

CFA-TM

ACCESSORIES

DESCRIPTION

Filling breathers

FILLING BREATHERS

Filling plugs with inbuilt air breather; flanged tank connection with standard dimensions; protection basket against ingestion of coarse parts (removable for CFA23); zinc plated steel body and chrome plated steel cap; seals by cork (NBR - Nitrile for pressurized version only).

FILTER ELEMENT

Filter element (not replaceable):
Impregnated cellulose 3 μ m (filtration degree in air)
Polyurathan foam 10 μ m (filtration degree in air)

For sizes CFA21 & CFA22 only the plug has a safety chain.



HYDRAULIC DIAGRAM



Is this datasheet the latest release? Please check on our website.

CFA-TM

ACCESSORIES



ORDERING AND OPTION CHART

C	F	A	COMPLETE FILTER FAMILY				
			SIZE & LENGTH	11	21	22	23
			MOUNTING PATTERN				
			S = DIN 24557/2 flange	S	S	S	S
			T = plug extension	-	-	-	T
			W = welding flange	-	-	-	W
			PRESSURIZATION VALVE				
			W = without	W	W	W	W
			A = 0,35 bar	-	A	A	A
			SEALS				
			C = sugheroil	C	C	C	C
			N = NBR Nitrile (with A option only)	-	N	N	N
			FILTER MEDIA				
			CC = impregnated cellulose 10 µm	CC	CC	CC	CC
			PE = polyurathan foam	PE	PE	PE	PE
			ACCESSORIES				
			P = padlock holder	-	P	P	P

CFA-TM

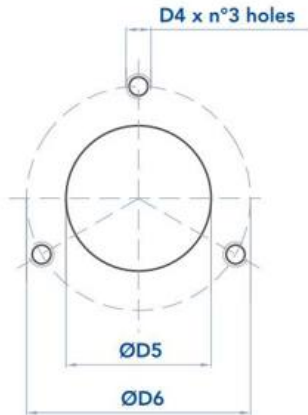
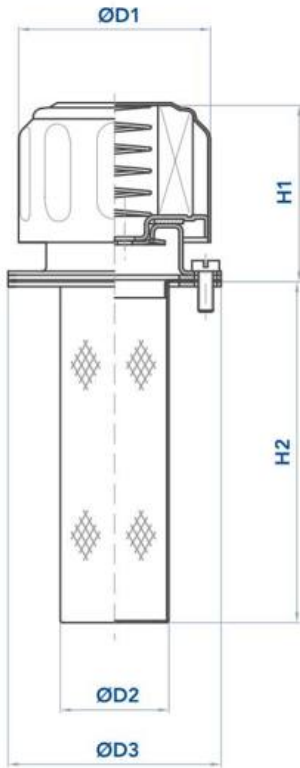
ACCESSORIES



INSTALLATION DRAWING

DWG A

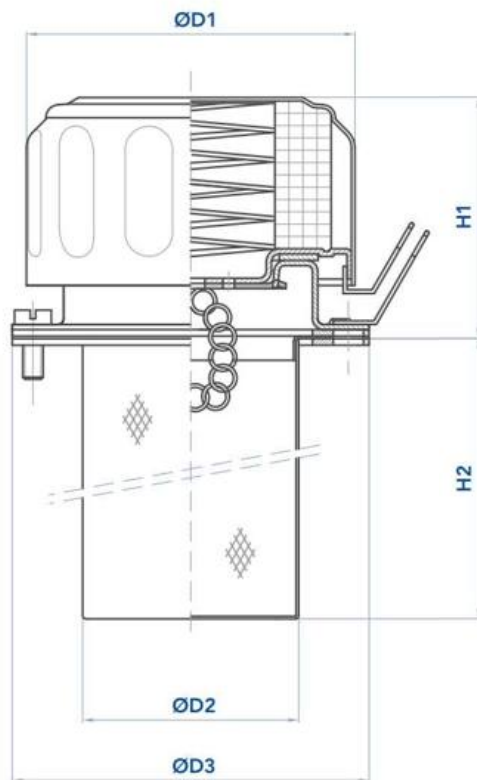
DWG B



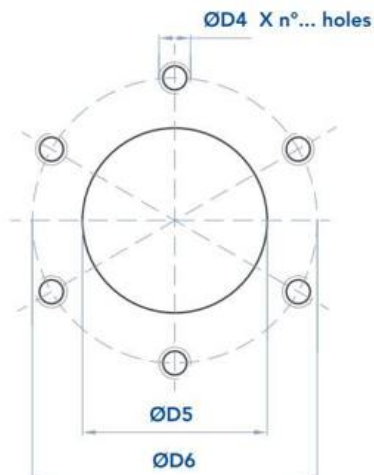
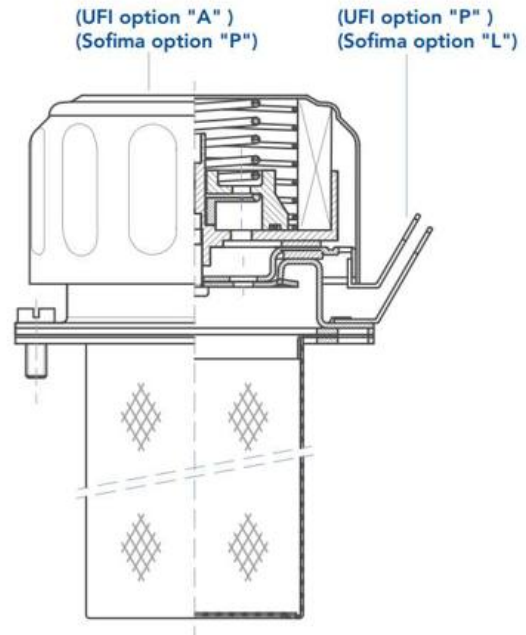


INSTALLATION DRAWING

DWG C



DWG D

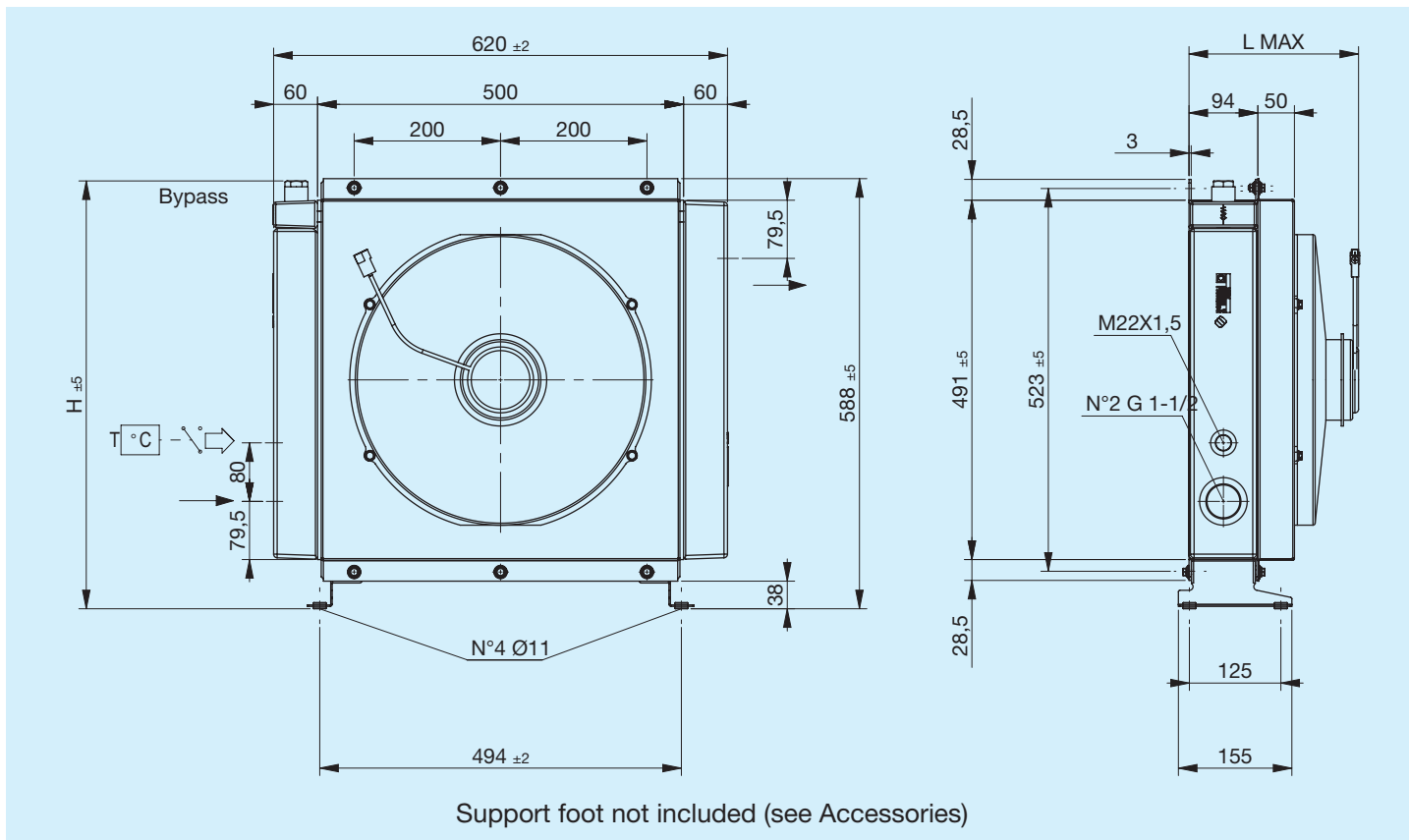


Tank connection:
DIN 24557/2

A70

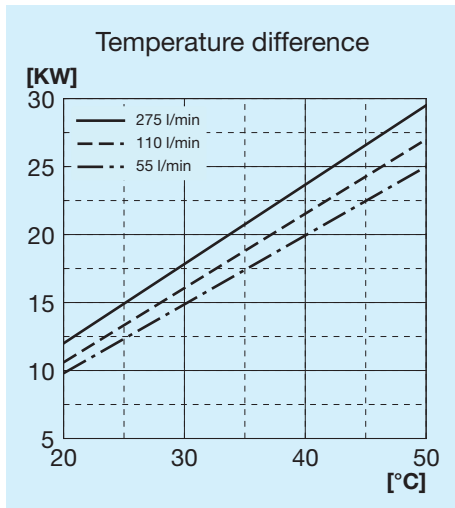


Before using the heat exchanger, carefully read the document entitled GENERAL INSTRUCTIONS FOR HEAT EXCHANGER USE.

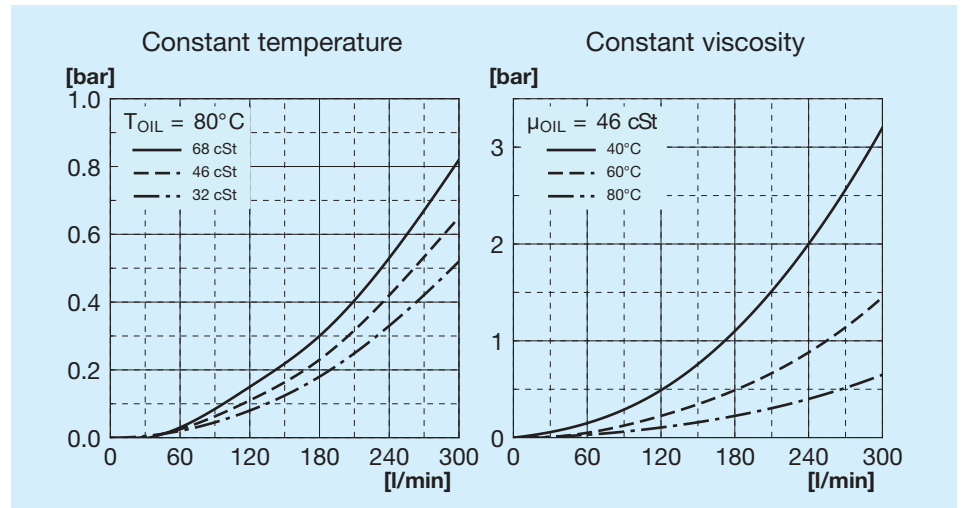


Code	Description	Ø Fan mm	Air flow rate m³/h	Voltage V	Current A	L Max mm	H mm	Weight Kg	Capacity l
FR633233105	A70 1EAX 12V bypass T15 V.T. 3 bar 60°C	385	2850	12	19,7	230	585	22	10.5
FR633233106	A70 1ESX 12V bypass T15 V.T. 3 bar 60°C	385	3070	12	18,7	230	585	22	10.5
FR633231005	A70 1EAX 12V bypass T15 VNR 4.5 bar	385	2850	12	19,7	230	569	22	10.5
FR633231006	A70 1ESX 12V bypass T15 VNR 4.5 bar	385	3070	12	18,7	230	569	22	10.5
FR633233115	A70 1EAX 24V bypass T15 V.T. 3 bar 60°C	385	3070	24	10	230	585	22	10.5
FR633233116	A70 1ESX 24V bypass T15 V.T. 3 bar 60°C	385	3180	24	9,4	230	585	22	10.5
FR633231015	A70 1EAX 24V bypass T15 VNR 4.5 bar	385	3070	24	10	230	569	22	10.5
FR633231016	A70 1ESX 24V bypass T15 VNR 4.5 bar	385	3180	24	9,4	230	569	22	10.5
FR633230005	A70 1EAX 12V	385	2850	12	19,7	230	588	22	10.5
FR633230006	A70 1ESX 12V	385	3070	12	18,7	230	588	22	10.5
FR633230015	A70 1EAX 24V	385	3070	24	10	230	588	22	10.5
FR633230016	A70 1ESX 24V	385	3180	24	9,4	230	588	22	10.5

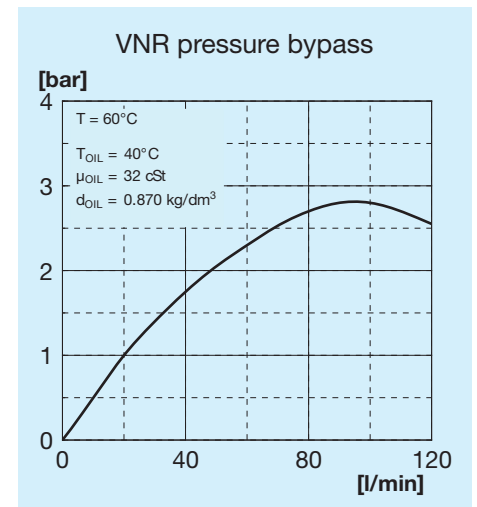
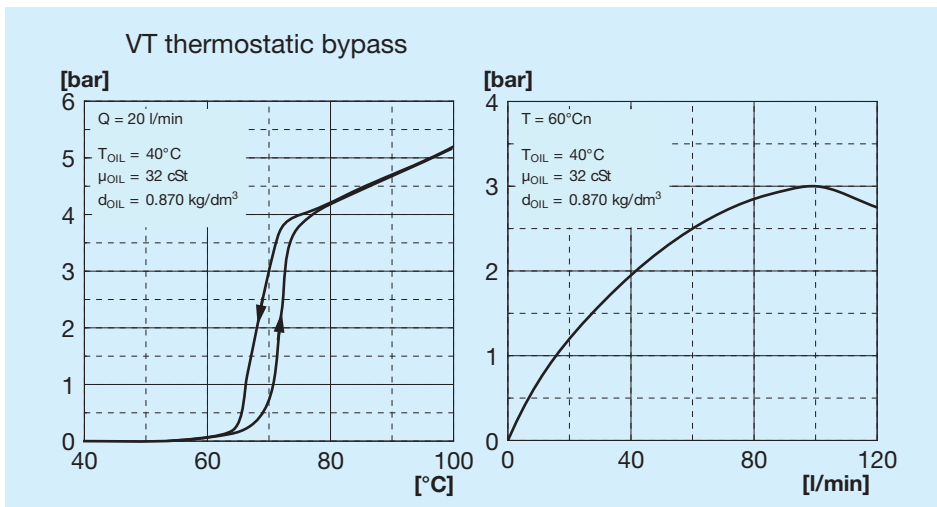
Heat exchange (thermal) capacity



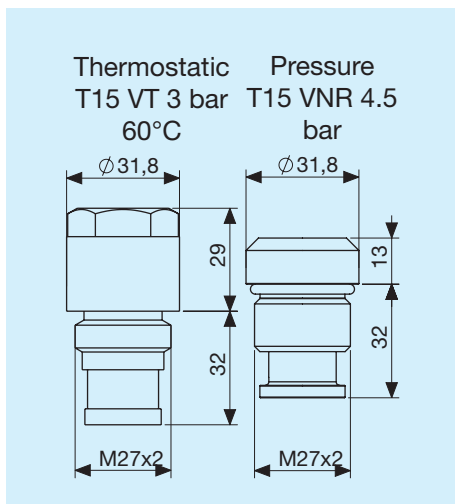
Radiator passage pressure drop



Bypass passage load loss

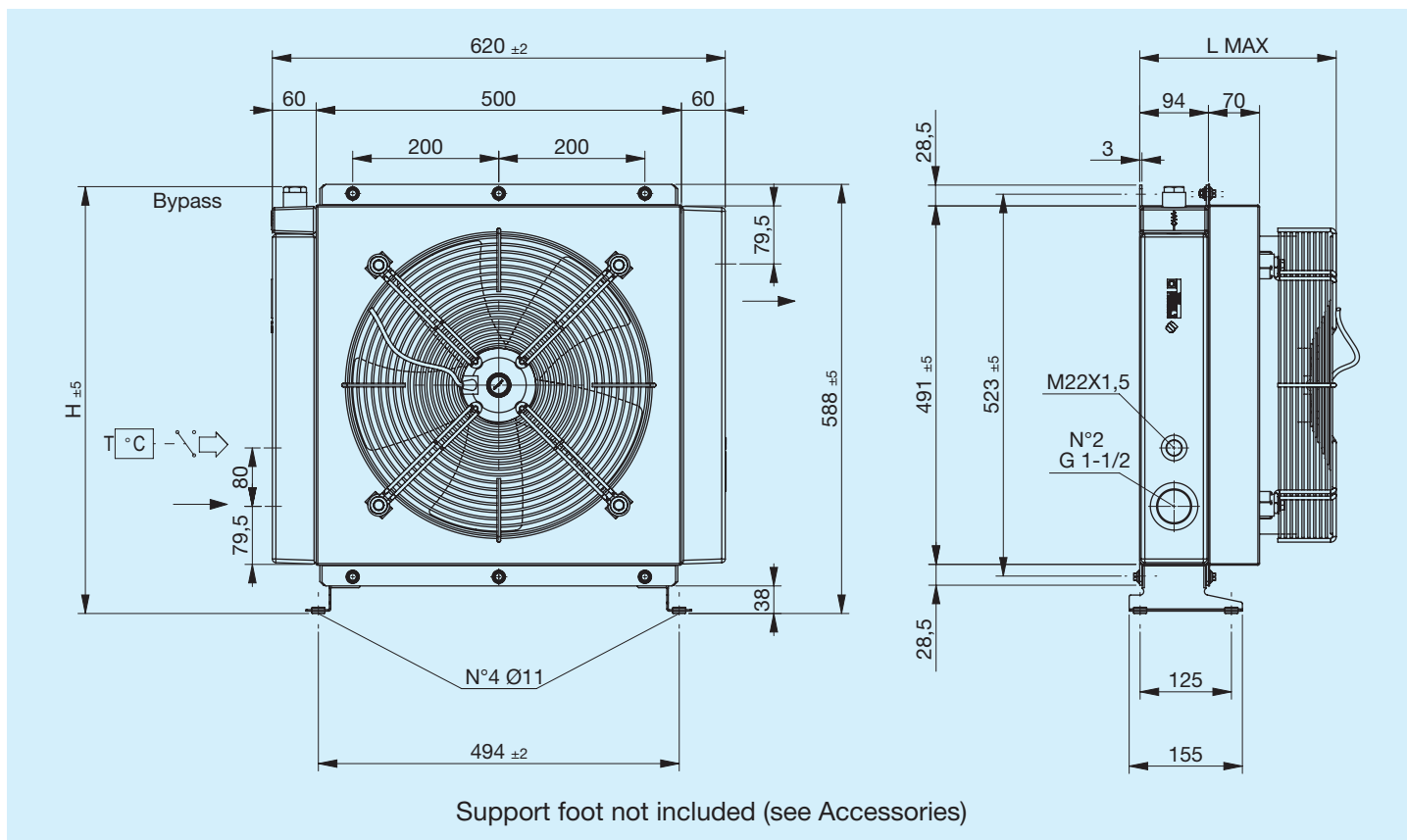


Bypass valves



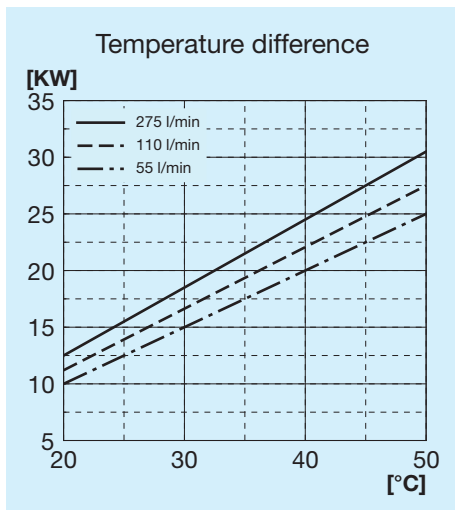
Legend

A70	Exchanger type
1E	1 Fan unit
A	Aspirating
S	Blowing
AP	High power aspirating
SP	High power blower
AX	Extra high power aspirating
SX	Extra high power blower
12V	Fan unit voltage
24V	Fan unit voltage
T15 VT	Thermostatic bypass valve 3 bar 60°C
T15 VNR	Pressure bypass valve at 4.5 bar

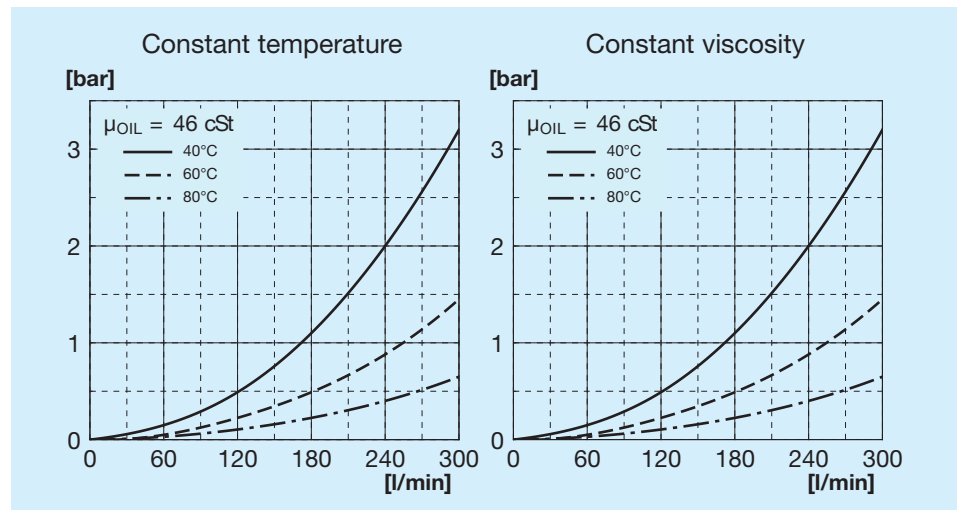


Code	Description	Ø Fan mm	Power W	Frequen- cy Hz	Speed min ⁻¹	Pro- tection IP	L Max mm	H mm	Weight Kg	Capacity l
FR633233131	A70 1EA 230V bypass T15 V.T. 3 bar 60°C	400	240	50 60	1430 1700	44	269	585	22	10.5
FR633233132	A70 1ES 230V bypass T15 V.T. 3 bar 60°C	400	240	50 60	1430 1700	44	269	585	22	10.5
FR633231031	A70 1EA 230V bypass T15 VNR 4.5 bar	400	240	50 60	1430 1700	44	269	569	22	10.5
FR633231032	A70 1ES 230V bypass T15 VNR 4.5 bar	400	240	50 60	1430 1700	44	269	569	22	10.5
FR633233121	A70 1EA 400V bypass T15 V.T. 3 bar 60°C	400	185	50 60	1450 1690	44	269	585	22	10.5
FR633233122	A70 1ES 400V bypass T15 V.T. 3 bar 60°C	400	185	50 60	1450 1690	44	269	585	22	10.5
FR633231021	A70 1EA 400V bypass T15 VNR 4.5 bar	400	185	50 60	1450 1690	44	269	569	22	10.5
FR633231022	A70 1ES 400V bypass T15 VNR 4.5 bar	400	185	50 60	1450 1690	44	269	569	22	10.5
FR633230031	A70 1EA 230V	400	240	50 60	1430 1700	44	269	588	22	10.5
FR633230032	A70 1ES 230V	400	240	50 60	1430 1700	44	269	588	22	10.5
FR633230021	A70 1EA 400V	400	185	50 60	1450 1690	44	269	588	22	10.5
FR633230022	A70 1ES 400V	400	185	50 60	1450 1690	44	269	588	22	10.5

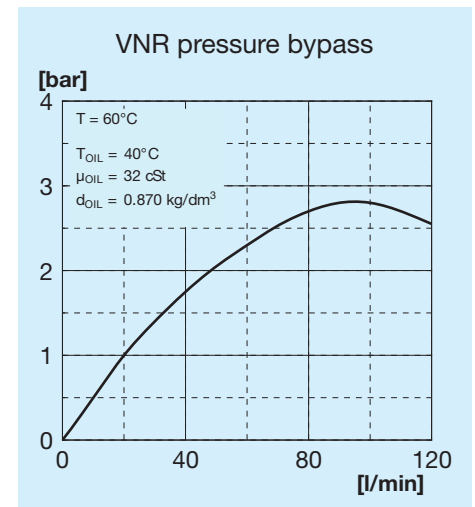
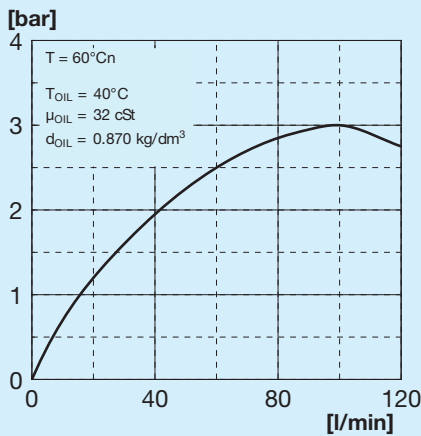
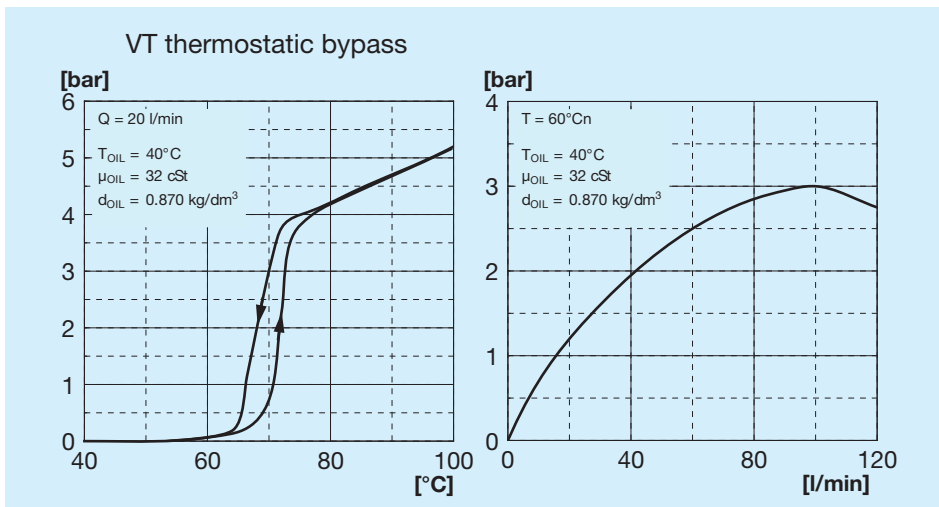
Heat exchange (thermal) capacity



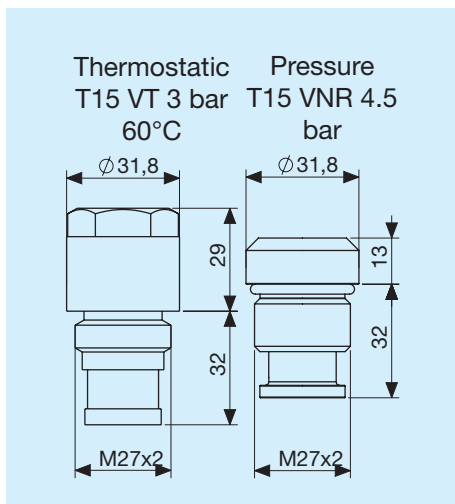
Radiator passage pressure drop



Bypass passage load loss

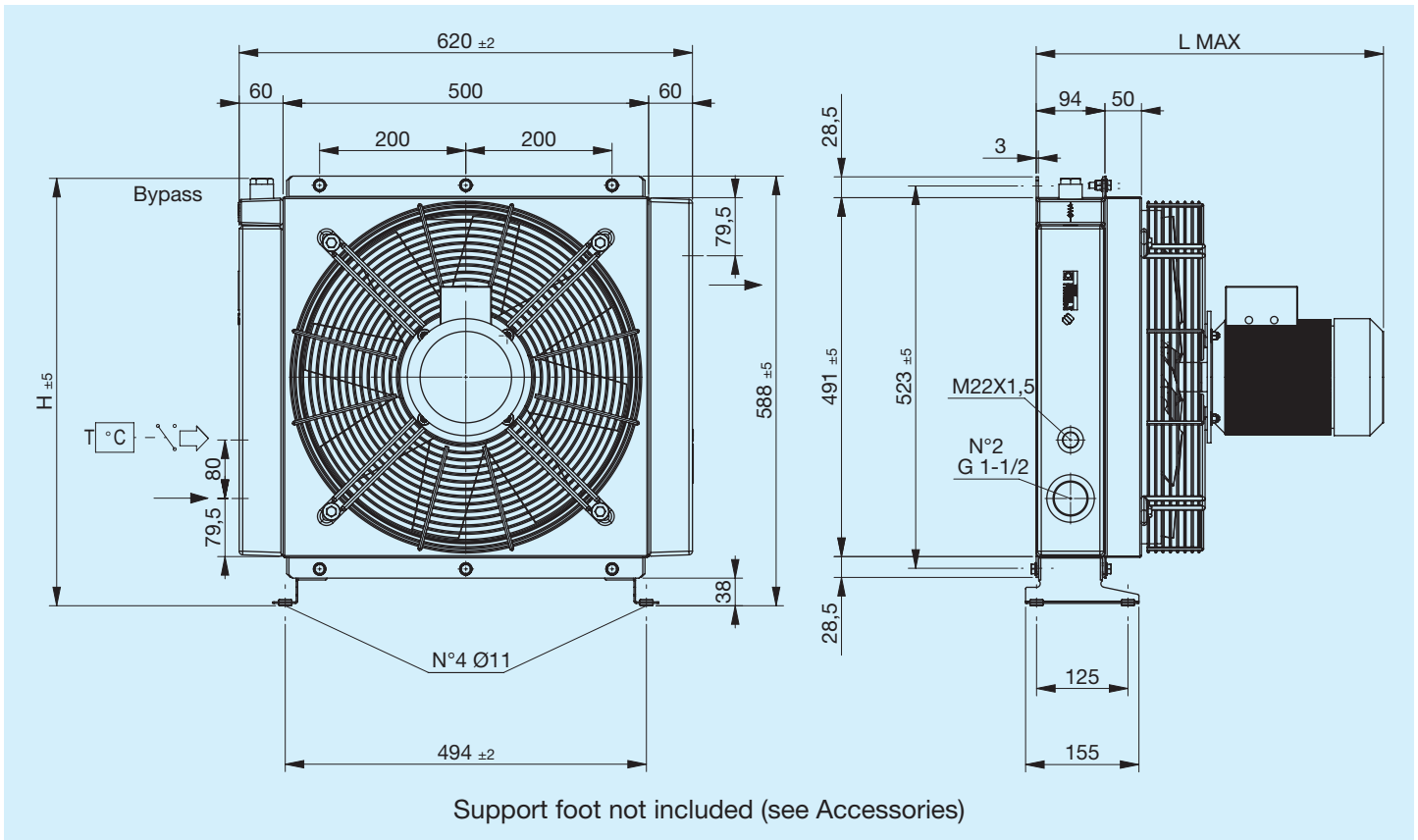


Bypass valves



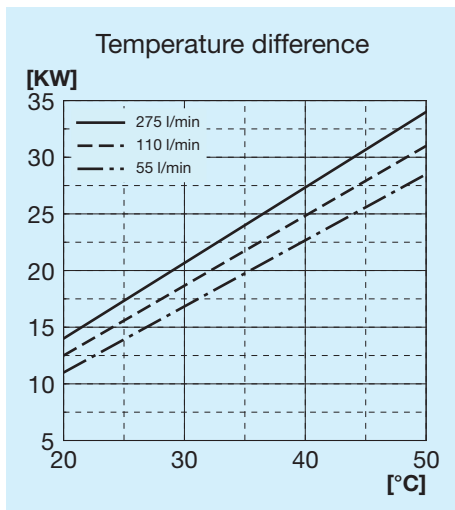
Legend

A70	Exchanger type
1E	1 Fan unit
A	Aspirating
S	Blowing
230V	Fan unit voltage
400V	Fan unit voltage
T15 VT	Thermostatic bypass valve 3 bar 60°C
T15 VNR	Pressure bypass valve at 4.5 bar

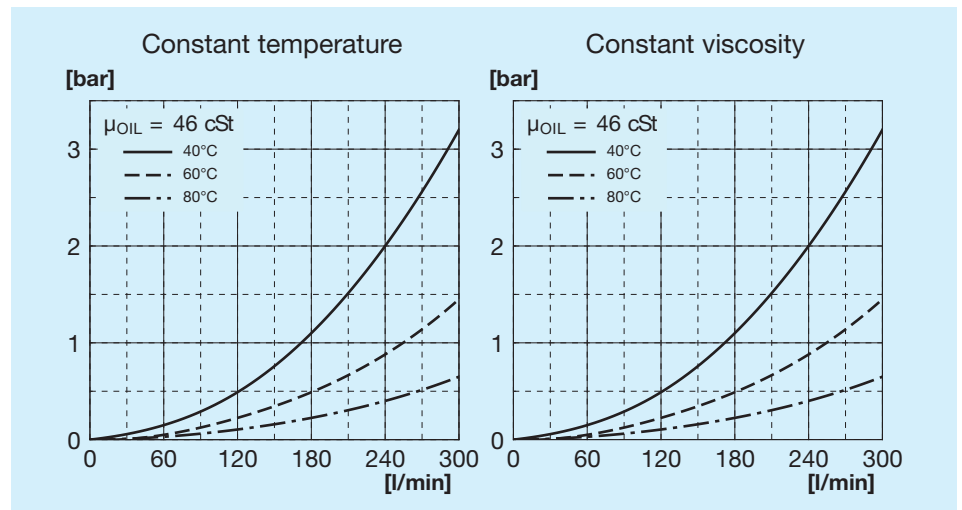


Code	Description	Ø Fan mm	Power W	Frequen- cy Hz	Speed min ⁻¹	Pro- tection IP	L Max mm	H mm	Weight Kg	Capacity l
FR633233141	A70 1EA 230V-B14 bypass T15 V.T. 3 bar 60°C	440	750	50	1390	65	475	585	30.5	10.5
FR633233142	A70 1ES 230V-B14 bypass T15 V.T. 3 bar 60°C	440	750	50	1390	65	475	585	30.5	10.5
FR633231041	A70 1EA 230V-B14 bypass T15 VNR 4.5 bar	440	750	50	1390	65	475	569	30.5	10.5
FR633231042	A70 1ES 230V-B14 bypass T15 VNR 4.5 bar	440	750	50	1390	65	475	569	30.5	10.5
FR633233151	A70 1EA 400V-B14 bypass T15 V.T. 3 bar 60°C	440	750	50	1390	65	475	585	30.5	10.5
FR633233152	A70 1ES 400V-B14 bypass T15 V.T. 3 bar 60°C	440	750	50	1390	65	475	585	30.5	10.5
FR633231051	A70 1EA 400V-B14 bypass T15 VNR 4.5 bar	440	750	50	1390	65	475	569	30.5	10.5
FR633231052	A70 1ES 400V-B14 bypass T15 VNR 4.5 bar	440	750	50	1390	65	475	569	30.5	10.5
FR633230041	A70 1EA 230V-B14	440	750	50	1390	65	475	588	30.5	10.5
FR633230042	A70 1ES 230V-B14	440	750	50	1390	65	475	588	30.5	10.5
FR633230051	A70 1EA 400V-B14	440	750	50	1390	65	475	588	30.5	10.5
FR633230052	A70 1ES 400V-B14	440	750	50	1390	65	475	588	30.5	10.5

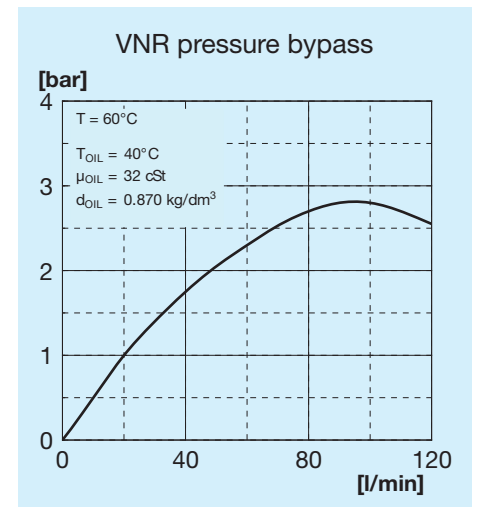
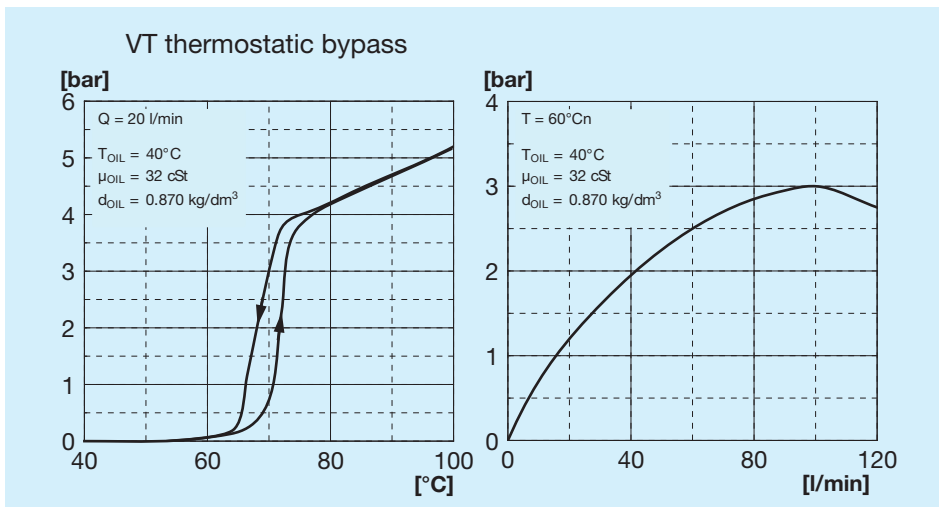
Heat exchange (thermal) capacity



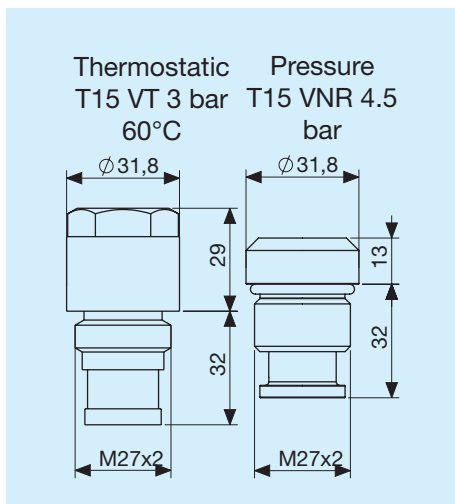
Radiator passage pressure drop



Bypass passage load loss



Bypass valves



Legend

A70	Exchanger type
1E	1 Fan unit
A	Aspirating
S	Blowing
230V B14	Fan unit voltage
400V B14	Fan unit voltage
T15 VT	Thermostatic bypass valve 3 bar 60°C
T15 VNR	Pressure bypass valve at 4.5 bar

MSZ

SUCTION FILTERS



MATERIALS

Connector: polyamide
Internal core: zinc plated steel
End cap: zinc plated steel
Port size: 1/2" ÷ 3"
Flow rate: 15 ÷ 550 l/min

PRESSURE

Collapse, differential for filter element (ISO 10771): 100 kPa (1 bar)

BYPASS VALVE

Setting: 30 kPa (0,3 bar) ± 10% on request

WORKING TEMPERATURE

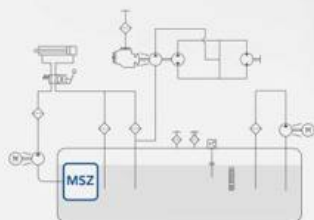
From -25° to +90° C

COMPATIBILITY (ISO 2943)

Full with fluids: HH-HL-HM-HV-HTG
(according to ISO 6743/4)
For fluids different than the above mentioned,
please contact our Customer Service.



HYDRAULIC DIAGRAM



Is this datasheet the latest release? Please check on our website.



MSZ

SUCTION FILTERS



ORDERING AND OPTION CHART

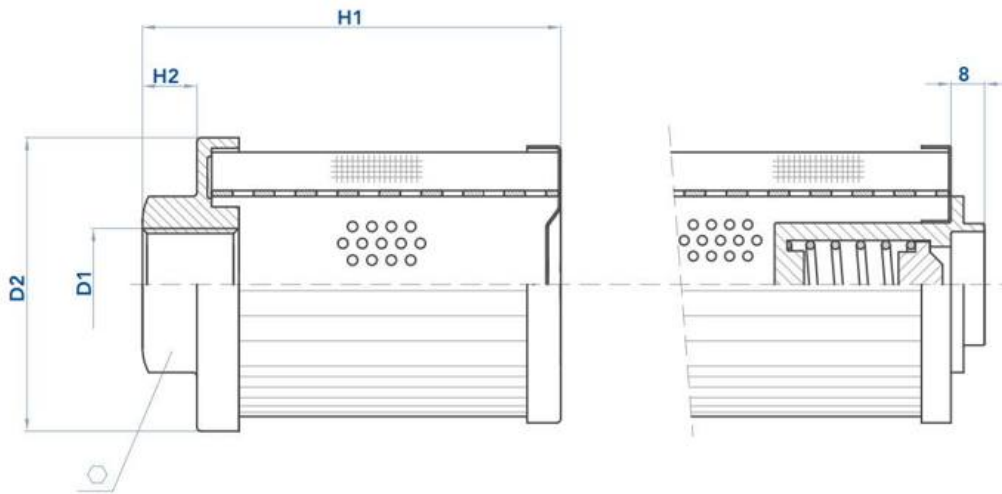
M	S	Z	FILTER ELEMENT FAMILY									
			SIZE & LENGTH	101	201	202	301	302	303	401	402	403
			FILTER MEDIA									
			MN = metal wire mesh 90 µm	MN	MN	MN	MN	MN	MN	MN	MN	MN
			DC = metal wire mesh 250 µm	DC	DC	DC	DC	DC	DC	DC	DC	DC
		X	SEALS									
			X = not available	X	X	X	X	X	X	X	X	X
			BYPASS VALVE									
			S = without	S	S	S	S	S	S	S	S	S
			A = Bypass valve 30 kPa (0,3 bar)	A	A	A	A	A	A	A	A	A
		B	PORTS									
			B = BSP	B	B	B	B	B	B	B	B	B
			N = NPT	N	N	N	N	N	N	N	N	N
			PORT SIZE									
			3 = 1/2"	3	-	-	-	-	-	-	-	-
			4 = 3/4"	-	4	-	-	-	-	-	-	-
			5 = 1"	-	-	5	-	-	-	-	-	-
			7 = 1" 1/2	-	-	-	7	7	-	-	-	-
			8 = 2"	-	-	-	-	-	8	8	-	-
			9 = 2" 1/2	-	-	-	-	-	-	-	9	-
			A = 3"	-	-	-	-	-	-	-	-	A

MSZ

SUCTION FILTERS



INSTALLATION DRAWING



FILTER HOUSING

	D1	D2	H1	H2	⬡	kg	AREA (cm ²)
MSZ101	1/2"	46	105,5	14	30	0,12	155
MSZ201	3/4"	64	109,5	14	36	0,22	335
MSZ202	1"	64	139,5	15	46	0,27	450
MSZ301	1" 1/2	86	140	18	60	0,45	610
MSZ302	1" 1/2	86	200	18	60	0,53	920
MSZ303	2"	86	260	18	70	0,56	1190
MSZ401	2"	150	150	18	70	1,20	2030
MSZ402	2" 1/2	150	212	20	90	1,40	2900
MSZ403	3"	150	272	20	100	1,60	3900



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A WIDE RANGE OF ORBITAL MOTORS

Sauer-Danfoss is a world leader within production of low speed orbital motors with high torque. We can offer more than 1600 different orbital motors, categorised in types, variants and sizes (incl. different shaft versions).

The motors vary in size (rated displacement) from 8 cm³ [0.50 in³] to 800 cm³ [48.9 in³] per revolution.

Speeds range up to approx. 2500 min⁻¹ (rpm) for the smallest type and up to approx 600 min⁻¹ (rpm) for the largest type.

Maximum operating torques vary from 13 Nm [115 lbf-in] to 2700 Nm [24.000 lbf-in] (peak) and maximum outputs are from 2.0 kW [2.7 hp] to 70 kW [95 hp].

Characteristic features:

- Smooth running over the entire speed range
- Constant operating torque over a wide speed range
- High starting torque
- High return pressure without the use of drain line (High pressure shaft seal)
- High efficiency
- Long life under extreme operating conditions
- Robust and compact design
- High radial and axial bearing capacity
- For applications in both open and closed loop hydraulic systems
- Suitable for a wide variety of hydraulics fluids

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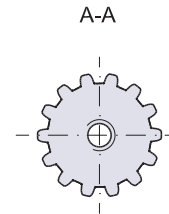
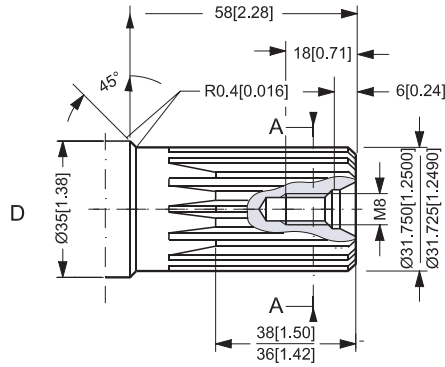
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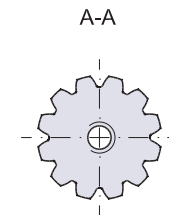
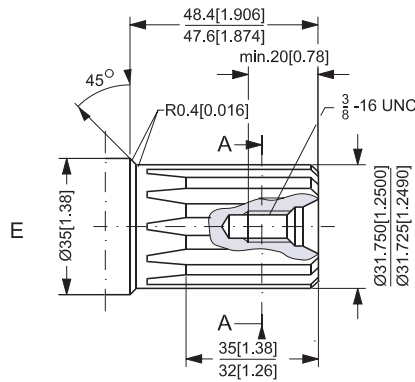
SHAFT VERSION

D: Involute splined shaft
 ANS B92.1 - 1970 standard
 Flat root side fit
 Pitch 12/24
 Teeth 14
 Major dia. 1.25 in
 Pressure angle 30°



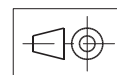
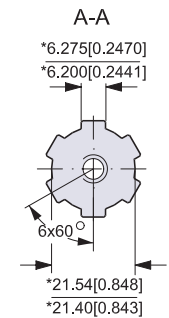
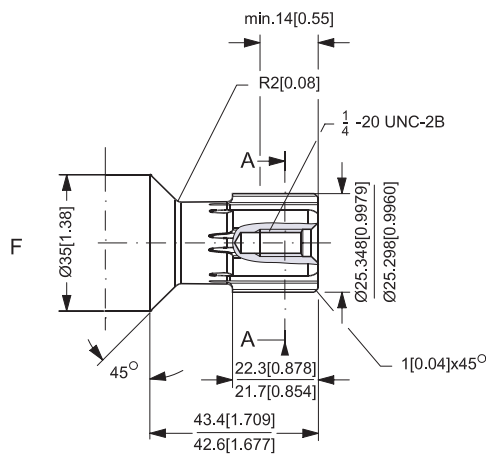
US version

E: Involute splined shaft
 ANS B92.1 - 1970 standard
 Flat root side fit
 Pitch 12/24
 Teeth 14
 Major dia. 1.25 in
 Pressure angle 30°



F: Splined shaft
 SAE 6 B (B.S. 2059)
 Straight-sided,
 bottom fitting, deep.
 Fit 2
 Nom. size 1 in

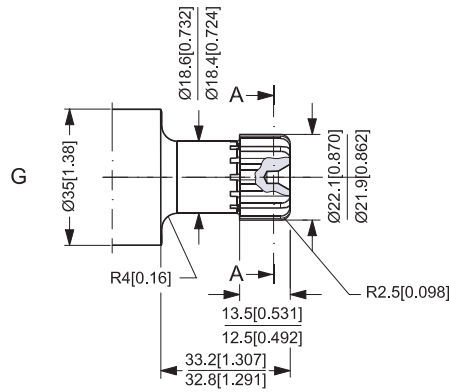
*Deviates from
 SAE 6 B (B.S. 2059)



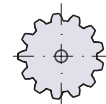
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SHAFT VERSION

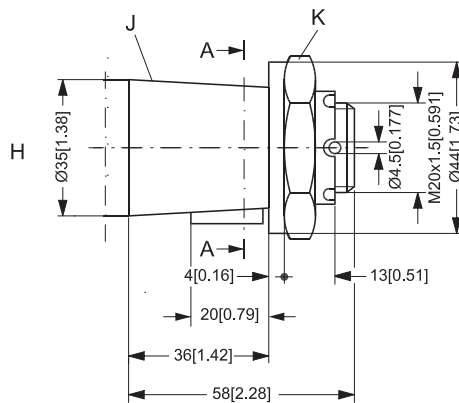
- G: Involute splined shaft
 ANS B92.1 - 1970 standard
 Flat root side fit
 Pitch 16/32
 Teeth 13
 Major dia. 0.875 in
 Pressure angle 30°



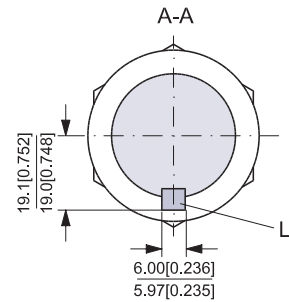
A-A



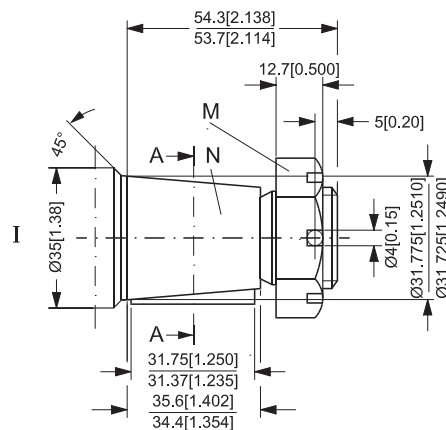
- H: Tapered 35 mm shaft
 (ISO/R775)
- K: DIN 937
 Across flats: 41 mm
 Tightening torque:
 200 ± 10 Nm [1770 ± 85 lbf-in]
- J: Taper 1:10
- L: Parallel key
 B6 × 6 × 20
 DIN 6885



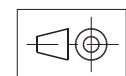
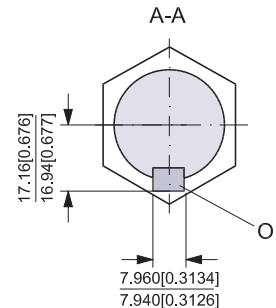
A-A



- I: Tapered 1 1/4 in shaft
- N: Cone 1:8
 SAE J501
- M: 1 - 20 UNEF
 Across flats 1 7/16 in
 Tightening torque:
 200 ± 10 Nm (1770 ± 85 lbf-in)
- O: Parallel key
 5/16 × 5/16 × 1 1/4
 SAE J501



A-A

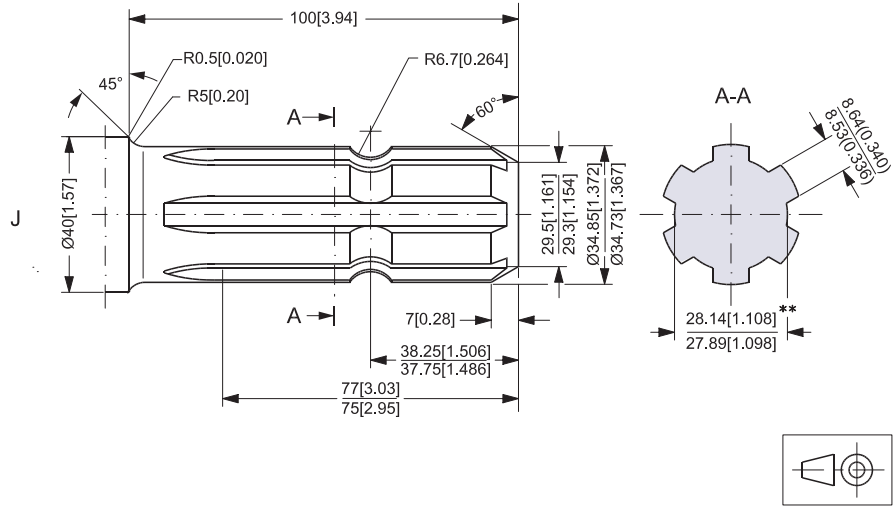


151-1915.10

SHAFT VERSION

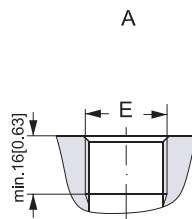
J. Pt.o shaft
DIN 9611 Form 1
(ISO/R500 without pin hole)

** Deviates from DIN 9611

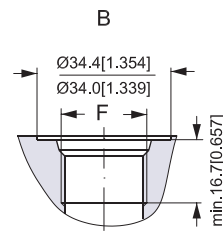


151-1948.10

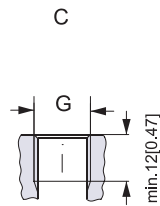
PORT THREAD VERSIONS



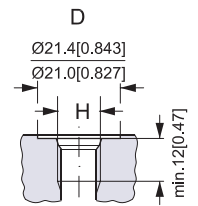
A: G main ports
E: ISO 228/1 - G¹/₂



B: UNF main ports
F: 7/8 - 14 UNF
O-ring boss port



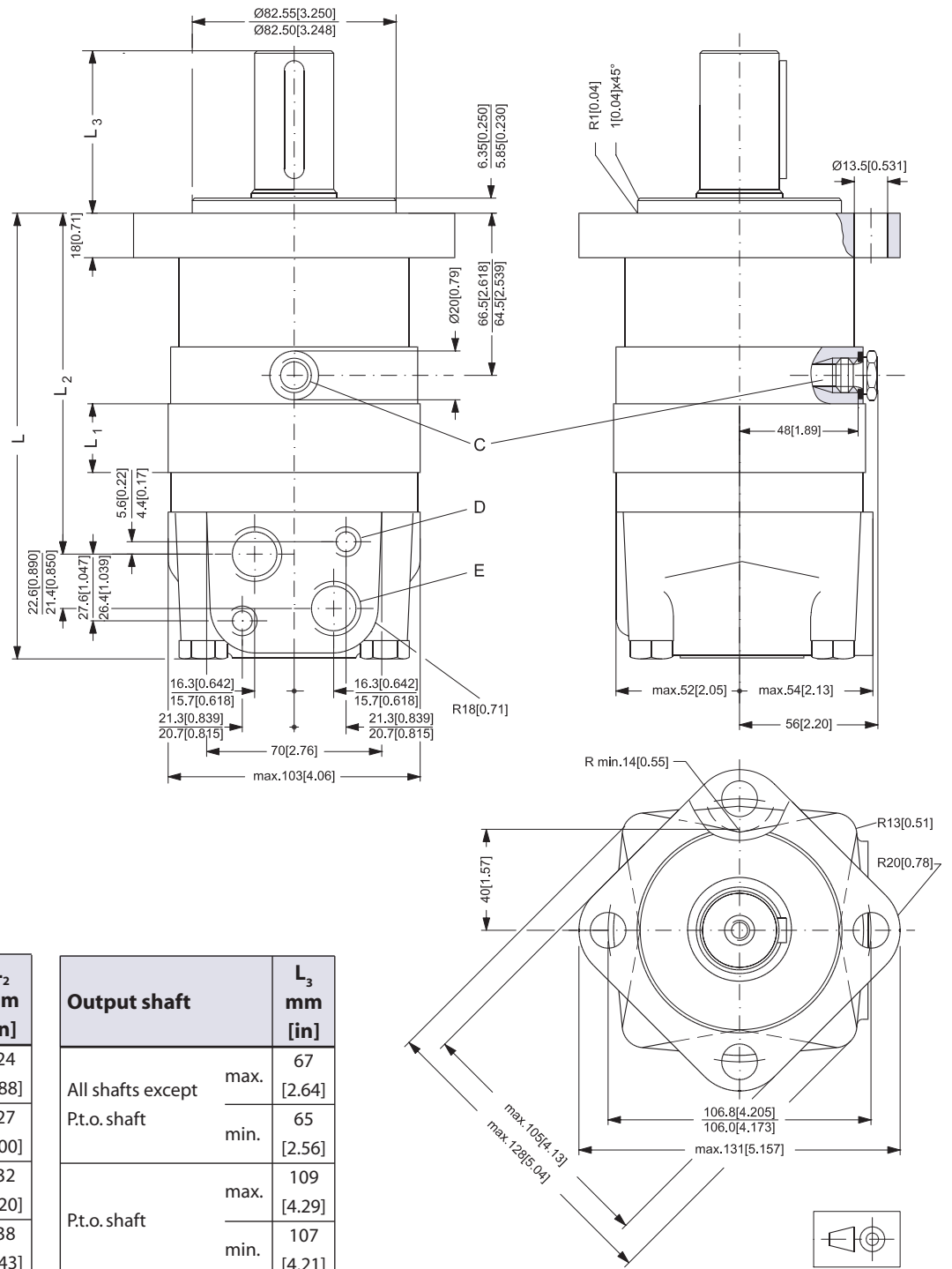
C: G drain port
G: ISO 228/1 - G¹/₄



D: UNF drain port
H: 7/16 - 20 UNF
O-ring boss port

151-1971.10

STANDARD FLANGE



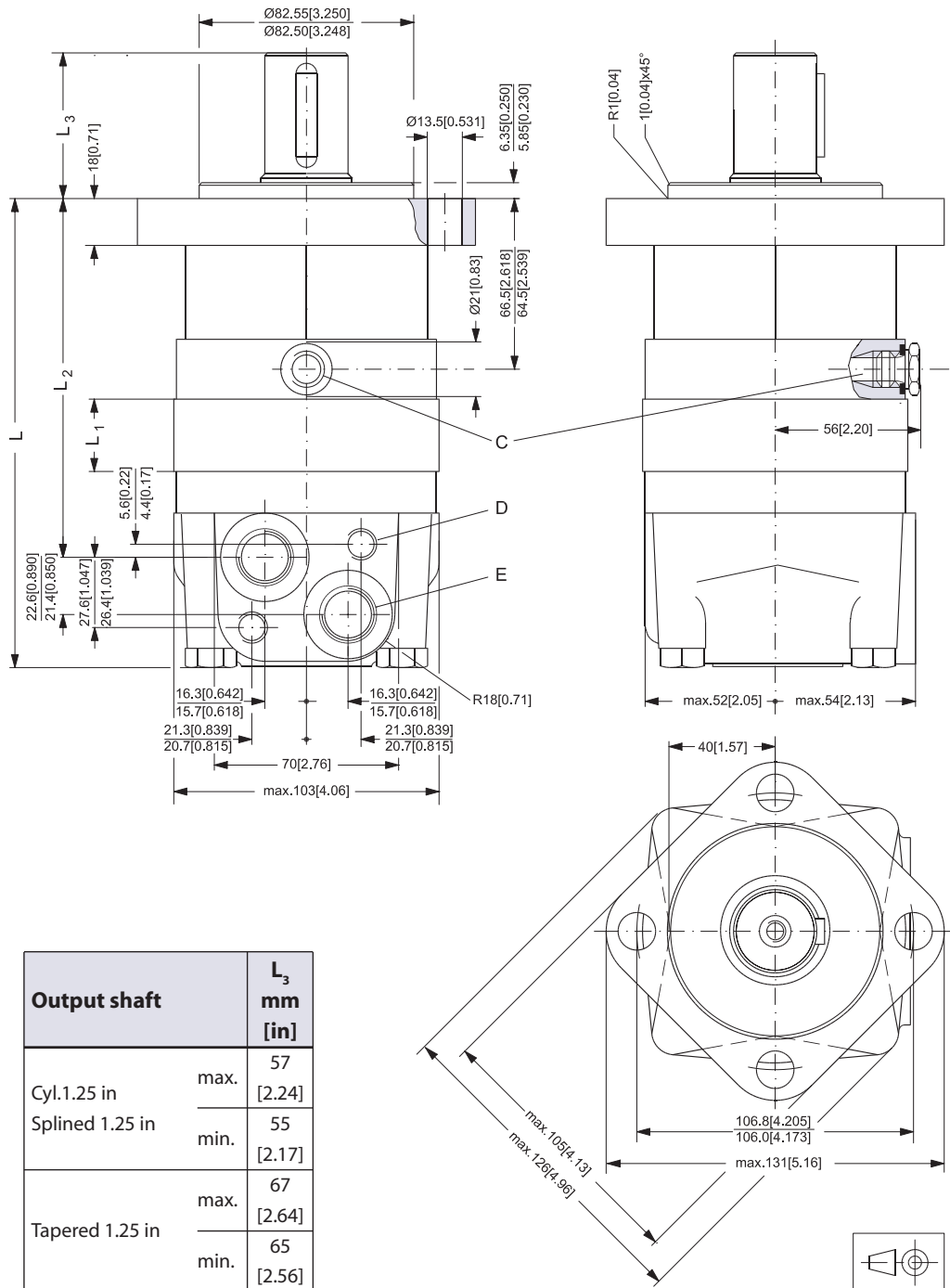
Type	L _{max.} mm [in]	L ₁ mm [in]	L ₂ mm [in]
OMS 80	167 [6.57]	14.0 [0.551]	124 [4.88]
OMS 100	170 [6.69]	17.4 [0.685]	127 [5.00]
OMS 125	175 [6.89]	21.8 [0.858]	132 [5.20]
OMS 160	181 [7.13]	27.8 [1.094]	138 [5.43]
OMS 200	188 [7.40]	34.8 [1.370]	145 [5.71]
OMS 250	196 [7.72]	43.5 [1.713]	153 [6.02]
OMS 315	208 [8.19]	54.8 [2.157]	165 [6.50]
OMS 400	221 [8.70]	68.4 [2.693]	178 [7.01]

Output shaft	L ₃ mm [in]
All shafts except P.t.o. shaft	max. 67 [2.64]
	min. 65 [2.56]
P.t.o. shaft	max. 109 [4.29]
	min. 107 [4.21]

C: Drain connection
 G 1/4; 12 mm [0.47 in] deep
 D: M10; 13 mm [0.51 in] deep
 E: G 1/2; 15 mm [0.59 in] deep

151-1809.10

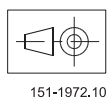
STANDARD FLANGE



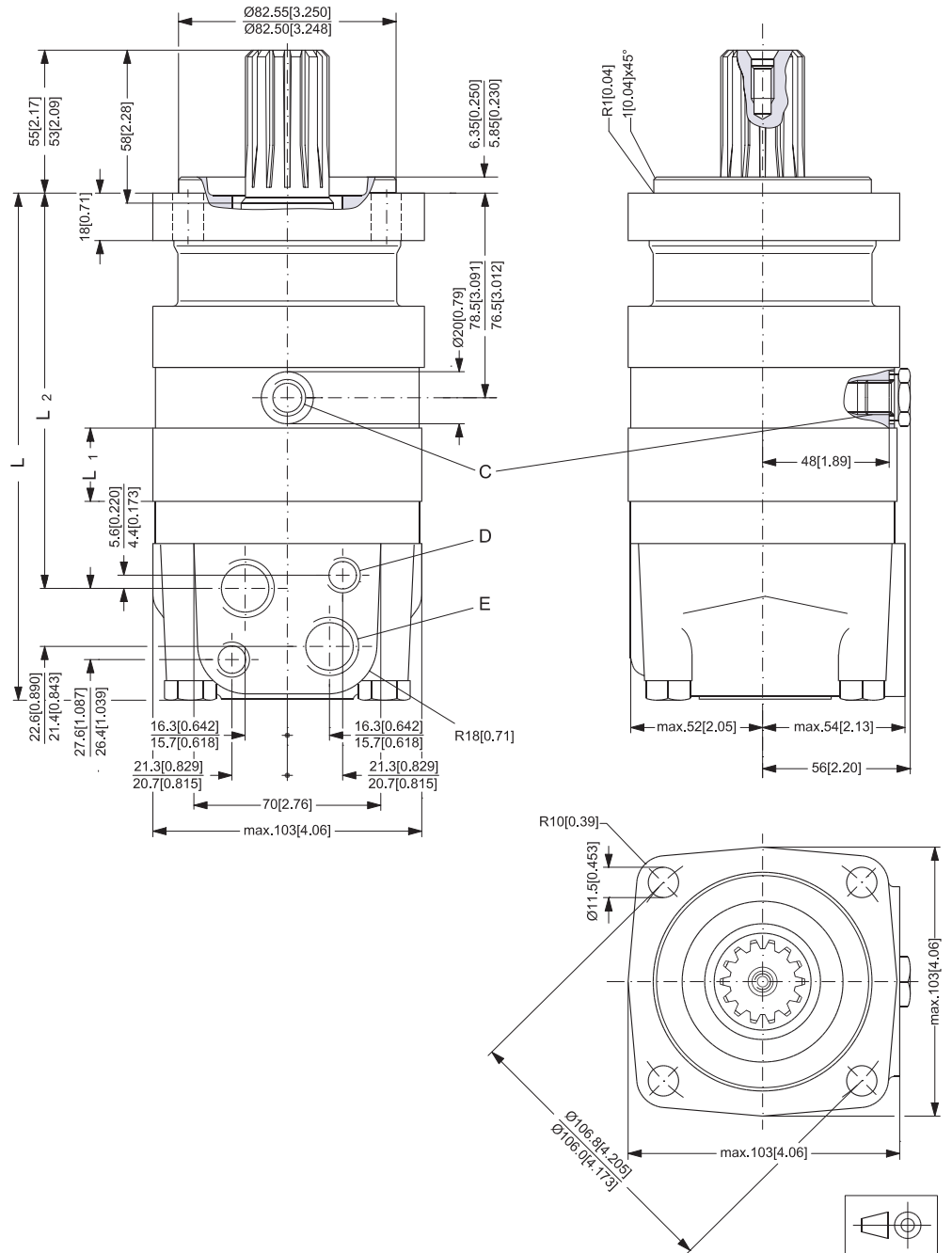
Type	L _{max.} mm [in]	L ₁ mm [in]	L ₂ mm [in]
OMS 80	167 [6.57]	14.0 [0.551]	124 [4.88]
OMS 100	170 [6.69]	17.4 [0.685]	127 [5.00]
OMS 125	175 [6.89]	21.8 [0.858]	132 [5.20]
OMS 160	181 [7.13]	27.8 [1.094]	138 [5.43]
OMS 200	188 [7.40]	34.8 [1.370]	145 [5.71]
OMS 250	196 [7.72]	43.5 [1.713]	153 [6.02]
OMS 315	208 [8.19]	54.8 [2.157]	165 [6.50]
OMS 400	221 [8.70]	68.4 [2.693]	178 [7.01]
OMS 500	221 [8.70]	68.4 [2.693]	178 [7.01]

Output shaft	L ₃ mm [in]
Cyl.1.25 in	max. 57 [2.24]
Splined 1.25 in	min. 55 [2.17]
Tapered 1.25 in	max. 67 [2.64]
	min. 65 [2.56]

C: Drain connection
 7/16 - 20 UNF;
 12 mm [0.47 in] deep
 O-ring boss port
 D: M10; 13 mm [0.51 in] deep
 E: 7/8 - 14 UNF;
 16.7 mm [0.657 in] deep
 O-ring boss port



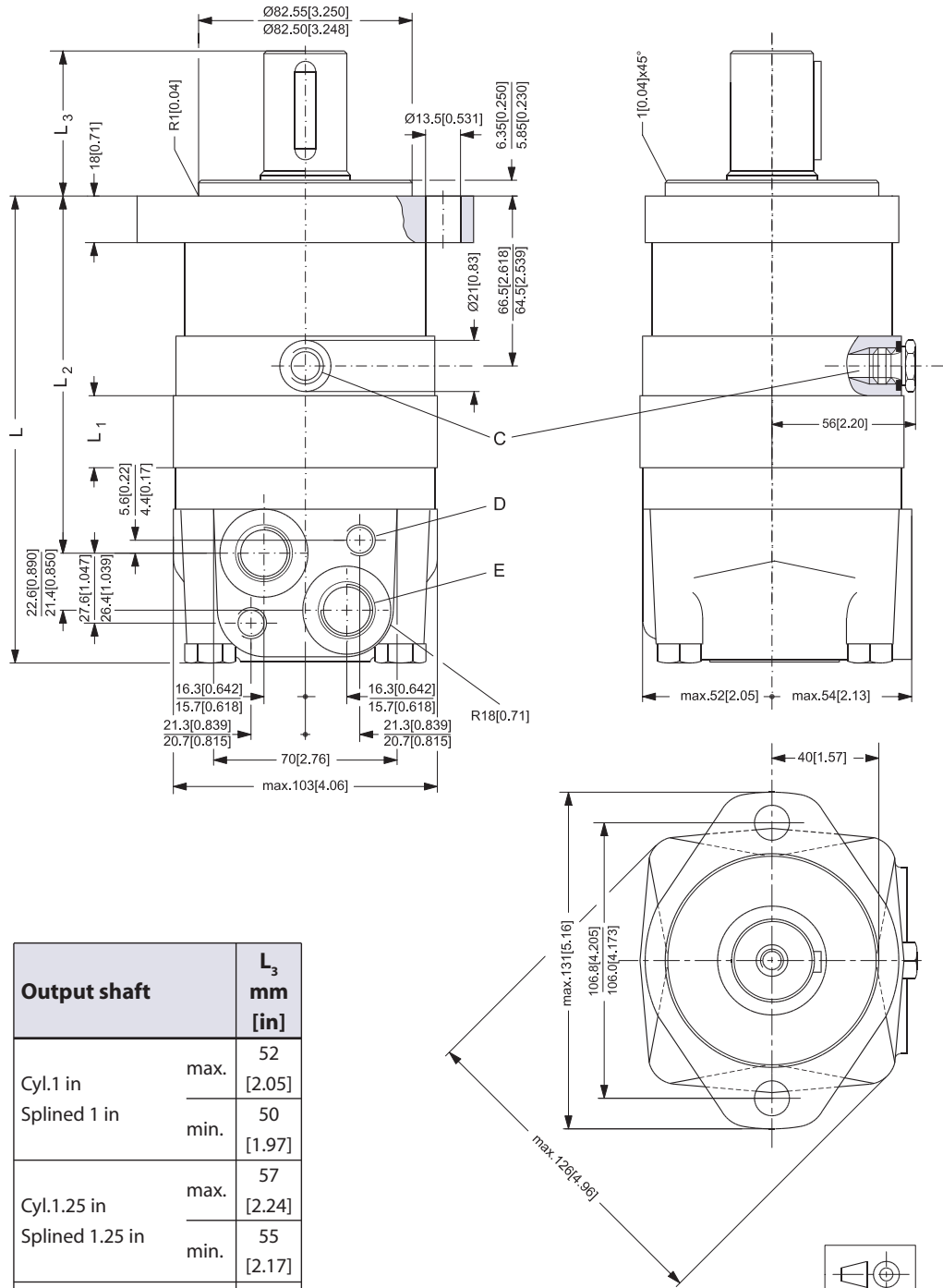
SPECIAL FLANGE



Type	L _{max.} mm [in]	L ₁ mm [in]	L ₂ mm [in]
OMS 80	178 [7.01]	14.0 [0.551]	136 [5.35]
OMS 100	182 [7.17]	17.4 [0.685]	140 [5.51]
OMS 125	186 [7.32]	21.8 [0.858]	144 [5.67]
OMS 160	192 [7.56]	27.8 [1.094]	150 [5.91]
OMS 200	199 [7.83]	34.8 [1.370]	157 [6.18]
OMS 250	208 [8.19]	43.5 [1.713]	166 [6.54]
OMS 315	219 [8.62]	54.8 [2.157]	177 [6.97]
OMS 400	232 [9.13]	68.4 [2.693]	190 [7.48]

- C: Drain connection
 G 1/4; 12 mm [0.47 in] deep
- D: M10; 13 mm [0.51 in] deep
- E: G 1/2; 15 mm [0.59 in] deep

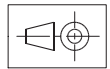
A-2 FLANGE



Type	L _{max.} mm [in]	L ₁ mm [in]	L ₂ mm [in]
OMS 80	167 [6.57]	14.0 [0.551]	124 [4.88]
OMS 100	170 [6.69]	17.4 [0.685]	127 [5.00]
OMS 125	175 [6.89]	21.8 [0.858]	132 [5.20]
OMS 160	181 [7.13]	27.8 [1.094]	138 [5.43]
OMS 200	188 [7.40]	34.8 [1.370]	145 [5.71]
OMS 250	196 [7.72]	43.5 [1.713]	153 [6.02]
OMS 315	208 [8.19]	54.8 [2.157]	165 [6.50]
OMS 400	221 [8.70]	68.4 [2.693]	178 [7.01]
OMS 500	221 [8.70]	68.4 [2.693]	178 [7.01]

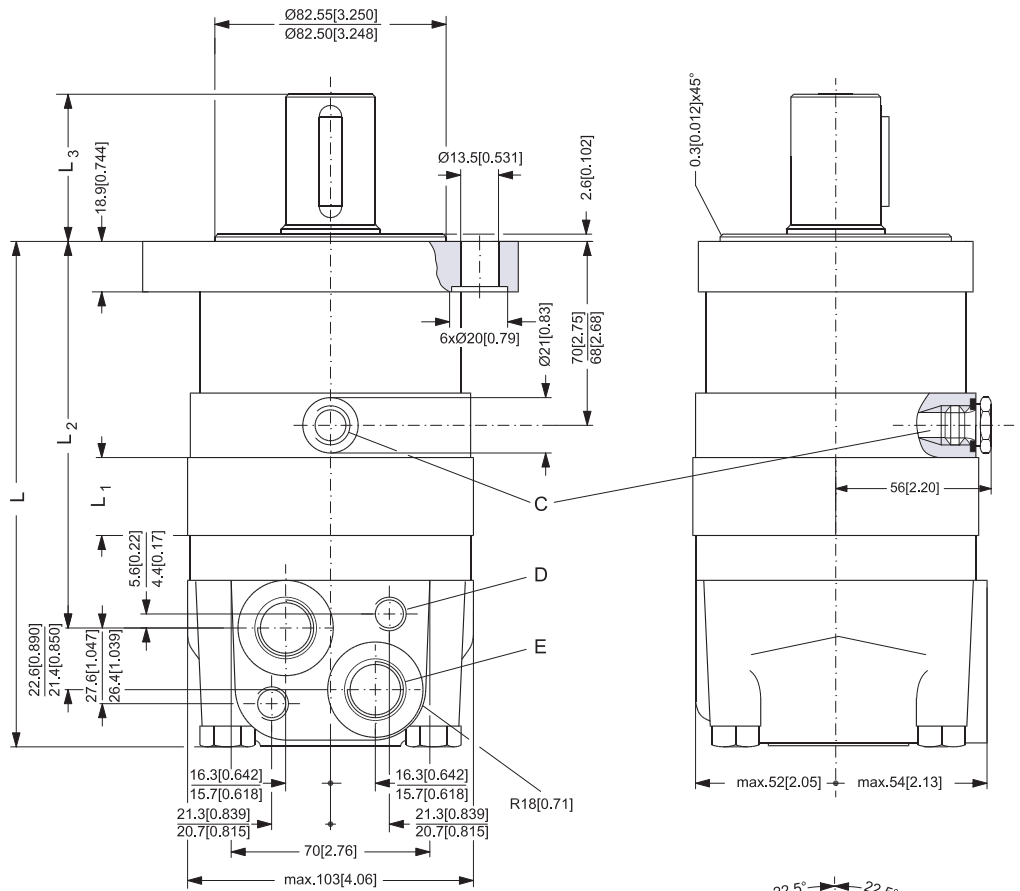
Output shaft	L ₃ mm [in]
Cyl.1 in	max. 52 [2.05]
Splined 1 in	min. 50 [1.97]
Cyl.1.25 in	max. 57 [2.24]
Splined 1.25 in	min. 55 [2.17]
Tapered 1.25 in	max. 67 [2.64]
	min. 65 [2.56]

C: Drain connection
 7/16 - 20 UNF;
 12 mm [0.47 in] deep
 O-ring boss port
 D: M10; 13 mm [0.51 in] deep
 E: 7/8 - 14 UNF;
 16.7 mm [0.657 in] deep
 O-ring boss port



151-1979.10

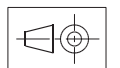
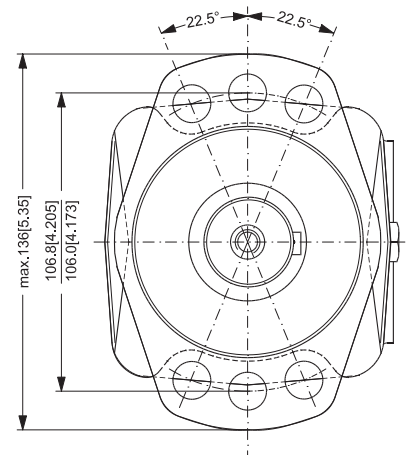
MAGNETO FLANGE



Type	L _{max.} mm [in]	L ₁ mm [in]	L ₂ mm [in]
OMS 80	171 [6.73]	14.0 [0.551]	128 [5.04]
OMS 100	174 [6.85]	17.4 [0.685]	131 [5.16]
OMS 125	179 [7.05]	21.8 [0.858]	136 [5.35]
OMS 160	185 [7.28]	27.8 [1.094]	142 [5.59]
OMS 200	192 [7.56]	34.8 [1.370]	149 [5.87]
OMS 250	200 [7.87]	43.5 [1.713]	157 [6.18]
OMS 315	212 [8.35]	54.8 [2.157]	169 [6.65]
OMS 400	225 [8.86]	68.4 [2.693]	182 [7.17]
OMS 500	225 [8.86]	68.4 [2.693]	182 [7.17]

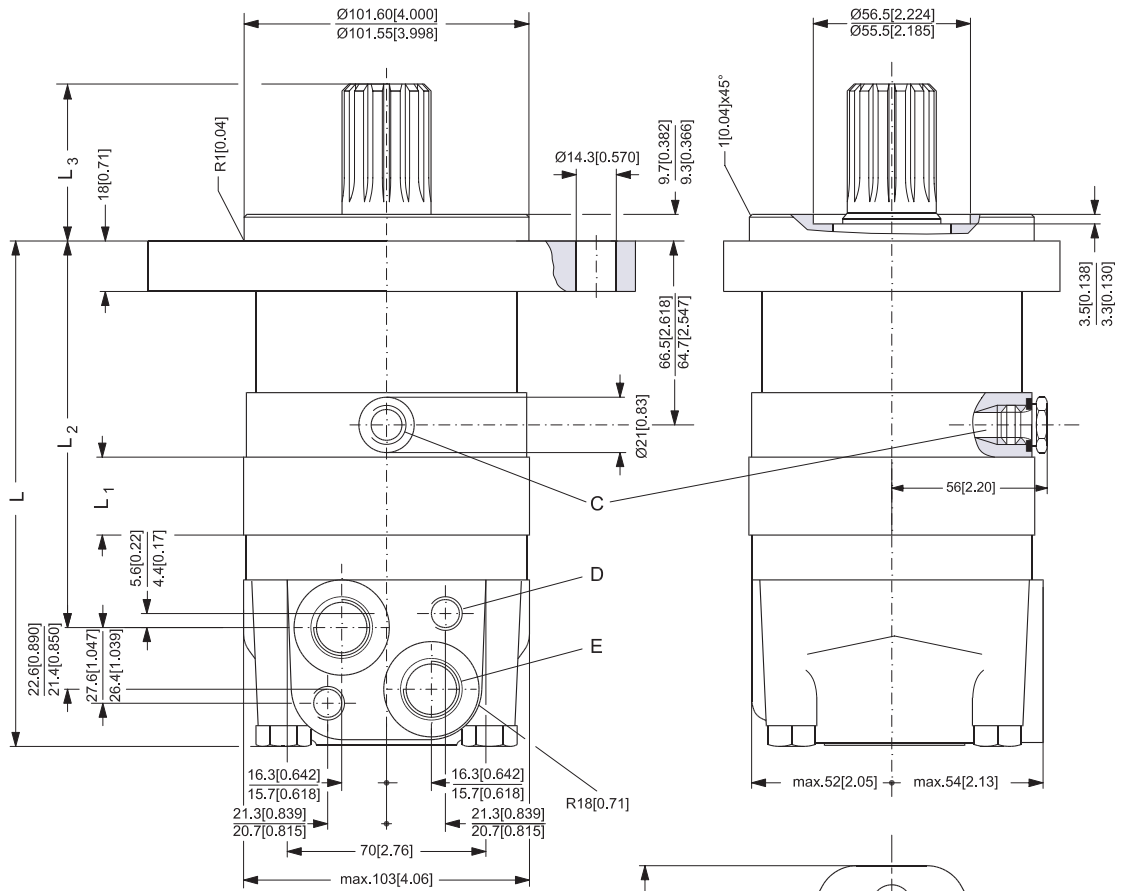
Output shaft	L ₃ mm [in]
Cyl.1 in	max. 49 [1.93]
Splined 1 in	min. 47 [1.85]
Cyl.1.25 in	max. 54 [2.13]
Splined 1.25 in	min. 52 [2.05]

C: Drain connection
 $\frac{7}{16}$ - 20 UNF;
 12 mm [0.47 in] deep
 O-ring boss port
 D: M10; 13 mm [0.51 in] deep
 E: $\frac{7}{8}$ - 14 UNF;
 16.7 mm [0.657 in] deep
 O-ring boss port



151-1980.10

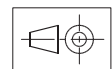
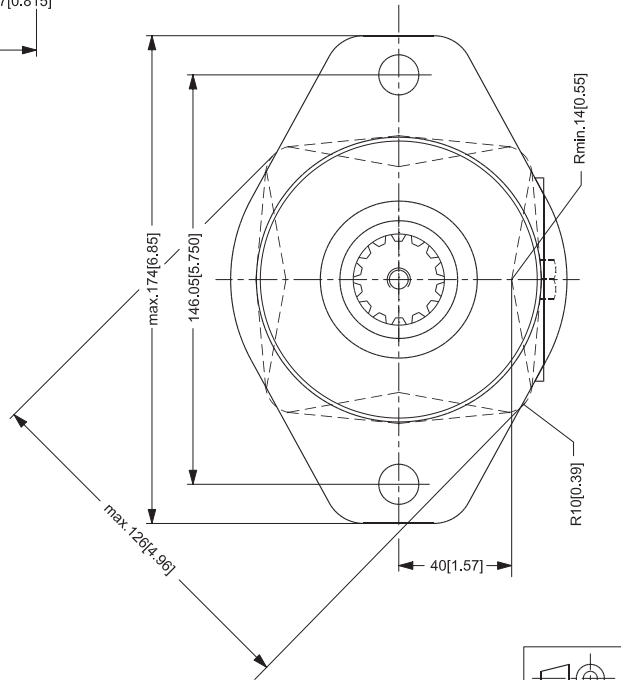
SAE-B FLANGE



Type	L _{max.} mm [in]	L ₁ mm [in]	L ₂ mm [in]
OMS 80	167 [6.57]	14.0 [0.551]	124 [4.88]
OMS 100	170 [6.69]	17.4 [0.685]	127 [5.00]
OMS 125	175 [6.89]	21.8 [0.858]	132 [5.20]
OMS 160	181 [7.13]	27.8 [1.094]	138 [5.43]
OMS 200	188 [7.40]	34.8 [1.370]	145 [5.71]
OMS 250	196 [7.72]	43.5 [1.713]	153 [6.02]
OMS 315	208 [8.19]	54.8 [2.157]	165 [6.50]
OMS 400	221 [8.70]	68.4 [2.693]	178 [7.01]
OMS 500	221 [8.70]	68.4 [2.693]	178 [7.01]

Output shaft	L ₃ mm [in]
Splined 1.25 in	max. 57 [2.24]
	min. 55 [2.17]
Splined 0.875 in	max. 42 [1.65]
	min. 40 [1.57]

- C: Drain connection
 $\frac{7}{16}$ - 20 UNF;
 12 mm [0.47 in] deep
 O-ring boss port
- D: M10; 13 mm [0.51 in] deep
- E: $\frac{7}{8}$ - 14 UNF;
 16.7 mm [0.657 in] deep
 O-ring boss port



151-1981.10

Couplings



GENERAL INFORMATION	page 16
SGEG - SGEA - SGES - SGEK - EGE	21
AKG	39
SGDR - EGR	47

The half-couplings series SGE*** allow secure transmission between the electric motor and the driven side; they are able to absorb shocks and vibration, in addition to compensating radial misalignment, angular and axial.

The assembly of the couplings can be horizontal/vertical, withstanding vibration and load reversals.

The complete range of couplings are extrapolated from the on-line software, with a length equal than the shaft on which must be mounted and they are completed with grub screw for fixing located on the key.

Available for cylindrical shaft with metric and imperial dimensions as well for splined shafts as per specification DIN, ISO and SAE.

Admissible misalignment radial, angular and axial

Max admissible radial misalignment

Half-coupling	R [mm]
SGE * 01	0.5
SGE * 21	1.0
SGE * 31	1.0
SGE * 40	1.0
SGE * 51	1.5
SGE * 60	1.5
SGE * 80	2.0
SGE * 90	2.0

Max admissible angular misalignment

Half-coupling	θ [°]
SGE * 01	8 [°] 1.5°
SGE * 21	
SGE * 31	
SGE * 40	
SGE * 51	
SGE * 60	
SGE * 80	
SGE * 90	

Max admissible angular alignment

Half-coupling	A [mm]
SGE * 01	2.0
SGE * 21	2.5
SGE * 31	3.0
SGE * 40	3.5
SGE * 51	3.5
SGE * 60	3.5
SGE * 80	4.0
SGE * 90	5.0

Standard ATEX Directive 2014/34/EU and UK Regulation S.I. 2016 No. 1107 (as amended)



Half-couplings are available to use in hazardous area.
The couplings are certified according to Standard ATEX Directive 2014/34/EU and UK Regulation S.I. 2016 No. 1107 (as amended) - Category certified 2G - Area 1 and 2.
Other information available on our web site "www.mpfiltri.com".

MP Filtri couplings are developed with:



CAD 3D



FEM

Drawings 3D available on website www.mpfiltri.com at section TOOLS.

Examples verification of the coupling

Torque transmitted by electric motor:

Mt: $9560 \times \text{kW} / \text{rpm} = \text{Nm}$

Me > $Mt \times S = \text{Nm}$

Where:

Mt: Torque transmitted by electric motor

Me: Torque transmitted by coupling

kW: Power of electric motor

Rpm: Revolutions per minute of electric motor

S: Service factor

Table 1

Small pumps, uniform load, low operating pressures e.g. rotary action machine tools - 5/8 work cycles per hour	1.3
Small pumps, uniform load, high working pressures e.g. lifting equipment - 120-150 work cycles per hour	1.5
Pumps, non-uniform load e.g. lifting equipment - 280-300 work cycles per hour	1.7

Example

Electric motor, 4 pole - 4 kW
hydraulic pump, uniform load, low operating pressure

Mt: $9560 \times 4 / 1500 = 25.45 \text{ Nm}$

Me > $25.49 \times 1.3 = 33 \text{ Nm}$

Half-coupling SGEA21 meets the above requirement.

Select the half-coupling of the calculated size from the motor half-couplings table.

Note: When selecting the coupling, remember that for pumps with splined shaft, only cast iron couplings of the SGEG series can be used.

Determine the size of the coupling according to the type of installation and application envisaged, on the basis of the formulas and the following tables:

Table 2

Half-coupling type	External diameter [mm]	Nominal torque Me - Nm	Maximum transmissible torque Me - Nm		
ROTAFIT					
SGEA01	SGEK01	43	15	20	
SGEA21	SGEK21	68	160	190	
SGEA31	SGEK31	75	340	380	
SGEA51	SGEK51	109.5	550	620	ALUMINIUM
SGEG01		40	20	30	
SGEG30		80	400	450	
SGEG40	SGEK40	95	550	620	
SGEG60	SGEK60	120	760	850	
SGEG80	SGEK80	160	2200	2500	
SGEG90		200	5500	6100	CAST IRON
SGES40		95	550	620	
SGES60		120	760	850	
SGES80		180	2200	2500	STEEL

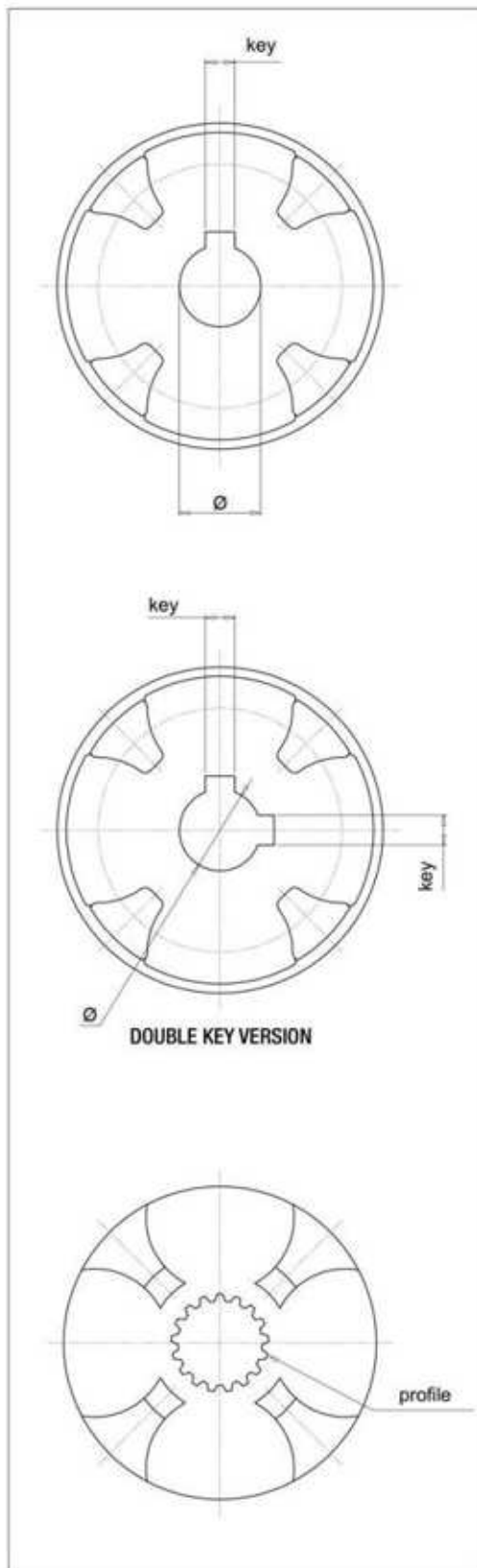
Nominal and maximum torque values are referred to couplings assembled with standard flexible spiders of the EGE** series (see page 31). Where higher torques are to be transmitted, use flexible spiders of the EGE**RR series (see page 31).

Parallel shaft - Metric Dimensions

Ø [mm]	key [mm]	Code
12	4	C00
15	5	C01
16	4	C02
16	5	C03
17	5	C04
18	6	C05
20	5	C06
19	5	C07
30	10	C08
20	6	C09
16	5	C10
15	4	C11
22	6	D00
24	6	D01
25	8	D02
30	8	D03
32	10	D04
35	10	D05
40	12	D06
45	14	D07
50	14	D08
70	20	D09
22	8	D10
52	16	D20
8	3	E00
10	3	E01
22	5	E02
32	8	E03
35	8	E04
82	22	E05
25	7	E06
63	18	E07
9	3	M00
11	4	M01
14	5	M02
19	6	M03
24	8	M04
28	8	M05
38	10	M06
42	12	M07
48	14	M08
55	16	M09
60	18	M10
65	18	M11
75	20	M12
80	22	M13
90	25	M14
95	25	M15
100	28	M16
110	28	M17
85	22	M18

Parallel shaft - Imperial Dimensions

Ø		key		Code
[inch]	[mm]	[inch]	[mm]	
7/16"	11.11	1/8"	3.18	G00
3/4"	19.05	3/16"	4.76	G01
7/8"	22.22	3/16"	4.76	G02
7/8"	22.22	1/4"	6.35	G03
1"	25.4	3/16"	4.76	G04
1"	25.40	1/4"	6.35	G05
1 1/4"	31.75	1/4"	6.35	G06
1 1/4"	31.75	5/16"	7.94	G07
1 3/8"	34.94	5/16"	7.94	G08
1 1/2"	38.1	3/8"	9.52	G09
1 5/8"	41.27	3/8"	9.52	H00
1 3/4"	44.45	7/16"	11.11	H01
2"	50.8	1/2"	12.7	H02
2 11/32"	53.94	1/2"	12.7	H03
3/4"	19.02	1/8"	3.17	H04
1"	25.4	3/16"	4.76	H05
5/8"	15.87	3/16"	4.76	H06
17/32"	13.45	1/8"	3.18	H07
11/16"	17.46	3/16"	4.76	H08
1/2"	12.7	1/8"	3.18	H09
5/8"	15.87	5/32"	3.97	L00
7/8"	22.22	5/32"	4	L01
11/8"	28.58	1/4"	6.35	L02
3/4"	19.05	1/4"	6.35	L03
1 7/8"	47.63	1/2"	12.7	L04
3 3/8"	85.73	7/8"	22.23	L05
2 3/8"	60.33	5/8"	15.88	L06
2 3/8"	60.33	1/2"	12.7	L07
2 7/8"	73.03	3/4"	19.05	L08
3 5/8"	92.07	7/8"	22.22	L09
1 5/8"	41.6	15/32"	12	L10
1 1/8"	28.58	5/16"	7.94	L15



Parallel shaft - Double Key

Ø [mm]	key [mm]	Code
16.00	4.00	C02***2H
	5.00	
20.00	5.00	C06***2M
	6.00	
19.00	5.00	C07***2L
	6.00	
24.00	6.00	D01***2N
	8.00	
30.00	8.00	D03***2P
	10.00	
22.22	4.76	G02***2E
	6.35	
25.40	6.35	G04***2F
	4.76	
31.75	6.35	G06***2G
	7.94	

*** = coupling length

SAE Bore - ANS.B.92.1-1970

Profile	Nr. of Th	Code
17 th 8/16	17	PD01
14 th 12/24	14	PD02
16 th 12/24	16	PD03
17 th 12/24	17	PD04
9 th 16/32	9	PD05
11 th 16/32	11	PD06
12 th 16/32	12	PD07
13 th 16/32	13	PD08
15 th 16/32	15	PD09
21 th 16/32	21	PD10
23 th 16/32	23	PD11
27 th 16/32	27	PD12
40 th 16/32	40	PD13
20 th 24/48	20	PD14
21 th 24/48	21	PD15
23 th 24/48	23	PD16
25 th 24/48	25	PD17
26 th 24/48	26	PD18
27 th 24/48	27	PD19
28 th 24/48	28	PD20
29 th 24/48	29	PD21
32 th 24/48	32	PD22
21 th 32/64	21	PD23
30 th 32/64	30	PD24
33 th 32/64	33	PD25
23 th 40/80	23	PD26
36 th 48/96	36	PD27
41 th 48/96	41	PD28
47 th 48/96	47	PD29
13 th 8/16	13	PD30
15 th 8/16	15	PD31
14 th 16/32	14	PD32
40 th 16/32	40	PD33
33 th 16/32	33	PD34
9 th 20/40	9	PD35
10 th 16/32	10	PD36
25 th 20/40	25	PD37

Splined bore as per standard DIN5480

Profile	Nr. of Th	Code
W18 x 1.25 x 13	13	PA01
W20 x 1.25 x 14	14	PA02
W25 x 1.25 x 18	18	PA03
W28 x 1.25 x 21	21	PA04
W32 x 1.25 x 24	24	PA05
W38 x 1.25 x 29	29	PA06
W30 x 2 x 14	14	PA07
W32 x 2 x 14	14	PA08
W35 x 2 x 16	16	PA09
W37 x 2 x 17	17	PA10
W38 x 2 x 18	18	PA11
W40 x 2 x 18	18	PA12
W42 x 2 x 20	20	PA13
W45 x 2 x 21	21	PA14
W50 x 2 x 24	24	PA15
W55 x 2 x 26	26	PA16
W60 x 2 x 28	28	PA17
W70 x 2 x 34	34	PA18
W80 x 2 x 38	38	PA19
W60 x 3 x 18	18	PA20
W70 x 3 x 22	22	PA21
W75 x 3 x 24	24	PA22
W90 x 3 x 28	28	PA23
W105 x 3 x 34	34	PA24
W80 x 3 x 25	25	PA25
W50 x 1.25 x 38	38	PA26
W62 x 1.25 x 48	48	PA27
W40 x 1.5 x 25	25	PA28
W32 x 1.5 x 20	20	PA29
W40 x 1.25 x 30	30	PA30

Splined bore as per standard DIN5481

Profile	Nr. of Th	Code
8 x 10	28	PC01
10 x 12	30	PC02
12 x 14	31	PC03
15 x 17	32	PC04
17 x 20	33	PC05
21 x 24	34	PC06
26 x 30	35	PC07
30 x 34	36	PC08
60 x 65	41	PC09

Splined bore as per standard DIN5482

Profile	Nr. of Th	Code
A15 x 12	8	PB01
A17 x 14	9	PB02
A18 x 15	10	PB03
A20 x 17	12	PB04
A22 x 19	13	PB05
A25 x 22	14	PB06
A28 x 25	15	PB07
A30 x 27	16	PB08
A32 x 28	17	PB09
A35 x 31	18	PB10
A38 x 34	19	PB11
A40 x 36	20	PB12
A42 x 38	21	PB13
A45 x 41	22	PB14
A48 x 44	23	PB15
A50 x 45	24	PB16
A52 x 47	25	PB17
A55 x 50	26	PB18
A58 x 53	27	PB19
A60 x 55	28	PB20
A62 x 57	29	PB21
A65 x 60	30	PB22
A68 x 62	31	PB23
A70 x 64	32	PB24
A72 x 66	33	PB25
A75 x 69	34	PB26
A78 x 72	35	PB27
A80 x 74	36	PB28
A82 x 76	37	PB29
A85 x 79	38	PB30
A88 x 82	39	PB31
A90 x 84	40	PB32
A92 x 86	41	PB33
A95 x 89	42	PB34
A98 x 92	43	PB35
A100 x 94	44	PB36

SGEG - SGEA - SGES - SGEK - EGE series

Flexible half-coupling in aluminium, cast iron and steel



Technical data

Giunti - Flexible half-coupling in aluminium, cast iron and steel

Half-couplings materials

SGEA: Pressure die cast aluminium
 SGEG: Cast Iron en-GJL-250 (gg25)
 SGES: Steel C40
 SGEK: Pressure die cast aluminium
 SGEK: Cast Iron en-GJL-250 (gg25)



Temperature

Spider oil-resistant rubber: from -20 °C to +90 °C
 Spider polyurethane resin: from -30 °C to +120 °C

Spider materials

EGE** series: Oil-resistant NBR 85 Shore A - black colour
 EGE**RR series: in polyurethane Laripur - 92 Shore A - LPR202-95A - red colour

Note

For temperatures outside this range, contact
 MP Filtri Technical and Sales Department

Compatibility with fluids

- Mineral oils types HH-HL-HM-HR-HV, to ISO 6743/4 standard
- Water based emulsions types HFAE-HFAS, to ISO 6743/4 standard
- Water glycol type HFC, to ISO 6743/4 standard: ask for anodized version

Special Applications

Any applications not covered by the normal indications
 contained in this catalogue must be evaluated and approved
 by MP Filtri Technical and Sales Department



Range

IEC Electric Motors size	Aluminium		G25 UNI 5007 Cast Iron - C40 Carbon Steel			
	Shaft ISO 3019-2	Shaft ISO 3019-2	Shaft ANSI B92- 1A 1976	Shaft DIN 5480	Shaft DIN 5481	Shaft DIN 5482
IEC 80 Ø200 - Ø19x40	●	●	●	●	●	●
IEC 90 Ø200 - Ø24x50	●	●	●	●	●	●
IEC 100 Ø250 - Ø28x60	●	●	●	●	●	●
IEC 112 Ø250 - Ø28x60	●	●	●	●	●	●
IEC 132 Ø300 - Ø38x80	●	●	●	●	●	●
IEC 160 Ø350 - Ø42x110	●	●	●	●	●	●
IEC 180 Ø350 - Ø48x110	●	●	●	●	●	●
IEC 200 Ø400 - Ø55x110	●	●	●	●	●	●
IEC 225 Ø450 - Ø60x140		●	●	●	●	●
IEC 250 Ø550 - Ø65x140		●	●	●	●	●
IEC 280 Ø550 - Ø75x140		●	●	●	●	●
IEC 315 Ø660 - Ø80x170		●	●	●	●	●
IEC 355 Ø800 - Ø90x170		●	●	●	●	●

IEC Electric Motors size	European standard size						German standard size		
	0,5	1	2	3	3,5	4	ZB	ZF	ZG
IEC 63 Ø140 - Ø11x23	●	●	●				●		
IEC 71 Ø160 - Ø14x30	●	●	●				●		
IEC 80 Ø200 - Ø19x40	●	●	●	●			●	●	
IEC 90 Ø200 - Ø24x50	●	●	●	●			●	●	
IEC 110 Ø250 - Ø28x60		●	●	●	●		●	●	
IEC 112 Ø250 - Ø28x60		●	●	●	●		●	●	
IEC 132 Ø300 - Ø38x80		●	●	●	●	●		●	●
IEC 160 Ø350 - Ø42x110			●	●	●	●		●	●
IEC 180 Ø350 - Ø48x110			●	●	●	●		●	●
IEC 200 Ø400 - Ø55x110			●	●	●	●		●	●
IEC 225 Ø450 - Ø60x140				●	●	●			●

SGEG-SGEA-SGES-SGEK

Designation & Ordering code

PUMP HALF-COUPLING FOR PARALLEL SHAFT

Pump half-coupling **SGE** Configuration example: **SGE** **A** **21** **G02** **050** **2E** **FG**

SGE

Series and material

A Aluminium

G Cast Iron

S Steel

K Aluminium / Cast Iron - Reduced length **RCTAFIT**

Size	SGEG	SGEA	SGES	SGEK
	01	01	01	01
	30	21	30	21
	40	31	40	31
	60	51	60	51
	80		80	40
	90		90	60
				80

Pump shaft code **G02** See page 18

Length **050** See pages 26 ÷ 30

Double key way (available combinations only) **2E** See page 18 (parallel shaft - double key)

Group screw (necessary for SGEA series only) **FG**

PUMP HALF-COUPLING FOR SPLINED SHAFT

Pump half-coupling **SGE** Configuration example: **SGE** **G** **40** **PD02** **050**

SGE

Series and material

G Cast Iron

S Steel

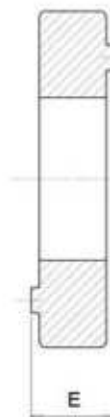
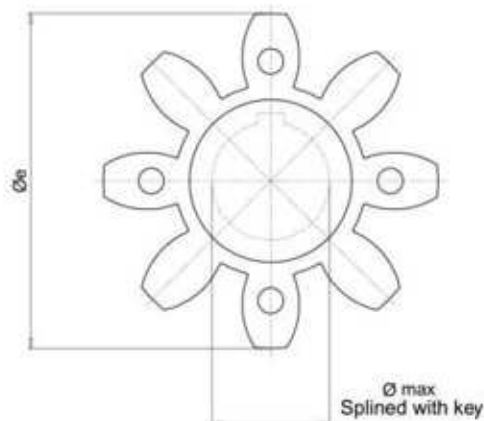
K Cast Iron - Reduced length **RCTAFIT**

Size	SGEG	SGES	SGEK
	01	01	01
	30	30	21
	40	40	31
	60	60	51
	80	80	40
	90	90	60
			80

Pump shaft code **PD02** See pages 19

Length **050** See pages 28 ÷ 30

Dimensions

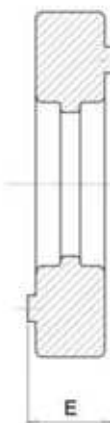
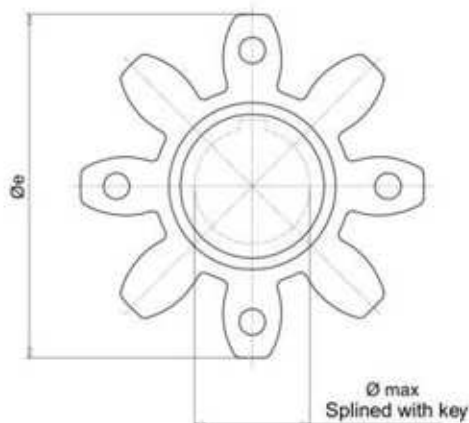


Notes:

Made of black oil-resistant rubber, these components serve to interconnect the two halves (motor - pump) of a flexible coupling.

EGE** series

Code	Half-coupling code		Dimensions [mm]			Nominal torque Nm	Max torque Nm	Weight [kg]
			E	Øe	Ø max			
		ROTAFIT						
EGE0	SGEA01 - SGEG01	SGEK01	15	40	16	10	20	0.006
EGE2	SGEA21	SGEK21	18	65	25	95	190	0.02
EGE3	SGEA31 - SGEG30	SGEK31	22	80	35	190	380	0.04
EGE5	SGEA51	SGEK51	26	105	45	310	620	0.06
EGE4	SGEG40 - SGES40	SGEK40	24	95	40	310	620	0.09
EGE6	SGEG60 - SGES60	SGEK60	28	120	55	430	860	0.13
EGE8	SGEG80 - SGES80	SGEK80	38	160	75	1250	2500	0.36



Notes:

Made in polyurethane Laripur - LPR202-95A, red colour, are suitable for applications where high levels of torque are transmitted.

EGE**RR series

Code	Half-coupling code		Dimensions [mm]			Nominal torque Nm	Max torque Nm	Weight [kg]
			E	Øe	Ø max			
		ROTAFIT						
EGE0RR	SGEA01 - SGEG01	SGEK01	15	40	16	15	30	0.006
EGE2RR	SGEA21	SGEK21	18	65	25	115	230	0.02
EGE3RR	SGEA31 - SGEG30	SGEK31	22	80	35	250	500	0.04
EGE5RR	SGEA51	SGEK51	26	105	45	400	800	0.06
EGE4RR	SGEG40 - SGES40	SGEK40	24	95	40	380	760	0.09
EGE6RR	SGEG60 - SGES60	SGEK60	28	120	55	550	1100	0.13
EGE8RR	SGEG80 - SGES80	SGEK80	38	160	75	1400	2900	0.36
EGE9RP	SGEG90	-	48	200	95	8900	9900	0.59

Version for extreme temperatures available on request.

For further information, contact MP Filtri Technical and Sales Department.