

HOSE COUPLINGS/ HOSE FITTINGS

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WORKING PRESSURE FOR HOSE FITTINGS

Please note the maximum allowed working pressures for hose fitting connections according to their international standards as described in:

- DIN 20066
- DIN 7641
- DIN 7642
- SAE 514
- SAE J 518
- SAE J 1453
- BS 5200-ISO WD 8434-6

Description		Standards	Max. working pressure in bar									
			Inch									
			1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"
			Dash									
			04	05	06	08	10	12	16	20	24	32
			DN									
			6	8	10	12	16	19	25	31	38	51
Male nipples - BSP + taper	AGR + AGRk	BS 5200 - ISO WD8434-6	350	350	350	315	315	250	200	160	125	80
Tapered nipples with O-ring	DKOR	BS 5200 - ISO WD8434-6						315	250	200	100	125
Tapered nipples - BSP	DKR + DRF	BS 5200 - ISO WD8434-6	350	350	350	315	315	250	200	160	125	80
Universal tapered nipples	DKL	DIN 20066	250	250	250	250	160					
Universal tapered nipples	DKLL	DIN 20066						63	63	63	63	40
Metric-male nipples 24°	CEL	DIN 20066	250	250	250	250	160	160	100	100	100	
Tapered nipples with O-ring	DKOL	DIN 20066	250	250	250	250	160	160	100	100	100	
Metric-male nipples 24°	CES	DIN 20066	630	630	630	400	400	400	250	250		
Tapered nipples with O-ring	DKOS	DIN 20066	630	630	630	400	400	400	250	250		
Banjós	RGN	DIN 7641 + 7642	200	200	200	200	200	200	200			
JIC-37°-Male nipples	AGJ	SAE 514	345	345	345	310	240	240	210	170	140	105
JIC-37°-Female nipples	DKJ	SAE 514	275	275	275	275	210	210	170	140	105	80
Male nipples NPT	AGN	SAE 514	345	276	276	241	155	155	138	112	86	78
ORFS Male nipples	MORFS	SAE J 1453	413	413	413	413	413	413	413	275	275	207
ORFS-Nipples - straight	FORFS straight	SAE J 1453	413	413	413	413	413	413	413	275	275	207
ORFS-Nipples - elbow	FORFS elbow	SAE J 1453	413	413	413	413	413	413	345	345	275	207
SAE-Flanged nipples	SFL 3000 PSI	SAE J 518 / ISO 6162-1				345		345	345	276	207	207
SAE-Flanged nipples	SFS 6000 PSI	SAE J 518 / ISO 6162-2				414		414	414	414	414	414

PRODUCT OVERVIEW OF FERRULES AND HOSES

4

Here you will find the correct ferrule to your hose.

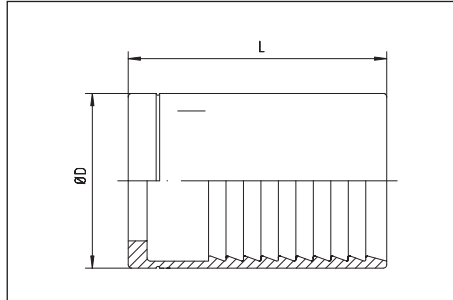
			skive non skive													
Hose-Type ➡			2 TE - EN 854	3 TE - EN 854	1 ST - EN 853	2 ST - EN 853	1 SN - EN 853 SAE 100 R1AT	2 SN - EN 853 SAE 100 R2AT	1 SC - EN 857	2 SC - EN 857	4 SP - EN 856	4 SH - EN 856	R 13 - EN 856	SAE 100 R 15	R 7 - EN 855	PTFE - flat
DN	size dash	inch	Ferrule-Type	Ferrule-Type	Ferrule-Type	Ferrule-Type	Ferrule-Type	Ferrule-Type	Ferrule-Type	Ferrule-Type	Ferrule-Type	Ferrule-Type	Ferrule-Type	Ferrule-Type	Ferrule-Type	Ferrule-Type
06	04	1/4"	P1 non skive	P2 non skive	P1 skive	P3 skive	P1 <div>non skive skive</div>	P2 non skive P3 skive	P9 non skive	P1 <div>non skive skive</div>	P3 skive				PF-R7 non skive	PF-PTFE
08	05	5/16"	P1 non skive	P2 non skive	P1 skive	P3 skive	P1 <div>non skive skive</div>	P2 non skive P3 skive	P9 non skive	P1 <div>non skive skive</div>					PF-R7 non skive	PF-PTFE
10	06	3/8"	P1 non skive	P2 non skive	P1 skive	P3 skive	P1 <div>non skive skive</div>	P2 non skive P3 skive	P9 non skive	P1 <div>non skive skive</div>	P3 skive				PF-R7 non skive	PF-PTFE
12	08	1/2"	P1 non skive	P2 non skive	P1 skive	P3 skive	P1 <div>non skive skive</div>	P2 non skive P3 skive	P9 non skive	P1 <div>non skive skive</div>	P3 skive				PF-R7 non skive	PF-PTFE
16	10	5/8"	P1 non skive	P2 non skive	P1 skive	P3 skive	P1 <div>non skive skive</div>	P2 non skive P3 skive	P1 non skive	P1 <div>non skive skive</div>	P3 skive				PF-R7 non skive	PF-PTFE
19	12	3/4"	P1 non skive	P2 non skive	P1 skive	P3 skive	P1 <div>non skive skive</div>	P2 non skive P3 skive	P1 non skive	P1 <div>non skive skive</div>	P3 skive	P4-I internal+external skive	P6-I internal+external skive	P7-I internal+external skive	PF-R7 non skive	PF-PTFE
25	16	1"	P1 non skive	P2 non skive	P1 skive	P3 skive	P1 <div>non skive skive</div>	P2 non skive P3 skive	P1 non skive	P1 <div>non skive skive</div>	P3 skive	P4-I internal+external skive	P6-I internal+external skive	P7-I internal+external skive	PF-R7 non skive	PF-PTFE
31	20	1 1/4"		P2 non skive	P1 skive	P3 skive	P1 <div>non skive skive</div>	P8 non skive P3 skive			P3 skive	P4-I internal+external skive	P6-I internal+external skive	P7-I internal+external skive		
38	24	1 1/2"		P2 non skive	P1 skive	P3 skive	P1 <div>non skive skive</div>	P8 non skive P3 skive			P3 skive	P4-I internal+external skive	P6-I internal+external skive	P7-I internal+external skive		
51	32	2"		P2 non skive	P1 skive	P3 skive	P1 <div>non skive skive</div>	P8 non skive P3 skive			P3 skive	P4-I internal+external skive	P6-I internal+external skive			
60	38	2 3/8"		P2 non skive				P8 non skive								
76	48	3"						P8 non skive								
80				P2 non skive												

FERRULES

PF-PTFE

For hose type:

PTFE-hose, heavy wall, with 1 braid, page 17.20



PTFE FERRULE

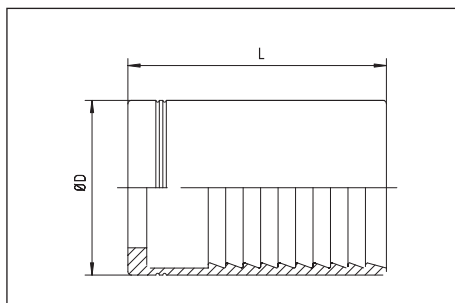
To use for nipples page 2.10 - 2.45

Hose DN	DN Bore in.	D	L	ME Order-Code
06	1/4"	14	33,0	PF-PTFE-DN 06
08	5/16"	17	33,0	PF-PTFE-DN 08
10	3/8"	19	33,0	PF-PTFE-DN 10
12	1/2"	23	35,0	PF-PTFE-DN 12
16	5/8"	27	38,0	PF-PTFE-DN 16
19	3/4"	30	44,0	PF-PTFE-DN 19
25	1"	37	50,0	PF-PTFE-DN 25

PF-R7 - non skive

for hose type:

SAE 100 R7



To use for nipples page 2.10 - 2.45

Hose DN	DN Bore in.	D	L	ME Order-Code
06	1/4"	18	34,5	PF-R7-DN 06
08	5/16"	19	34,5	PF-R7-DN 08
10	3/8"	22	35,0	PF-R7-DN 10
12	1/2"	25	37,0	PF-R7-DN 12
16	5/8"	30	40,0	PF-R7-DN 16
19	3/4"	33	45,0	PF-R7-DN 19
25	1"	40	50,0	PF-R7-DN 25

FERRULES

P1

For hose type:

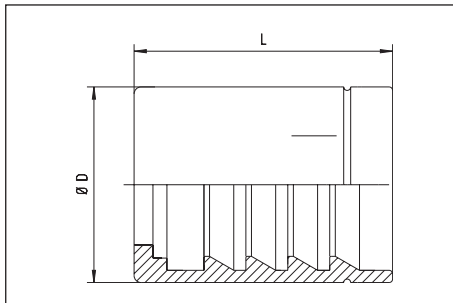
2 TE - DIN - EN 854 - DN <25

1 SN - DIN - EN 853 + SAE 100 R1AT

1 ST - DIN - EN 853 + SAE 100 R 1 A

1 SC - DIN - EN 857 - DN 16 - 19 - 25

2 SC - Compact - DIN - EN 857



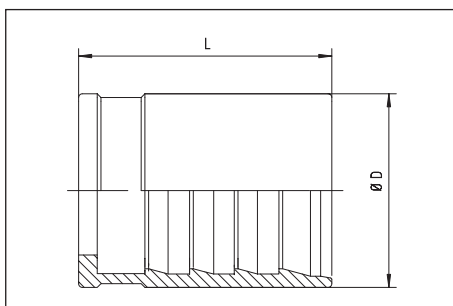
To use for nipples page 2.10 - 2.45

Hose DN	DN Bore in.	D	L	ME Order-Code
06	1/4"	20	34,5	P1-DN 06
08	5/16"	22	34,5	P1-DN 08
10	3/8"	25	35,0	P1-DN 10
12	1/2"	28	37,0	P1-DN 12
16	5/8"	32	40,0	P1-DN 16
19	3/4"	36	45,0	P1-DN 19
25	1"	45	50,0	P1-DN 25
31	1 1/4"	55	70,0	P1-DN 31
38	1 1/2"	60	70,0	P1-DN 38
51	2"	76	80,0	P1-DN 51

P9 - non skive

for hose type:

1 SC - DIN - EN 857



To use for nipples page 2.10 - 2.45

Hose DN	DN Bore in.	D	L	ME Order-Code
06	1/4"	18	30,5	P9-DN 06
08	5/16"	19	32,0	P9-DN 08
10	3/8"	22	33,0	P9-DN 10
12	1/2"	26	34,0	P9-DN 12

FERRULES

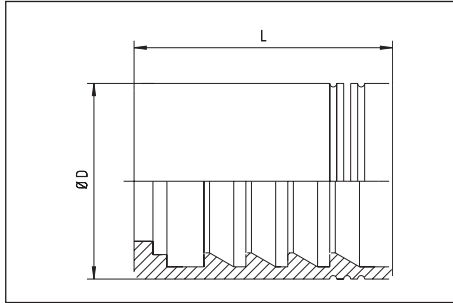
P3 - skive

For hose type:

2 ST - DIN - EN 853 + SAE 100 R2A

2 SN - DIN - EN 853 + SAE 100 R2AT

4 SP - DIN - EN 856



To use for nipples page 2.10 - 2.45

Hose DN	DN Bore in.	D	L		ME Order-Code
06	1/4"	22	34,5	marked with Sp4	P3Sp4-DN 06
06	1/4"	22	34,5	not for Sp4	P3-DN 06
08	5/16"	24	34,5		P3-DN 08
10	3/8"	26	35,0		P3-DN 10
12	1/2"	30	37,0		P3-DN 12
16	5/8"	33	40,0		P3-DN 16
19	3/4"	38	45,0		P3-DN 19
25	1"	46	50,0		P3-DN 25
31	1 1/4"	58	70,0		P3-DN 31
38	1 1/2"	64	70,0		P3-DN 38
51	2"	76	80,0	not for Sp4	P3-DN 51
51	2"	76	80,0	Marked with Sp4	P3Sp4-DN 51

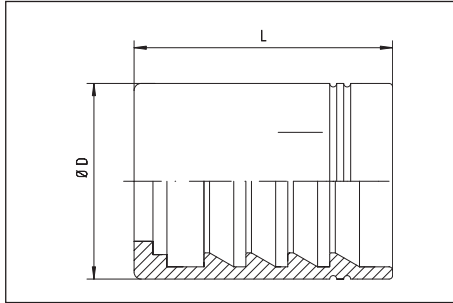
FERRULES

P2 - non skive

for hose type:

2 SN - DIN - EN 853 + SAE 100 R2AT - DN 06 up to DN 25

3 TE - DIN EN 854 + 3 TB



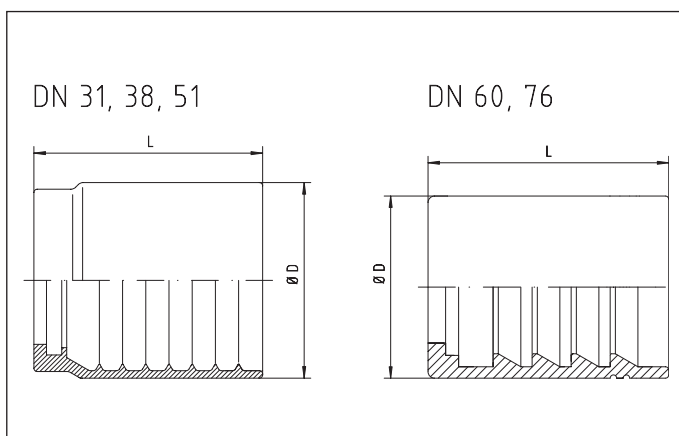
To use for nipples page 2.10 - 2.45

Hose DN	DN Bore in.	D	L		ME Order-Code
06	1/4"	22,0	34,5		P2-DN 06
08	5/16"	24,0	34,5		P2-DN 08
10	3/8"	26,0	35,0		P2-DN 10
12	1/2"	30,0	37,0		P2-DN 12
16	5/8"	33,0	40,0		P2-DN 16
19	3/4"	38,0	45,0		P2-DN 19
25	1"	46,0	50,0		P2-DN 25
31	1 1/4"	55,0	70,0	NOT FOR 2 SN	P2-DN 31
38	1 1/2"	60,0	70,0	NOT FOR 2 SN	P2-DN 38
51	2"	76,0	80,0	NOT FOR 2 SN	P2-DN 51
60	2 3/8"	82,5	72,0	NOT FOR 2 SN	P2-DN 60
80		108,0	90,0	NOT FOR 2 SN	P2-DN 80

P8 - non skive

for hose type:

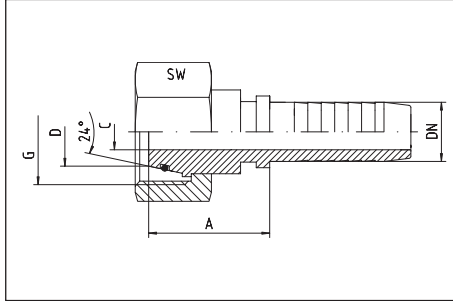
2 SN - DIN - EN 853



To use for nipples page 2.10 - 2.45

Hose DN	DN Bore in.	D	L		ME Order-Code
31	1 1/4"	59,0	66,5		P8-DN 31
38	1 1/2"	67,0	67,0		P8-DN 38
51	2"	80,0	75,0		P8-DN 51
60	2 3/8"	82,5	72,0		P8-DN 60
76	3"	103,0	75,0		P8-DN 76

TAPERED NIPPLES WITH O-RING



DKOL

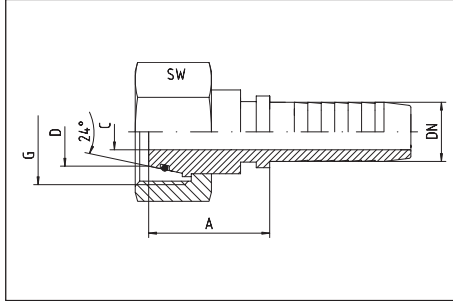
O-ring = NBR
On request: Viton

Hose DN	DN Bore in.	Thread G	Tube O.D. D	approx. dimensions			ME Order-Code
				A	C	SW	
06	1/4"	M 12 x 1,5	6	21,0	3,7	14	DKOL-06-DN 06
06	1/4"	M 14 x 1,5	8	25,0	4,0	17	DKOL-08-DN 06
08	5/16"	M 14 x 1,5	8	22,0	5,5	17	DKOL-08-DN 08
10	3/8"	M 14 x 1,5	8	29,0	4,5	17	DKOL-08-DN 10
06	1/4"	M 16 x 1,5	10	27,0	4,0	19	DKOL-10-DN 06
08	5/16"	M 16 x 1,5	10	26,0	5,5	19	DKOL-10-DN 08
10	3/8"	M 16 x 1,5	10	26,0	7,0	19	DKOL-10-DN 10
06	1/4"	M 18 x 1,5	12	28,0	4,0	22	DKOL-12-DN 06
08	5/16"	M 18 x 1,5	12	28,0	5,5	22	DKOL-12-DN 08
10	3/8"	M 18 x 1,5	12	26,0	7,0	22	DKOL-12-DN 10
12	1/2"	M 18 x 1,5	12	26,0	8,0	22	DKOL-12-DN 12
06	1/4"	M 22 x 1,5	15		4,0	27	DKOL-15-DN 06
08	5/16"	M 22 x 1,5	15		5,5	27	DKOL-15-DN 08
10	3/8"	M 22 x 1,5	15	26,0	7,0	27	DKOL-15-DN 10
12	1/2"	M 22 x 1,5	15	27,0	9,5	27	DKOL-15-DN 12
10	3/8"	M 26 x 1,5	18	24,0	7,0	32	DKOL-18-DN 10
12	1/2"	M 26 x 1,5	18	28,0	9,5	32	DKOL-18-DN 12
16	5/8"	M 26 x 1,5	18	29,5	12,5	32	DKOL-18-DN 16
19	3/4"	M 26 x 1,5	18	32,0	12,0	32	DKOL-18-DN 19
12	1/2"	M 30 x 2	22		9,5	36	DKOL-22-DN 12
16	5/8"	M 30 x 2	22	31,0	12,5	36	DKOL-22-DN 16
19	3/4"	M 30 x 2	22	33,0	14,5	36	DKOL-22-DN 19
16	5/8"	M 36 x 2	28		12,5	41	DKOL-28-DN 16
19	3/4"	M 36 x 2	28	34,5	14,5	41	DKOL-28-DN 19
25	1"	M 36 x 2	28	34,5	20,0	41	DKOL-28-DN 25
25	1"	M 45 x 2	35		20,0	50	DKOL-35-DN 25
31	1 1/4"	M 45 x 2	35	37,0	25,5	50	DKOL-35-DN 31
31	1 1/4"	M 52 x 2	42		25,5	60	DKOL-42-DN 31
38	1 1/2"	M 52 x 2	42	37,0	31,5	60	DKOL-42-DN 38

TAPERED NIPPLES WITH O-RING

For fittings with 24°-flare
and solderless connectors DIN 2353 / DIN EN ISO 8434-1

Heavy series = DKOS - straight



O-Ring = NBR

DKOS

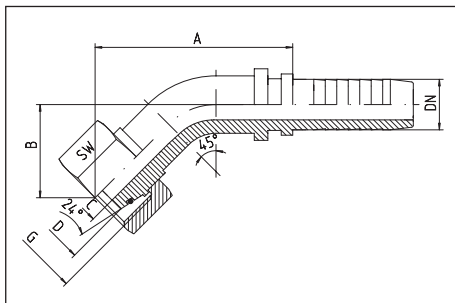
O-ring = NBR
On request: Viton

Hose DN	DN Bore in.	Thread G	Tube O.D. D	approx. dimensions			ME Order-Code
				A	C	SW	
06	1/4"	M 14 x 1,5	6	21,0	3,7	17	DKOS-06-DN 06
06	1/4"	M 16 x 1,5	8	25,0	4,0	19	DKOS-08-DN 06
08	5/16"	M 16 x 1,5	8	22,0	5,5	19	DKOS-08-DN 08
10	3/8"	M 16 x 1,5	8	30,0	4,5	19	DKOS-08-DN 10
06	1/4"	M 18 x 1,5	10	27,0	4,0	22	DKOS-10-DN 06
08	5/16"	M 18 x 1,5	10	26,0	5,5	22	DKOS-10-DN 08
10	3/8"	M 18 x 1,5	10	26,0	7,0	22	DKOS-10-DN 10
06	1/4"	M 20 x 1,5	12	28,0	4,0	24	DKOS-12-DN 06
08	5/16"	M 20 x 1,5	12	28,0	5,5	24	DKOS-12-DN 08
10	3/8"	M 20 x 1,5	12	26,0	7,0	24	DKOS-12-DN 10
12	1/2"	M 20 x 1,5	12	26,0	8,0	24	DKOS-12-DN 12
08	5/16"	M 22 x 1,5	14		5,5	27	DKOS-14-DN 08
10	3/8"	M 22 x 1,5	14	27,0	7,0	27	DKOS-14-DN 10
06	1/4"	M 24 x 1,5	16	31,5	4,0	30	DKOS-16-DN 06
08	5/16"	M 24 x 1,5	16	31,5	5,5	30	DKOS-16-DN 08
10	3/8"	M 24 x 1,5	16	31,5	7,0	30	DKOS-16-DN 10
12	1/2"	M 24 x 1,5	16	31,5	9,5	30	DKOS-16-DN 12
16	5/8"	M 24 x 1,5	16	31,5	11,0	30	DKOS-16-DN 16
10	3/8"	M 30 x 2	20	37,0	7,0	36	DKOS-20-DN 10
12	1/2"	M 30 x 2	20	36,5	9,5	36	DKOS-20-DN 12
16	5/8"	M 30 x 2	20	37,5	12,5	36	DKOS-20-DN 16
19	3/4"	M 30 x 2	20	33,5	14,5	36	DKOS-20-DN 19
12	1/2"	M 36 x 2	25		9,5	46	DKOS-25-DN 12
16	5/8"	M 36 x 2	25	40,5	12,5	46	DKOS-25-DN 16
19	3/4"	M 36 x 2	25	41,0	14,5	46	DKOS-25-DN 19
25	1"	M 36 x 2	25	39,5	20,0	46	DKOS-25-DN 25
19	3/4"	M 42 x 2	30	44,0	14,5	50	DKOS-30-DN 19
25	1"	M 42 x 2	30	44,5	20,0	50	DKOS-30-DN 25
25	1"	M 52 x 2	38	50,5	20,0	60	DKOS-38-DN 25
31	1 1/4"	M 52 x 2	38	49,0	25,5	60	DKOS-38-DN 31
38	1 1/2"	M 68 x 2	50	49,0	31,5	80	DKOS-50-DN 38

TAPERED NIPPLES WITH O-RING 45 DEG BEND

for fittings with 24°-flare
and solderless connectors DIN 2353 / DIN EN ISO 8434-1

light series = DKOL - 45°-elbow
heavy series = DKOS - 45°-elbow



DKOL - 45DEG

DKOS - 45DEG

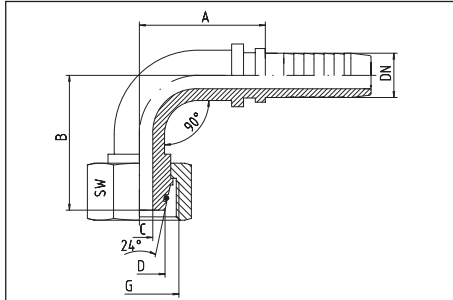
O-ring = NBR
On request: Viton

Schlauch Hose DN	DN Bore in.	Thread G	Rohr A.D. Tube O.D. D	approx. dimensions				ME Order-Code
				A	B	C	SW	
06	1/4"	M 12 x 1,5	6	37,0	15,0	4,0	14	DKOL-06-45°-DN 06
06	1/4"	M 14 x 1,5	8	38,5	16,5	4,0	17	DKOL-08-45°-DN 06
08	5/16"	M 14 x 1,5	8	51,0	26,0	4,5	17	DKOL-08-45°-DN 08
06	1/4"	M 16 x 1,5	10	38,5	16,5	4,0	19	DKOL-10-45°-DN 06
08	5/16"	M 16 x 1,5	10	44,5	19,0	5,5	19	DKOL-10-45°-DN 08
10	3/8"	M 16 x 1,5	10	45,5	20,0	7,0	19	DKOL-10-45°-DN 10
06	1/4"	M 18 x 1,5	12	42,0	19,5	4,0	22	DKOL-12-45°-DN 06
08	5/16"	M 18 x 1,5	12	44,5	19,0	5,5	22	DKOL-12-45°-DN 08
10	3/8"	M 18 x 1,5	12	43,5	18,5	7,0	22	DKOL-12-45°-DN 10
12	1/2"	M 18 x 1,5	12	62,5	27,5	8,5	22	DKOL-12-45°-DN 12
10	3/8"	M 22 x 1,5	15	53,5	21,5	7,0	27	DKOL-15-45°-DN 10
12	1/2"	M 22 x 1,5	15	54,5	20,5	9,5	27	DKOL-15-45°-DN 12
12	1/2"	M 26 x 1,5	18	60,5	23,5	9,0	32	DKOL-18-45°-DN 12
16	5/8"	M 26 x 1,5	18	65,0	26,5	12,5	32	DKOL-18-45°-DN 16
16	5/8"	M 30 x 2	22	91,5	36,5	12,0	36	DKOL-22-45°-DN 16
19	3/4"	M 30 x 2	22	76,0	28,0	14,5	36	DKOL-22-45°-DN 19
19	3/4"	M 36 x 2	28				41	DKOL-28-45°-DN 19
25	1"	M 36 x 2	28	93,0	36,5	20,0	41	DKOL-28-45°-DN 25
31	1 1/4"	M 45 x 2	35	100,0	44,0	25,0	50	DKOL-35-45°-DN 31
38	1 1/2"	M 52 x 2	42	111,0	48,0	31,0	60	DKOL-42-45°-DN 38
06	1/4"	M 14 x 1,5	6	37,0	15,0	4,0	17	DKOS-06-45°-DN 06
06	1/4"	M 16 x 1,5	8	38,5	16,5	4,0	19	DKOS-08-45°-DN 06
08	5/16"	M 16 x 1,5	8				19	DKOS-08-45°-DN 08
06	1/4"	M 18 x 1,5	10	38,5	16,5	4,0	22	DKOS-10-45°-DN 06
08	5/16"	M 18 x 1,5	10	44,5	19,0	5,5	22	DKOS-10-45°-DN 08
10	3/8"	M 18 x 1,5	10	45,5	20,0	7,0	22	DKOS-10-45°-DN 10
06	1/4"	M 20 x 1,5	12	42,0	19,5	4,0	24	DKOS-12-45°-DN 06
08	5/16"	M 20 x 1,5	12	44,5	19,0	5,5	24	DKOS-12-45°-DN 08
10	3/8"	M 20 x 1,5	12	43,5	18,5	7,0	24	DKOS-12-45°-DN 10
12	1/2"	M 20 x 1,5	12	62,5	27,5	8,5	24	DKOS-12-45°-DN 12
10	3/8"	M 22 x 1,5	14	54,5	23,5	7,0	27	DKOS-14-45°-DN 10
10	3/8"	M 24 x 1,5	16	55,5	24,0	7,0	30	DKOS-16-45°-DN 10
12	1/2"	M 24 x 1,5	16	57,0	25,0	9,5	30	DKOS-16-45°-DN 12
12	1/2"	M 30 x 2	20	65,0	32,0	9,5	36	DKOS-20-45°-DN 12
16	5/8"	M 30 x 2	20	69,0	28,0	12,5	36	DKOS-20-45°-DN 16
19	3/4"	M 30 x 2	20	71,5	27,0	12,5	36	DKOS-20-45°-DN 19
19	3/4"	M 36 x 2	25	83,0	37,0	14,5	46	DKOS-25-45°-DN 19
25	1"	M 36 x 2	25	98,0	39,0	18,5	46	DKOS-25-45°-DN 25
19	3/4"	M 42 x 2	30				50	DKOS-30-45°-DN 19
25	1"	M 42 x 2	30	98,0	39,5	20,0	50	DKOS-30-45°-DN 25
25	1"	M 52 x 2	38				60	DKOS-38-45°-DN 25
31	1 1/4"	M 52 x 2	38	116,0	47,0	25,0	60	DKOS-38-45°-DN 31
38	1 1/2"	M 68 x 2	50				80	DKOS-50-45°-DN 38

TAPERED NIPPLES WITH O-RING 90 DEG BEND

for fittings with 24°-flare
and solderless connectors DIN 2353 / DIN EN ISO 8434-1

light series = DKOL - 90°-elbow
heavy series = DKOS - 90°-elbow



DKO L 90 DEG

DKO S 90 DEG

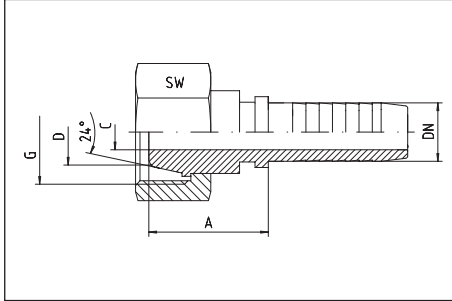
O-ring = NBR
On request: Viton

Schlauch Hose DN	DN Bore in.	Gewinde Thread G	Rohr A.D. Tube O.D. D	ca. Maße approx. dimensions				Bestellzeichen Order-Code
				A	B	C	SW	
06	1/4"	M 12 x 1,5	6	28,0	28,5	4,0	14	DKOL-06-90°-DN 06
06	1/4"	M 14 x 1,5	8	28,0	29,5	4,0	17	DKOL-08-90°-DN 06
08	5/16"	M 14 x 1,5	8	35,0	47,0	4,5	17	DKOL-08-90°-DN 08
06	1/4"	M 16 x 1,5	10	28,5	29,5	4,0	19	DKOL-10-90°-DN 06
08	5/16"	M 16 x 1,5	10	31,5	39,0	5,5	19	DKOL-10-90°-DN 08
10	3/8"	M 16 x 1,5	10	35,0	37,5	7,0	19	DKOL-10-90°-DN 10
06	1/4"	M 18 x 1,5	12	29,0	33,5	4,0	22	DKOL-12-90°-DN 06
08	5/16"	M 18 x 1,5	12	34,5	37,0	5,5	22	DKOL-12-90°-DN 08
10	3/8"	M 18 x 1,5	12	34,0	38,0	7,0	22	DKOL-12-90°-DN 10
12	1/2"	M 18 x 1,5	12	45,0	53,0	8,5	22	DKOL-12-90°-DN 12
10	3/8"	M 22 x 1,5	15	42,5	41,5	7,0	27	DKOL-15-90°-DN 10
12	1/2"	M 22 x 1,5	15	44,0	43,0	9,5	27	DKOL-15-90°-DN 12
12	1/2"	M 26 x 1,5	18	46,5	51,0	9,5	32	DKOL-18-90°-DN 12
16	5/8"	M 26 x 1,5	18	56,0	52,0	12,5	32	DKOL-18-90°-DN 16
16	5/8"	M 30 x 2	22	77,0	63,5	12,0	36	DKOL-22-90°-DN 16
19	3/4"	M 30 x 2	22	71,0	58,0	14,5	36	DKOL-22-90°-DN 19
19	3/4"	M 36 x 2	28				41	DKOL-28-90°-DN 19
25	1"	M 36 x 2	28	82,0	72,0	20,0	41	DKOL-28-90°-DN 25
31	1 1/4"	M 45 x 2	35	87,0	85,0	25,0	50	DKOL-35-90°-DN 31
38	1 1/2"	M 52 x 2	42	104,0	103,0	31,0	60	DKOL-42-90°-DN 38
06	1/4"	M 14 x 1,5	6	28,0	28,5	4,0	17	DKOS-06-90°-DN 06
06	1/4"	M 16 x 1,5	8	28,0	29,5	4,0	19	DKOS-08-90°-DN 06
08	5/16"	M 16 x 1,5	8				19	DKOS-08-90°-DN 08
06	1/4"	M 18 x 1,5	10	28,5	29,5	4,0	22	DKOS-10-90°-DN 06
08	5/16"	M 18 x 1,5	10	31,5	39,0	5,5	22	DKOS-10-90°-DN 08
10	3/8"	M 18 x 1,5	10	35,0	37,5	7,0	22	DKOS-10-90°-DN 10
06	1/4"	M 20 x 1,5	12	29,0	33,5	4,0	24	DKOS-12-90°-DN 06
08	5/16"	M 20 x 1,5	12	34,5	37,0	5,5	24	DKOS-12-90°-DN 08
10	3/8"	M 20 x 1,5	12	34,0	38,0	7,0	24	DKOS-12-90°-DN 10
12	1/2"	M 20 x 1,5	12	45,0	53,0	8,5	24	DKOS-12-90°-DN 12
10	3/8"	M 22 x 1,5	14	42,0	42,0	7,0	27	DKOS-14-90°-DN 10
10	3/8"	M 24 x 1,5	16	43,0	42,5	7,0	30	DKOS-16-90°-DN 10
12	1/2"	M 24 x 1,5	16	44,0	45,5	9,5	30	DKOS-16-90°-DN 12
12	1/2"	M 30 x 2	20	46,0	59,0	9,5	36	DKOS-20-90°-DN 12
16	5/8"	M 30 x 2	20	59,0	51,0	12,5	36	DKOS-20-90°-DN 16
19	3/4"	M 30 x 2	20	61,5	54,5	12,5	36	DKOS-20-90°-DN 19
19	3/4"	M 36 x 2	25	72,0	64,0	14,5	46	DKOS-25-90°-DN 19
25	1"	M 36 x 2	25	79,0	79,0	18,5	46	DKOS-25-90°-DN 25
19	3/4"	M 42 x 2	30				50	DKOS-30-90°-DN 19
25	1"	M 42 x 2	30	85,0	84,0	20,0	50	DKOS-30-90°-DN 25
25	1"	M 52 x 2	38				60	DKOS-38-90°-DN 25
31	1 1/4"	M 52 x 2	38	101,0	100,0	25,0	60	DKOS-38-90°-DN 31
38	1 1/2"	M 68 x 2	50				80	DKOS-50-90°-DN 38

UNIVERSAL TAPERED NIPPLES

light series
for connectors with 24°- and 60°-cone

DKL - straight
DKLL - straight



DKL - M

DKLL - M

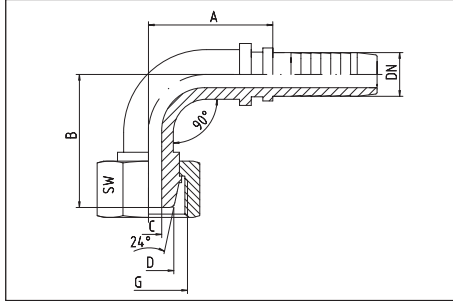
Hose DN	DN Bore in.	Thread G	Tube O.D. D	approx. dimensions			ME Order-Code
				A	C	SW	
06	1/4"	M 12 x 1,5	6	20,0	4,0	14	DKL-M 12x1,5-DN 06
06	1/4"	M 14 x 1,5	8	21,0	4,0	17	DKL-M 14x1,5-DN 06
08	5/16"	M 14 x 1,5	8		5,5	17	DKL-M 14x1,5-DN 08
06	1/4"	M 16 x 1,5	10		4,0	19	DKL-M 16x1,5-DN 06
08	5/16"	M 16 x 1,5	10	22,0	5,5	19	DKL-M 16x1,5-DN 08
10	3/8"	M 16 x 1,5	10		7,0	19	DKL-M 16x1,5-DN 10
06	1/4"	M 18 x 1,5	12		4,0	22	DKL-M 18x1,5-DN 06
08	5/16"	M 18 x 1,5	12		5,5	22	DKL-M 18x1,5-DN 08
10	3/8"	M 18 x 1,5	12	23,0	7,0	22	DKL-M 18x1,5-DN 10
10	3/8"	M 22 x 1,5	15		7,0	27	DKL-M 22x1,5-DN 10
12	1/2"	M 22 x 1,5	15	23,5	9,5	27	DKL-M 22x1,5-DN 12
16	5/8"	M 26 x 1,5	18	25,5	12,5	32	DKL-M 26x1,5-DN 16
19	3/4"	M 30 x 2	22	29,0	14,5	36	DKL-M 30x2-DN 19
25	1"	M 36 x 2	28	31,0	20,0	41	DKL-M 36x2-DN 25
31	1 1/4"	M 45 x 2	35	33,0	25,5	50	DKL-M 45x2-DN 31
38	1 1/2"	M 52 x 2	42	33,0	31,5	60	DKL-M 52x2-DN 38
19	3/4"	M 30 x 1,5*		29,0	14,5	36	DKLL-M 30x1,5-DN 19
25	1"	M 38 x 1,5*		31,0	20,0	46	DKLL-M 38x1,5-DN 25
31	1 1/4"	M 45 x 1,5*		33,0	25,5	55	DKLL-M 45x1,5-DN 31
38	1 1/2"	M 52 x 1,5*		33,0	31,5	60	DKLL-M 52x1,5-DN 38
51	2"	M 65 x 2*		37,5	43,0	70	DKLL-M 65x2-DN 51
60	2 1/2"	M 78 x 2*		32,0	51,0	90	DKLL-M 78x2-DN 60
80	3"	M 100 x 2*		52,5	72,5	110	DKLL-M 100x2-DN 80

* only for connectors with 60°-flare

UNIVERSAL TAPERED NIPPLES 90 DEG BEND

light series
for connectors with 24°- and 60°-cone

DKL - 90°-elbow
DKLL - 90°-elbow



DKL-M 90DEG

DKLL-M 90DEG

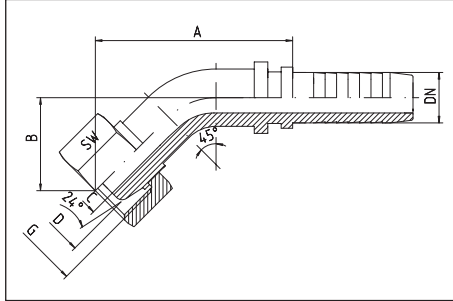
Hose DN	DN Bore in.	Thread G	Tube O.D. D	approx. dimensions				ME Order-Code
				A	B	C	SW	
06	1/4"	M 12 x 1,5	6	29,0	28,0	4,0	14	DKL-M 12x1,5-90°-DN 06
06	1/4"	M 14 x 1,5	8	28,5	27,0	4,0	17	DKL-M 14x1,5-90°-DN 06
08	5/16"	M 14 x 1,5	8				17	DKL-M 14x1,5-90°-DN 08
06	1/4"	M 16 x 1,5	10				19	DKL-M 16x1,5-90°-DN 06
08	5/16"	M 16 x 1,5	10	32,5	35,0	5,5	19	DKL-M 16x1,5-90°-DN 08
10	3/8"	M 16 x 1,5	10				19	DKL-M 16x1,5-90°-DN 10
08	5/16"	M 18 x 1,5	12				22	DKL-M 18x1,5-90°-DN 08
10	3/8"	M 18 x 1,5	12	34,5	35,0	7,0	22	DKL-M 18x1,5-90°-DN 10
10	3/8"	M 22 x 1,5	15				27	DKL-M 22x1,5-90°-DN 10
12	1/2"	M 22 x 1,5	15	44,0	40,0	9,5	27	DKL-M 22x1,5-90°-DN 12
16	5/8"	M 26 x 1,5	18	55,0	49,0	12,5	32	DKL-M 26x1,5-90°-DN 16
19	3/4"	M 30 x 2	22	70,0	53,0	14,5	36	DKL-M 30x2-90°-DN 19
25	1"	M 36 x 2	28	80,0	67,5	20,0	41	DKL-M 36x2-90°-DN 25
31	1 1/4"	M 45 x 2	35	87,0	81,0	25,0	50	DKL-M 45x2-90°-DN 31
38	1 1/2"	M 52 x 2	42	104,0	100,0	31,5	60	DKL-M 52x2-90°-DN 38
19	3/4"	M 30 x 1,5*		70,0	53,0	14,5	36	DKLL-M 30x1,5-90°-DN 19
25	1"	M 38 x 1,5*		80,0	67,5	20,0	46	DKLL-M 38x1,5-90°-DN 25
31	1 1/4"	M 45 x 1,5*		87,0	81,0	25,0	55	DKLL-M 45x1,5-90°-DN 31
38	1 1/2"	M 52 x 1,5*		104,0	100,0	31,0	60	DKLL-M 52x1,5-90°-DN 38
51	2"	M 65 x 2*		145,0	127,0	40,0	70	DKLL-M 65x2-90°-DN 51
60	2 1/2"	M 78 x 2*					90	DKLL-M 78x2-90°-DN 60
80	3"	M 100 x 2*					110	DKLL-M 100x2-90°-DN 80

* only for connectors with 60°-flare

UNIVERSAL TAPERED NIPPLES 45 DEG BEND

light series
for connectors with 24°- and 60°-cone

DKL - 45°-elbow
DKLL - 45°-elbow



DKL -M 45DEG

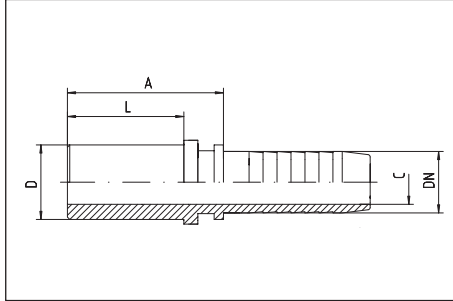
DKLL-M 45 DEG

Hose DN	DN Bore in.	Thread G	Tube O.D. D	approx. dimensions				ME Order-Code
				A	B	C	SW	
06	1/4"	M 12 x 1,5	6	37,0	14,0	4,0	14	DKL-M 12x1,5-45°-DN 06
06	1/4"	M 14 x 1,5	8	35,0	14,5	4,0	17	DKL-M 14x1,5-45°-DN 06
08	5/16"	M 14 x 1,5	8				17	DKL-M 14x1,5-45°-DN 08
06	1/4"	M 16 x 1,5	10				19	DKL-M 16x1,5-45°-DN 06
08	5/16"	M 16 x 1,5	10	41,0	17,0	5,5	19	DKL-M 16x1,5-45°-DN 08
10	3/8"	M 16 x 1,5	10				19	DKL-M 16x1,5-45°-DN 10
08	5/16"	M 18 x 1,5	12				22	DKL-M 18x1,5-45°-DN 08
10	3/8"	M 18 x 1,5	12	43,5	18,5	7,0	22	DKL-M 18x1,5-45°-DN 10
10	3/8"	M 22 x 1,5	15				27	DKL-M 22x1,5-45°-DN 10
12	1/2"	M 22 x 1,5	15	53,0	19,0	9,5	27	DKL-M 22x1,5-45°-DN 12
16	5/8"	M 26 x 1,5	18	59,0	23,0	12,5	32	DKL-M 26x1,5-45°-DN 16
19	3/4"	M 30 x 2	22	75,0	25,0	14,5	36	DKL-M 30x2-45°-DN 19
25	1"	M 36 x 2	28	90,0	32,0	20,0	41	DKL-M 36x2-45°-DN 25
31	1 1/4"	M 45 x 2	35	100,0	36,5	25,0	50	DKL-M 45x2-45°-DN 31
38	1 1/2"	M 52 x 2	42	111,0	43,5	31,0	60	DKL-M 52x2-45°-DN 38
19	3/4"	M 30 x 1,5*		75,0	25,0	14,5	36	DKLL-M 30x1,5-45°-DN 19
25	1"	M 38 x 1,5*		90,0	32,0	20,0	46	DKLL-M 38x1,5-45°-DN 25
31	1 1/4"	M 45 x 1,5*		100,0	36,5	25,0	55	DKLL-M 45x1,5-45°-DN 31
38	1 1/2"	M 52 x 1,5*		111,0	43,5	31,0	60	DKLL-M 52x1,5-45°-DN 38
51	2"	M 65 x 2*		147,0	52,5	40,0	70	DKLL-M 65x2-45°-DN 51
60	2 1/2"	M 78 x 2*					90	DKLL-M 78x2-45°-DN 60
80	3"	M 100 x 2*					110	DKLL-M 100x2-45°-DN 80

* only for connectors with 60°-flare

PIPE CONNECTORS

light series = BEL - straight
heavy series = BES - straight



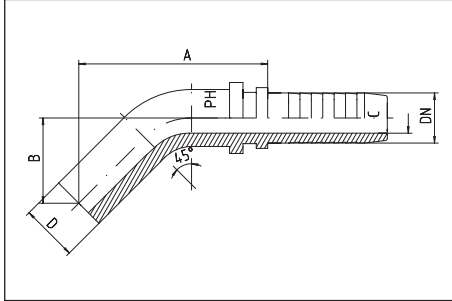
BEL

BES

Hose DN	DN Bore in.	Tube O.D. D	approx. dimensions			ME Order-Code
			A	C	L	
06	1/4"	6	28,5	4,0	20,0	BEL 06-DN 06
06	1/4"	8	31,0	4,0	22,0	BEL 08-DN 06
08	5/16"	8	31,0	5,0	23,0	BEL 08-DN 08
08	5/16"	10	31,5	5,5	23,0	BEL 10-DN 08
10	3/8"	10	34,0	7,0	25,0	BEL 10-DN 10
10	3/8"	12	34,0	7,0	25,0	BEL 12-DN 10
12	1/2"	12	34,0	9,0	25,0	BEL 12-DN 12
10	3/8"	15	36,5	7,0	28,0	BEL 15-DN 10
12	1/2"	15	33,0	9,5	25,0	BEL 15-DN 12
12	1/2"	18	32,0	9,5	27,0	BEL 18-DN 12
16	5/8"	18	35,5	12,5	27,0	BEL 18-DN 16
16	5/8"	22	36,5	12,5	27,0	BEL 22-DN 16
19	3/4"	22	38,0	14,5	27,0	BEL 22-DN 19
25	1"	28	41,5	20,0	30,0	BEL 28-DN 25
31	1 1/4"	35	47,0	25,5	36,0	BEL 35-DN 31
38	1 1/2"	42	47,0	31,5	36,0	BEL 42-DN 38
06	1/4"	6	28,5	4,0	20,0	BES 06-DN 06
06	1/4"	8	31,0	4,0	22,0	BES 08-DN 06
08	5/16"	8	31,0	5,0	23,0	BES 08-DN 08
06	1/4"	10	33,5	4,0	24,0	BES 10-DN 06
08	5/16"	10	31,5	5,5	23,0	BES 10-DN 08
10	3/8"	10	34,0	7,0	25,0	BES 10-DN 10
06	1/4"	12	35,5	4,0	26,0	BES 12-DN 06
08	5/16"	12	35,5	5,5	26,0	BES 12-DN 08
10	3/8"	12	34,0	7,0	25,0	BES 12-DN 10
12	1/2"	12	34,0	9,0	25,0	BES 12-DN 12
10	3/8"	14	35,5	7,0	28,0	BES 14-DN 10
12	1/2"	16	38,5	9,5	30,0	BES 16-DN 12
12	1/2"	20	42,0	9,5	36,0	BES 20-DN 12
16	5/8"	20	45,0	12,5	36,0	BES 20-DN 16
19	3/4"	20	43,0	14,5	31,0	BES 20-DN 19
19	3/4"	25	51,0	14,5	40,0	BES 25-DN 19
25	1"	25	46,0	18,0	34,5	BES 25-DN 25
25	1"	30	56,0	20,0	44,0	BES 30-DN 25
31	1 1/4"	38	62,0	25,5	50,0	BES 38-DN 31
06	1/4"	1/4" = 6,35 mm	31,0	4,0	22,0	BE 1/4"-DN 06
08	5/16"	5/16" = 7,94 mm	31,5	5,5	23,0	BE 5/16"-DN 08
10	3/8"	3/8" = 9,52 mm	34,0	7,0	25,0	BE 3/8"-DN 10
12	1/2"	1/2" = 12,70 mm	38,5	9,5	30,0	BE 1/2"-DN 12
16	5/8"	5/8" = 15,88 mm	45,0	12,5	36,0	BE 5/8"-DN 16
19	3/4"	3/4" = 19,05 mm	51,0	14,5	40,0	BE 3/4"-DN 19
25	1"	1" = 25,40 mm	56,0	20,0	44,0	BE 1"-DN 25
31	1 1/4"	1 1/4" = 31,75 mm	62,0	25,5	50,0	BE 1 1/4"-DN 31
38	1 1/2"	1 1/2" = 38,10 mm	62,0	31,5	50,0	BE 1 1/2"-DN 38

PIPE CONNECTORS 45 DEG BEND

light series = BEL - 45°-elbow
heavy series = BES - 45°-elbow



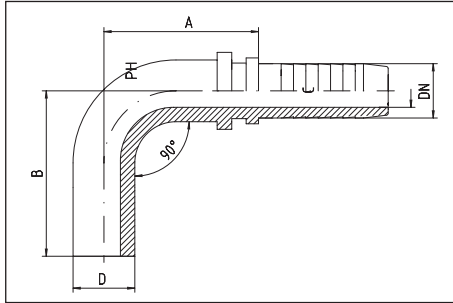
BEL 45DEG

BES 45DEG

Hose DN	DN Bore in.	Tube O.D. D	approx. dimensions			ME Order-Code
			A	B	C	
06	1/4"	6	50,0	22,0	4,0	BEL 06-45°-DN 06
06	1/4"	8	60,0	22,0	4,0	BEL 08-45°-DN 06
06	1/4"	10	65,0	22,5	4,0	BEL 10-45°-DN 06
08	5/16"	10	64,5	25,0	5,5	BEL 10-45°-DN 08
10	3/8"	10	64,0	24,5	7,0	BEL 10-45°-DN 10
08	5/16"	12	59,0	24,0	5,5	BEL 12-45°-DN 08
10	3/8"	12	59,0	24,5	7,0	BEL 12-45°-DN 10
12	1/2"	15	69,0	27,5	9,5	BEL 15-45°-DN 12
16	5/8"	18	73,0	34,0	12,5	BEL 18-45°-DN 16
19	3/4"	22	92,0	41,5	14,5	BEL 22-45°-DN 19
25	1"	28	108,0	47,0	20,0	BEL 28-45°-DN 25
31	1 1/4"	35	144,0	68,0	25,5	BEL 35-45°-DN 31
38	1 1/2"	42			31,5	BEL 42-45°-DN 38
06	1/4"	6	50,0	22,0	4,0	BES 06-45°-DN 06
06	1/4"	8	60,0	22,0	4,0	BES 08-45°-DN 06
06	1/4"	10	65,0	22,5	4,0	BES 10-45°-DN 06
08	5/16"	10	64,5	25,0	5,5	BES 10-45°-DN 08
10	3/8"	10	64,5	25,0	7,0	BES 10-45°-DN 10
08	5/16"	12	59,0	24,0	5,5	BES 12-45°-DN 08
10	3/8"	12	48,0	45,0	7,0	BES 12-45°-DN 10
10	3/8"	14			7,0	BES 14-45°-DN 10
12	1/2"	16	78,0	32,0	9,5	BES 16-45°-DN 12
16	5/8"	20	71,5	31,0	12,5	BES 20-45°-DN 16
19	3/4"	25	96,0	42,0	14,5	BES 25-45°-DN 19
25	1"	30			20,0	BES 30-45°-DN 25
31	1 1/4"	38			25,5	BES 38-45°-DN 31

PIPE CONNECTORS 90 DEG BEND

light series = BEL - 90°-elbow
heavy series = BES - 90°-elbow

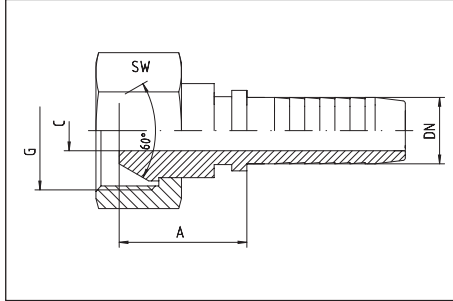


Hose DN	DN Bore in.	Tube O.D. D	approx. dimensions			ME Order-Code
			A	B	C	
06	1/4"	6	32,5	32,5	4,0	BEL 06-90°-DN 06
06	1/4"	8	38,5	37,0	4,0	BEL 08-90°-DN 06
06	1/4"	10	43,0	40,0	4,0	BEL 10-90°-DN 06
08	5/16"	10	41,0	41,5	5,5	BEL 10-90°-DN 08
10	3/8"	10	41,0	41,5	7,0	BEL 10-90°-DN 10
08	5/16"	12	48,0	45,0	5,5	BEL 12-90°-DN 08
10	3/8"	12	48,0	45,0	7,0	BEL 12-90°-DN 10
12	1/2"	15	53,0	49,0	9,5	BEL 15-90°-DN 12
16	5/8"	18	59,0	65,0	12,5	BEL 18-90°-DN 16
19	3/4"	22	75,0	75,5	14,5	BEL 22-90°-DN 19
25	1"	28	85,0	98,0	20,0	BEL 28-90°-DN 25
31	1 1/4"	35	112,0	127,0	25,5	BEL 35-90°-DN 31
38	1 1/2"	42			31,5	BEL 42-90°-DN 38
06	1/4"	6	32,5	32,5	4,0	BES 06-90°-DN 06
06	1/4"	8	38,5	38,5	4,0	BES 08-90°-DN 06
06	1/4"	10	43,0	40,0	4,0	BES 10-90°-DN 06
08	5/16"	10	41,0	41,5	5,5	BES 10-90°-DN 08
10	3/8"	10	41,0	41,5	7,0	BES 10-90°-DN 10
08	5/16"	12	48,0	45,0	5,5	BES 12-90°-DN 08
10	3/8"	12	48,0	45,0	7,0	BES 12-90°-DN 10
10	3/8"	14			7,0	BES 14-90°-DN 10
12	1/2"	16	60,5	58,5	9,5	BES 16-90°-DN 12
16	5/8"	20	73,0	66,0	12,5	BES 20-90°-DN 16
19	3/4"	25	79,0	84,0	14,5	BES 25-90°-DN 19
25	1"	30			20,0	BES 30-90°-DN 25
31	1 1/4"	38			25,5	BES 38-90°-DN 31

BSP NIPPLES

with BSP union nut
for connectors with 60°-flare

DKR - straight



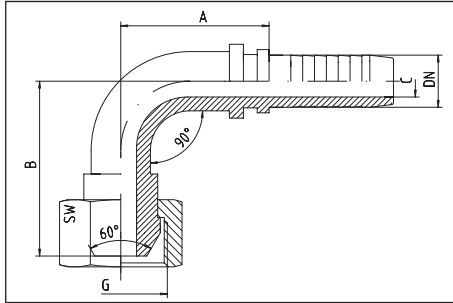
DKR

Hose DN	DN Bore in.	Thread G	approx. dimensions			ME Order-Code
			A	C	SW	
06	1/4"	1/8"-28	15,5	4,0	14	DKR 1/8"-DN 06
06	1/4"	1/4"-19	21,0	4,0	17	DKR 1/4"-DN 06
08	5/16"	1/4"-19	20,0	5,0	19	DKR 1/4"-DN 08
10	3/8"	1/4"-19	20,0	5,0	19	DKR 1/4"-DN 10
06	1/4"	3/8"-19	20,0	4,0	19	DKR 3/8"-DN 06
08	5/16"	3/8"-19	22,0	5,5	19	DKR 3/8"-DN 08
10	3/8"	3/8"-19	20,5	7,0	19	DKR 3/8"-DN 10
12	1/2"	3/8"-19	24,0	9,5	19	DKR 3/8"-DN 12
06	1/4"	1/2"-14	24,0	4,0	27	DKR 1/2"-DN 06
08	5/16"	1/2"-14	21,5	5,5	27	DKR 1/2"-DN 08
10	3/8"	1/2"-14	21,5	7,0	27	DKR 1/2"-DN 10
12	1/2"	1/2"-14	23,5	9,5	27	DKR 1/2"-DN 12
16	5/8"	1/2"-14	21,0	11,5	27	DKR 1/2"-DN 16
19	3/4"	1/2"-14	23,0	11,5	27	DKR 1/2"-DN 19
12	1/2"	5/8"-14	23,0	9,5	27	DKR 5/8"-DN 12
16	5/8"	5/8"-14	22,0	12,5	27	DKR 5/8"-DN 16
12	1/2"	3/4"-14	24,0	9,5	32	DKR 3/4"-DN 12
16	5/8"	3/4"-14	25,0	12,5	32	DKR 3/4"-DN 16
19	3/4"	3/4"-14	26,5	14,5	32	DKR 3/4"-DN 19
25	1"	3/4"-14	25,0	16,5	32	DKR 3/4"-DN 25
19	3/4"	1"-11	27,0	14,5	41	DKR 1"-DN 19
25	1"	1"-11	28,0	20,0	41	DKR 1"-DN 25
19	3/4"	1 1/4"-11		14,5	50	DKR 1 1/4"-DN 19
25	1"	1 1/4"-11	32,5	20,0	50	DKR 1 1/4"-DN 25
31	1 1/4"	1 1/4"-11	31,0	25,5	50	DKR 1 1/4"-DN 31
31	1 1/4"	1 1/2"-11	46,0	25,5	55	DKR 1 1/2"-DN 31
38	1 1/2"	1 1/2"-11	46,0	31,5	55	DKR 1 1/2"-DN 38
38	1 1/2"	2"-11			70	DKR 2"-DN 38
51	2"	2"-11	35,5	43,0	70	DKR 2"-DN 51
60	2 1/2"	2 1/2"-11	44,0	51,0	85	DKR 2 1/2"-DN 60

BSP NIPPLES 90 DEG BEND

with BSP union nut
for connectors with 60°-flare

DKR - 90°-elbow



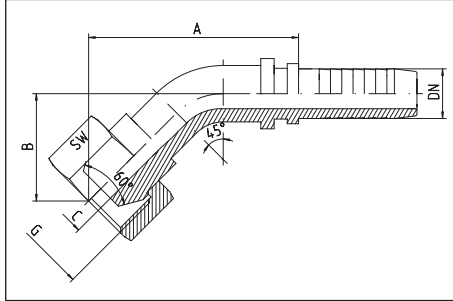
DKR 90DEG

Hose DN	DN Bore in.	Thread G	approx. dimensions				ME Order-Code
			A	B	C	SW	
06	1/4"	1/8"-28	28,5	30,0	4,0	14	DKR 1/8"-90°-DN 06
06	1/4"	1/4"-19	28,5	28,0	4,0	17	DKR 1/4"-90°-DN 06
10	3/8"	1/4"-19	34,0	39,0	6,0	19	DKR 1/4"-90°-DN 10
06	1/4"	3/8"-19	29,0	26,0	4,0	19	DKR 3/8"-90°-DN 06
08	5/16"	3/8"-19	33,0	34,0	5,5	19	DKR 3/8"-90°-DN 08
10	3/8"	3/8"-19	33,0	34,0	7,0	19	DKR 3/8"-90°-DN 10
12	1/2"	3/8"-19	44,0	47,5	9,5	22	DKR 3/8"-90°-DN 12
10	3/8"	1/2"-14	44,0	42,5	7,0	27	DKR 1/2"-90°-DN 10
12	1/2"	1/2"-14	44,0	42,5	9,5	27	DKR 1/2"-90°-DN 12
16	5/8"	1/2"-14				27	DKR 1/2"-90°-DN 16
12	1/2"	5/8"-14				27	DKR 5/8"-90°-DN 12
16	5/8"	5/8"-14	55,0	54,0	12,5	27	DKR 5/8"-90°-DN 16
12	1/2"	3/4"-14	47,5	43,0	9,5	32	DKR 3/4"-90°-DN 12
16	5/8"	3/4"-14	55,0	54,0	12,5	32	DKR 3/4"-90°-DN 16
19	3/4"	3/4"-14	69,0	54,0	14,5	32	DKR 3/4"-90°-DN 19
19	3/4"	1"-11	78,0	69,0	14,5	41	DKR 1"-90°-DN 19
25	1"	1"-11	78,0	69,0	20,0	41	DKR 1"-90°-DN 25
25	1"	1 1/4"-11	82,0	81,0	20,0	50	DKR 1 1/4"-90°-DN 25
31	1 1/4"	1 1/4"-11	87,0	81,0	25,0	50	DKR 1 1/4"-90°-DN 31
31	1 1/4"	1 1/2"-11	125,0	103,0	25,0	55	DKR 1 1/2"-90°-DN 31
38	1 1/2"	1 1/2"-11	104,0	102,0	31,0	55	DKR 1 1/2"-90°-DN 38
38	1 1/2"	2"-11				70	DKR 2"-90°-DN 38
51	2"	2"-11	142,0	133,0	40,0	70	DKR 2"-90°-DN 51

BSP NIPPLES 45 DEG BEND

with BSP union nut
for connectors with 60°-flare

DKR - 45°-elbow



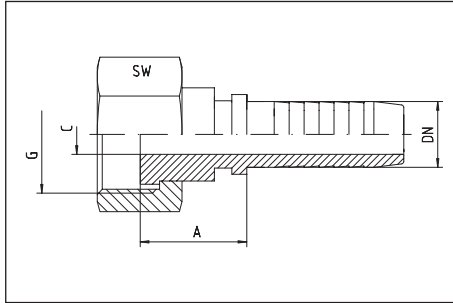
DKR - 45DEG

Hose DN	DN Bore in.	Thread G	aprox. dimensions				ME Order-Code
			A	B	C	SW	
06	1/4"	1/8"-28	39,0	16,0	4,0	14	DKR 1/8"-45°-DN 06
06	1/4"	1/4"-19	36,5	14,5	4,0	17	DKR 1/4"-45°-DN 06
10	3/8"	1/4"-19	44,0	22,5	6,0	19	DKR 1/4"-45°-DN 10
06	1/4"	3/8"-19	34,0	16,0	4,0	19	DKR 3/8"-45°-DN 06
08	5/16"	3/8"-19	40,0	15,0	5,5	19	DKR 3/8"-45°-DN 08
10	3/8"	3/8"-19	40,0	15,0	7,0	19	DKR 3/8"-45°-DN 10
12	1/2"	3/8"-19	58,5	25,5	9,5	22	DKR 3/8"-45°-DN 12
10	3/8"	1/2"-14	54,0	20,5	7,0	27	DKR 1/2"-45°-DN 10
12	1/2"	1/2"-14	54,0	20,5	9,5	27	DKR 1/2"-45°-DN 12
16	5/8"	1/2"-14				27	DKR 1/2"-45°-DN 16
12	1/2"	5/8"-14				27	DKR 5/8"-45°-DN 12
16	5/8"	5/8"-14	68,0	28,0	12,5	27	DKR 5/8"-45°-DN 16
12	1/2"	3/4"-14	60,0	23,0	9,0	32	DKR 3/4"-45°-DN 12
16	5/8"	3/4"-14	62,5	28,0	12,5	32	DKR 3/4"-45°-DN 16
19	3/4"	3/4"-14	77,0	30,0	14,5	32	DKR 3/4"-45°-DN 19
19	3/4"	1"-11	77,0	26,0	14,5	41	DKR 1"-45°-DN 19
25	1"	1"-11	95,0	39,5	20,0	41	DKR 1"-45°-DN 25
25	1"	1 1/4"-11	94,0	40,0	20,0	50	DKR 1 1/4"-45°-DN 25
31	1 1/4"	1 1/4"-11	100,0	40,0	25,0	50	DKR 1 1/4"-45°-DN 31
31	1 1/4"	1 1/2"-11	145,0	53,0	25,0	55	DKR 1 1/2"-45°-DN 31
38	1 1/2"	1 1/2"-11	115,0	55,0	31,0	55	DKR 1 1/2"-45°-DN 38
38	1 1/2"	2"-11				70	DKR 2"-45°-DN 38
51	2"	2"-11	149,0	57,0	40,0	70	DKR 2"-45°-DN 51

BSP NIPPLES - FLATSEAL

with BSP union nut

DRF - straight



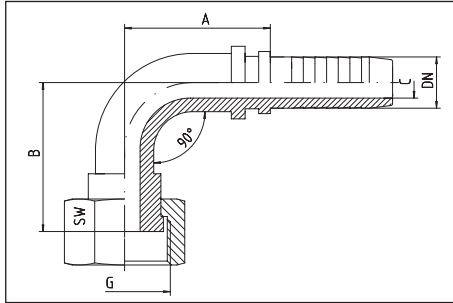
DRF

Hose DN	Bore in.	Thread G	approx. dimensions			ME Order-Code
			A	C	SW	
06	1/4"	1/8"-28	13,5	4,0	14	DRF 1/8"-DN 06
06	1/4"	1/4"-19	16,5	4,0	17	DRF 1/4"-DN 06
10	3/8"	1/4"-19	17,0	4,0	19	DRF 1/4"-DN 10
06	1/4"	3/8"-19	17,0	4,0	19	DRF 3/8"-DN 06
08	5/16"	3/8"-19	17,5	5,5	19	DRF 3/8"-DN 08
10	3/8"	3/8"-19	17,5	7,0	19	DRF 3/8"-DN 10
12	1/2"	3/8"-19	20,5	8,0	19	DRF 3/8"-DN 12
06	1/4"	1/2"-14	20,5	4,0	27	DRF 1/2"-DN 06
08	5/16"	1/2"-14	16,5	5,5	27	DRF 1/2"-DN 08
10	3/8"	1/2"-14	16,5	7,0	27	DRF 1/2"-DN 10
12	1/2"	1/2"-14	19,5	9,5	27	DRF 1/2"-DN 12
12	1/2"	5/8"-14	20,0	9,5	27	DRF 5/8"-DN 12
16	5/8"	5/8"-14	19,0	12,5	27	DRF 5/8"-DN 16
12	1/2"	3/4"-14	19,5	9,5	32	DRF 3/4"-DN 12
16	5/8"	3/4"-14	20,0	12,5	32	DRF 3/4"-DN 16
19	3/4"	3/4"-14	21,5	14,5	32	DRF 3/4"-DN 19
19	3/4"	1"-11	22,0	14,5	41	DRF 1"-DN 19
25	1"	1"-11	23,5	20,0	41	DRF 1"-DN 25
19	3/4"	1 1/4"-11		14,5	50	DRF 1 1/4"-DN 19
25	1"	1 1/4"-11	26,0	20,0	50	DRF 1 1/4"-DN 25
31	1 1/4"	1 1/4"-11	23,5	25,5	50	DRF 1 1/4"-DN 31
31	1 1/4"	1 1/2"-11	41,0	25,5	55	DRF 1 1/2"-DN 31
38	1 1/2"	1 1/2"-11	41,0	31,5	55	DRF 1 1/2"-DN 38
51	2"	2"-11	28,0	43,0	70	DRF 2"-DN 51
60	2 1/2"	2 1/2"-11				DRF 2 1/2"-DN 60

NIPPLES 90DEG BEND - FLATSEAL

with BSP union nut

DRF - 90°-elbow

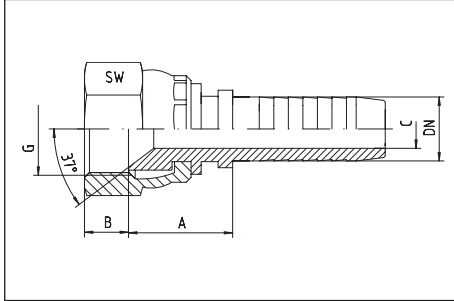


DRF - 90DEG

Hose DN	DN Bore in.	Thread G	approx. dimensions				ME Order-Code
			A	B	C	SW	
06	1/4"	1/8"-28	31,0	17,0	4,0	14	DRF 1/8"-90°-DN 06
06	1/4"	1/4"-19	28,5	25,0	4,0	17	DRF 1/4"-90°-DN 06
08	5/16"	3/8"-19	33,0	30,0	5,5	19	DRF 3/8"-90°-DN 08
10	3/8"	3/8"-19	33,0	30,0	7,0	19	DRF 3/8"-90°-DN 10
10	3/8"	1/2"-14	41,5	36,0	7,0	27	DRF 1/2"-90°-DN 10
12	1/2"	1/2"-14	44,0	36,5	9,5	27	DRF 1/2"-90°-DN 12
16	5/8"	5/8"-14	54,5	50,0	12,0	27	DRF 5/8"-90°-DN 16
12	1/2"	3/4"-14	55,0	47,0	9,5	32	DRF 3/4"-90°-DN 12
16	5/8"	3/4"-11	54,0	20,5	9,5	32	DRF 3/4"-90°-DN 16
19	3/4"	3/4"-11	78,0	50,0	14,5	32	DRF 3/4"-90°-DN 19
19	3/4"	1"-11	71,0	51,0	14,5	41	DRF 1"-90°-DN 19
25	1"	1"-11	78,0	64,5	20,0	41	DRF 1"-90°-DN 25
25	1"	1 1/4"-11	82,0	76,0	20,0	50	DRF 1 1/4"-90°-DN 25
31	1 1/4"	1 1/4"-11	87,0	74,5	25,0	50	DRF 1 1/4"-90°-DN 31
31	1 1/4"	1 1/2"-11	125,0	98,0	25,0	55	DRF 1 1/2"-90°-DN 31
38	1 1/2"	1 1/2"-11	104,0	95,0	31,0	55	DRF 1 1/2"-90°-DN 38
51	2"	2"-11	142,0	119,0	40,0	70	DRF 2"-90°-DN 51

45° on request

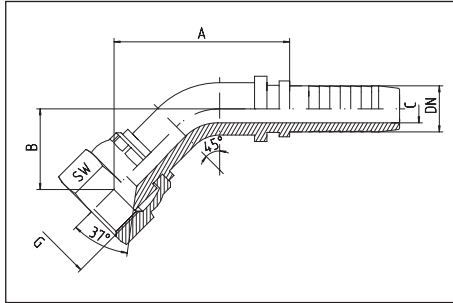
JIC - 37° - FEMALE NIPPLES



DKJ

Hose DN	DN Bore in.	Thread G = UNF/UN	approx. dimensions				ME Order-Code
			A	B	C	SW	
06	1/4"	7/16"-20	16,2	7,5	4,0	17	DKJ 7/16"- DN 06
06	1/4"	1/2"-20	16,0	9,5	4,0	17	DKJ 1/2"- DN 06
08	5/16"	1/2"-20	19,0	8,5	5,5	17	DKJ 1/2"- DN 08
06	1/4"	9/16"-18	18,5	8,5	4,0	19	DKJ 9/16"- DN 06
08	5/16"	9/16"-18	16,5	10,0	5,5	19	DKJ 9/16"- DN 08
10	3/8"	9/16"-18	19,0	8,5	7,0	19	DKJ 9/16"- DN 10
12	1/2"	9/16"-18	18,0	8,5	7,5	19	DKJ 9/16"- DN 12
06	1/4"	3/4"-16	19,0	10,0	4,0	24	DKJ 3/4"- DN 06
08	5/16"	3/4"-16	19,0	10,0	5,5	24	DKJ 3/4"- DN 08
10	3/8"	3/4"-16	19,0	10,0	7,0	24	DKJ 3/4"- DN 10
12	1/2"	3/4"-16	20,0	10,0	9,5	24	DKJ 3/4"- DN 12
16	5/8"	3/4"-16	20,0	11,5	9,5	24	DKJ 3/4"- DN 16
19	3/4"	3/4"-16	23,0	11,0	10,0	24	DKJ 3/4"- DN 19
10	3/8"	7/8"-14	23,5	12,5	7,0	27	DKJ 7/8"- DN 10
12	1/2"	7/8"-14	20,0	11,5	9,5	27	DKJ 7/8"- DN 12
16	5/8"	7/8"-14	21,0	11,5	12,5	27	DKJ 7/8"- DN 16
19	3/4"	7/8"-14	23,0	12,5	12,5	27	DKJ 7/8"- DN 19
12	1/2"	1 1/16"-12	20,0	15,0	9,5	32	DKJ 1 1/16"- DN 12
16	5/8"	1 1/16"-12	22,0	14,0	12,5	32	DKJ 1 1/16"- DN 16
19	3/4"	1 1/16"-12	22,0	15,0	14,5	32	DKJ 1 1/16"- DN 19
25	1"	1 1/16"-12	23,0	14,5	20,0	32	DKJ 1 1/16"- DN 25
16	5/8"	1 5/16"-12	26,5	14,5	12,5	41	DKJ 1 5/16"- DN 16
19	3/4"	1 5/16"-12	25,5	14,0	14,5	41	DKJ 1 5/16"- DN 19
25	1"	1 5/16"-12	28,0	14,0	20,0	41	DKJ 1 5/16"- DN 25
25	1"	1 5/8"-12	32,5	15,5	20,0	50	DKJ 1 5/8"- DN 25
31	1 1/4"	1 5/8"-12	27,5	15,5	25,5	50	DKJ 1 5/8"- DN 31
31	1 1/4"	1 7/8"-12	31,5	20,0	25,5	55	DKJ 1 7/8"- DN 31
38	1 1/2"	1 7/8"-12	36,5	18,5	31,5	55	DKJ 1 7/8"- DN 38
38	1 1/2"	2 1/2"-12			31,5	70	DKJ 2 1/2"- DN 38
51	2"	2 1/2"-12	45,5	25,0	43,0	70	DKJ 2 1/2"- DN 51

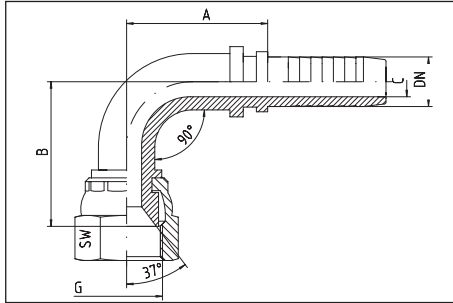
JIC - 37° - FEMALE NIPPLES - 45°



DKJ 45DEG

Hose DN	DN Bore in.	Thread G = UNF/UN	approx. dimensions				ME Order-Code
			A	B	C	SW	
06	1/4"	7/16"-20	38,0	16,5	4,0	17	DKJ 7/16"-45°-DN 06
06	1/4"	1/2"-20	36,0	15,5	4,0	17	DKJ 1/2"-45°-DN 06
08	5/16"	1/2"-20	38,5	17,0	5,5	17	DKJ 1/2"-45°-DN 08
06	1/4"	9/16"-18	34,5	14,5	4,0	19	DKJ 9/16"-45°-DN 06
08	5/16"	9/16"-18	44,5	20,0	5,5	19	DKJ 9/16"-45°-DN 08
10	3/8"	9/16"-18	47,0	20,0	7,0	19	DKJ 9/16"-45°-DN 10
10	3/8"	3/4"-16	42,0	18,5	7,0	24	DKJ 3/4"-45°-DN 10
12	1/2"	3/4"-16	57,0	22,5	9,5	24	DKJ 3/4"-45°-DN 12
10	3/8"	7/8"-14	50,5	20,0	7,0	27	DKJ 7/8"-45°-DN 10
12	1/2"	7/8"-14	59,0	22,0	9,5	27	DKJ 7/8"-45°-DN 12
16	5/8"	7/8"-14	66,0	27,0	12,5	27	DKJ 7/8"-45°-DN 16
12	1/2"	1 1/16"-12	81,0	30,0	9,5	32	DKJ 1 1/16"-45°-DN 12
16	5/8"	1 1/16"-12	67,0	26,5	12,5	32	DKJ 1 1/16"-45°-DN 16
19	3/4"	1 1/16"-12	78,0	28,0	14,5	32	DKJ 1 1/16"-45°-DN 19
19	3/4"	1 5/16"-12	82,0	32,5	14,5	41	DKJ 1 5/16"-45°-DN 19
25	1"	1 5/16"-12	97,0	38,0	20,0	41	DKJ 1 5/16"-45°-DN 25
25	1"	1 5/8"-12	123,0	50,5	20,0	50	DKJ 1 5/8"-45°-DN 25
31	1 1/4"	1 5/8"-12	103,0	37,0	25,0	50	DKJ 1 5/8"-45°-DN 31
31	1 1/4"	1 7/8"-12	144,0	49,0	25,0	55	DKJ 1 7/8"-45°-DN 31
38	1 1/2"	1 7/8"-12	115,5	49,0	31,5	55	DKJ 1 7/8"-45°-DN 38
38	1 1/2"	2 1/2"-12			31,5		DKJ 2 1/2"-45°-DN 38
51	2"	2 1/2"-12	170,0	75,0	42,0	70	DKJ 2 1/2"-45°-DN 51

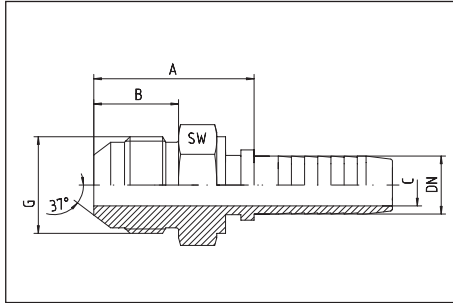
JIC - 37° - FEMALE NIPPLES - 90°



DKJ90DEG

Hose DN	DN Bore in.	Thread G = UNF/UN	approx. dimensions				ME Order-Code
			A	B	C	SW	
06	1/4"	7/16"-20	27,5	31,0	4,0	17	DKJ 7/16"-90°-DN 06
06	1/4"	1/2"-20	27,5	31,0	4,0	17	DKJ 1/2"-90°-DN 06
08	5/16"	1/2"-20	26,0	32,0	5,5	17	DKJ 1/2"-90°-DN 08
06	1/4"	9/16"-18	27,5	26,0	4,0	19	DKJ 9/16"-90°-DN 06
08	5/16"	9/16"-18	35,5	36,0	5,5	19	DKJ 9/16"-90°-DN 08
10	3/8"	9/16"-18	36,0	35,0	7,0	19	DKJ 9/16"-90°-DN 10
10	3/8"	3/4"-16	36,0	30,5	7,0	22	DKJ 3/4"-90°-DN 10
12	1/2"	3/4"-16	43,0	45,0	9,5	24	DKJ 3/4"-90°-DN 12
10	3/8"	7/8"-14	42,5	38,0	7,0	27	DKJ 7/8"-90°-DN 10
12	1/2"	7/8"-14	43,0	46,5	9,5	27	DKJ 7/8"-90°-DN 12
16	5/8"	7/8"-14	56,5	55,5	12,5	27	DKJ 7/8"-90°-DN 16
12	1/2"	1 1/16"-12	49,0	55,0	9,5	32	DKJ 1 1/16"-90°-DN 12
16	5/8"	1 1/16"-12	58,0	51,5	12,5	32	DKJ 1 1/16"-90°-DN 16
19	3/4"	1 1/16"-12	70,0	58,0	14,5	32	DKJ 1 1/16"-90°-DN 19
19	3/4"	1 5/16"-12	70,0	60,0	14,5	41	DKJ 1 5/16"-90°-DN 19
25	1"	1 5/16"-12	80,0	73,5	20,0	41	DKJ 1 5/16"-90°-DN 25
25	1"	1 5/8"-12	105,0	94,5	20,0	50	DKJ 1 5/8"-90°-DN 25
31	1 1/4"	1 5/8"-12	101,0	94,0	25,0	50	DKJ 1 5/8"-90°-DN 31
31	1 1/4"	1 7/8"-12	127,0	95,0	25,0	55	DKJ 1 7/8"-90°-DN 31
38	1 1/2"	1 7/8"-12	104,5	103,0	31,5	55	DKJ 1 7/8"-90°-DN 38
38	1 1/2"	2 1/2"-12			31,5		DKJ 2 1/2"-90°-DN 38
51	2"	2 1/2"-12	149,0	150,0	42,0	70	DKJ 2 1/2"-90°-DN 51

JIC - 37° - MALE NIPPLES



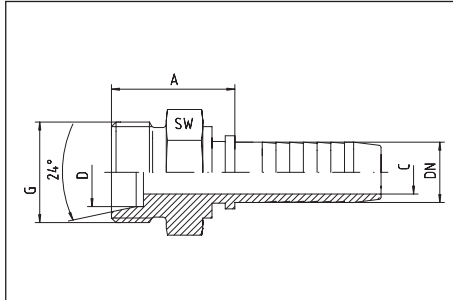
AGJ

Hose DN	DN Bore in.	Thread G = UNF/UN	approx. dimensions				ME Order-Code
			A	B	C	SW	
06	1/4"	7/16"-20	27,5	14,0	4,0	14	AGJ 7/16"-DN 06
06	1/4"	1/2"-20	27,5	14,0	4,0	17	AGJ 1/2"-DN 06
08	5/16"	1/2"-20	27,5	14,0	5,5	17	AGJ 1/2"-DN 08
06	1/4"	9/16"-18	29,5	14,1	4,0	17	AGJ 9/16"-DN 06
08	5/16"	9/16"-18	29,5	14,1	5,5	17	AGJ 9/16"-DN 08
10	3/8"	9/16"-18	29,5	14,1	7,0	17	AGJ 9/16"-DN 10
10	3/8"	3/4"-16	33,0	16,7	7,0	22	AGJ 3/4"-DN 10
12	1/2"	3/4"-16	31,0	16,7	9,5	22	AGJ 3/4"-DN 12
10	3/8"	7/8"-14	36,0	19,3	7,0	24	AGJ 7/8"-DN 10
12	1/2"	7/8"-14	36,5	19,3	9,5	24	AGJ 7/8"-DN 12
16	5/8"	7/8"-14	37,0	19,3	12,5	24	AGJ 7/8"-DN 16
12	1/2"	1 1/16"-12	38,5	22,0	9,5	27	AGJ 1 1/16"-DN 12
16	5/8"	1 1/16"-12	40,0	22,0	12,5	27	AGJ 1 1/16"-DN 16
19	3/4"	1 1/16"-12	43,0	22,0	14,5	27	AGJ 1 1/16"-DN 19
19	3/4"	1 5/16"-12	44,0	23,1	14,5	36	AGJ 1 5/16"-DN 19
25	1"	1 5/16"-12	44,0	23,1	20,0	36	AGJ 1 5/16"-DN 25
25	1"	1 5/8"-12	50,0	24,4	20,0	46	AGJ 1 5/8"-DN 25
31	1 1/4"	1 5/8"-12	48,0	24,4	25,5	46	AGJ 1 5/8"-DN 31
31	1 1/4"	1 7/8"-12	51,0	27,5	25,5	50	AGJ 1 7/8"-DN 31
38	1 1/2"	1 7/8"-12	53,5	27,5	31,5	50	AGJ 1 7/8"-DN 38
38	1 1/2"	2 1/2"-12		33,9	31,5	65	AGJ 2 1/2"-DN 38
51	2"	2 1/2"-12	63,0	33,9	43,0	65	AGJ 2 1/2"-DN 51

METRIC-MALE NIPPLES

for compression couplings DIN 2353 / DIN EN ISO 8434-1
stud 24°-cone

light series = CEL
heavy series = CES



CEL

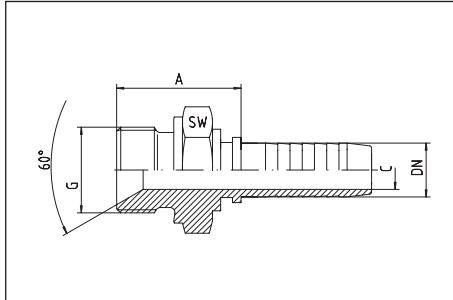
CES

Hose DN	DN Bore in.	Thread G	Tube O.D. D	approx. dimensions			ME Order-Code
				A	C	SW	
06	1/4"	M 12 x 1,5	6	23,0	4,0	14	CEL 06-DN 06
06	1/4"	M 14 x 1,5	8	23,0	4,0	14	CEL 08-DN 06
06	1/4"	M 16 x 1,5	10	25,0	4,0	17	CEL 10-DN 06
08	5/16"	M 16 x 1,5	10	24,5	5,5	17	CEL 10-DN 08
10	3/8"	M 16 x 1,5	10	24,5	7,0	17	CEL 10-DN 10
06	1/4"	M 18 x 1,5	12	24,5	4,0	19	CEL 12-DN 06
08	5/16"	M 18 x 1,5	12	24,5	5,5	19	CEL 12-DN 08
10	3/8"	M 18 x 1,5	12	24,5	7,0	19	CEL 12-DN 10
12	1/2"	M 18 x 1,5	12	25,5	9,5	19	CEL 12-DN 12
10	3/8"	M 22 x 1,5	15	26,0	7,0	22	CEL 15-DN 10
12	1/2"	M 22 x 1,5	15	27,0	9,5	22	CEL 15-DN 12
12	1/2"	M 26 x 1,5	18	29,0	9,5	27	CEL 18-DN 12
16	5/8"	M 26 x 1,5	18	28,0	12,5	27	CEL 18-DN 16
16	5/8"	M 30 x 2	22	32,5	12,5	30	CEL 22-DN 16
19	3/4"	M 30 x 2	22	35,0	14,5	30	CEL 22-DN 19
25	1"	M 36 x 2	28	35,0	20,0	36	CEL 28-DN 25
31	1 1/4"	M 45 x 2	35	39,0	25,5	46	CEL 35-DN 31
38	1 1/2"	M 52 x 2	42	45,0	31,5	55	CEL 42-DN 38
06	1/4"	M 14 x 1,5	6	25,0	4,0	14	CES 06-DN 06
06	1/4"	M 16 x 1,5	8	25,5	4,0	17	CES 08-DN 06
06	1/4"	M 18 x 1,5	10	25,5	4,0	19	CES 10-DN 06
08	5/16"	M 18 x 1,5	10	25,5	5,5	19	CES 10-DN 08
10	3/8"	M 18 x 1,5	10	25,5	7,0	19	CES 10-DN 10
08	5/16"	M 20 x 1,5	12	27,5	5,5	22	CES 12-DN 08
10	3/8"	M 20 x 1,5	12	25,5	7,0	22	CES 12-DN 10
08	5/16"	M 22 x 1,5	14	27,5	5,5	22	CES 14-DN 08
10	3/8"	M 22 x 1,5	14	28,0	7,0	22	CES 14-DN 10
10	3/8"	M 24 x 1,5	16	28,0	7,0	24	CES 16-DN 10
12	1/2"	M 24 x 1,5	16	28,0	9,5	24	CES 16-DN 12
12	1/2"	M 30 x 2	20	33,0	9,5	30	CES 20-DN 12
16	5/8"	M 30 x 2	20	34,0	12,5	30	CES 20-DN 16
19	3/4"	M 30 x 2	20	37,0	14,5	30	CES 20-DN 19
19	3/4"	M 36 x 2	25	40,0	14,5	36	CES 25-DN 19
25	1"	M 36 x 2	25	40,0	20,0	36	CES 25-DN 25
25	1"	M 42 x 2	30	42,5	20,0	46	CES 30-DN 25
31	1 1/4"	M 52 x 2	38	45,0	25,5	55	CES 38-DN 31

BSP MALE NIPPLES

with 60°-cone
and sealing shoulder form B

Thread: BSP - parallel



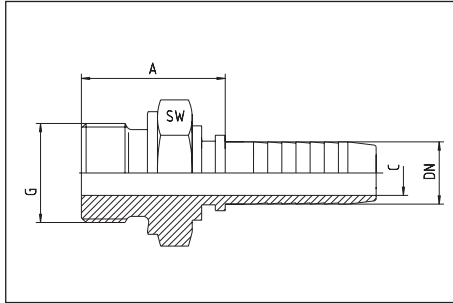
AGR

Hose DN	DN Bore in.	Thread G	approx. dimensions			ME Order-Code
			A	C	SW	
06	1/4"	1/8"-28	23,5	4,0	14	AGR 1/8"-DN 06
06	1/4"	1/4"-19	25,5	4,0	19	AGR 1/4"-DN 06
08	5/16"	1/4"-19	28,0	5,5	19	AGR 1/4"-DN 08
10	3/8"	1/4"-19	28,0	6,0	19	AGR 1/4"-DN 10
06	1/4"	3/8"-19	30,5	4,0	19	AGR 3/8"-DN 06
08	5/16"	3/8"-19	26,5	5,5	22	AGR 3/8"-DN 08
10	3/8"	3/8"-19	30,0	7,0	22	AGR 3/8"-DN 10
12	1/2"	3/8"-19	30,5	7,0	22	AGR 3/8"-DN 12
06	1/4"	1/2"-14	34,5	4,0	27	AGR 1/2"-DN 06
08	5/16"	1/2"-14		5,5	27	AGR 1/2"-DN 08
10	3/8"	1/2"-14	32,0	7,0	27	AGR 1/2"-DN 10
12	1/2"	1/2"-14	31,0	9,5	27	AGR 1/2"-DN 12
16	5/8"	1/2"-14	32,0	12,5	27	AGR 1/2"-DN 16
19	3/4"	1/2"-14	37,5	14,5	27	AGR 1/2"-DN 19
16	5/8"	5/8"-14	32,5	12,5	30	AGR 5/8"-DN 16
12	1/2"	3/4"-14	34,5	9,5	32	AGR 3/4"-DN 12
16	5/8"	3/4"-14	35,0	12,5	32	AGR 3/4"-DN 16
19	3/4"	3/4"-14	38,0	14,5	32	AGR 3/4"-DN 19
25	1"	3/4"-14	38,0	19,5	36	AGR 3/4"-DN 25
19	3/4"	1"-11	41,5	14,5	41	AGR 1"-DN 19
25	1"	1"-11	42,0	20,0	41	AGR 1"-DN 25
25	1"	1 1/4"-11	45,0	20,0	50	AGR 1 1/4"-DN 25
31	1 1/4"	1 1/4"-11	45,0	25,5	50	AGR 1 1/4"-DN 31
31	1 1/4"	1 1/2"-11	45,0	25,5	55	AGR 1 1/2"-DN 31
38	1 1/2"	1 1/2"-11	48,0	31,5	55	AGR 1 1/2"-DN 38
51	2"	2"-11	50,0	41,0	70	AGR 2"-DN 51

BSP FLAT SEAL MALE NIPPLES

flatseal
with sealing shoulder form B

Thread: BSP - parallel



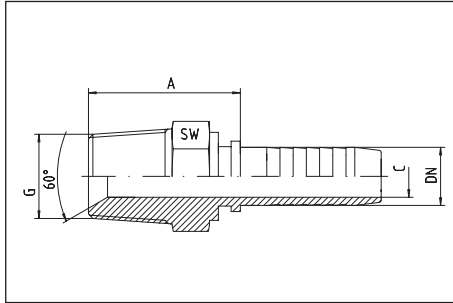
AGF

Hose DN	DN Bore in.	Thread G	approx. dimensions			ME Order-Code
			A	C	SW	
06	1/4"	1/8"-28	23,5	4,0	14	AGF 1/8"-DN 06
06	1/4"	1/4"-19	25,5	4,0	19	AGF 1/4"-DN 06
10	3/8"	1/4"-19	28,0	6,0	19	AGF 1/4"-DN 10
08	5/16"	3/8"-19	26,5	5,5	22	AGF 3/8"-DN 08
10	3/8"	3/8"-19	30,0	7,0	22	AGF 3/8"-DN 10
12	1/2"	3/8"-19	32,0	7,0	22	AGF 3/8"-DN 12
10	1/2"	1/2"-14	32,0	7,0	27	AGF 1/2"-DN 10
12	1/2"	1/2"-14	31,0	9,5	27	AGF 1/2"-DN 12
16	5/8"	5/8"-14		12,5		AGF 5/8"-DN 16
12	1/2"	3/4"-14	34,5	9,5	32	AGF 3/4"-DN 12
16	5/8"	3/4"-14	35,0	12,5	32	AGF 3/4"-DN 16
19	3/4"	3/4"-14	38,0	14,5	32	AGF 3/4"-DN 19
19	3/4"	1"-11	41,5	14,5	41	AGF 1"-DN 19
25	1"	1"-11	42,0	20,0	41	AGF 1"-DN 25
25	1"	1 1/4"-11	45,0	20,0	50	AGF 1 1/4"-DN 25
31	1 1/4"	1 1/4"-11	45,0	25,5	50	AGF 1 1/4"-DN 31
31	1 1/4"	1 1/2"-11	45,0	25,5	55	AGF 1 1/2"-DN 31
38	1 1/2"	1 1/2"-11	48,0	31,5	55	AGF 1 1/2"-DN 38
51	2"	2"-11	50,0	43,0	70	AGF 2"-DN 51

BSPT / NPT MALE NIPPLES

AGR-k = BSP - male - taper

AGN = NPT - male

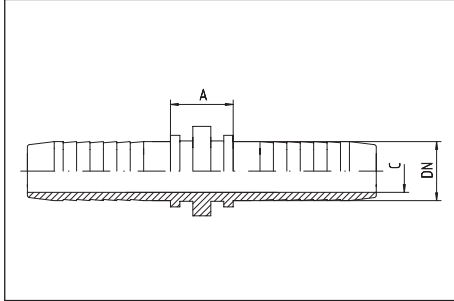


AGR-k

AGN

Hose DN	DN Bore in.	Thread G	approx. dimensions			ME Order-Code
			A	C	SW	
06	1/4"	1/8"-28 keg	20,0	4,0	14	AGRk 1/8"-DN 06
06	1/4"	1/4"-19 keg	28,0	4,0	14	AGRk 1/4"-DN 06
06	1/4"	3/8"-19 keg	25,5	4,0	19	AGRk 3/8"-DN 06
08	5/16"	3/8"-19 keg	26,5	5,5	19	AGRk 3/8"-DN 08
10	3/8"	3/8"-19 keg	26,5	7,0	19	AGRk 3/8"-DN 10
12	1/2"	3/8"-19 keg	27,5	9,5	19	AGRk 3/8"-DN 12
10	3/8"	1/2"-14 keg	33,5	7,0	22	AGRk 1/2"-DN 10
12	1/2"	1/2"-14 keg	34,0	9,5	22	AGRk 1/2"-DN 12
12	1/2"	3/4"-14 keg	33,5	9,5	27	AGRk 3/4"-DN 12
16	5/8"	3/4"-14 keg	36,5	12,5	27	AGRk 3/4"-DN 16
19	3/4"	3/4"-14 keg	38,5	14,5	27	AGRk 3/4"-DN 19
19	3/4"	1"-11 keg	46,5	14,5	36	AGRk 1"-DN 19
25	1"	1"-11 keg	46,5	20,0	36	AGRk 1"-DN 25
31	1 1/4"	1 1/4"-11 keg	45,0	25,5	46	AGRk 1 1/4"-DN 31
38	1 1/2"	1 1/2"-11 keg	50,0	31,5	50	AGRk 1 1/2"-DN 38
51	2"	2"-11 keg	56,0	43	65	AGRk 2"-DN 51
06	1/4"	1/8"-27 NPT	23,5	4,0	14	AGN 1/8"-DN 06
06	1/4"	1/4"-18 NPT	28,0	4,0	14	AGN 1/4"-DN 06
08	5/16"	1/4"-18 NPT	29,5	5,5	14	AGN 1/4"-DN 08
10	3/8"	1/4"-18 NPT	29,0	7,0	17	AGN 1/4"-DN 10
06	1/4"	3/8"-18 NPT	29,0	4,0	19	AGN 3/8"-DN 06
08	5/16"	3/8"-18 NPT	28,5	5,5	19	AGN 3/8"-DN 08
10	3/8"	3/8"-18 NPT	29,5	7,0	19	AGN 3/8"-DN 10
12	1/2"	3/8"-18 NPT	31,5	9,5	19	AGN 3/8"-DN 12
10	3/8"	1/2"-14 NPT	33,5	7,0	22	AGN 1/2"-DN 10
12	1/2"	1/2"-14 NPT	34,0	9,5	22	AGN 1/2"-DN 12
16	5/8"	1/2"-14 NPT	35,5	12,5	24	AGN 1/2"-DN 16
19	3/4"	1/2"-14 NPT	40,0	14,5	27	AGN 1/2"-DN 19
12	1/2"	3/4"-14 NPT	35,5	9,5	27	AGN 3/4"-DN 12
16	5/8"	3/4"-14 NPT	36,5	12,5	27	AGN 3/4"-DN 16
19	3/4"	3/4"-14 NPT	38,5	14,5	27	AGN 3/4"-DN 19
25	1"	3/4"-14 NPT	40,0	15,0	32	AGN 3/4"-DN 25
19	3/4"	1"-11,5 NPT	43,5	14,5	36	AGN 1"-DN 19
25	1"	1"-11,5 NPT	46,5	20,0	36	AGN 1"-DN 25
25	1"	1 1/4"-11,5 NPT	46,0	20,0	46	AGN 1 1/4"-DN 25
31	1 1/4"	1 1/4"-11,5 NPT	48,0	25,5	46	AGN 1 1/4"-DN 31
31	1 1/4"	1 1/2"-11,5 NPT	44,0	25,5	50	AGN 1 1/2"-DN 31
38	1 1/2"	1 1/2"-11,5 NPT	54,5	31,5	50	AGN 1 1/2"-DN 38
51	2"	2"-11,5 NPT	56,0	43,0	65	AGN 2"-DN 51

DOUBLE-HOSE CONNECTORS



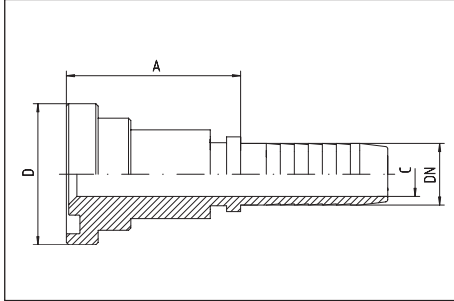
DSN

Hose DN	DN Bore in.	approx. dimensions			ME Order-Code
		A		C	
06	1/4"	23,0		4,0	DSN-DN 06
08	5/16"	23,0		5,5	DSN-DN 08
10	3/8"	19,0		7,0	DSN-DN 10
12	1/2"	23,0		9,5	DSN-DN 12
16	5/8"	25,5		12,5	DSN-DN 16
19	3/4"	31,5		14,5	DSN-DN 19
25	1"	32,5		20,0	DSN-DN 25
31	1 1/4"	39,0		25,5	DSN-DN 31
38	1 1/2"	41,0		32,0	DSN-DN 38
51	2"	41,0		43,0	DSN-DN 51

SAE-FLANGED NIPPLES

SAE J 518 / ISO 6162

SFL 3 = 3000 PSI straight
SFS 6 = 6000 PSI straight



SFL3
SFS6

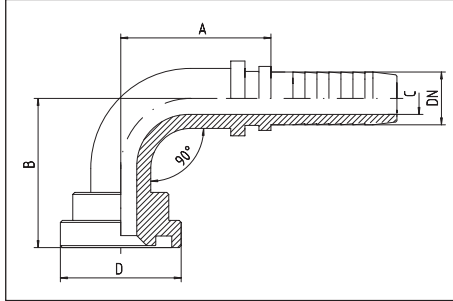
Hose DN	DN Bore in.	Flange dimensions		approx. dimensions			ME Order-Code
		D	in.	A		C	
12	1/2"	30,2	1/2"	37,5		9,5	SFL3-1/2"-DN 12
12	1/2"	38,1	3/4"	40,0		9,5	SFL3-3/4"-DN 12
16	5/8"	30,2	1/2"	39,0		12,5	SFL3-1/2"-DN 16
16	5/8"	38,1	3/4"	46,5		12,5	SFL3-3/4"-DN 16
19	3/4"	38,1	3/4"	46,5		14,5	SFL3-3/4"-DN 19
19	3/4"	44,5	1"	46,5		14,5	SFL3-1"-DN 19
25	1"	44,5	1"	38,0		20,0	SFL3-1"-DN 25
25	1"	50,8	1 1/4"	49,0		20,0	SFL3-1 1/4"-DN 25
31	1 1/4"	50,8	1 1/4"	54,0		25,5	SFL3-1 1/4"-DN 31
31	1 1/4"	60,3	1 1/2"	50,0		25,5	SFL3-1 1/2"-DN 31
38	1 1/2"	60,3	1 1/2"	60,0		31,5	SFL3-1 1/2"-DN 38
38	1 1/2"	71,4	2"	62,0		31,5	SFL3-2"-DN 38
51	2"	71,4	2"	48,0		43,0	SFL3-2"-DN 51
60	2 1/2"	84,1	2 1/2"	68,0		51,0	SFL3-2 1/2"-DN 60
76	3"	101,5	3"	87,0		68,5	SFL3-3"-DN 76
80		101,5	3"	71,0		73,0	SFL3-3"-DN 80
12	1/2"	31,7	1/2"	39,0		9,5	SFS6-1/2"-DN 12
12	1/2"	41,3	3/4"	40,0		9,5	SFS6-3/4"-DN 12
16	5/8"	31,7	1/2"	40,0		12,5	SFS6-1/2"-DN 16
16	5/8"	41,3	3/4"	41,0		12,5	SFS6-3/4"-DN 16
19	3/4"	41,3	3/4"	48,0		14,5	SFS6-3/4"-DN 19
19	3/4"	47,6	1"	65,5		14,5	SFS6-1"-DN 19
25	1"	47,6	1"	68,0		20,0	SFS6-1"-DN 25
25	1"	54,0	1 1/4"	50,5		20,0	SFS6-1 1/4"-DN 25
31	1 1/4"	54,0	1 1/4"	70,0		25,5	SFS6-1 1/4"-DN 31
31	1 1/4"	63,5	1 1/2"	58,0		25,5	SFS6-1 1/2"-DN 31
38	1 1/2"	63,5	1 1/2"	68,0		31,5	SFS6-1 1/2"-DN 38
38	1 1/2"	79,4	2"	76,0		31,5	SFS6-2"-DN 38
51	2"	79,4	2"	86,0		43,0	SFS6-2"-DN 51

SAE-FLANGED NIPPLES 90DEG

SAE J 518 / ISO 6162

SFL 3 = 3000 PSI - 90°

SFS 6 = 6000 PSI - 90°



SFL3-90DEG

SFS6-90DEG

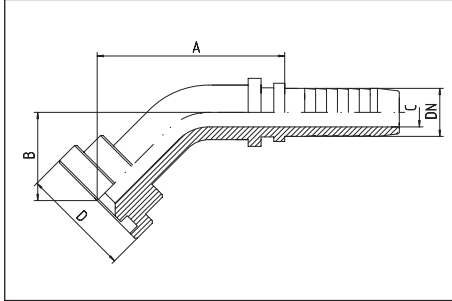
Hose DN	DN Bore in.	Flange dimensions		approx. dimensions			ME Order-Code
		D	in.	A	B	C	
12	1/2"	30,2	1/2"	44,0	54,0	9,5	SFL3-1/2"-90°-DN 12
12	1/2"	38,1	3/4"	74,0	61,0	12,0	SFL3-3/4"-90°-DN 12
16	5/8"	30,2	1/2"	76,5	60,0	12,0	SFL3-1/2"-90°-DN 16
16	5/8"	38,1	3/4"	74,0	61,0	12,0	SFL3-3/4"-90°-DN 16
19	3/4"	38,1	3/4"	75,0	68,0	14,5	SFL3-3/4"-90°-DN 19
19	3/4"	44,5	1"	75,0	73,0	14,5	SFL3-1"-90°-DN 19
25	1"	44,5	1"	85,0	77,0	20,0	SFL3-1"-90°-DN 25
25	1"	50,8	1 1/4"	104,0	89,0	20,0	SFL3-1 1/4"-90°-DN 25
31	1 1/4"	50,8	1 1/4"	102,0	92,0	25,0	SFL3-1 1/4"-90°-DN 31
31	1 1/4"	60,3	1 1/2"	124,0	92,5	25,0	SFL3-1 1/2"-90°-DN 31
38	1 1/2"	60,3	1 1/2"	124,0	104,0	31,0	SFL3-1 1/2"-90°-DN 38
38	1 1/2"	71,4	2"	120,0	120,0	31,0	SFL3-2"-90°-DN 38
51	2"	71,4	2"	146,0	144,0	42,0	SFL3-2"-90°-DN 51
60	2 1/2"	84,1	2 1/2"				SFL3-2 1/2"-90°-DN 60
76	3"	101,5	3"				SFL3-3"-90°-DN 76
80		101,5	3"				SFL3-3"-90°-DN 80
12	1/2"	31,7	1/2"	44,0	56,0	9,5	SFS6-1/2"-90°-DN 12
12	1/2"	41,3	3/4"	74,0	63,5	12,0	SFS6-3/4"-90°-DN 12
16	5/8"	31,7	1/2"	76,5	60,0	12,0	SFS6-1/2"-90°-DN 16
16	5/8"	41,3	3/4"	74,0	63,5	12,0	SFS6-3/4"-90°-DN 16
19	3/4"	41,3	3/4"	75,0	70,0	14,5	SFS6-3/4"-90°-DN 19
19	3/4"	47,6	1"	77,0	72,0	14,5	SFS6-1"-90°-DN 19
25	1"	47,6	1"	84,0	78,0	20,0	SFS6-1"-90°-DN 25
25	1"	54,0	1 1/4"	105,0	91,0	20,0	SFS6-1 1/4"-90°-DN 25
31	1 1/4"	54,0	1 1/4"	103,0	92,0	25,0	SFS6-1 1/4"-90°-DN 31
31	1 1/4"	63,5	1 1/2"	124,0	95,0	25,0	SFS6-1 1/2"-90°-DN 31
38	1 1/2"	63,5	1 1/2"	124,0	104,0	31,0	SFS6-1 1/2"-90°-DN 38
38	1 1/2"	79,4	2"	120,0	122,0	31,0	SFS6-2"-90°-DN 38
51	2"	79,4	2"	147,0	139,0	42,0	SFS6-2"-90°-DN 51

SAE-FLANGED NIPPLES 45DEG

SAE J 518 / ISO 6162

SFL 3 = 3000 PSI - 45°

SFS 6 = 6000 PSI - 45°



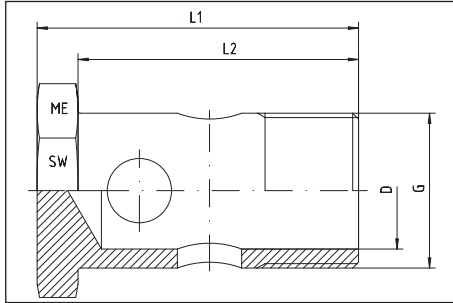
SFL3-45DEG

SFS6-45DEG

Hose DN	DN Bore in.	Flange dimensions		approx. dimensions			ME Order-Code
		D	in.	A	B	C	
12	1/2"	30,2	1/2"	60,0	30,0	9,5	SFL3-1/2"-45°-DN 12
12	1/2"	38,1	3/4"	90,5	34,0	12,0	SFL3-3/4"-45°-DN 12
16	5/8"	30,2	1/2"	90,5	34,0	12,0	SFL3-1/2"-45°-DN 16
16	5/8"	38,1	3/4"	90,5	34,0	12,0	SFL3-3/4"-45°-DN 16
19	3/4"	38,1	3/4"	85,0	36,0	14,5	SFL3-3/4"-45°-DN 19
19	3/4"	44,5	1"	91,0	31,0	14,5	SFL3-1"-45°-DN 19
25	1"	44,5	1"	90,0	39,0	20,0	SFL3-1"-45°-DN 25
25	1"	50,8	1 1/4"	118,0	43,0	20,0	SFL3-1 1/4"-45°-DN 25
31	1 1/4"	50,8	1 1/4"	111,0	44,0	25,0	SFL3-1 1/4"-45°-DN 31
31	1 1/4"	60,3	1 1/2"	138,0	36,0	25,0	SFL3-1 1/2"-45°-DN 31
38	1 1/2"	60,3	1 1/2"	134,0	45,0	31,0	SFL3-1 1/2"-45°-DN 38
38	1 1/2"	71,4	2"	142,0	58,0	31,0	SFL3-2"-45°-DN 38
51	2"	71,4	2"	162,0	57,0	42,0	SFL3-2"-45°-DN 51
60	2 1/2"	84,1	2 1/2"				SFL3-2 1/2"-45°-DN 60
76	3"	101,5	3"				SFL3-3"-45°-DN 76
80		101,5	3"				SFL3-3"-45°-DN 80
12	1/2"	31,7	1/2"	62,0	32,0	9,5	SFS6-1/2"-45°-DN 12
12	1/2"	41,3	3/4"	91,5	35,0	12,0	SFS6-3/4"-45°-DN 12
16	5/8"	31,7	1/2"	91,5	35,0	12,0	SFS6-1/2"-45°-DN 16
16	5/8"	41,3	3/4"	91,5	35,0	12,0	SFS6-3/4"-45°-DN 16
19	3/4"	41,3	3/4"	85,0	40,0	14,5	SFS6-3/4"-45°-DN 19
19	3/4"	47,6	1"	94,0	31,0	14,5	SFS6-1"-45°-DN 19
25	1"	47,6	1"	92,5	38,5	20,0	SFS6-1"-45°-DN 25
25	1"	54,0	1 1/4"	119,0	47,5	20,0	SFS6-1 1/4"-45°-DN 25
31	1 1/4"	54,0	1 1/4"	112,0	47,0	25,0	SFS6-1 1/4"-45°-DN 31
31	1 1/4"	63,5	1 1/2"	141,5	43,0	25,0	SFS6-1 1/2"-45°-DN 31
38	1 1/2"	63,5	1 1/2"	134,0	48,0	31,0	SFS6-1 1/2"-45°-DN 38
38	1 1/2"	79,4	2"	143,0	64,0	31,0	SFS6-2"-45°-DN 38
51	2"	79,4	2"	165,5	60,0	42,0	SFS6-2"-45°-DN 51

BOLTS

metric (DIN 7643) + BSP



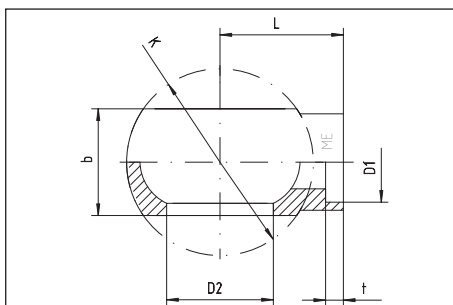
HS-M

HS-G

Thread G	approx. dimensions				ME Order-Code
	L1	L2	D	SW	
M 10 x 1	25	19	5,5	14	HS-M 10x1
M 12 x 1,5	30	24	7,0	17	HS-M 12x1,5
M 14 x 1,5	32	26	9,0	19	HS-M 14x1,5
M 16 x 1,5	34	28	11,0	22	HS-M 16x1,5
M 18 x 1,5	38	32	13,0	24	HS-M 18x1,5
M 22 x 1,5	46	39	16,0	27	HS-M 22x1,5
M 26 x 1,5	52	45	20,0	32	HS-M 26x1,5
G 1/8"	25	19	5,5	14	HS-G 1/8"
G 1/4"	32	26	8,0	19	HS-G 1/4"
G 3/8"	34	28	11,0	22	HS-G 3/8"
G 1/2"	45	38	13,0	27	HS-G 1/2"
G 3/4"	52	45	20,0	32	HS-G 3/4"

BANJOS

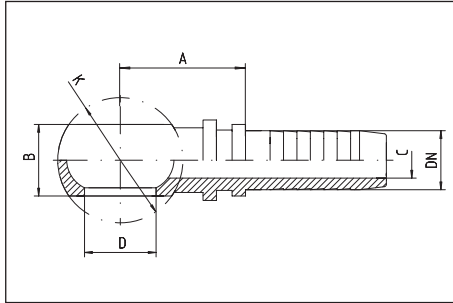
DIN 7642
for soldering, form B



Tube O.D. D1	for bolt D2	approx. dimensions				ME Order-Code
		b	L	t	K	
6	M 10 x 1 + 1/8"	10	16	6	17	RGN-06
8	M 12 x 1,5	12	18	6	20	RGN-08
10	M 14 x 1,5	14	20	6	24	RGN-10
12	M 16 x 1,5 + 3/8"	16	22	6	28	RGN-12
15	M 18 x 1,5	20	24	6	32	RGN-15
18	M 22 x 1,5	25	27	6	39	RGN-18
22	M 26 x 1,5 + 3/4"	30	32	8	46	RGN-22

BANJOS

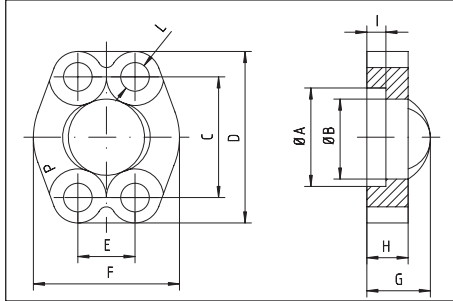
metric + BSP



RGN

Hose DN	DN Bore in.	for bolt	approx. dimensions				ME Order-Code
			D	A	B	C	
06	1/4"	M 10 x 1 + G 1/8"	10,1	33,0	10	4,0	RGN 10-DN 06
06	1/4"	M 12 x 1,5	12,1	36,0	12	4,0	RGN 12-DN 06
06	1/4"	M 14 x 1,5	14,1	27,5	14	4,0	RGN 14-DN 06
06	1/4"	G 1/4"	13,3	27,5	14	4,0	RGN 1/4"-DN 06
08	5/16"	M 10 x 1 + G 1/8"	10,1	33,0	10	5,5	RGN 10-DN 08
08	5/16"	M 12 x 1,5	12,1	36,0	12	5,5	RGN 12-DN 08
08	5/16"	M 14 x 1,5	14,1	27,5	14	5,5	RGN 14-DN 08
08	5/16"	M 16 x 1,5 + G 3/8"	16,1	35,5	16	5,5	RGN 16-DN 08
10	3/8"	M 14 x 1,5	14,1	37,5	14	7,0	RGN 14-DN 10
10	3/8"	M 16 x 1,5 + G 3/8"	16,1	35,5	16	7,0	RGN 16-DN 10
10	3/8"	M 18 x 1,5	18,1	40,5	20	7,0	RGN 18-DN 10
10	3/8"	G 1/2"	21,2	45,5	22	7,0	RGN 1/2"-DN 10
12	1/2"	M 16 x 1,5 + G 3/8"	16,1	36,0	16	9,5	RGN 16-DN 12
12	1/2"	M 18 x 1,5	18,1	38,0	20	9,5	RGN 18-DN 12
12	1/2"	M 22 x 1,5	22,1		25	9,5	RGN 22-DN 12
16	5/8"	M 22 x 1,5	22,1		25	12,5	RGN 22-DN 16
19	3/4"	M 26 x 1,5 + G 3/4"	26,1		30	14,5	RGN 26-DN 19

SAE-FLANGE

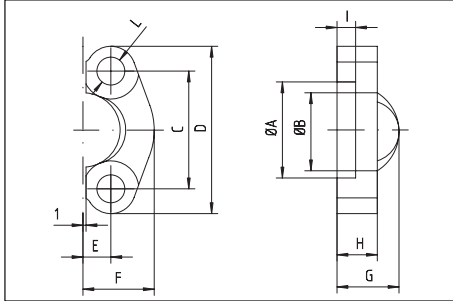


VF3

VF6

Max. working pressure - bar	SAE	approx. dimensions										Screws		ME Order-Code
	Nominal flange size, in.	A	B	C	D	E	F	G	H	I	L	metr.	unc.	
														3.000 P.S.I.
345	1/2"	30,96	24,26	38,10	54	17,48	45,6	19	13	6,22	8,50	M 8 x 25	5/16" x 1 1/4"	VF-3-1/2"
345	3/4"	38,89	32,13	47,63	65	22,23	51,8	22	14	6,22	10,50	M 10 x 30	3/8" x 1 1/4"	VF-3-3/4"
345	1"	45,24	38,48	52,37	70	26,19	58,4	24	16	7,49	10,50	M 10 x 35	3/8" x 1 1/4"	VF-3-1"
276	1 1/4"	51,59	43,69	58,72	79	30,18	72,6	22	16	7,49	12,00	M 10 x 35	7/16" x 1 1/2"	VF-3-1 1/4"
207	1 1/2"	61,09	50,80	69,85	94	35,71	82,2	25	16	7,49	13,50	M 12 x 35	1/2" x 1 1/2"	VF-3-1 1/2"
207	2"	72,24	62,74	77,77	102	42,88	96,4	26	16	9,02	13,50	M 12 x 35	1/2" x 1 1/2"	VF-3-2"
172	2 1/2"	84,94	74,93	88,90	114	50,80	108,2	38	19	9,02	13,50	M 12 x 35	1/2" x 1 1/2"	VF-3-2 1/2"
138	3"	102,39	90,93	106,38	135	61,93	130,6	41	22	9,02	16,75	M 16 x 50	5/8" x 2"	VF-3-3"
														6.000 P.S.I.
420	1/2"	32,45	24,64	40,49	56	18,24	47,2	22	16	7,24	8,50	M 8 x 30	5/16" x 1 1/4"	VF-6-1/2"
420	3/4"	42,06	32,51	50,80	71	23,80	60,0	28	19	8,26	10,50	M 10 x 35	3/8" x 1 1/2"	VF-6-3/4"
420	1"	48,41	38,86	57,15	81	27,76	69,9	33	24	9,02	12,50	M 12 x 45		VF-6-1"
420	1 1/4"	54,76	44,45	66,68	95	31,75	77,2	38	27	9,78	14,50	M 14 x 50	1/2" x 1 3/4"	VF-6-1 1/4"
420	1 1/2"	64,29	51,56	79,38	113	36,50	95,0	43	30	12,07	16,75	M 16 x 55	5/8" x 2"	VF-6-1 1/2"
420	2"	80,16	67,56	96,82	133	44,45	113,8	52	37	12,07	21,00	M 20 x 65	3/4" x 2 1/2"	VF-6-2"

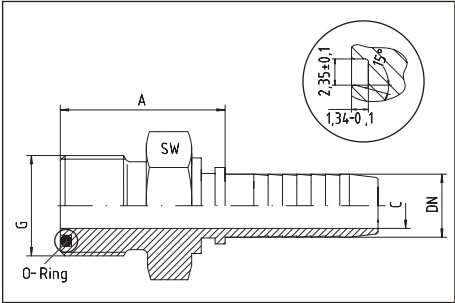
SAE-SPLIT FLANGE HALVES



Max. working pressure- bar	SAE Nominal flange size, in.	approx. dimensions										Screws		MEOrder-Code
		A	B	C	D	E	F	G	H	I	L	metr.	unc.	
														3.000 PS.I.
345	1/2"	30,96	24,26	38,10	54	8,74	22,8	19	13	6,22	8,50	M 8 x 25	5/16" x 1 1/4"	FLH-3-1/2"
345	3/4"	38,89	32,13	47,63	65	11,13	25,9	22	14	6,22	10,50	M 10 x 30	3/8" x 1 1/4"	FLH-3-3/4"
345	1"	45,24	38,48	52,37	70	13,08	29,2	24	16	7,49	10,50	M 10 x 30	3/8" x 1 1/4"	FLH-3-1"
276	1 1/4"	51,59	43,69	58,72	79	15,09	36,3	22	16	7,49	12,00	M 10 x 35	7/16" x 1 1/2"	FLH-3-1 1/4"
207	1 1/2"	61,09	50,8	69,85	94	17,86	41,1	25	16	7,49	13,50	M 12 x 35	1/2" x 1 1/2"	FLH-3-1 1/2"
207	2"	72,24	62,74	77,77	102	21,44	48,2	26	16	9,02	13,50	M 12 x 35	1/2" x 1 1/2"	FLH-3- 2"
172	2 1/2"	84,94	74,93	88,90	114	25,40	54,1	38	19	9,02	13,50	M 12 x 40	1/2" x 1 1/2"	FLH-3-2 1/2"
138	3"	102,39	90,93	106,38	135	30,96	65,3	41	22	9,02	16,75	M 16 x 45	5/8" x 2"	FLH-3-3"
														6.000 PS.I.
420	1/2"	32,45	24,64	40,49	56	9,12	23,6	22	16	7,24	8,50	M 8 x 30	5/16" x 1 1/4"	FLH-6-1/2"
420	3/4"	42,06	32,51	50,80	71	11,91	30,0	28	19	8,26	10,50	M 10 x 35	3/8" x 1 1/2"	FLH-6-3/4"
420	1"	48,41	38,86	57,15	81	13,89	34,8	33	24	9,02	12,50	M 12 x 45		FLH-6-1"
420	1 1/4"	54,76	44,45	66,68	95	15,88	38,6	38	27	9,78	14,50	M 14 x 50		FLH-6-1 1/4"
420	1 1/2"	64,29	51,56	79,38	113	18,26	47,5	43	30	12,07	16,75	M 16 x 55	5/8" x 2"	FLH-6-1 1/2"
420	2"	80,16	67,56	96,82	133	22,23	56,9	52	37	12,07	21,00	M 20 x 65	3/4" x 2 1/2"	FLH-6-2"

ORFS-MALE NIPPLES

flatseal with O-ring seal - NBR

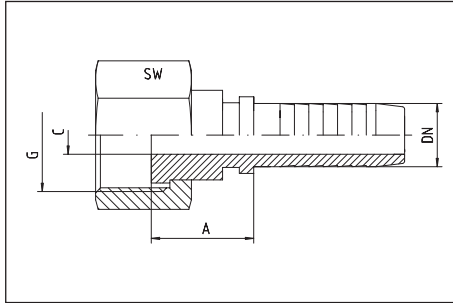


ORFS

Hose DN	DN Bore in.	Thread G	approx. dimensions			O-ring	ME Order-Code
			A	C	SW		
06	1/4"	9/16"-18		4,0	17	7,65 x 1,78	MORFS 9/16"-DN 06
10	3/8"	11/16"-16		6,5	19	9,25 x 1,78	MORFS 11/16"-DN 10
12	1/2"	13/16"-16		9,5	22	12,42 x 1,78	MORFS 13/16"-DN 12
16	5/8"	1"-14		12,5	27	15,60 x 1,78	MORFS 1"-DN 16
19	3/4"	1. 3/16"-12		14,5	32	18,77 x 1,78	MORFS 1. 3/16"-DN 19
25	1"	1. 7/16"-12		20,0	41	23,52 x 1,78	MORFS 1. 7/16"-DN 25
31	1 1/4"	1. 11/16"-12		25,5	46	29,87 x 1,78	MORFS 1. 11/16"-DN 31
38	1 1/2"	2"-12		31,5	55	37,82 x 1,78	MORFS 2"-DN 38

FLATSEAL ORFS-NIPPLES

flatseal
with nut

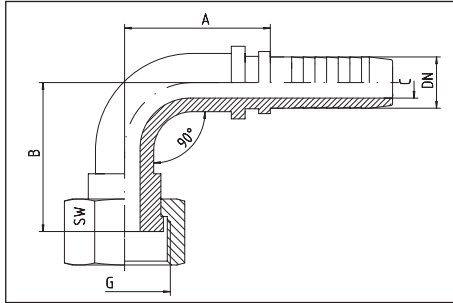


FORFS

Hose DN	DN Bore in.	Thread G	approx. dimensions			ME Order-Code
			A	C	SW	
06	1/4"	9/16"-18	27,0	4,0	19	FORFS 9/16"-DN 06
06	1/4"	11/16"-16	27,0	4,0	22	FORFS 11/16"-DN 06
08	5/16"	11/16"-16	29,5	5,5	22	FORFS 11/16"-DN 08
10	3/8"	11/16"-16	29,5	7,0	22	FORFS 11/16"-DN 10
10	3/8"	13/16"-16	29,5	7,0	24	FORFS 13/16"-DN 10
12	1/2"	13/16"-16	29,5	9,5	24	FORFS 13/16"-DN 12
12	1/2"	1"-14	34,5	9,5	30	FORFS 1"-DN 12
12	1/2"	1. 3/16"-12	35,0	9,5	36	FORFS 1. 3/16"-DN 12
16	5/8"	1"-14	34,0	12,5	30	FORFS 1"-DN 16
16	5/8"	1. 3/16"-12	33,0	11,5	36	FORFS 1. 3/16"-DN 16
19	3/4"	1"-14	36,0	12,5	30	FORFS 1"-DN 19
19	3/4"	1. 3/16"-12	37,0	14,5	36	FORFS 1. 3/16"-DN 19
19	3/4"	1. 7/16"-23		14,5	41	FORFS 1. 7/16"-DN 19
25	1"	1. 7/16"-12	39,5	20,0	41	FORFS 1. 7/16"-DN 25
31	1 1/4"	1. 11/16"-12	38,0	25,5	50	FORFS 1. 11/16"-DN 31
38	1 1/2"	2"-12	39,0	31,5	60	FORFS 2"-DN 38

FLATSEAL ORFS-NIPPLES 90 DEG BEND

FORFS - 90°-elbow
flatseal
with nut

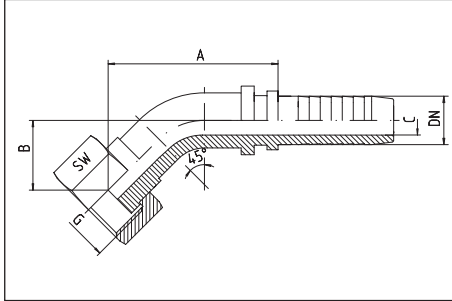


FORFS-90DEG

Hose DN	DN Bore in.	Thread G	approx. dimensions				ME Order-Code
			A	B	C	SW	
06	1/4"	9/16"-18				19	FORFS 9/16"-90°-DN 06
06	1/4"	11/16"-16				22	FORFS 11/16"-90°-DN 06
08	5/16"	11/16"-16				22	FORFS 11/16"-90°-DN 08
10	3/8"	11/16"-16				22	FORFS 11/16"-90°-DN 10
10	3/8"	13/16"-16				24	FORFS 13/16"-90°-DN 10
12	1/2"	13/16"-16				24	FORFS 13/16"-90°-DN 12
12	1/2"	1"-14				30	FORFS 1"-90°-DN 12
12	1/2"	1. 3/16"-12				36	FORFS 1. 3/16"-90°-DN 12
16	5/8"	1"-14				30	FORFS 1"-90°-DN 16
16	5/8"	1. 3/16"-12				36	FORFS 1. 3/16"-90°-DN 16
19	3/4"	1"-14				30	FORFS 1"-90°-DN 19
19	3/4"	1. 3/16"-12				36	FORFS 1. 3/16"-90°-DN 19
19	3/4"	1. 7/16"-23				41	FORFS 1. 7/16"-90°-DN 19
25	1"	1. 7/16"-12				41	FORFS 1. 7/16"-90°-DN 25
31	1 1/4"	1. 11/16"-12				50	FORFS 1. 11/16"-90°-DN 31
38	1 1/2"	2"-12				60	FORFS 2"-90°-DN 38

FLATSEAL ORFS-NIPPLES 45DEG BEND

FORFS - 45°-elbow
flatseal
with nut



FORFS - 45DEG

Hose DN	DN Bore in.	Thread G	approx. dimensions				ME Order-Code
			A	B	C	SW	
06	1/4"	9/16"-18				19	FORFS 9/16"-45°-DN 06
06	1/4"	11/16"-16				22	FORFS 11/16"-45°-DN 06
08	5/16"	11/16"-16				22	FORFS 11/16"-45°-DN 08
10	3/8"	11/16"-16				22	FORFS 11/16"-45°-DN 10
10	3/8"	13/16"-16				24	FORFS 13/16"-45°-DN 10
12	1/2"	13/16"-16				24	FORFS 13/16"-45°-DN 12
12	1/2"	1"-14				30	FORFS 1"-45°-DN 12
12	1/2"	1. 3/16"-12				36	FORFS 1. 3/16"-45°-DN 12
16	5/8"	1"-14				30	FORFS 1"-45°-DN 16
16	5/8"	1. 3/16"-12				36	FORFS 1. 3/16"-45°-DN 16
19	3/4"	1"-14				30	FORFS 1"-45°-DN 19
19	3/4"	1. 3/16"-12				36	FORFS 1. 3/16"-45°-DN 19
19	3/4"	1. 7/16"-23				41	FORFS 1. 7/16"-45°-DN 19
25	1"	1. 7/16"-12				41	FORFS 1. 7/16"-45°-DN 25
31	1 1/4"	1. 11/16"-12				50	FORFS 1. 11/16"-45°-DN 31
38	1 1/2"	2"-12				60	FORFS 2"-45°-DN 38

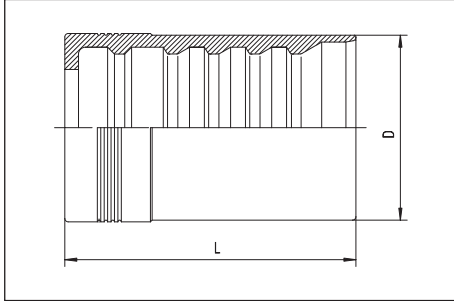
HOSE COUPLINGS FOR SPIRAL HOSE - INTERLOCK SERIES

INTERLOCK-FERRULES	3.3
INTERLOCK-FERRULES	3.4
INTERLOCK-FITTINGS - SFL + SFS - FLANGE - STRAIGHT	3.5
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INTERLOCK-NPT-MALE - AGN - NIPPLES	3.16

INTERLOCK-FERRULES FOR SPIRAL HOSES

heavy series
Interlock-series

external and internal skive

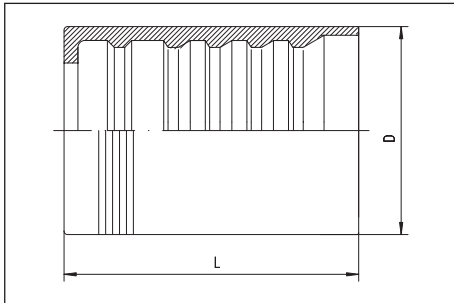


To use for nipples page 3.5 - 3.16

Hose DN	DN Bore in.	D	L	for hose type	ME Order-Code
19	3/4"	38	56	4 SP + 4 SH	P4-I-DN 19
25	1"	46	75	4 SP + 4 SH + R 12	P4-I-DN 25
31	1 1/4"	55	85	4 SH	P4-I-DN 31
38	1 1/2"	64	100	4 SH	P4-I-DN 38
51	2"	78	103	4 SH	P4-I-DN 51

heavy series
Interlock-series

external and internal skive



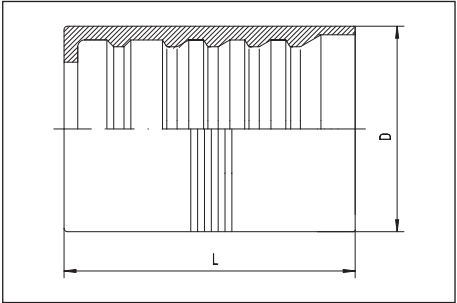
To use for nipples page 3.5 - 3.16

Hose DN	DN Bore in.	D	L	for hose type	ME Order-Code
19	3/4"	38,0	56	R 13	P6-I-DN 19
25	1"	46,0	75	R 13	P6-I-DN 25
31	1 1/4"	60,0	85	R 13	P6-I-DN 31
38	1 1/2"	70,0	100	R 13	P6-I-DN 38
51	2"	84,5	103	R 13	P6-I-DN 51

INTERLOCK-FERRULES

heavy series
Interlock-series

external and internal skive

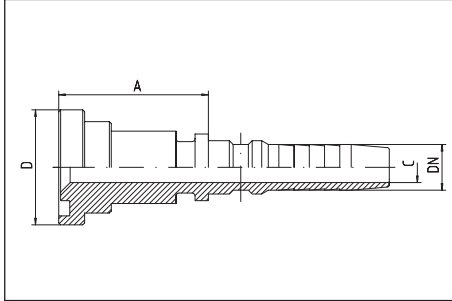


To use for nipples page 3.5 - 3.16

Hose DN	DN Bore in.	D	L	for hose type	ME Order-Code
19	3/4"	38	56	R 15	P7-I-DN 19
25	1"	46	71	R 15	P7-I-DN 25
31	1 1/4"	60	85	R 15	P7-I-DN 31
38	1 1/2"	70	100	R 15	P7-I-DN 38

INTERLOCK-FITTINGS

heavy series
Interlock-series
SAE-ISO-flange
SFL 3 = 3000 PSI - straight
SFS 6 = 6000 PSI - straight



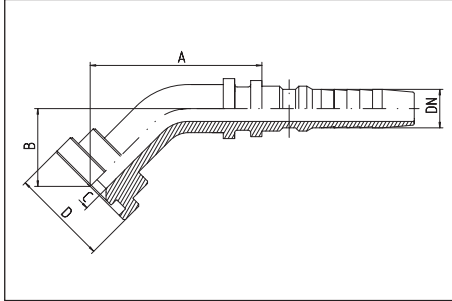
ISFL3

ISFS6

Hose DN	DN Bore in.	Flange dimensions		approx. dimensions			ME Order-Code
		D	in.	A		C	
19	3/4"	38,1	3/4"	41,0		14,5	I-SFL3-3/4"-DN 19
19	3/4"	44,5	1"	44,5		14,5	I-SFL3-1"-DN 19
25	1"	44,5	1"	52,5		20,0	I-SFL3-1"-DN 25
25	1"	50,8	1 1/4"	53,0		20,0	I-SFL3-1 1/4"-DN 25
31	1 1/4"	50,8	1 1/4"	53,0		25,0	I-SFL3-1 1/4"-DN 31
31	1 1/4"	60,3	1 1/2"	50,5		25,0	I-SFL3-1 1/2"-DN 31
38	1 1/2"	60,3	1 1/2"	77,5		31,5	I-SFL3-1 1/2"-DN 38
38	1 1/2"	71,4	2"	72,0		31,5	I-SFL3-2"-DN 38
51	2"	71,4	2"	72,0		42,0	I-SFL3-2"-DN 51
19	3/4"	41,3	3/4"	52,0		14,5	I-SFS6-3/4"-DN 19
19	3/4"	47,6	1"	44,5		14,5	I-SFS6-1"-DN 19
25	1"	47,6	1"	64,0		20,0	I-SFS6-1"-DN 25
25	1"	54,0	1 1/4"	54,5		20,0	I-SFS6-1 1/4"-DN 25
31	1 1/4"	54,0	1 1/4"	75,0		25,0	I-SFS6-1 1/4"-DN 31
31	1 1/4"	63,5	1 1/2"	75,5		25,0	I-SFS6-1 1/2"-DN 31
38	1 1/2"	63,5	1 1/2"	103,0		31,5	I-SFS6-1 1/2"-DN 38
38	1 1/2"	79,4	2"	75,0		31,5	I-SFS6-2"-DN 38
51	2"	79,4	2"	85,0		42,0	I-SFS6-2"-DN 51

INTERLOCK-FITTINGS

heavy series
Interlock-series
SAE-ISO-flange
SFL 3 = 3000 PSI - 45°-elbow
SFS 6 = 6000 PSI - 45°-elbow



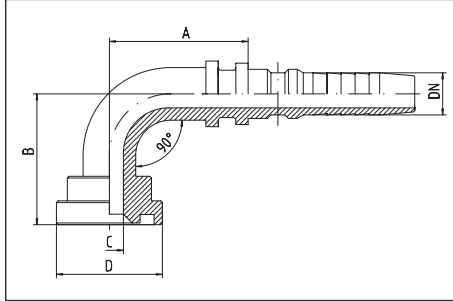
ISFL3-45DEG

ISFS6-45DEG

Hose DN	DN Bore in.	Flange dimensions		approx. dimensions			ME Order-Code
		D	in.	A	B	C	
19	3/4"	38,1	3/4"	87,0	38,0	14,5	I-SFL3-3/4"-45°-DN 19
19	3/4"	44,5	1"	89,0	39,5	14,5	I-SFL3-1"-45°-DN 19
25	1"	44,5	1"	92,0	39,0	20,0	I-SFL3-1"-45°-DN 25
25	1"	50,8	1 1/4"	117,0	44,0	20,0	I-SFL3-1 1/4"-45°-DN 25
31	1 1/4"	50,8	1 1/4"	110,0	45,0	25,0	I-SFL3-1 1/4"-45°-DN 31
31	1 1/4"	60,3	1 1/2"	137,0	46,0	25,0	I-SFL3-1 1/2"-45°-DN 31
38	1 1/2"	60,3	1 1/2"	133,0	49,0	31,0	I-SFL3-1 1/2"-45°-DN 38
38	1 1/2"	71,4	2"	141,5	60,0	31,0	I-SFL3-2"-45°-DN 38
51	2"	71,4	2"	155,0	65,0	41,0	I-SFL3-2"-45°-DN 51
19	3/4"	41,3	3/4"	88,0	38,0	14,5	I-SFS6-3/4"-45°-DN 19
19	3/4"	47,6	1"	90,0	40,0	14,5	I-SFS6-1"-45°-DN 19
25	1"	47,6	1"	92,0	40,0	20,0	I-SFS6-1"-45°-DN 25
25	1"	54,0	1 1/4"	120,0	44,0	20,0	I-SFS6-1 1/4"-45°-DN 25
31	1 1/4"	54,0	1 1/4"	110,0	46,0	25,0	I-SFS6-1 1/4"-45°-DN 31
31	1 1/4"	63,5	1 1/2"	137,0	48,0	25,0	I-SFS6-1 1/2"-45°-DN 31
38	1 1/2"	63,5	1 1/2"	133,0	48,0	31,0	I-SFS6-1 1/2"-45°-DN 38
38	1 1/2"	79,4	2"	143,0	65,0	31,0	I-SFS6-2"-45°-DN 38
51	2"	79,4	2"	155,0	65,0	41,0	I-SFS6-2"-45°-DN 51

INTERLOCK-FITTINGS

heavy series
Interlock-series
SAE-ISO-flange
SFL 3 = 3000 PSI - 90°-elbow
SFS 6 = 6000 PSI - 90°-elbow



I-SFL3-90DEG

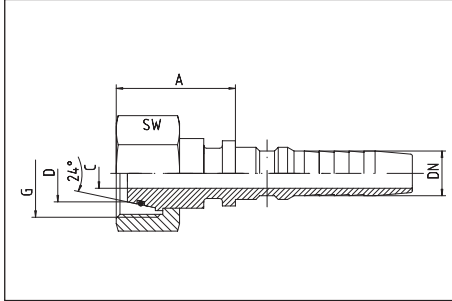
I-SFS6-90DEG

Hose DN	DN Bore in.	Flange dimensions		approx. dimensions			ME Order-Code
		D	in.	A	B	C	
19	3/4"	38,1	3/4"	74,5	71,0	14,5	I-SFL3-3/4"-90°-DN 19
19	3/4"	44,5	1"	77,0	71,0	14,5	I-SFL3-1"-90°-DN 19
25	1"	44,5	1"	82,0	75,0	20,0	I-SFL3-1"-90°-DN 25
25	1"	50,8	1 1/4"	105,0	88,0	20,0	I-SFL3-1 1/4"-90°-DN 25
31	1 1/4"	50,8	1 1/4"	102,0	91,5	25,0	I-SFL3-1 1/4"-90°-DN 31
31	1 1/4"	60,3	1 1/2"	123,0	95,0	25,0	I-SFL3-1 1/2"-90°-DN 31
38	1 1/2"	60,3	1 1/2"	122,5	105,0	31,0	I-SFL3-1 1/2"-90°-DN 38
38	1 1/2"	71,4	2"	124,0	121,0	31,0	I-SFL3-2"-90°-DN 38
51	2"	71,4	2"	144,0	137,0	41,0	I-SFL3-2"-90°-DN 51
19	3/4"	41,3	3/4"	74,5	71,0	14,5	I-SFS6-3/4"-90°-DN 19
19	3/4"	47,6	1"	77,0	72,0	14,5	I-SFS6-1"-90°-DN 19
25	1"	47,6	1"	82,0	77,0	20,0	I-SFS6-1"-90°-DN 25
25	1"	54,0	1 1/4"	108,0	90,0	20,0	I-SFS6-1 1/4"-90°-DN 25
31	1 1/4"	54,0	1 1/4"	102,0	93,5	25,0	I-SFS6-1 1/4"-90°-DN 31
31	1 1/4"	63,5	1 1/2"	124,0	96,0	25,0	I-SFS6-1 1/2"-90°-DN 31
38	1 1/2"	63,5	1 1/2"	122,5	107,0	31,0	I-SFS6-1 1/2"-90°-DN 38
38	1 1/2"	79,4	2"	124,0	121,5	31,0	I-SFS6-2"-90°-DN 38
51	2"	79,4	2"	144,0	142,0	41,0	I-SFS6-2"-90°-DN 51

INTERLOCK-FITTINGS

heavy series
Interlock-series

DKOS - straight - 24°-cone

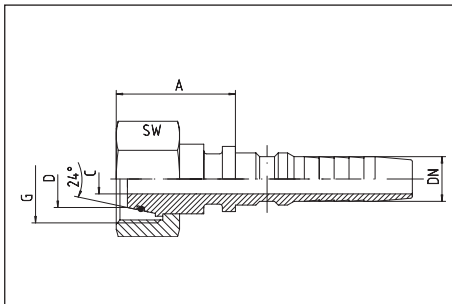


I-DKOS

Hose DN	DN Bore in.	Thread G	Tube O.D. D	approx. dimensions			ME Order-Code
				A	C	SW	
19	3/4"	M 30 x 2	20	34,5	14,0	36	I-DKOS 20-DN 19
19	3/4"	M 36 x 2	25	41,0	14,5	46	I-DKOS 25-DN 19
25	1"	M 36 x 2	25	38,5	19,0	46	I-DKOS 25-DN 25
25	1"	M 42 x 2	30	43,5	20,0	50	I-DKOS 30-DN 25
31	1 1/4"	M 52 x 2	38	48,5	25,0	60	I-DKOS 38-DN 31
38	1 1/2"	M 68 x 2	50	51,5	31,5	80	I-DKOS 50-DN 38

Interlock-series

DKOL - straight - 24°-cone



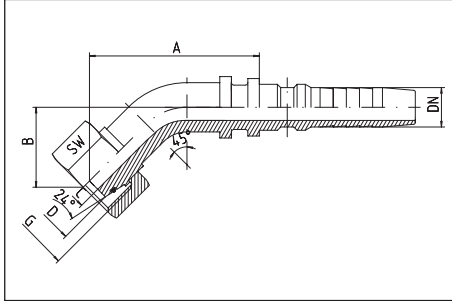
I-DKOL

Hose DN	DN Bore in.	Thread G	Tube O.D. D	approx. dimensions			ME Order-Code
				A	C	SW	
19	3/4"	M 30 x 2	22	38,5	14,0	36	I-DKOL 22-DN 19
25	1"	M 36 x 2	28	38,0	19,0	41	I-DKOL 28-DN 25
31	1 1/4"	M 45 x 2	35	42,0	25,0	50	I-DKOL 35-DN 31
38	1 1/2"	M 52 x 2	42	41,0	31,5	60	I-DKOL 42-DN 38

INTERLOCK-FITTINGS

with wire trap area - heavy series
Interlock-series

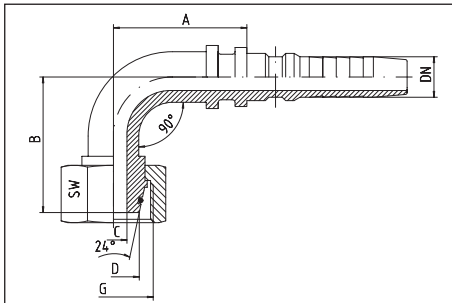
DKOS - 45°-elbow - 24°-cone



I-DKOS-45DEG

Hose DN	DN Bore in.	Thread G	Tube O.D. D	approx. dimensions				ME Order-Code
				A	B	C	SW	
19	3/4"	M 30 x 2	20	100	45	14,5	36	I-DKOS 20-45°-DN 19
19	3/4"	M 36 x 2	25	90	40	14,5	46	I-DKOS 25-45°-DN 19
25	1"	M 36 x 2	25	103	52	20,0	46	I-DKOS 25-45°-DN 25
25	1"	M 42 x 2	30	97	43	20,0	50	I-DKOS 30-45°-DN 25
31	1 1/4"	M 52 x 2	38	117	52	25,0	60	I-DKOS 38-45°-DN 31
38	1 1/2"	M 68 x 2	50			31,0	80	I-DKOS 50-45°-DN 38

DKOS - 90°-elbow - 24°-cone



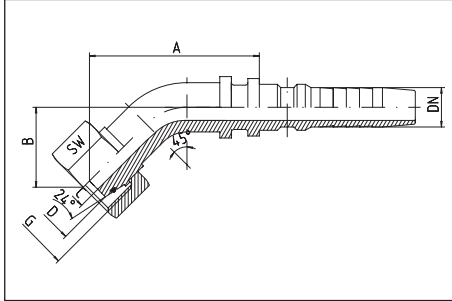
I-DKOS-90DEG

Hose DN	DN Bore in.	Thread G	Tube O.D. D	approx. dimensions				ME Order-Code
				A	B	C	SW	
19	3/4"	M 30 x 2	20	78,5	83,0	14,5	36	I-DKOS 20-90°-DN 19
19	3/4"	M 36 x 2	25	75,0	76,0	14,5	46	I-DKOS 25-90°-DN 19
25	1"	M 36 x 2	25	84,0	95,5	20,0	46	I-DKOS 25-90°-DN 25
25	1"	M 42 x 2	30	84,0	83,0	20,0	50	I-DKOS 30-90°-DN 25
31	1 1/4"	M 52 x 2	38	103,0	101,0	25,0	60	I-DKOS 38-90°-DN 31
38	1 1/2"	M 68 x 2	50			31,0	80	I-DKOS 50-90°-DN 38

INTERLOCK-FITTINGS

with wire trap area
Interlock-series

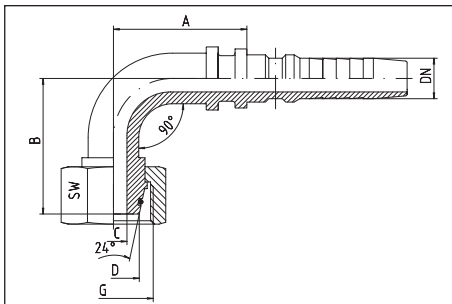
DKOL - 45°-elbow - 24°-cone



I-DKOL-45DEG

Hose DN	DN Bore in.	Thread G	Tube O.D. D	approx. dimensions				ME Order-Code
				A	B	C	SW	
19	3/4"	M 30 x 2	22			14,5	36	I-DKOL 22-45°-DN 19
25	1"	M 36 x 2	28	102	50	19,0	41	I-DKOL 28-45°-DN 25
31	1 1/4"	M 45 x 2	35	120	50	25,0	50	I-DKOL 35-45°-DN 31
38	1 1/2"	M 52 x 2	42	140	61	31,0	60	I-DKOL 42-45°-DN 38

DKOL - 90°-elbow - 24°-cone



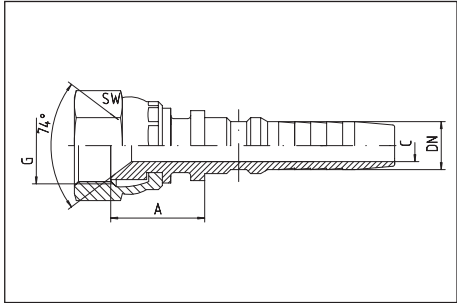
I-DKOL-90DEG

Hose DN	DN Bore in.	Thread G	Tube O.D. D	approx. dimensions				ME Order-Code
				A	B	C	SW	
19	3/4"	M 30 x 2	22			14,5	36	I-DKOL 22-90°-DN 19
25	1"	M 36 x 2	28	87	92	19,0	41	I-DKOL 28-90°-DN 25
31	1 1/4"	M 45 x 2	35	103	98	25,0	50	I-DKOL 35-90°-DN 31
38	1 1/2"	M 52 x 2	42	124	117	31,0	60	I-DKOL 42-90°-DN 38

INTERLOCK-FITTINGS

with wire trap area - heavy series
Interlock-series

JIC - 37° - female nipples for connectors
with 74°-cone - straight



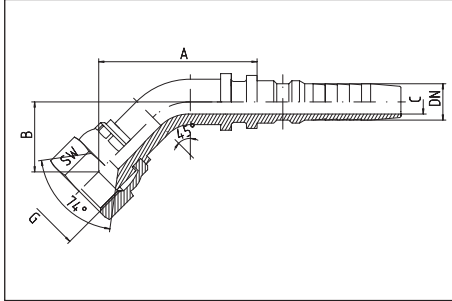
I-DKJ

Hose DN	DN Bore in.	Thread G = UN	approx. dimensions			ME Order-Code
			A	C	SW	
19	3/4"	1 1/16"-12	35,0	14,5	32	I-DKJ 1 1/16"-DN 19
19	3/4"	1 5/16"-12	34,0	14,5	41	I-DKJ 1 5/16"-DN 19
25	1"	1 5/16"-12	34,0	20,0	41	I-DKJ 1 5/16"-DN 25
25	1"	1 5/8"-12	27,0	20,0	50	I-DKJ 1 5/8"-DN 25
31	1 1/4"	1 5/8"-12	37,0	25,0	50	I-DKJ 1 5/8"-DN 31
31	1 1/4"	1 7/8"-12	33,0	25,0	60	I-DKJ 1 7/8"-DN 31
38	1 1/2"	1 7/8"-12	41,5	31,5	60	I-DKJ 1 7/8"-DN 38
38	1 1/2"	2 1/2"-12				I-DKJ 2 1/2"-DN 38
51	2"	2 1/2"-12	67,5	42,0	70	I-DKJ 2 1/2"-DN 51

INTERLOCK-FITTINGS

with wire trap area - heavy series
Interlock-series

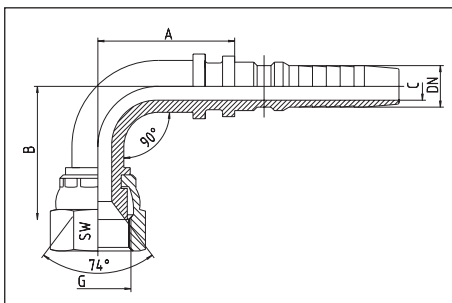
JIC - 37° - female nipples for connectors
with 74°-cone - 45°-elbow



I-DKJ-45DEG

Hose DN	DN Bore in.	Thread G = UN	approx. dimensions				ME Order-Code
			A	B	C	SW	
19	3/4"	1 1/16"-12	93,0	37,5	14,5	32	I-DKJ 1 1/16"-45°-DN 19
19	3/4"	1 5/16"-12	93,0	43,5	14,5	41	I-DKJ 1 5/16"-45°-DN 19
25	1"	1 5/16"-12	101,0	47,0	20,0	41	I-DKJ 1 5/16"-45°-DN 25
25	1"	1 5/8"-12	123,0	51,0	20,0	50	I-DKJ 1 5/8"-45°-DN 25
31	1 1/4"	1 5/8"-12	116,5	49,0	25,0	50	I-DKJ 1 5/8"-45°-DN 31
31	1 1/4"	1 7/8"-12	146,0	52,0	25,0	60	I-DKJ 1 7/8"-45°-DN 31
38	1 1/2"	1 7/8"-12	130,0	50,0	31,0	60	I-DKJ 1 7/8"-45°-DN 38
38	1 1/2"	2 1/2"-12					I-DKJ 2 1/2"-45°-DN 38
51	2"	2 1/2"-12	166,5	78,0	41,0	70	I-DKJ 2 1/2"-45°-DN 51

JIC - 37° - female nipples for connectors
with 74°-cone - 90°-elbow



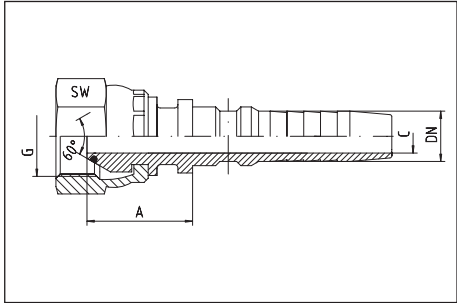
I-DKJ-90DEG

Hose DN	DN Bore in.	Thread G = UN	approx. dimensions				ME Order-Code
			A	B	C	SW	
19	3/4"	1 1/16"-12	79	72,0	14,5	32	I-DKJ 1 1/16"-90°-DN 19
19	3/4"	1 5/16"-12	78	79,0	14,5	41	I-DKJ 1 5/16"-90°-DN 19
25	1"	1 5/16"-12	85	86,0	20,0	41	I-DKJ 1 5/16"-90°-DN 25
25	1"	1 5/8"-12	107	93,0	20,0	50	I-DKJ 1 5/8"-90°-DN 25
31	1 1/4"	1 5/8"-12	103	96,0	25,0	50	I-DKJ 1 5/8"-90°-DN 31
31	1 1/4"	1 7/8"-12	125	98,0	25,0	60	I-DKJ 1 7/8"-90°-DN 31
38	1 1/2"	1 7/8"-12	122	107,0	31,0	60	I-DKJ 1 7/8"-90°-DN 38
38	1 1/2"	2 1/2"-12					I-DKJ 2 1/2"-90°-DN 38
51	2"	2 1/2"-12	145	151,5	41,0	70	I-DKJ 2 1/2"-90°-DN 51

INTERLOCK-FITTINGS

with wire trap area - heavy series
Interlock-series

DKOR with O-ring and BSP union nut
for connectors with 60°-flare - straight



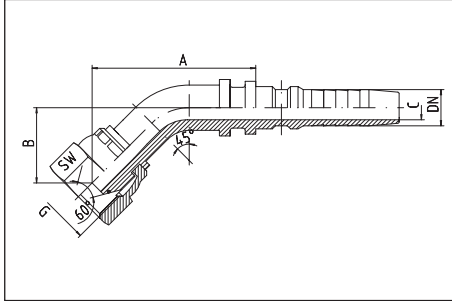
I-DKOR

Hose DN	DN Bore in.	Thread G	approx. dimensions			ME Order-Code
			A	C	SW	
19	3/4"	3/4"-14	32	14,5	32	I-DKOR 3/4"-DN 19
25	1"	1"-11	39	20,0	41	I-DKOR 1"-DN 25
31	1 1/4"	1 1/4"-11	42	25,0	50	I-DKOR 1 1/4"-DN 31
38	1 1/2"	1 1/2"-11	40	31,5	60	I-DKOR 1 1/2"-DN 38
51	2"	2"-11	39	42,0	70	I-DKOR 2"-DN 51

INTERLOCK-FITTINGS

with wire trap area - heavy series
Interlock-series

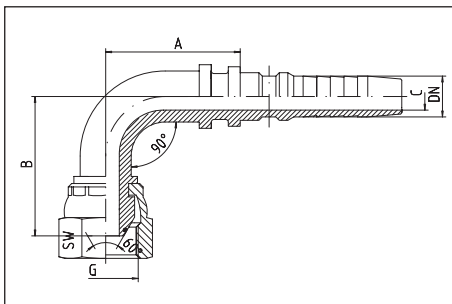
DKOR with O-ring and BSP union nut
for connectors with 60°-flare - 45°-elbow



I-DKOR-45DEG

Hose DN	DN Bore in.	Thread G	approx. dimensions				ME Order-Code
			A	B	C	SW	
19	3/4"	3/4"-14	90	39	14,5	32	I-DKOR 3/4"-45°-DN 19
25	1"	1"-11	97	46	20,0	41	I-DKOR 1"-45°-DN 25
31	1 1/4"	1 1/4"-11	117	52	25,0	50	I-DKOR 1 1/4"-45°-DN 31
38	1 1/2"	1 1/2"-11	134	49	31,0	60	I-DKOR 1 1/2"-45°-DN 38
51	2"	2"-11	170	81	41,0	70	I-DKOR 2"-45°-DN 51

DKOR with O-ring and BSP union nut
for connectors with 60°-flare - 90°-elbow



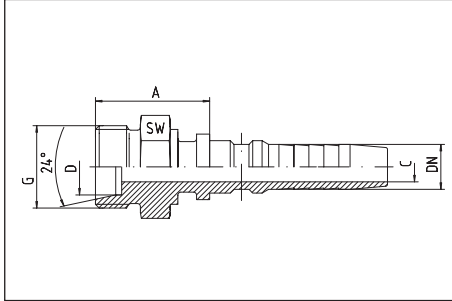
I-DKOR-90DEG

Hose DN	DN Bore in.	Thread G	approx. dimensions				ME Order-Code
			A	B	C	SW	
19	3/4"	3/4"-14	77	75	14,5	32	I-DKOR 3/4"-90°-DN 19
25	1"	1"-11	83	85	20,0	41	I-DKOR 1"-90°-DN 25
31	1 1/4"	1 1/4"-11	103	100	25,0	50	I-DKOR 1 1/4"-90°-DN 31
38	1 1/2"	1 1/2"-11	118	110	31,0	60	I-DKOR 1 1/2"-90°-DN 38
51	2"	2"-11	146	152	41,0	70	I-DKOR 2"-90°-DN 51

INTERLOCK-FITTINGS

with wire trap area - heavy series
Interlock-series

CES with 24°-cone for compression couplings DIN 2353 /
DIN EN ISO 8434-1



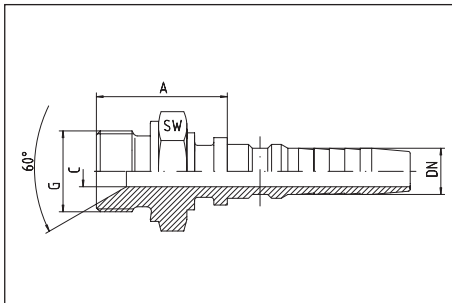
I-CES

Hose DN	DN Bore in.	Thread G	Tube O.D. D	approx. dimensions			ME Order-Code
				A	C	SW	
19	3/4"	M 30 x 2	20	37,5	14,5	32	I-CES 20-DN 19
19	3/4"	M 36 x 2	25	36,0	14,5	36	I-CES 25-DN 19
25	1"	M 36 x 2	25		20,0	36	I-CES 25-DN 25
25	1"	M 42 x 2	30	40,0	20,0	46	I-CES 30-DN 25
31	1 1/4"	M 52 x 2	38	44,5	25,0	55	I-CES 38-DN 31

INTERLOCK-MALE-NIPPLES

with 60°-cone
and sealing shoulder form B

Thread: BSP - parallel



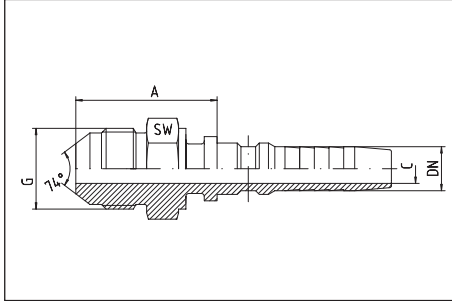
I-AGR

Hose DN	DN Bore in.	Thread G	approx. dimensions			ME Order-Code
			A	C	SW	
19	3/4"	3/4"-14	40,5	14,5	32	I-AGR 3/4"-DN 19
19	3/4"	1"-11			41	I-AGR 1"-DN 19
25	1"	1"-11	48,5	20,0	41	I-AGR 1"-DN 25
31	1 1/4"	1 1/4"-11	44,0	25,0	50	I-AGR 1 1/4"-DN 31
38	1 1/2"	1 1/2"-11	54,0	31,5	55	I-AGR 1 1/2"-DN 38
51	2"	2"-11	52,5	42,0	70	I-AGR 2"-DN 51

INTERLOCK-FITTINGS

with wire trap area - heavy series
Interlock-series

JIC-male - 74°-cone

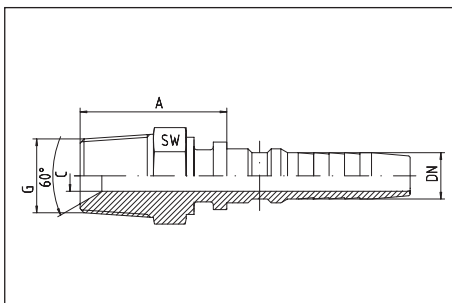


I-AGJ

Hose DN	DN Bore in.	Thread G = UN	approx. dimensions			ME Order-Code
			A	C	SW	
19	3/4"	1 1/16"-12	48,5	14,5	30	I-AGJ 1 1/16"-DN 19
25	1"	1 5/16"-12	48,0	20,0	36	I-AGJ 1 5/16"-DN 25
31	1 1/4"	1 5/8"-12	48,0	25,0	46	I-AGJ 1 5/8"-DN 31
38	1 1/2"	1 7/8"-12	57,0	31,5	50	I-AGJ 1 7/8"-DN 38
51	2"	2 1/2"-12	60,0	42,0	65	I-AGJ 2 1/2"-DN 51

INTERLOCK-NPT-MALE

with 60°-cone
Interlock-series



I-AGN

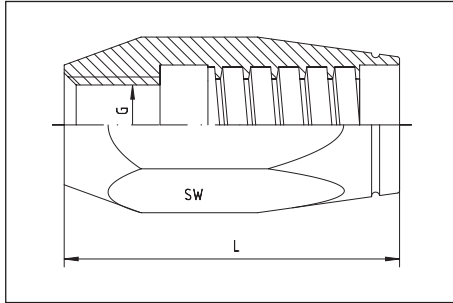
Hose DN	DN Bore in.	Thread G = NPT	approx. dimensions			ME Order-Code
			A	C	SW	
19	3/4"	3/4"-14	41,0	14,5	30	I-AGN 3/4"-DN 19
19	3/4"	1"-11,5		14,5	36	I-AGN 1"-DN 19
25	1"	1"-11,5	65,5	20,0	36	I-AGN 1"-DN 25
31	1 1/4"	1 1/4"-11,5	53,0	25,0	46	I-AGN 1 1/4"-DN 31
38	1 1/2"	1 1/2"-11,5	60,5	31,0	50	I-AGN 1 1/2"-DN 38
51	2"	2"-11,5	53,0	42,0	65	I-AGN 2"-DN 51

REUSABLE HOSE FITTINGS / SCREW-HOSE COUPLINGS

REUSABLE FITTINGS - FERRULES	4.3
REUSABLE FITTINGS - BEL + BES - NIPPLES - STRAIGHT	4.4
REUSABLE FITTINGS - BEL + BES - NIPPLES - 45°-ELBOW	4.5
REUSABLE FITTINGS - BEL + BES - NIPPLES - 90°-ELBOW	4.6
REUSABLE FITTINGS - DKR - STRAIGHT	4.7
REUSABLE FITTINGS - DKR - 45°+90°-ELBOW	4.8
REUSABLE FITTINGS - DKOL + DKOS - STRAIGHT	4.9
REUSABLE FITTINGS - DKOL + DKOS - 45°-ELBOW	4.10
REUSABLE FITTINGS - DKOL + DKOS - 90°-ELBOW	4.11
REUSABLE FITTINGS - CEL + CES - NIPPLES - 24°-CONE	4.12
REUSABLE FITTINGS - BSP - MALE NIPPLES - 60°-CONE	4.13
REUSABLE FITTINGS - BSP TAPER + NPT NIPPLES	4.14
JIC - 37° - REUSABLE FITTINGS	4.15

REUSABLE FITTINGS

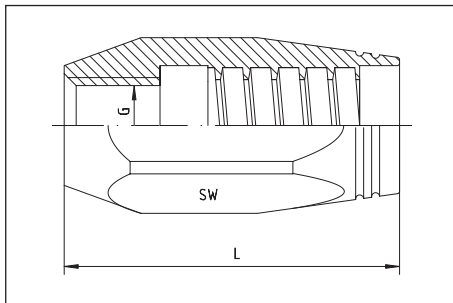
SR-P1 - non skive



To use for nipples page 4.4 - 4.15

Hose DN	DN Bore in.	Thread G	L	SW	for hose type	ME Order-Code
06	1/4"	7/16"-20 UNF	42,0	19	2 TE, 1 SN, R1AT, Compact 2 SC	SR-P1-DN 06
08	5/16"	1/2"-20 UNF	42,0	19	2 TE, 1 SN, R1AT, Compact 2 SC	SR-P1-DN 08
10	3/8"	9/16"-18 UNF	49,5	24	2 TE, 1 SN, R1AT, Compact 2 SC	SR-P1-DN 10
12	1/2"	5/8"-18 UNF	51,0	27	2 TE, 1 SN, R1AT, Compact 2 SC	SR-P1-DN 12
16	5/8"	3/4"-18 UNS	54,0	30	2 TE, 1 SN, R1AT, Compact 2 SC	SR-P1-DN 16
19	3/4"	7/8"-18 UNS	62,0	36	2 TE, 1 SN, R1AT, Compact 2 SC	SR-P1-DN 19
25	1"	1 3/16"-16 UN	74,0	41	2 TE, 1 SN, R1AT, Compact 2 SC	SR-P1-DN 25

SR-P2 - non skive

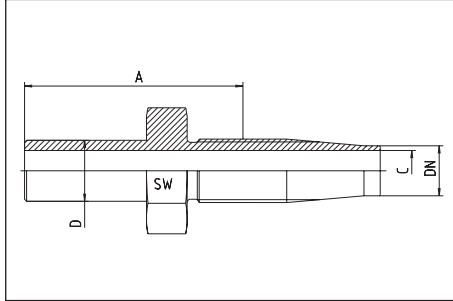


To use for nipples page 4.4 - 4.15

Hose DN	DN Bore in.	Thread G	L	SW	for hose type	ME Order-Code
06	1/4"	7/16"-20 UNF	42,0	22	3 TE, 2 SN, R2AT	SR-P2-DN 06
08	5/16"	1/2"-20 UNF	42,0	22	3 TE, 2 SN, R2AT	SR-P2-DN 08
10	3/8"	9/16"-18 UNF	49,5	24	3 TE, 2 SN, R2AT	SR-P2-DN 10
12	1/2"	5/8"-18 UNF	51,0	27	3 TE, 2 SN, R2AT	SR-P2-DN 12
16	5/8"	3/4"-18 UNS	57,0	32	3 TE, 2 SN, R2AT	SR-P2-DN 16
19	3/4"	7/8"-18 UNS	62,0	36	3 TE, 2 SN, R2AT	SR-P2-DN 19
25	1"	1 3/16"-16 UN	74,0	46	3 TE, 2 SN, R2AT	SR-P2-DN 25

REUSABLE FITTINGS

BEL-nipples - straight
BES-nipples - straight



SR-BEL
SR-BES

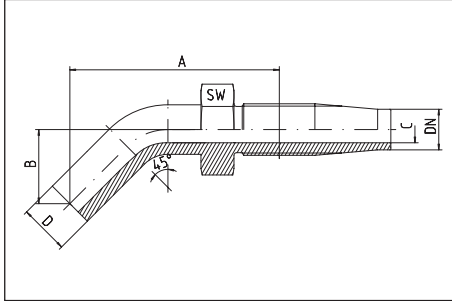
Hose DN	DN Bore in.	Tube O.D. D	approx. dimensions			ME Order-Code
			A	C	SW	
06	1/4"	6	41,0	4,0	12	SR-BEL 06-DN 06
06	1/4"	8	43,0	4,0	12	SR-BEL 08-DN 06
08	5/16"	10	48,0	6,0	14	SR-BEL 10-DN 08
10	3/8"	10	47,8	7,0	17	SR-BEL 10-DN 10
10	3/8"	12	47,8	7,5	17	SR-BEL 12-DN 10
12	1/2"	15	46,7	10,0	19	SR-BEL 15-DN 12
16	5/8"	18	49,5	13,0	22	SR-BEL 18-DN 16
19	3/4"	22	54,1	15,5	24	SR-BEL 22-DN 19
25	1"	28	59,1	21,5	36	SR-BEL 28-DN 25
06	1/4"	6	41,0	4,0	12	SR-BES 06-DN 06
06	1/4"	8	43,0	4,0	12	SR-BES 08-DN 06
06	1/4"	10	45,0	4,0	12	SR-BES 10-DN 06
08	5/16"	12	47,8	6,0	14	SR-BES 12-DN 08
10	3/8"	14	50,8	7,5	17	SR-BES 14-DN 10
12	1/2"	16	52,1	10,0	19	SR-BES 16-DN 12
16	5/8"	20	59,5	13,0	22	SR-BES 20-DN 16
19	3/4"	25	66,0	15,5	27	SR-BES 25-DN 19
25	1"	30				SR-BES 30-DN 25

Notes to the assembly:

It is very important to lubricate the insert thread before screwing into the ferrule.

REUSABLE FITTINGS

BEL-nipples - 45°-elbow
 BES-nipples - 45°-elbow



SR-BEL-45DEG

SR-BES-45DEG

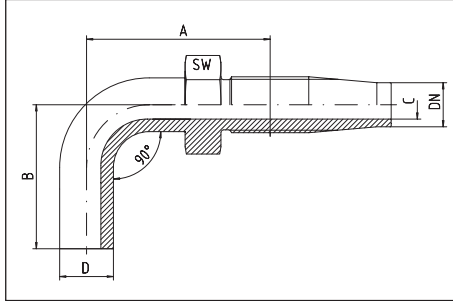
Hose DN	DN Bore in.	Tube O.D. D	approx. dimensions				ME Order-Code
			A	B	C	SW	
06	1/4"	6			4,0	12	SR-BEL 06-45°-DN 06
06	1/4"	8			4,0	12	SR-BEL 08-45°-DN 06
08	5/16"	10			6,0	14	SR-BEL 10-45°-DN 08
10	3/8"	12			7,5	17	SR-BEL 12-45°-DN 10
12	1/2"	15			10,0	19	SR-BEL 15-45°-DN 12
16	5/8"	18			13,0	22	SR-BEL 18-45°-DN 16
19	3/4"	22			15,5	24	SR-BEL 22-45°-DN 19
25	1"	28			21,5	36	SR-BEL 28-45°-DN 25
06	1/4"	6			4,0	12	SR-BES 06-45°-DN 06
06	1/4"	8			4,0	12	SR-BES 08-45°-DN 06
06	1/4"	10			4,0	14	SR-BES 10-45°-DN 06
08	5/16"	12			6,0	17	SR-BES 12-45°-DN 08
10	3/8"	14			7,5	19	SR-BES 14-45°-DN 10
12	1/2"	16			10,0	22	SR-BES 16-45°-DN 12
16	5/8"	20			13,0	24	SR-BES 20-45°-DN 16
19	3/4"	25			15,5	30	SR-BES 25-45°-DN 19

Notes to the assembly:

It is very important to lubricate the insert thread before screwing into the ferrule.

REUSABLE FITTINGS

BEL-nipples - 90°-elbow
BES-nipples - 90°-elbow



SR-BEL-90DEG
SR-BES-90DEG

Hose DN	DN Bore in.	Tube O.D. D	approx. dimensions				ME Order-Code
			A	B	C	SW	
06	1/4"	6			4,0	12	SR-BEL 06-90°-DN 06
06	1/4"	8			4,0	12	SR-BEL 08-90°-DN 06
08	5/16"	10			6,0	14	SR-BEL 10-90°-DN 08
10	3/8"	12			7,5	17	SR-BEL 12-90°-DN 10
12	1/2"	15			10,0	19	SR-BEL 15-90°-DN 12
16	5/8"	18			13,0	22	SR-BEL 18-90°-DN 16
19	3/4"	22			15,5	24	SR-BEL 22-90°-DN 19
25	1"	28			21,5	36	SR-BEL 28-90°-DN 25
06	1/4"	6			4,0	12	SR-BES 06-90°-DN 06
06	1/4"	8			4,0	12	SR-BES 08-90°-DN 06
06	1/4"	10			4,0	14	SR-BES 10-90°-DN 06
08	5/16"	12			6,0	17	SR-BES 12-90°-DN 08
10	3/8"	14			7,5	19	SR-BES 14-90°-DN 10
12	1/2"	16			10,0	22	SR-BES 16-90°-DN 12
16	5/8"	20			13,0	24	SR-BES 20-90°-DN 16
19	3/4"	25			15,5	30	SR-BES 25-90°-DN 19

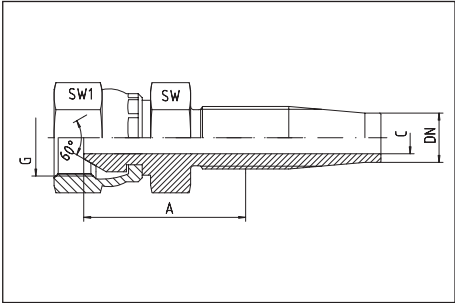
Notes to the assembly:

It is very important to lubricate the insert thread before screwing into the ferrule.

REUSABLE FITTINGS

swivel nut with BSP thread - female
for connectors with 60°-flare

DKR - straight



SR-DKR

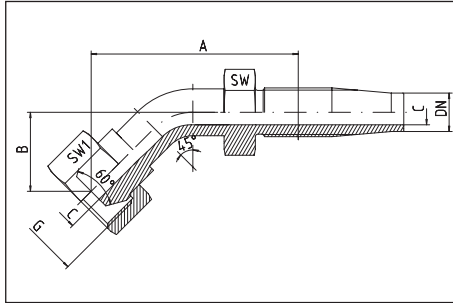
Hose DN	Bore in.	Thread G	approx. dimensions			ME Order-Code
			A	C	SW1	
06	1/4"	1/4"-19	28,1	4,0	17	SR-DKR 1/4"-DN 06
08	5/16"	3/8"-19	29,8	5,5	19	SR-DKR 3/8"-DN 08
10	3/8"	3/8"-19	30,5	7,5	19	SR-DKR 3/8"-DN 10
10	3/8"	1/2"-14	30,5	7,5	27	SR-DKR 1/2"-DN 10
12	1/2"	1/2"-14	33,5	10,0	27	SR-DKR 1/2"-DN 12
16	5/8"	3/4"-14	37,3	13,0	32	SR-DKR 3/4"-DN 16
19	3/4"	3/4"-14	38,4	15,5	32	SR-DKR 3/4"-DN 19
25	1"	1"-11	45,0	21,0	41	SR-DKR 1"-DN 25

Notes to the assembly:
It is very important to lubricate the insert thread before
screwing into the ferrule.

REUSABLE FITTINGS

swivel nut with BSP thread - female
for connectors with 60°-flare

DKR - 45°-elbow

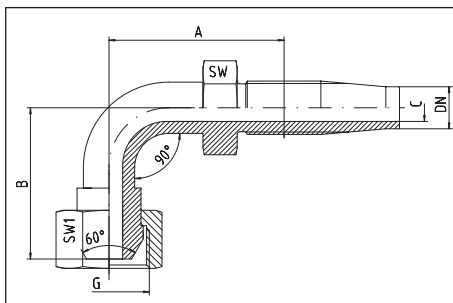


SR-DKR-45DEG

Hose DN	DN Bore in.	Thread G	approx. dimensions				ME Order-Code
			A	B	C	SW1	
06	1/4"	1/4"-19			4,0	17	SR-DKR 1/4"-45°-DN 06
08	5/16"	3/8"-19			5,5	19	SR-DKR 3/8"-45°-DN 08
10	3/8"	3/8"-19			7,5	19	SR-DKR 3/8"-45°-DN 10
10	3/8"	1/2"-14			7,5	27	SR-DKR 1/2"-45°-DN 10
12	1/2"	1/2"-14			10,0	27	SR-DKR 1/2"-45°-DN 12
16	5/8"	3/4"-14			13,0	32	SR-DKR 3/4"-45°-DN 16
19	3/4"	3/4"-14			15,5	32	SR-DKR 3/4"-45°-DN 19
25	1"	1"-11			21,0	41	SR-DKR 1"-45°-DN 25

female
for connectors with 60°-flare

DKR - 90°-elbow



SR-DKR-90DEG

Hose DN	DN Bore in.	Thread G	approx. dimensions				ME Order-Code
			A	B	C	SW1	
06	1/4"	1/4"-19			4,0	17	SR-DKR 1/4"-90°-DN 06
08	5/16"	3/8"-19			5,5	19	SR-DKR 3/8"-90°-DN 08
10	3/8"	3/8"-19			7,5	19	SR-DKR 3/8"-90°-DN 10
10	3/8"	1/2"-14			7,5	27	SR-DKR 1/2"-90°-DN 10
12	1/2"	1/2"-14			10,0	27	SR-DKR 1/2"-90°-DN 12
16	5/8"	3/4"-14			13,0	32	SR-DKR 3/4"-90°-DN 16
19	3/4"	3/4"-14			15,5	32	SR-DKR 3/4"-90°-DN 19
25	1"	1"-11			21,0	41	SR-DKR 1"-90°-DN 25

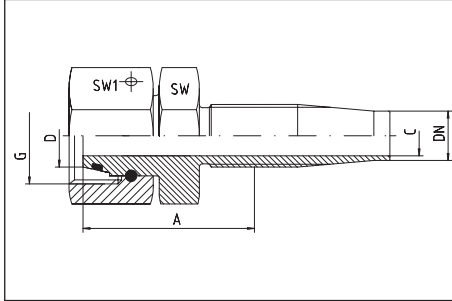
Notes to the assembly:

It is very important to lubricate the insert thread before
screwing into the ferrule.

REUSABLE FITTINGS

DKOL - nipples - straight
DKOS - nipples - straight

for fittings with 24°-flare
and solderless connectors DIN 2353 / DIN EN ISO 8434-1



SR-DKOL
SR-DKOS

Hose DN	DN Bore in.	Thread G	Tube O.D. D	approx. dimensions			ME Order-Code
				A	C	SW1	
06	1/4"	M 12 x 1,5	6	28,7	4,0	17	SR-DKOL-06-DN 06
06	1/4"	M 14 x 1,5	8	29,6	4,0	17	SR-DKOL-08-DN 06
06	1/4"	M 16 x 1,5	10		4,0	19	SR-DKOL-10-DN 06
08	5/16"	M 16 x 1,5	10	33,8	6,0	19	SR-DKOL-10-DN 08
10	3/8"	M 18 x 1,5	12	32,0	7,5	22	SR-DKOL-12-DN 10
12	1/2"	M 22 x 1,5	15	36,8	10,0	27	SR-DKOL-15-DN 12
16	5/8"	M 26 x 1,5	18	40,1	13,0	32	SR-DKOL-18-DN 16
19	3/4"	M 30 x 2	22	43,9	15,5	36	SR-DKOL-22-DN 19
25	1"	M 36 x 2	28	49,0	21,5	41	SR-DKOL-28-DN 25
06	1/4"	M 14 x 1,5	6	29,6	4,0	17	SR-DKOS-06-DN 06
06	1/4"	M 16 x 1,5	8	29,6	4,0	19	SR-DKOS-08-DN 06
06	1/4"	M 18 x 1,5	10	30,5	4,0	22	SR-DKOS-10-DN 06
08	5/16"	M 20 x 1,5	12	35,1	5,5	24	SR-DKOS-12-DN 08
10	3/8"	M 18 x 1,5	10	40,0	7,5	22	SR-DKOS-10-DN 10
10	3/8"	M 22 x 1,5	14	36,8	7,5	27	SR-DKOS-14-DN 10
12	1/2"	M 24 x 1,5	16	39,1	10,0	30	SR-DKOS-16-DN 12
16	5/8"	M 30 x 2	20	53,0	13,0	36	SR-DKOS-20-DN 16
19	3/4"	M 36 x 2	25	51,0	15,5	46	SR-DKOS-25-DN 19
25	1"	M 42 x 2	30	54,0	21,5	50	SR-DKOS-30-DN 25

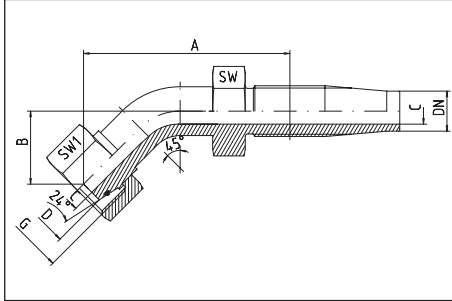
Notes to the assembly:

It is very important to lubricate the insert thread before screwing into the ferrule.

REUSABLE FITTINGS

DKOL - nipples - 45°-elbow
DKOS - nipples - 45°-elbow

for fittings with 24°-flare
and solderless connectors DIN 2353 / DIN EN ISO 8434-1



SR-DKOL-45DEG

SR-DKOS-45DEG

Hose DN	DN Bore in.	Thread G	Tube O.D. D	approx. dimensions				ME Order-Code
				A	B	C	SW1	
06	1/4"	M 12 x 1,5	6			4,0	17	SR-DKOL-45°-06-DN 06
06	1/4"	M 14 x 1,5	8			4,0	17	SR-DKOL-45°-08-DN 06
08	5/16"	M 16 x 1,5	10			6,0	19	SR-DKOL-45°-10-DN 08
10	3/8"	M 18 x 1,5	12			7,5	22	SR-DKOL-45°-12-DN 10
12	1/2"	M 22 x 1,5	15			10	27	SR-DKOL-45°-15-DN 12
16	5/8"	M 26 x 1,5	18			13	32	SR-DKOL-45°-18-DN 16
19	3/4"	M 30 x 2	22			15,5	36	SR-DKOL-45°-22-DN 19
25	1"	M 36 x 2	28			21,5	41	SR-DKOL-45°-28-DN 25
06	1/4"	M 14 x 1,5	6			4,0	17	SR-DKOS-45°-06-DN 06
06	1/4"	M 16 x 1,5	8			4,0	19	SR-DKOS-45°-08-DN 06
06	1/4"	M 18 x 1,5	10			4,0	22	SR-DKOS-45°-10-DN 06
08	5/16"	M 20 x 1,5	12			5,5	24	SR-DKOS-45°-12-DN 08
10	3/8"	M 22 x 1,5	14			7,5	27	SR-DKOS-45°-14-DN 10
12	1/2"	M 24 x 1,5	16			10,0	30	SR-DKOS-45°-16-DN 12
16	5/8"	M 30 x 2	20			13,0	36	SR-DKOS-45°-20-DN 16
19	3/4"	M 36 x 2	25			15,5	46	SR-DKOS-45°-25-DN 19
25	1"	M 42 x 2	30			21,5	50	SR-DKOS-45°-30-DN 25

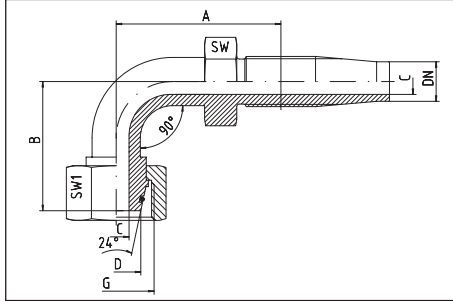
Notes to the assembly:

It is very important to lubricate the insert thread before screwing into the ferrule.

REUSABLE FITTINGS

DKOL - nipples - 90°-elbow
DKOS - nipples - 90°-elbow

for fittings with 24°-flare
and solderless connectors DIN 2353 / DIN EN ISO 8434-1



SR-DKOL-90DEG

SR-DKOS-90DEG

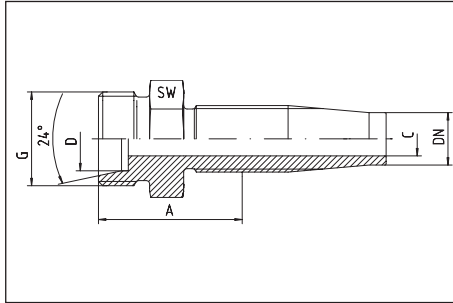
Hose DN	DN Bore in.	Thread G	Tube O.D. D	approx. dimensions				ME Order-Code
				A	B	C	SW1	
06	1/4"	M 12 x 1,5	6			4,0	17	SR-DKOL-90°-06-DN 06
06	1/4"	M 14 x 1,5	8			4,0	17	SR-DKOL-90°-08-DN 06
08	5/16"	M 16 x 1,5	10			6,0	19	SR-DKOL-90°-10-DN 08
10	3/8"	M 18 x 1,5	12			7,5	22	SR-DKOL-90°-12-DN 10
12	1/2"	M 22 x 1,5	15			10	27	SR-DKOL-90°-15-DN 12
16	5/8"	M 26 x 1,5	18			13	32	SR-DKOL-90°-18-DN 16
19	3/4"	M 30 x 2	22			15,5	36	SR-DKOL-90°-22-DN 19
25	1"	M 36 x 2	28			21,5	41	SR-DKOL-90°-28-DN 25
06	1/4"	M 14 x 1,5	6			4,0	17	SR-DKOS-90°-06-DN 06
06	1/4"	M 16 x 1,5	8			4,0	19	SR-DKOS-90°-08-DN 06
06	1/4"	M 18 x 1,5	10			4,0	22	SR-DKOS-90°-10-DN 06
08	5/16"	M 20 x 1,5	12			5,5	24	SR-DKOS-90°-12-DN 08
10	3/8"	M 22 x 1,5	14			7,5	27	SR-DKOS-90°-14-DN 10
12	1/2"	M 24 x 1,5	16			10,0	30	SR-DKOS-90°-16-DN 12
16	5/8"	M 30 x 2	20			13,0	36	SR-DKOS-90°-20-DN 16
19	3/4"	M 36 x 2	25			15,5	46	SR-DKOS-90°-25-DN 19
25	1"	M 42 x 2	30			21,5	50	SR-DKOS-90°-25-DN 21

Notes to the assembly:

It is very important to lubricate the insert thread before screwing into the ferrule.

REUSABLE FITTINGS

CEL - 24°-cone nipples
CES - 24°-cone nipples



SR-CEL
SR-CES

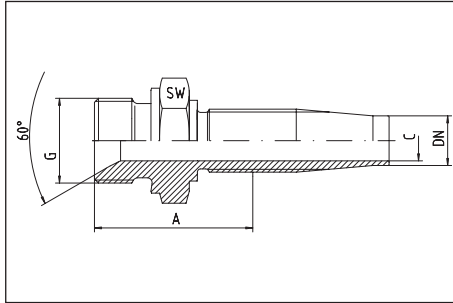
Hose DN	DN Bore in.	Thread G	Tube O.D. D	approx. dimensions			ME Order-Code
				A	C	SW	
06	1/4"	M 12 x 1,5	6	27,9	4,0	12	SR-CEL-06-DN 06
06	1/4"	M 14 x 1,5	8	27,9	4,0	14	SR-CEL-08-DN 06
08	5/16"	M 16 x 1,5	10	29,7	6,0	17	SR-CEL-10-DN 08
10	3/8"	M 18 x 1,5	12	30,0	7,5	19	SR-CEL-12-DN 10
12	1/2"	M 22 x 1,5	15	32,0	10,0	22	SR-CEL-15-DN 12
16	5/8"	M 26 x 1,5	18	35,1	13,0	27	SR-CEL-18-DN 16
19	3/4"	M 30 x 2	22	38,4	15,5	30	SR-CEL-22-DN 19
25	1"	M 36 x 2	28	43,2	21,5	36	SR-CEL-28-DN 25
06	1/4"	M 14 x 1,5	6	27,9	4,0	14	SR-CES-06-DN 06
06	1/4"	M 16 x 1,5	8	28,5	4,0	17	SR-CES-08-DN 06
06	1/4"	M 18 x 1,5	10	28,5	4,0	19	SR-CES-10-DN 06
08	5/16"	M 20 x 1,5	12	31,4	6,0	22	SR-CES-12-DN 08
10	3/8"	M 22 x 1,5	14	33,6	7,5	22	SR-CES-14-DN 10
12	1/2"	M 24 x 1,5	16	35,2	10,0	24	SR-CES-16-DN 12
16	5/8"	M 30 x 2	20	40,4	13,0	30	SR-CES-20-DN 16
19	3/4"	M 36 x 2	25	43,9	15,5	36	SR-CES-25-DN 19
25	1"	M 42 x 2	30	54,9	21,5	46	SR-CES-30-DN 25

Notes to the assembly:

It is very important to lubricate the insert thread before screwing into the ferrule.

REUSABLE FITTINGS

BSP - 60°-cone male nipples



SR-AGR

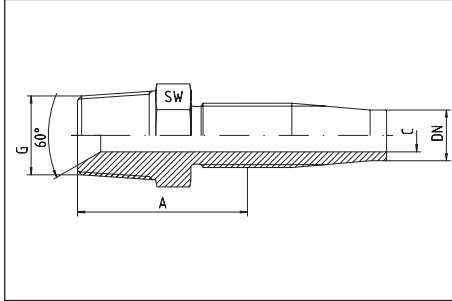
Hose DN	DN Bore in.	Thread G = BSP	approx. dimensions			ME Order-Code
			A	C	SW	
06	1/4"	1/4"-19	29,5	4,0	19	SR-AGR 1/4"-DN 06
08	5/16"	3/8"-19	33,4	5,5	22	SR-AGR 3/8"-DN 08
10	3/8"	3/8"-19	33,4	7,5	22	SR-AGR 3/8"-DN 10
10	3/8"	1/2"-14	38,4	7,5	27	SR-AGR 1/2"-DN 10
12	1/2"	1/2"-14	38,6	10,0	27	SR-AGR 1/2"-DN 12
16	5/8"	3/4"-14	44,8	13,0	32	SR-AGR 3/4"-DN 16
19	3/4"	3/4"-14	44,8	15,5	32	SR-AGR 3/4"-DN 19
19	3/4"	1"-11	45,8	15,5	41	SR-AGR 1"-DN 19
25	1"	1"-11	51,5	21,5	41	SR-AGR 1"-DN 25

Notes to the assembly:

It is very important to lubricate the insert thread before screwing into the ferrule.

REUSABLE FITTINGS

AGR-k = BSP - male - taper
 AGN = NPT - male



SR-AGRK

SR-AGN

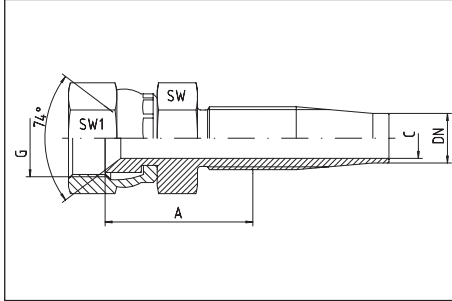
Hose DN	Bore in.	Thread G	approx. dimensions			ME Order-Code
			A	C	SW	
06	1/4"	1/4"-19 keg	32,5	4,0	14	SR-AGRK 1/4"-DN 06
08	5/16"	3/8"-19 keg	36,1	5,5	19	SR-AGRK 3/8"-DN 08
10	3/8"	3/8"-19 keg	36,1	7,5	19	SR-AGRK 3/8"-DN 10
10	3/8"	1/2"-14 keg	41,2	7,5	22	SR-AGRK 1/2"-DN 10
12	1/2"	1/2"-14 keg	41,7	10,0	22	SR-AGRK 1/2"-DN 12
16	5/8"	3/4"-14 keg	45,0	13,0	27	SR-AGRK 3/4"-DN 16
19	3/4"	3/4"-14 keg	46,2	15,5	27	SR-AGRK 3/4"-DN 19
25	1"	1"-11 keg	57,2	21,5	36	SR-AGRK 1"-DN 25
06	1/4"	1/4"-18 NPT	30,2	4,0	14	SR-AGN 1/4"-DN 06
08	5/16"	3/8"-18 NPT	33,3	5,5	19	SR-AGN 3/8"-DN 08
10	3/8"	3/8"-18 NPT	33,3	7,5	19	SR-AGN 3/8"-DN 10
10	3/8"	1/2"-14 NPT	38,6	7,5	22	SR-AGN 1/2"-DN 10
12	1/2"	1/2"-14 NPT	39,9	10,0	22	SR-AGN 1/2"-DN 12
16	5/8"	3/4"-14 NPT	43,9	13,0	27	SR-AGN 3/4"-DN 16
19	3/4"	3/4"-14 NPT	43,2	15,5	27	SR-AGN 3/4"-DN 19
25	1"	1"-11,5 NPT	51,1	21,5	36	SR-AGN 1"-DN 25

Notes to the assembly:

It is very important to lubricate the insert thread before screwing into the ferrule.

JIC - 37° - REUSABLE FITTINGS

with crimp-nut



SR-DKJ

Hose DN	DN Bore in.	Thread G = UNF/UN	approx. dimensions				ME Order-Code
			A	C	SW	SW1	
06	1/4"	7/16"-20					SR-DKJ 7/16"-DN 06
06	1/4"	1/2"-20					SR-DKJ 1/2"-DN 06
06	1/4"	9/16"-18	26,0	4,0	19	19	SR-DKJ 9/16"-DN 06
08	5/16"	1/2"-20					SR-DKJ 1/2"-DN 08
08	5/16"	9/16"-18					SR-DKJ 9/16"-DN 08
10	3/8"	9/16"-18					SR-DKJ 9/16"-DN 10
10	3/8"	3/4"-16	32,0	7,5	24	24	SR-DKJ 3/4"-DN 10
10	3/8"	7/8"-14					SR-DKJ 7/8"-DN 10
12	1/2"	3/4"-16	36,0	10,0	24	24	SR-DKJ 3/4"-DN 12
12	1/2"	7/8"-14	32,0	10,0	27	27	SR-DKJ 7/8"-DN 12
12	1/2"	1 1/16"-12					SR-DKJ 1 1/16"-DN 12
16	5/8"	7/8"-14					SR-DKJ 7/8"-DN 16
16	5/8"	1 1/16"-12	33,5	13,0	32	32	SR-DKJ 1 1/16"-DN 16
19	3/4"	1 1/16"-12					SR-DKJ 1 1/16"-DN 19
19	3/4"	1 5/16"-12	40,0	16,0	41	41	SR-DKJ 1 5/16"-DN 19
25	1"	1 5/16"-12	40,0	21,5	41	41	SR-DKJ 1 5/16"-DN 25

Notes to the assembly:

It is very important to lubricate the insert thread before screwing into the ferrule.

