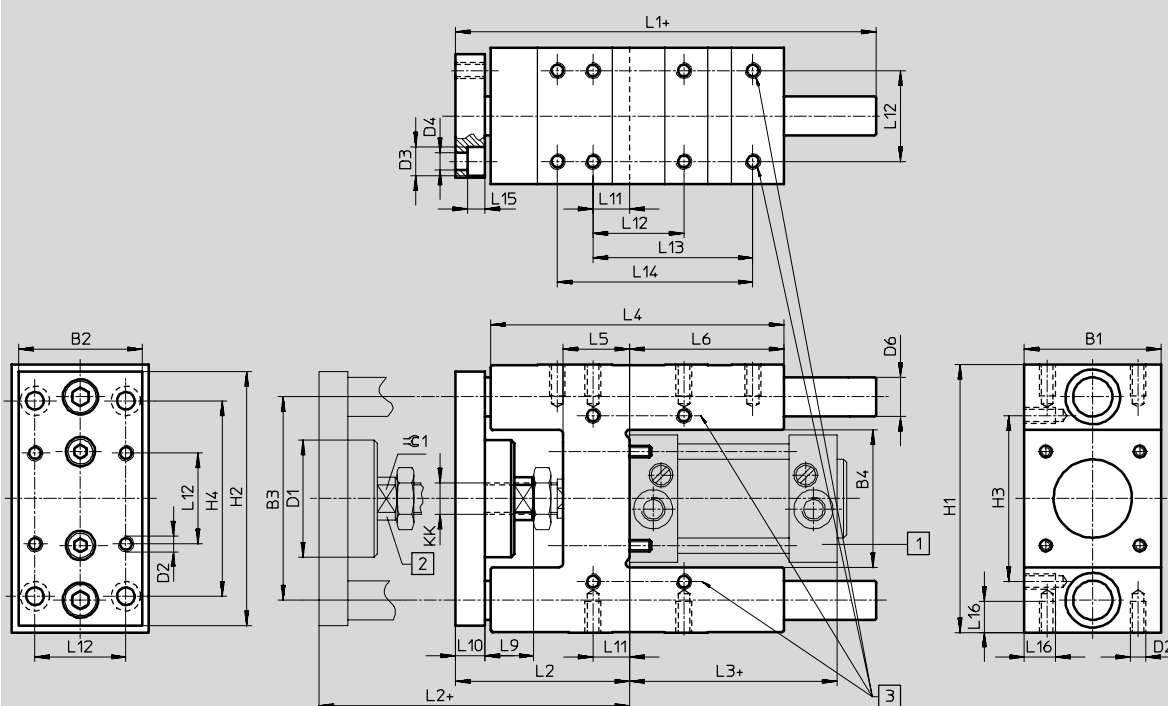
Dimensions are in inch, unless otherwise noted.

Guide units FEN/FENG for Inch Series cylinders

Technical data

Dimensions

FENG-1-1/4 ... 4



- 1) Cylinder DNC, DNG
 - 2) Compensating coupling for radial and axial alignment
 - 3) Users can drill additional mounting holes along these axes as required.
- + = plus stroke length

∅	B1	B2	B3	B4	D1	D2	D3	D4	D6 ¹⁾	H1	H2	H3	H4	KK
[in]					∅		∅	∅	∅					
1-1/4	2.0	1.8	2.9	2.0	1.7	M6	0.4	0.3	0.5	3.8	3.5	2.4	3.1	3/8-24 UNF
1-5/8	2.3	2.1	3.4	2.3	1.7	M6	0.4	0.3	0.6	4.5	4.3	2.7	3.3	1/2-20 UNF
2	2.8	2.5	4.1	2.8	2.4	M8	0.6	0.4	0.8	5.4	5.1	3.3	3.9	5/8-18 UNF
2-1/2	3.3	3.1	4.7	3.4	2.4	M8	0.6	0.4	0.8	6.0	5.7	3.9	4.1	5/8-18 UNF
3	4.1	3.9	5.8	4.2	3.1	M10	0.7	0.4	1.0	7.4	7.1	4.1	5.1	3/4-16 UNF
4	5.1	4.7	6.8	5.2	3.1	M10	0.7	0.4	1.0	8.4	7.9	5.1	5.9	3/4-16 UNF

∅	L1	L2	L3	L4	L5	L6	L9	L10	L11	L12	L13	L14	L15	L16	⊖C1
[in]															[mm]
1-1/4	6.1	2.6	3.7	4.9	0.9	3.0	0.8	0.5	0.2	1.3	2.8	3.1	0.3	0.5	15
1-5/8	6.7	3.0	4.1	5.5	1.1	3.2	0.9	0.5	0.4	1.5	3.3	-	0.3	0.6	15
2	7.4	3.5	4.2	5.9	1.3	3.1	1.0	0.6	0.7	1.8	3.2	3.9	0.4	0.6	19
2-1/2	8.7	3.5	4.8	7.2	1.3	4.4	1.0	0.6	0.6	2.2	4.1	-	0.4	0.6	19
3	10.2	4.4	5.0	8.5	1.6	5.0	1.3	0.8	0.8	2.8	-	-	0.4	0.8	27
4	10.4	4.6	5.4	8.7	1.6	5.0	1.3	0.8	1.0	3.5	-	-	0.4	0.8	27

Dimensions are in inch, unless otherwise noted.

Guide units FEN/FENG for Inch Series cylinders

M Mandatory data

Function	Piston Ø	Stroke	Bearing type
FEN (For use with DSNU cylinders)	5/16-3/8 1/2-5/8 3/4 1	0.0 ... 20	KF
FENG (For use with DNC & DNG cylinders)	1-1/4 1-5/8 2 2-1/2 3 4		
FEN	5/16"-3/8"	3.5"	KF

Ordering table

Size	5/16-3/8	1/2-5/8	3/4	1	1-1/4	1-5/8	2	2-1/2	3	4	Code	Enter code	
M Function	Guide unit											FEN	
												FENG	
Piston Ø [In]	FEN 5/16-3/8	1/2-5/8	3/4	1	-	-	-	-	-	-			
	FENG -	-	-	-	1-1/4	1-5/8	2	2-1/2	3	4			
Stroke [in]	0.0 ... 4	0.0 ... 8	0.0 ... 10	0.4 ... 20								-...	
Bearing type	Plain bearing guide												
	Recirculating bearing guide											-KF	

Note

FEN-5/16-3/8-... is used with 2 cylinder sizes (DSNU-5/16-... and DSNU-3/8-...).

FEN-1/2-5/8-... is used with 2 cylinder sizes (DSNU-1/2-... and DSNU-5/8-...).

Transfer order code

- - -