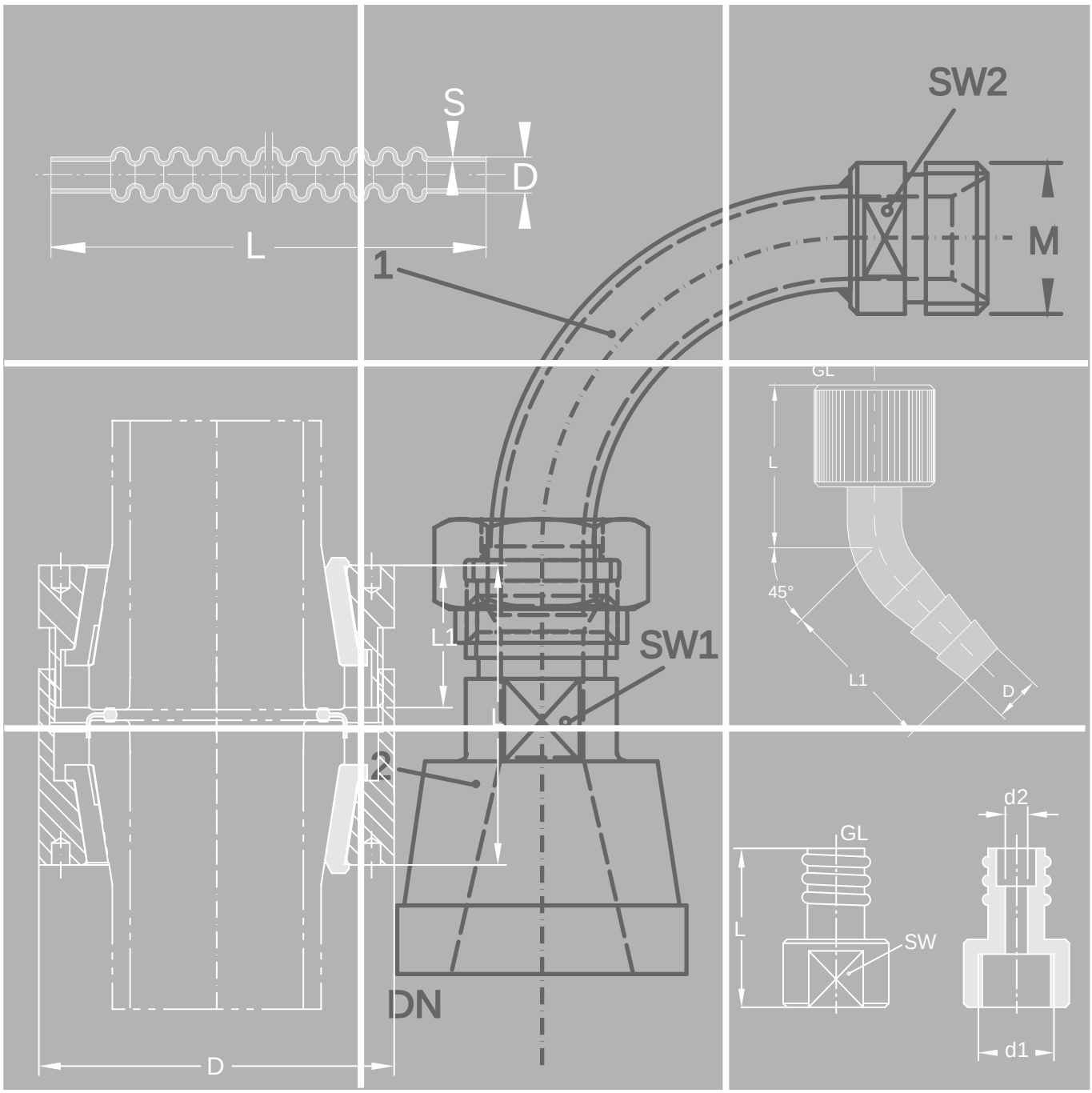

S
D
L
1
SW2
M
L1
SW1
2
DN
D
GL
L
45°
L1
D
GL
L
SW
d2
d1

COUPLINGS

Miniplant technology uses the most varied of flange ends.

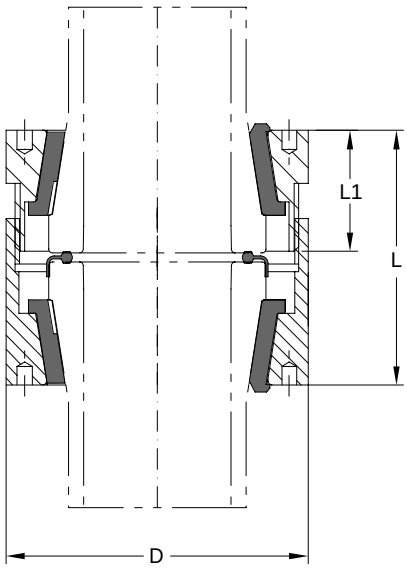
The available kinds are shown in chapter 1 with the corresponding main measurements. For every flange shape, the corresponding flange and gasket are used, which differ not only in the shape but also in the material used for the flange. To avoid duplication, we refer to the WPR 2002 Catalogue for the standard couplings and in the following describe only the connecting elements not contained in it.

Screw connectors are frequently used for measurement recorders and hose connections. They are described in the following as they fit the GL threads.

QUICK-RELEASE COUPLING

The quick-release coupling is used to connect safety flat flange pipe ends under narrow space conditions. The connection consists of two halves, including plastic inserts, that are pushed over the pipe ends. Since the connection does not have spring elements, it must be tightened when the temperature changes. The coupling can be tighten by hand or a special key is used for stretching: It as well as the gasket must be procured separately.

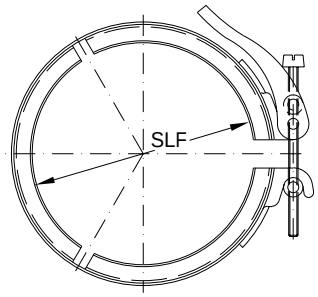
Alternatively, the couplings shown in the WPR 2002 Catalogue can be used.



DN	D	L	L1	L2	M	Special key	Reference
15	46	38	25	18.5	M42x1.5	M-SK15-3	M-SK15
25	60	60	40	29	M56x1.5	M-SK25-3	M-SK25
40	80	67	44	32	M75x1.5	M-SK40-3	M-SK40

QUICK-RELEASE FASTENER

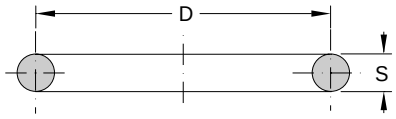
The quick-release fastener connects two laboratory flanges (SFL) and consists of three stainless steel retaining segments. A suitable O-ring, which is not included, is used as a sealing element.



SLF	Reference
100	M-SCHN100
150	M-SCHN150

O-RING FOR LABORATORY FLANGE COUPLING

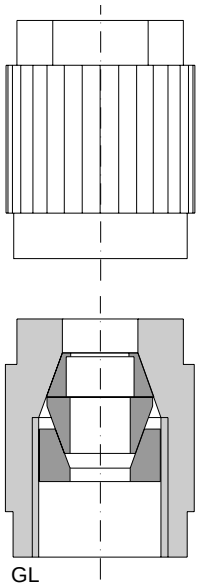
Material: FEP-jacket



SLF	D	s	Reference
100	110	4	GO110X4-FEP
150	150	5	GO150X5-FEP

LABORATORY THREADED CONNECTIONS

The medium flowing through the coupling comes into contact only with PTFE. The laboratory threaded connections are used especially to connect glass tubes with PFA hoses and tubes made of plastic, glass and metal. These couplings are also used to lock feeler gauges (also stainless steel), probes, laboratory stop-cocks, immersion tubes, thermometers and cable feeds.

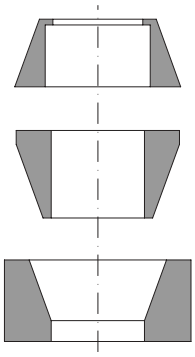


GL

For hose Ø outside mm	Reference GL14	Reference GL18	Reference GL25	Reference GL32
3	M-SGGL14/3-HT	M-SGGL18/3-HT	M-SGGL25/3-HT	-
6	M-SGGL14/6-HT	M-SGGL18/6-HT	M-SGGL25/6-HT	-
8	M-SGGL14/8-HT	M-SGGL18/8-HT	M-SGGL25/8-HT	-
10	-	M-SGGL18/10-HT	M-SGGL25/10-HT	M-SGGL32/10-HT
12	-	-	M-SGGL25/12-HT	M-SGGL32/12-HT
14	-	-	M-SGGL25/14-HT	M-SGGL32/14-HT
16	-	-	-	M-SGGL32/16-HT

REPLACEMENT INSIDE PARTS

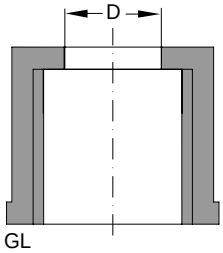
Clamping ring made of PPS reinforced with glass fibers, sealing plate and sealing wedge made of PTFE.



For hose Ø outside mm	Reference GL14	Reference GL18	Reference GL25	Reference GL32
3	M-SGEGL14/3-HT	M-SGEGL18/3-HT	M-SGEGL25/3-HT	-
6	M-SGEGL14/6-HT	M-SGEGL18/6-HT	M-SGEGL25/6-HT	-
8	M-SGEGL14/8-HT	M-SGEGL18/8-HT	M-SGEGL25/8-HT	-
10	-	M-SGEGL18/10-HT	M-SGEGL25/10-HT	M-SGEGL32/10-HT
12	-	-	M-SGEGL25/12-HT	M-SGEGL32/12-HT
14	-	-	M-SGEGL25/14-HT	M-SGEGL32/14-HT
16	-	-	-	M-SGEGL32/16-HT

THREADED CAPS

Very high mechanical durability. The knurls, which are extremely easy to grip, permit secure closing and easy opening of the threaded caps.

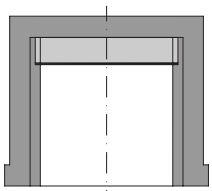


GL

GL	D Ø mm	Reference
GL 14	9,2	M-SBGL14/9-HT
GL 18	11	M-SBGL18/11-HT
GL 25	15	M-SBGL25/15-HT
GL 32	20	M-SBGL32/20-HT

THREADED CAPS

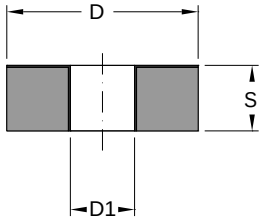
The caps with PTFE/silicon seal are especially mechanically durable. The knurls, which are extremely easy to grip, permit secure closing and easy opening of the threaded caps. The seal consists of a PTFE/silicon seal, whereby the medium in the vessel comes into contact only with PTFE, and the silicon compensates for minor unevenness at the neck of the vessel.


GL

GL	Reference
GL 14	M-SVGL14-HT
GL 18	M-SVGL18-HT
GL 25	M-SVGL25-HT
GL 32	M-SVGL32-HT
GL 45	M-SVGL45-HT

SILICON GASKETS (VMQ)

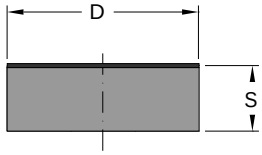
Material VMQ, with PTFE cuff vulcanized on (for threaded caps).



For thread	D mm	D1 mm	S mm	Reference
GL 14	12	6	4	M-DICHGL14/6
GL 18	16	6	5	M-DICHGL18/6
GL 18	16	8	5	M-DICHGL18/8
GL 18	16	10	5	M-DICHGL18/10
GL 25	22	8	6	M-DICHGL25/8
GL 25	22	10	6	M-DICHGL25/10
GL 25	22	12	6	M-DICHGL25/12
GL 32	29	10	8	M-DICHGL32/10
GL 32	29	12	8	M-DICHGL32/12
GL 32	29	14	8	M-DICHGL32/14
GL 32	29	16	8	M-DICHGL32/16
GL 45	42	18	8	M-DICHGL32/18
GL 45	42	26	8	M-DICHGL45/26

SILICON GASKETS (SEPTA)

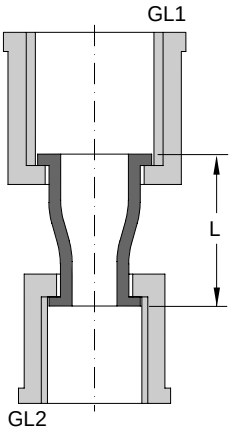
Material VMQ, for threaded caps.



For thread	D mm	S mm	Reference
GL 14	12	2,0	M-SVDICH14
GL 18	16	2,0	M-SVDICH18
GL 25	22	2,0	M-SVDICH25
GL 32	29	2,0	M-SVDICH32
GL 45	42	3,0	M-SVDICH45

THREADED COUPLING REDUCERS

Made of fluoroplastic, with threaded cap reinforced with PPS glass fiber. For flexible coupling of two glass threads with integrated PTFE/FPM seal. The medium comes into contact only with PTFE.

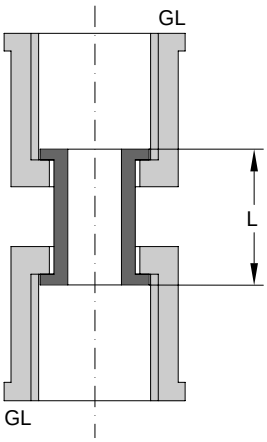


GL 1	GL 2	L mm	Reference
GL 18	GL 14	20	M-SKGL18/14
GL 25	GL 14	27	M-SKGL25/14
GL 25	GL 18	28	M-SKGL25/18
GL 32	GL 18	32	M-SKGL32/18
GL 32	GL 25	28	M-SKGL32/25

THREADED COUPLINGS

Made of fluoroplastic, with integrated PTFE/FPM seal for flexible coupling of two glass threads. The medium comes into contact only with PTFE.

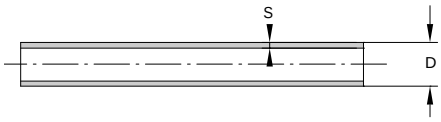
Material: PTFE/PPS



For thread	L mm	Reference
GL 14	20	M-SKGL14
GL 18	27	M-SKGL18
GL 25	28	M-SKGL25
GL 32	32	M-SKGL32

PFA-HOSES

PFA-hoses are distinguished by their transparency and non-porous surface. The low slope to the material connection results from their smooth surface and anti-adhesive behavior. PFA-hoses are almost universally chemically resistant. They are physiologically safe and bio-compatible. Hoses made of PFA are gas-proof, flexible, and have very good dielectric attributes.

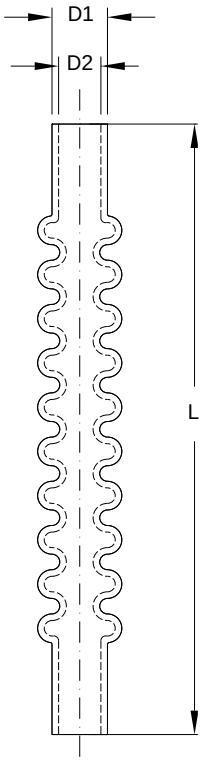


Material: PFA.

D mm	S mm	Reference
6	1	SCHL6X1-PFA
8	1	SCHL8X1-PFA
10	1	SCHL10X1-PFA
12	1	SCHL12X1-PFA
14	1	SCHL14X1-PFA

FLEX-HOSES

Made of fluoroplastic, flex-hoses are ideal for couplings subject to vibration, for bends in narrow spaces, and to compensate for thermal elongation. The 40-mm-long, cylindrical end pieces permit direct connection to fittings or olives, for example. Flex-hoses are extremely flexible, pore-free, translucent, and without thermal load.



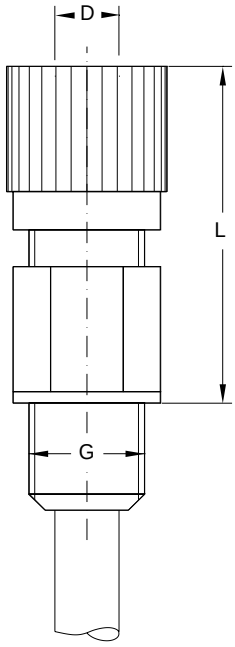
Material: PFA.

Temperature range: -270°C/+260°C.

D1 mm	D2 mm	Bend radius mm	Reference 0,5 m	Reference 1,0 m
8	6	15	SCHLFLEX8/500	SCHLFLEX8/1000
10	8	18	SCHLFLEX10/500	SCHLFLEX10/1000
12	10	23	SCHLFLEX13/500	SCHLFLEX13/1000

SCREW-IN THREADED FITTING

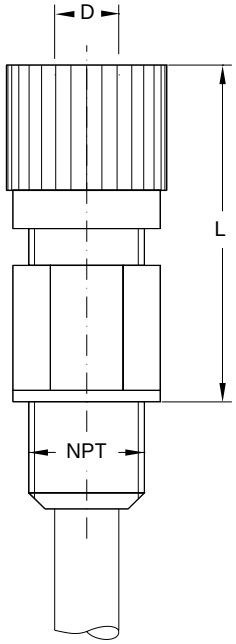
The tube is led through the threaded fitting, such as with immersion tubes and probes.
The PFA screw-in threaded fitting has a series 2D G male thread.



D mm	G “	L mm	Reference
6	1/4	35	M-EVD6D/G1/4
6	3/8	36	M-EVD6D/G3/8
8	1/4	35	M-EVD8D/G1/4
10	3/8	40	M-EVD10D/G3/8
12	1/2	45	M-EVD12D/G1/2

STRAIGHT SCREW-IN THREADED FITTING

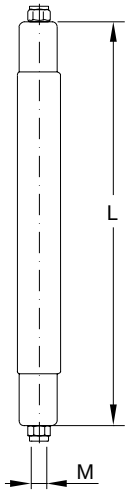
The tube is led through the threaded fitting, such as with immersion tubes and probes.
The PFA screw-in threaded fitting has a series 2D NPT male thread.



Tube-Ø mm	Connection thread “	L mm	Reference
6	NPT 1/4	33	M-EVD6D/NPT1/4
8	NPT 1/4	33	M-EVD8D/NPT1/4
10	NPT 1/4	40	M-EVD10D/NPT1/4

THERMOSTAT CONNECTING HOSE

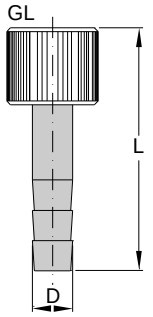
Together with the straight or curved thermostat adapter, the thermostat connecting hose connects the heating unit with the tempering jacket or heat exchanger. The stainless steel corrugated hose (1.4541) is surrounded by triple insulation, which, at a 300°C inside temperature, ensures a contact temperature of 60°C. Fastening is made with a union nut.

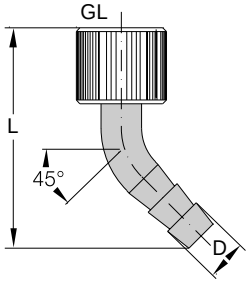


M	L mm	Reference
M16x1	500	M-HS10/500
M16x1	1000	M-HS10/1000
M16x1	2000	M-HS10/2000
M22x1.5	500	M-HS15/500
M22x1.5	1000	M-HS15/1000
M22x1.5	2000	M-HS15/2000

OLIVES

The olives are made of fluoroplastic, straight design and bent; threaded caps are made of PPS reinforced with glass fiber; olives are made of PFA, with elastic PFA sealing lip and FPM o-ring. The medium comes into contact only with PFA.





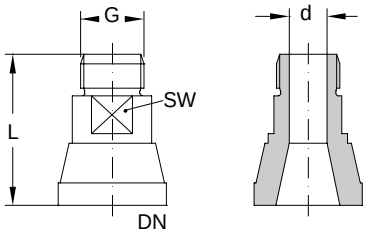
Thread	D mm	Ø Inside mm	L mm	Reference straight	Reference 45°
GL14	8,7	6	Ca. 45	M-OLGL14/9	-
GL14	8,7	6	Ca. 49	-	M-OLWGL14/9
GL18	10,5	7	Ca. 51	M-OLGL18/11	-
GL18	10,5	7	Ca. 65	-	M-OLWGL18/11
GL25	16,0	10	Ca. 68	M-OLGL25/16	-

ADAPTER

Flat flange - G male thread junction

These adapters can be used for connecting pipelines with the safety flange system to solenoid valves.

Material: PTFE

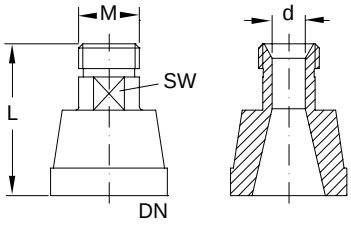


DN	d	G	L	SW	Reference
15	10	3/8"	40	18	M-AK1/.4
25	14	1/2"	55	19	M-AK2/.6

ADAPTER

Flat flange - M male thread junction

Material: stainless steel



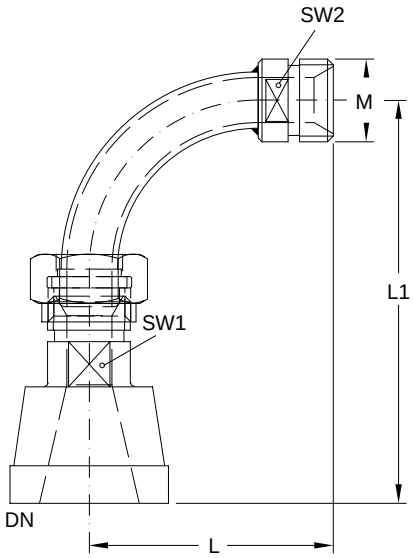
DN	d	M	L	SW	Reference
15	10	M16x1	40	14	M-AM15/16
25	10	M16x1	55	14	M-AM25/16
15	10	M22x1.5	40	19	M-AM15/22
25	10	M22x1.5	55	19	M-AM25/22

ADAPTER 90°

Flat flange - M male thread junction

Material: stainless steel

DN	M	L	L1	SW1	SW2	Reference
15	M16x1	60	88	14	13	M-AM90/15/16
25	M16x1	60	103	14	13	M-AM90/25/16
15	M22x1.5	65	92	19	19	M-AM90/15/22
25	M22x1.5	65	107	19	19	M-AM90/25/22



ADAPTER

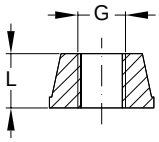
Flat flange - G male thread junction

When manometers with rotating closing adapters 1/2" are used, a thread adapter reference AD-T1/2 (GT50943) must be used in addition to the adapter. The seal is made through two flat seals.

Material: Stainless steel

DN	G	L	Type	Reference
15	1/8	15	A	AD15-1/8
15	1/4	15	A	AD15-1/4
15	3/8	20	A	AD15-3/8
25	1/8	25	A	AD25-1/8
25	1/4	25	A	AD25-1/4
25	3/8	25	A	AD25-3/8
25	1/2	25	A	AD25-1/2
25	3/4	25	A	AD25-3/4
25	1	34	B	AD25-1
40	1/8	25	A	AD40-1/8
40	1/4	25	A	AD40-1/4
40	3/8	25	A	AD40-3/8
40	1/2	25	A	AD40-1/2
40	3/4	25	A	AD40-3/4
40	1	25	A	AD40-1
50	1/8	30	A	AD50-1/8
50	1/4	30	A	AD50-1/4
50	3/8	30	A	AD50-3/8
50	1/2	30	A	AD50-1/2
50	3/4	30	A	AD50-3/4
50	1	30	A	AD50-1

A



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