

Connection Technology standard series







be different. make a difference.

Company Who we are and what we offer

asa stands for developments, advances and innovations already at work through our customers' various mobile and stationary applications. More than 38 years experience in thermal systems, connection technology and fluid controls has made us a global leader in advanced technologies. Our experience creates progress to ensure you competitive pricing, consistent product performance and reliability.



- worldwide availability
- fast reaction time
- technical support



Be different. Make a difference.

Over the years, asa continually developed into a globally active systems supplier. Despite this evolution, we consciously maintained the medium sized structure of a family owned company. As a result we are able to respond quickly and flexibly to our customer's demands and promote our innovations. Our increasing product portfolio and quality targets developed asa as a brand to the next level. Thus made us create a new logo and appearance to strengthen our key values and highlight it in all our present and future markets. We are proud on looking back on almost 40 years of innovative products, but our major attitude is a the view into the future. Please check out our newest products and technologies in this catalogue and contact us if more detailed information is required.











get in contact for this catalogue

Innovation

Have you ever seen a company searching for bad technical solutions?

As a global technology group with its different technical categories we have a wide spreaded demand of technical solutions and products in the markets. When we find out that we are using an average solution or not even finding an appropriate product, we start developing it on our own!

The connection technology product group is therefore a collection of solved problems and completes a lack of technology at different markets and applications. Take a look at our systems and solutions and get in contact for any new possible project development!



8x



- low shear loads
- short life time



✓ higher shear loads!✓ long duration!

4x

Example Rubber Vibration Absorbers:

This example shows the difference between the use of 8 cylindrical rubber shock absorbers compared to 4 of our new shock absorbers.

- On the left picture you can see the necessary use of 8 conventional absorbers to support a ~26 kg unit. This configuration has still limited shear load capability followed by a short duration.
- The right picture shows a replacement of the 8 units with only 4 of our absorbers with the new design. This configuration allows even higher shear loads. As a result we reduce costs and raise the life time of the product at the same time.



Vibration Absorber MDGQ Absorber



The *asa* rubber vibration absorbers are rubber metal connected parts to absorb impact loads on components as protection and to extent the life time. The patented solution is especially equipped for highest shear loads. An assembly system controlled by arrows on the metal parts helps to optimize and raise the load capability of the vibration absorber.



Dimensions

order number	description	А	В	С	М	Smax	shore degree	weight
		[mm]	[mm]	[mm]		[mm]		[kg]
MDGQ403008IIK	40x40x30 M8	40	30	20	M8	± 3	45 ± 5	0,127
MDGQ504510IIK	50x50x45 M10	50	45	25	M10	± 6	55 ± 5	0,280
MDGQ755512IIK	75x75x55 M12	75	55	37,5	M12	± 8	55 ± 5	0,659
MDGQ1007516IIK	100x100x75 M16	100	75	50	M16	± 9	65 ± 5	1,920

Load Capacities, Maximum Static Loads

order number	description	compression $F_{\rm D}$	tension F _z	compression/shear F _{DS}	tension/shear F _{zs}	compression/shear diagonal F _{DSD}
		[N]	[N]	[N]	[N]	[N]
MDGQ403008IIK	40x40x30 M8	800	250	700	350	950
MDGQ504510IIK	50x50x45 M10	2000	1450	1550	1500	2250
MDGQ755512IIK	75x75x55 M12	4250	2250	2600	2200	3850
MDGQ1007516IIK	100x100x75 M16	10000	8000	6900	6350	8350

Spring Rates

order number	description	$\operatorname{compression}_{D}$	tension C _z	compression/shear C _{DS}	tension/shear C _{zs}	compression/shear diagonal C _{DSD}
		[N/mm]	[N/mm]	[N/mm]	[N/mm]	[N/mm]
MDGQ403008IIK	40x40x30 M8	267	83	233	117	317
MDGQ504510IIK	50x50x45 M10	333	241	258	250	375
MDGQ755512IIK	75x75x55 M12	531	281	325	275	481
MDGQ1007516IIK	100x100x75 M16	1301	982	770	709	932

Assembly Instructions

assembly of 4 vibration absorbers:









Material

metal	zinc coated
elastomer	natural rubber
working temperature range	-30°C to +70°C

Options

stainless steel type MDGQ403008IIW

Please read product application reference sheet, before installation.

HP Compensators Expansion Joints Series 16 bar



The *asa* high pressure compensator series is carried out as high performance design with very flexible capabilities and long duration. It's strong shape design focusses a most compact flange to flange dimension with excellent noise reduction with vibration absorption as well as high movement tolerances in all directions.

The sealing part of the rubber is designed to work without any additional sealing material. The turnable metal flanges are designed with a flare to support the pressure performance of the product. This is a major difference to other solutions in the market with direct impact to the high duration of the compensator.

Please read our manual before installation!







lateral





Technical Data

nom si	inal ce	nominal pressure*	L	D Ø	B Ø	C Ø	E	F	F	H Ø	axia		lateral**	angular**	weight
D	N	PN [bar]	[mm]	[mm]	[mm]	[mm]	[mm]		[mm]	[mm]	min. [mm]	max. [mm]	+/- [mm]	+/- [*]	[kg]
25	0	16							on requ	uest					
32	+2 -5	16	88	60	140	100	18	4	15	76	78	98	10	30	2,9
40	+2 -5	16	96	71	150	110	18	4	15	82	85	105	10	30	3,3
50	+2 -5	16	108	84	165	125	18	4	16	95,5	97	119	11	30	4,3
65	+2 -7	16	130	98	185	145	18	4	16	109	118	142	12	30	5,3
80	+2 -8	16	140	119	200	160	18	8	18	128	126	154	14	30	6,4
100	+2 -8	16	165	142	220	180	18	8	18	150	149	181	16	15	7,5
125	+2 -9	16	188	171	250	210	18	8	18	182	170	206	18	15	8,6
200	+2 -9	16	200	258	340	295	22	12	24	265	179	221	21	5	18,8
300	+2 -11	16	264	360	460	410	26	12	26	372	240	288	24	5	31,7
400	0	10		on request											
500	0	10		on request											

*... Depending on the fluid, a reduction of working conditions may be necessary. Please contact us for further assistance. Acceptable load factors have to be considered:

up to 50° C – load factor up to 100% of movements up to 70° C – load factor up to 80% of movements up to 80° C – load factor up to 70% of movements max. working pressure: 16bar max. working pressure 12bar max. working pressure 10bar

**... The given data are measured at room temperature of 22°C with new products in standard length and non swelling media. Any combination of the movement capabilities will have impact on the actual possible data and maximum pressure. Please contact us for assistance.

HP Compensators Expansion Joints Series 16 bar



Acceptable vacuum pressure¹

DN	32	40	50	65	80	100	125	200	300	400	500
[bar]	-0,7	-0,7	-0,7	-0,7	-0,6	-0,4	-0,3	-0,3	-0,1	-	-

¹... The maximum acceptable elongation (L max.) reduces the vacuum resistance by 50%. The given data are measured at room temperature of 22°C with new products in standard length and non swelling media.

Materials

rubber inside	NBR (nitrile), seamless, abrasion resistant
rubber reinforcement	PA textile cord
rubber outside	CR (chloroprene)
flange	galvanized steel (stainless steel 1.4404 on request)
flange wire	steel wire

Compatibility

mineral based oil, fuel ethanol blend e.g. E85 and DIN EN fuels up to 50% aromatic content

Temperature

depending on fluid, -20°C up to 80°C movement and pressure

Flange Type

DIN flange,	PN16 (size 32 to 300)
ANSI standard	ASA 300 on request

Article Code



1 Product Series

SDK	Connection Technology - Compensators
JUN	Compensators

2 Design Type

H High Pressure

3 Flange 1

D6	DIN Flange PN16
A1	on request / ASA 150 (ANSI B16.5 150lb/in²)
A3	on request / ASA 300 (ANSI B16.5 300lb/in ²)
others	on request

4 Flange 2

D6	DIN Flange PN16
A1	on request / ASA 150 (ANSI B16.5 150lb/in²)
A3	on request / ASA 300 (ANSI B16.5 300lb/in²)
others	on request

5 Compensator Size DN

0025 to 0500

6 Rubber Material

	inside	outside
Ν	NBR	CR
others	on request	

7 Flange Material

0	standard galvanized steel
1	stainless steel 1.4404
others	on request

8 Special Purpose Options

0 no options Vacuum support rings, tie rods and angular limiters on request

9 Index / Customized

Bxx special / customized specifications, to be advised by asa;

Suction Line Butterfly Valve SAE 1½" to SAE 5"



The *asa* butterfly flange with SAE and DIN connections allows the combination with an elastic element (rubber compensator) to make a short compensating and economical connection with the pump port. The lever position can be changed through our new mechanism. The handle direction (clockwise or counter clockwise) can be changed by turning the switch bracket. Please note that the butterfly flange may only be opened in mounted state and with greased or lubricated sealing. The adapter flange may only be welded with demounted butterfly flange.





Technical Data

order number	description	si	ze	А	В	С	D	Е	F	G	ØН	J	М	ØN	NW	TK	weight
		SAE	DIN	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		[mm]	[mm]	[mm]	[kg]
SDA0040	AF 40	1 ½"	40	70	35,7	102	120	162	25	43	60	23,5	M12	13,5	40	110	2,17
SDA0050	AF 50	2"	50	77,8	42,9	111	112	155	20	43	73	35,8	M12	13,5	48	125	2,2
SDA0063	AF 63	2 1⁄2"	65	89	50,8	111	119	161	20	40	83	55,3	M12	13,5	63	125	2,15
SDA0080	AF 80	3"	80	106,4	62	144	145	187	20	41	95	73,9	M16	18	80	160	2,98
SDA0100	AF 100	4"	100	130,2	77,8	163	162	205	20	43	123	98,2	M16	18	100	180	4,01
SDA0125	AF 125	5"	125	152,4	92	185	185	227	20	43	148	124,0	M16	18	125	210	4,8

Working ranges

max. working pressure	7 bar (absolute)
max. differential pressure	6 bar
temperature range	-20°C to +80°C

Materials

housing	cast iron	
lever	steel	
valve disc	aluminium	
seals	NBR	

Options

limit switch	mechanical or inductive type
FPM sealings	contact us for the Viton valve range
stainless steel	contact us for the stainless steel range

This data sheet and the corresponding scale drawings are to be used as a general guideline and technical overview of our products. Please contact us if more exact information is needed. As we are constantly improving our products, their characteristics, dimensions and weights may also change, although we do our best to incorporate these changes continually, asa assumes no liability for any information therein, any errors, omissions, misrins, nor any direct or indirect damages, losses or costs resulting therefrom. Any cooling performances and general technical values indicated in this catalogue are measured at a test bench according to asa testing procedure, less used by other manufacturers could have different results. Therefore we recommend all products to be checked under the system operating conding. This is also true for vibrations and mechanical stress as well as for pressure peaks and thermal technicat or soft of 20.0062-3 (DCT 61). Tolerances for unberparts are according to 1DX 3002-1 (class Me-Fr-Q). The loterances of wellows are defined by quality group D according to EN ISO 10042, if it is not specified on the actual scale drawing or data sheet. In addition to that we point out that any data sheet and corresponding scale drawing is no substitution for the manual.



Suction Line Butterfly Valve SAE 2", SAE 2 ½" and SAE 3" aluminium design



The **asa** butterfly flange with SAE and DIN connections allows the combination with an elastic element (rubber compensator) to make a short compensating and economical connection with the pump port. The lever position can be changed through our new mechanism.

The handle direction (clockwise or counter clockwise) can be changed by turning the switch bracket. Please note that the butterfly flange may only be opened in mounted state and with greased or lubricated sealing. The adapter flange may only be welded with demounted butterfly flange. Please contact us for further information at support@asahydraulik.com or www.asahydraulik.com.





Technical Data

order number	description	si	ze	A	В	С	D	E	F	G	ØН	J	М	ØN	NW	TK	weight
		SAE	DIN	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		[mm]	[mm]	[mm]	[kg]
SDA0050A	AF 50 Alu.	2"	50	77,8	42,9	112	112	155	20	43	73	35,8	M12	13,0	50	125	1,05
SDA0063A	AF 63 Alu.	2 1⁄2"	65	89	50,8	111	119	161	20	43	83	55,3	M12	12,8	63	125	1,09
SDA0080A	AF 80 Alu.	3"	80	106,4	62	144	145	187	20	43	95	73,9	M16	17,5	80	160	1,48

Working ranges

max. working pressure	7 bar (absolute)
max. differential pressure	6 bar
temperature range	-20°C to +80°C

Materials

housing	aluminium
lever	steel
valve disc	aluminium
seals	NBR

Options

limit switch

mechanical or inductive type



Compensator SAE 1" to SAE 5"



Rubber compensators are elastic connectors with turnable SAE flanges. Compensators are used for damping oscillations, vibrations, noises and movements in axial and transversal direction.

Design

Rubber compensators have a plain surface vulcanized to a fabric body (inside and outside) of the rubber part. The outside is weather resistant and protects the fabric against ageing, wear and corrosion. The interior of the rubber part consists of nitril-butadien-caoutchouc (NBR). The outer layer is made of CR (chloroprene rubber). Because compensators have tightening lips on both sides, further seals are not necessary.

Use

For all mineral oil products, crude oil, lubrication oil, cooling oil (-20°C up to 80°C), grease, cold water, warm water up to 60°C, water/oil emulsions, fuel with 30% aromatic content. For operation in suction and return lines.



Technical Data

order number	description	si	ze	А	В	D	С		Е	F	G	Н	L	weight
		SAE	NG*	[mm]	[mm]	[mm]	[mn	n]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]
SDKSS025	K16S – 25	1"	25	26,2	52,4	43	25	+ 1 - 3	11	11	59	70	65	0,4
SDKSS032	K16S – 32	1 1⁄4"	32	30,2	58,7	50	32	+ 1 - 3	11	13	73	81	65	0,5
SDKSS040	K16S – 40	1 ½"	40	35,7	70,0	62	40	+ 1 - 3	13	13	83	95	100	0,8
SDKSS050	K16S – 50	2"	50	42,9	77,8	72	48	+ 1 - 3	13	13	97	103	100	1,0
SDKSS063	K16S – 63	2 1⁄2"	63	50,8	89,0	87	63	+ 1 - 3	14	13	109	115	100	1,2
SDKSS080	K16S – 80	3"	80	62,0	106,4	104	80	+ 1 - 3	14	17	131	136	100	1,8
SDKSS092	K16S – 90	3 1⁄2"	90	70,0	120,7	120	90	+ 1 - 3	14	17	140	152	100	1,9
SDKSS100	K16S - 100	4"	100	77,8	130,2	130	100	+ 1 - 3	16	17	152	162	100	2,5
SDKSS126	K16S – 125	5"	125	92,0	152,4	155	125	+ 1	16	17	165	184	130	3,0

*... NG = nominal size

Material

inside	NBR 70shore ±5
outside	CR
flange	steel

Working Pressure

maximum working pressure 1,5 bar (absolute)



Please read manual before installation and for the maximum movement tolerances of the rubber connection! Note, that the dimension tolerances have to be taken from the corresponding scale drawing.

Suction Unit SAE 1¹/₂⁴ to SAE 5⁴



The **asa** suction unit has been developed to provide a compact unit in hydraulic systems. The **asa** butterfly flange with SAE connections allows the combination with an elastic element (rubber compensator) to make a short compensating and economical connection with the pump port. The **asa** suction unit is screwed to the **asa** adapter flange, which is welded to the tank. Due to low installation costs and compact design, purchasing **asa** suction units is cost effective. A switch (mechanical or inductive) can be mounted on the standard block for monitoring matters.



Technical Data

order number	description	size		А	В	С	D	weight
		SAE	DIN	[mm]	[mm]	[mm]	[mm]	[kg]
SDAK0040T	ESAF - 40	1 1⁄2"	40	185	168	130	89	5,20
SDAK0050T	ESAF - 50	2"	50	185	168	150	103	6,20
SDAK0063T	ESAF - 63	2 1⁄2"	65	185	165	150	103	6,40
SDAK0080T	ESAF - 80	3"	80	185	166	150	110	7,50
SDAK0100T	ESAF - 100	4"	100	185	168	180	140	9,80
SDAK0125T	ESAF – 125	5"	125	185	198	205	165	11,60

Working ranges

working pressure range	0,2 – 1,5 bar absolute
temperature range	-20°C to +80°C

Material

butterfly valve housing	cast iron
valve disc	aluminium
valve sealing	NBR
compensator flange	steel
compensator rubber inside	NBR
compensator rubber outside	CR
adapter flange	steel 1.0037 or 1.0570



stainless steel versions on request

Accessories Limit Switch for butterfly flanges and suction units



Optional to the *asa* suction units and butterfly flanges we offer mechanical and inductive limit switches. The limit switch can be mounted on the standard block for monitoring matters. The lever position corresponds to the valve position. Thus the aperture angle is well-defined even in mounted state. The handle direction (clockwise or counter clockwise) can be changed by turning the switch bracket. Please note that the butterfly flange may only be opened in mounted state and with greased or lubricated sealing.

Mechanical Limit Switch



EAFSMK
10A res., 6A ind.
10A res., 4A ind.
0.4A res., 0.05A ind.
10 ⁷ (at 50cpm)
105 (at 20cpm)
-20°C to 60°C
max. 95% at 20°C
120cpm
IP 64
IP 60
Two way contact
250V AC
2.5kV
2.5kV
10A
100A
10A fuse

Inductive Limit Switch



order number	EAFSIK
Operating voltage	10 to 30 V
Switching frequency	0 to 1500 Hz
Reverse polarity protection	protected
Short-ciruit protection	pulsing
Voltage drop	= 3V
Operating current	0 to 200 mA
Off state current	0 to 0.5 mA typ. 0.1ìA
No-load supply current	= 17 mA
Indication of the switching state	LED, yellow
Ambient temperature	-25°C to 70°C
Switching element function	PNP make function
Rated operating distance	2 mm
Installation	embeddable
Assured operating distance	0 to 1,62 mm
Reduction factor rAl	0.3
Reduction factor rCu	0.2
Reduction factor rV2A	0.7
Core cross-section	0,14 mm ²
Protection degree	IP67





Accessories Adapter Flange DN 40 – DN 125



The *asa* suction unit is screwed to the *asa* adapter flange, which is welded to the tank. Due to low installation costs and compact design, purchasing as a suction units is cost effective. A switch (mechanical or inductive) can be mounted on the standard block for monitoring matters. The adapter flange may only be welded with demounted butterfly flange.



Technical Data

order number	description	A	В	С	D	E	F	G	Н	J	K	weight
		[mm]	[mm]	[mm]	[mm]	[kg]						
SDAET040K	adapter 40	110	49	25	130	22	14	M12 (4x)	-	-	89±1	1,85
SDAET063K	adapter 50 & 63	125	63	25	150	22	14	M12 (4x)	-	-	103±1	2,45
SDAET080K	adapter 80	-	80	25	150	22	16	M16 (4x)	62	106	109±1	2,14
SDAET100K	adapter 100	-	100	25	180	22	16	M16 (4x)	77,8	130	139±1	2,80
SDAET125K	adapter 125	-	125	25	205	22	16	M16 (4x)	92	152	164±1	3,30

Material

flange material steel 1.0037 or 1.0570

Corrosion

delivery condition oiled

Fits On

SDAET040K	SDA0040, SDA00040W
SDAET063K	SDA0050, SDA0063, SDA00050W, SDA00063W
SDAET080K	SDA0080, SDA00080W
SDAET100K	SDA0100, SDA00100W
SDAET125K	SDA0125, SDA00125W



Other Products

Thermal Systems/Standard Ranges

Our standard oil/air cooler range is still setting the bench mark in the markets. We offer short lead times and the densest program of pressure resistant coolers with all relevant features. Our internal bypass options and pollution resistant air fins are well known in the market and work globally, in various conditions.

The versatility of our patented connection solutions are the best choice to gain from the system itself, as well as to add on values to the end product.

- 1 to 800 lpm
- quality through standardization
- high duration, most dense cooler and option product ranges





Thermal Systems/H-Ranges

PWC is our design philosophy, using our patented systems to integrate various functions in a hydraulic circuit out of standard modules into a customized product. This merges asa's well known flexible systems and engineering capabilities to gain real cost and space reduction, through simplification of parts and variable functions, to any application.

The system integration is defined by the required functions based on a cooling station, docking one or more variable sets.

- real compact design
- cost saving
- one system

Fluid Controls/Pumps

The asa gerotor pump unit fulfills the requirements of a modern hydraulic system. The compactness of the gerotor pump design saves weight and space. Furthermore the solid shape of the pump is high resistant for hydraulic and machanic impact loads. The low noise level and the flexible connection complete this product to a highly versatile and reliable system for various applications. The coupling with a high quality standard motor is the optimal choice for a durable pump unit.

- 20 to 110 lpm
- Iow pulsation
- high duration





discover reliable technology!

asa Thermal Systems Connection Technology Fluid Controls



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