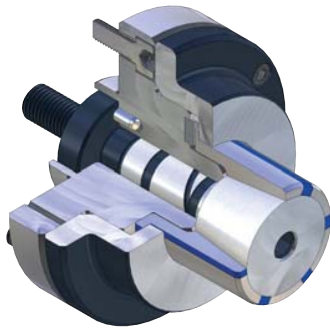


# KFR-SE



### APPLICATION

Internal clamping of round workpieces. Turning, grinding and toothing operations, as well as for balancing and measuring.

### TYPE

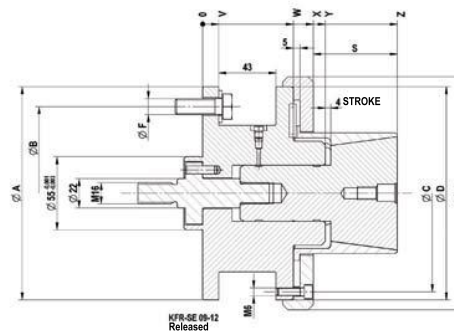
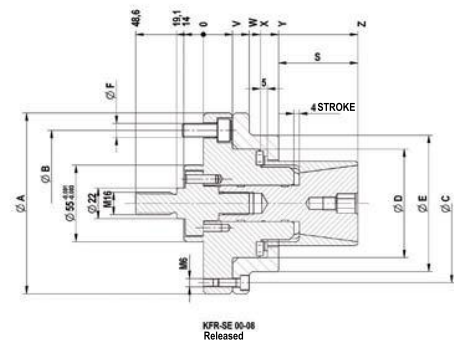
Force-actuated. Ideal for short clamping lengths / workpieces.

### CUSTOMER BENEFITS

- ② Short setup and non-productive times thanks to great expansion of segment sleeves
- ② Vibration damping due to high vulcanized rubber component of the clamping sleeves
- ② No workpiece tension thanks to def. axial tension against the workpiece stop
- ② High concentricity, axial run-out and repeatability

### TECHNICAL FEATURES

- Integrated lubrication
- Air sensing prepared



C18

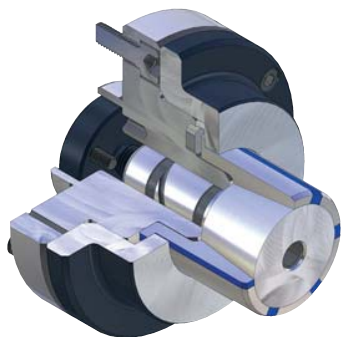
**KFR-SE** segment clamping mandrel, **power-operated with flanged seat**, for internal clamping

Consisting of basic body, clamping taper, intermediate piece, nut

	KFR 00	KFR 01	KFR 02	KFR 03	KFR 04	KFR 05	KFR 06	KFR 07	KFR 08	KFR 09	KFR 10	KFR 11	KFR 12
Segment clamping mandrel	1171410	1171411	1171412	1171413	1171414	1171415	893966 ▲	893967 ▲	893968 ▲	893969 ▲	893970 ▲	893971 ▲	893972 ▲
Base bolt	893800	893801	893802	893803	893804	893805	893806 ▲	893807 ▲	893807 ▲	893809 ▲	893809 ▲	893809 ▲	893809 ▲
Clamping taper	1171436	1171437	1171438	1171439	1171440	1171441	650346 ▲	650347 ▲	650348 ▲	650349 ▲	650350 ▲	650351 ▲	650352 ▲
Adapter power operated	1199848	1199849	1199850	893819	893820	893820	893821	893822	893822	893822	893822	893822	893822
Nut	893814	893814	893814										
F max, in kN	4,65	13,1	19,5	24,4	26,8	33	33	33	33	33	33	33	33
Max, total clamping force	20	56	83	104	114	140	140	140	140	140	140	140	140
Min-Ø unclamped from	14,2	19,7	24,7	35,7	40,7	50,7	60,7	70,7	80,7	90,7	100,7	110,7	120,7
Min-Ø unclamped to	19,7	24,7	35,7	40,7	50,7	60,7	70,7	80,7	90,7	100,7	110,7	120,7	130,7
Clamping-Ø max,	20,7	25,7	36,7	41,7	51,7	61,7	71,7	81,7	91,7	101,7	111,7	121,7	131,7
External-Ø A	100	100	100	100	130	130	130	160	160	160	160	160	160
Pitch diameter B	75	75	75	75	105	105	105	130	130	130	130	130	130
Pitch diameter C	85	85	85	85	114	114	114	145	145	148	148	148	148
Ø D mm	50	50	50	50	78	78	78	100	100	160	160	160	160
Ø E mm	70	70	70	70	98	98	98	130	130	175	175	175	175
Ø F mm	M10	M10	M10	M10	M10	M10	M10	M12	M12	M12	M12	M12	M12
S mm	21	27	27	27	42	42	57	55	55	63	63	63	63
V mm	21	21	21	21	21	21	21	32	32	12	12	12	12
W mm	33	33	33	33	33	33	33	50	50	68	68	68	68
X mm	39	39	39	39	41	41	41	58	58	83	83	83	83
Y mm	50	52	52	52	54	54	54	73	73	92	92	92	92
Z mm	71	79	79	79	96	96	111	128	128	146	146	146	146

Segment clamping mandrel KFR/MFR

# MFR-SE



## APPLICATION

Internal clamping of round workpieces. Turning, grinding and tothing operations, as well as for balancing and measuring.  
Ideal for short clamping lengths / workpieces.

## TYPE

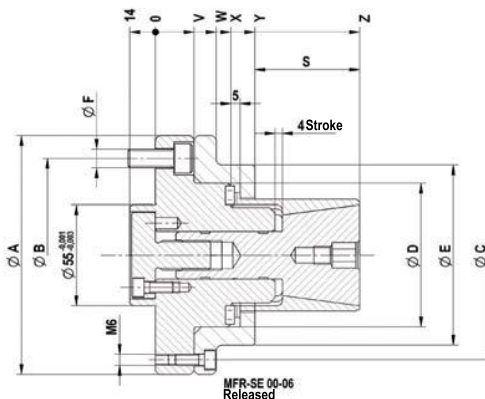
Manually actuated.  
With vulcanized clamping sleeves / segment sleeves.

## CUSTOMER BENEFITS

- ③ No workpiece tension thanks to def. axial tension against the workpiece stop
- ③ High concentricity, axial run-out and repeatability
- ③ Low-maintenance

## TECHNICAL FEATURES

- Hardened, low-wear design
- Integrated lubrication
- Air sensing prepared

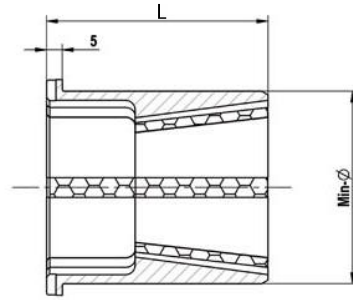


C18  
MFR-SE segment clamping mandrel, **hand-operated with flanged seat**, for internal clamping  
Consisting of basic body, clamping taper, intermediate piece

	MFR 00	MFR 01	MFR 02	MFR 03	MFR 04	MFR 05	MFR 06
Segment clamping mandrel	1171423	1171424	1171425	1171426	1171427	1171428	1077706 ▲
Base bolt	893800	893801	893802	893803	893804	893805	893806 ▲
Clamping taper	1171436	1171437	1171438	1171439	1171440	1171441	650346 ▲
Adapter hand-operated	893823	893824	893825	893826	893827	893827	893828
Md max, kN	4	5	20	40	55	60	85
Min-Ø unclamped from	14,7	19,7	24,7	35,7	40,7	50,7	60,7
Min-Ø unclamped to	19,7	24,7	35,7	40,7	50,7	60,7	70,7
Clamping-Ø max,	20,7	25,7	36,7	41,7	51,7	61,7	71,7
External-Ø A	100	100	100	100	130	130	130
Pitch diameter B	75	75	75	75	105	105	105
Pitch diameter C	85	85	85	85	114	114	114
Ø D mm	50	50	50	50	78	78	78
Ø E mm	70	70	70	70	98	98	98
Ø F mm	M10	M10	M10	M10	M10	M10	M10
S mm	21	27	27	27	42	42	57
V mm	21	21	21	21	21	21	21
W mm	33	33	33	33	33	33	33
X mm	39	39	39	39	41	41	41
Y mm	50	52	52	52	54	54	54
Z mm	71	79	79	79	96	96	111

Segment clamping mandrel KFR/MFR

# Accessories KFR-SE / MFR-SE



C18

**Segment sleeve KFR-SE / MFR-SE**

	00	01	02	03	04	05	06	07	08	09	10	11	12
For size	00	01	02	03	04	05	06	07	08	09	10	11	12
Expansion in Ø mm	1	1	1	1	1	1	1	1	1	1	1	1	1
Total length	32	40	40	40	55	55	70	70	70	78	78	78	78
Min-Ø mm	14,7	19,7	24,7	35,7	40,7	50,7	60,7	70,7	80,7	90,7	100,7	110,7	120,7
Segment sleeve	<b>1171000</b> ▲	<b>1171006</b> ▲	<b>1171012</b> ▲	<b>1171024</b> ▲	<b>1171030</b> ▲	<b>1171041</b> ▲	<b>1171052</b> ▲	<b>1171063</b> ▲	<b>1171074</b> ▲	<b>1171085</b> ▲	<b>1171096</b> ▲	<b>1171107</b> ▲	<b>1171118</b> ▲
Work stop	893830	893836	893842	893852	893857	893867	893878	893888	893897	893907	893917	893927	893937
Min-Ø mm	15,7	20,7	25,7	36,7	41,7	51,7	61,7	71,7	81,7	91,7	101,7	111,7	121,7
Segment sleeve	<b>1171001</b> ▲	<b>1171007</b> ▲	<b>1171013</b> ▲	<b>1171025</b> ▲	<b>1171031</b> ▲	<b>1171042</b> ▲	<b>1171053</b> ▲	<b>1171064</b> ▲	<b>1171075</b> ▲	<b>1171086</b> ▲	<b>1171097</b> ▲	<b>1171108</b> ▲	<b>1171119</b> ▲
Work stop	893831	893837	893842	893853	893858	893868	893879	893889	893898	893908	893918	893928	893938
Min-Ø mm	16,7	21,7	26,7	37,7	42,7	52,7	62,7	72,7	82,7	92,7	102,7	112,7	122,7
Segment sleeve	<b>1171002</b> ▲	<b>1171008</b> ▲	<b>1171014</b> ▲	<b>1171026</b> ▲	<b>1171032</b> ▲	<b>1171043</b> ▲	<b>1171054</b> ▲	<b>1171065</b> ▲	<b>1171076</b> ▲	<b>1171087</b> ▲	<b>1171098</b> ▲	<b>1171109</b> ▲	<b>1171120</b> ▲
Work stop	893832	893838	893843	893854	893859	893869	893880	893890	893899	893909	893919	893929	893939
Min-Ø mm	17,7	22,7	27,7	38,7	43,7	53,7	63,7	73,7	83,7	93,7	103,7	113,7	123,7
Segment sleeve	<b>1171003</b> ▲	<b>1171009</b> ▲	<b>1171015</b> ▲	<b>1171027</b> ▲	<b>1171033</b> ▲	<b>1171044</b> ▲	<b>1171055</b> ▲	<b>1171066</b> ▲	<b>1171077</b> ▲	<b>1171088</b> ▲	<b>1171099</b> ▲	<b>1171110</b> ▲	<b>1171121</b> ▲
Work stop	893833	893839	893844	893855	893860	893870	893881	893891	893900	893910	893920	893930	893940
Min-Ø mm	18,7	23,7	28,7	39,7	44,7	54,7	64,7	74,7	84,7	94,7	104,7	114,7	124,7
Segment sleeve	<b>1171004</b> ▲	<b>1171010</b> ▲	<b>1171016</b> ▲	<b>1171028</b> ▲	<b>1171034</b> ▲	<b>1171045</b> ▲	<b>1171056</b> ▲	<b>1171067</b> ▲	<b>1171078</b> ▲	<b>1171089</b> ▲	<b>1171100</b> ▲	<b>1171111</b> ▲	<b>1171122</b> ▲
Work stop	893834	893840	893845	893856	893861	893871	893882	893892	893901	893911	893921	893931	893941
Min-Ø mm	19,7	24,7	29,7	40,7	45,7	55,7	65,7	75,7	85,7	95,7	105,7	115,7	125,7
Segment sleeve	<b>1171005</b> ▲	<b>1171011</b> ▲	<b>1171017</b> ▲	<b>1171029</b> ▲	<b>1171035</b> ▲	<b>1171046</b> ▲	<b>1171057</b> ▲	<b>1171068</b> ▲	<b>1171079</b> ▲	<b>1171090</b> ▲	<b>1171101</b> ▲	<b>1171112</b> ▲	<b>1171123</b> ▲
Work stop	893835	893841	893846	893856	893862	893872	893883	893893	893902	893912	893922	893932	893942
Min-Ø mm			30,7		46,7	56,7	66,7	76,7	86,7	96,7	106,7	116,7	126,7
Segment sleeve			<b>1171018</b> ▲		<b>1171036</b> ▲	<b>1171047</b> ▲	<b>1171058</b> ▲	<b>1171069</b> ▲	<b>1171080</b> ▲	<b>1171091</b> ▲	<b>1171102</b> ▲	<b>1171113</b> ▲	<b>1171124</b> ▲
Work stop			893847		893863	893873	893884	893894	893903	893913	893923	893933	893943
Min-Ø mm			31,7		47,7	57,7	67,7	77,7	87,7	97,7	107,7	117,7	127,7
Segment sleeve			<b>1171019</b> ▲		<b>1171037</b> ▲	<b>1171048</b> ▲	<b>1171059</b> ▲	<b>1171070</b> ▲	<b>1171081</b> ▲	<b>1171092</b> ▲	<b>1171103</b> ▲	<b>1171114</b> ▲	<b>1171125</b> ▲
Work stop			893848		893864	893874	893885	893895	893904	893914	893924	893934	893944
Min-Ø mm			32,7		48,7	58,7	68,7	78,7	88,7	98,7	108,7	118,7	128,7
Segment sleeve			<b>1171020</b> ▲		<b>1171038</b> ▲	<b>1171049</b> ▲	<b>1171060</b> ▲	<b>1171071</b> ▲	<b>1171082</b> ▲	<b>1171093</b> ▲	<b>1171104</b> ▲	<b>1171115</b> ▲	<b>1171126</b> ▲
Work stop			893849		893865	893875	893886	893947	893905	893915	893925	893935	893945
Min-Ø mm			33,7		49,7	59,7	69,7	79,7	89,7	99,7	109,7	119,7	129,7
Segment sleeve			<b>1171021</b> ▲		<b>1171039</b> ▲	<b>1171050</b> ▲	<b>1171061</b> ▲	<b>1171072</b> ▲	<b>1171083</b> ▲	<b>1171094</b> ▲	<b>1171105</b> ▲	<b>1171116</b> ▲	<b>1171127</b> ▲
Work stop			893850		893866	893876	893887	893896	893906	893916	893926	893936	893946
Min-Ø mm			34,7		50,7	60,7	70,7	80,7	90,7	100,7	110,7	120,7	130,7
Segment sleeve			<b>1171022</b> ▲		<b>1171040</b> ▲	<b>1171051</b> ▲	<b>1171062</b> ▲	<b>1171073</b> ▲	<b>1171084</b> ▲	<b>1171095</b> ▲	<b>1171106</b> ▲	<b>1171117</b> ▲	<b>1171128</b> ▲
Work stop			893851		893867	893877	893887	893896	893906	893916	893926	893936	893946
Min-Ø mm			35,7										
Segment sleeve			<b>1171023</b> ▲										
Work stop			893852										

# Intermediate flange KFR-SE / MFR-SE



### APPLICATION

For adaption of cartridge mandrel KFR/MFR/KFR-SE/MFR-SE or KFS/MFS - on spindle head ISO 702-1 / ISO 702-3 (DIN 55021/55022/55026 and 55027).

### TYPE

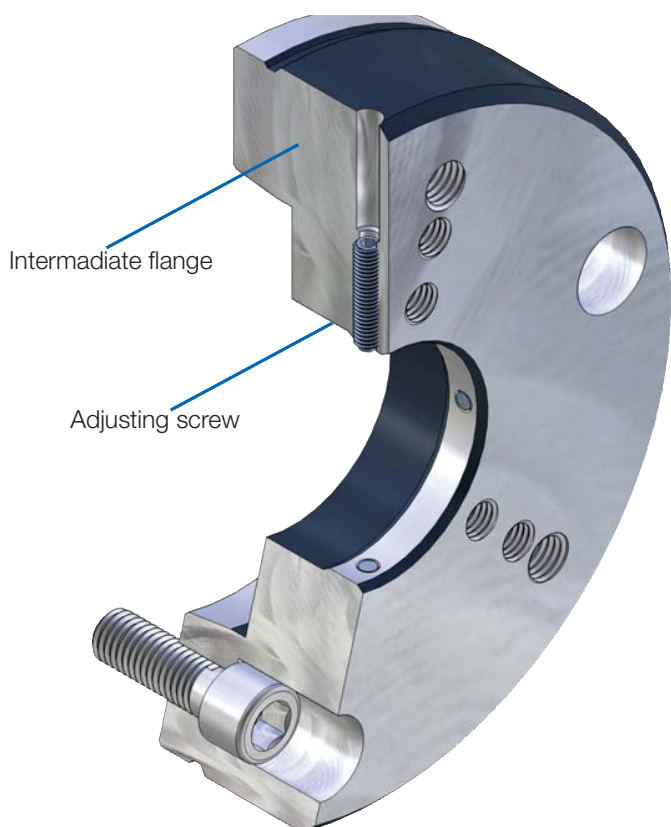
For KFR/MFR/KFR-SE/MFR-SE or KFS/MFS.

### CUSTOMER BENEFITS

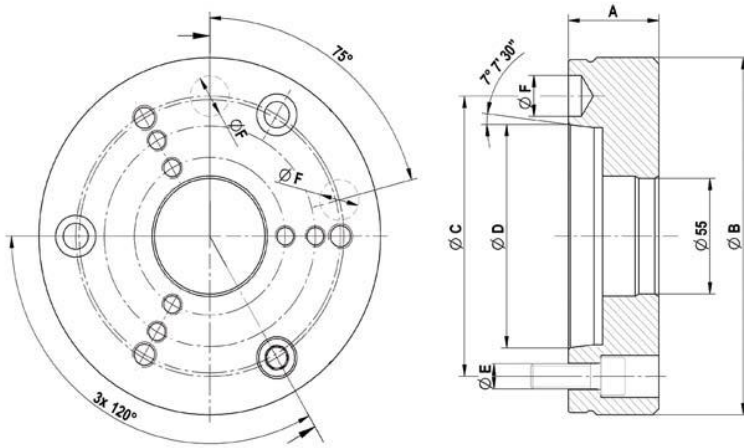
☺ By replacement of the Intermediate flange, one cartridge mandrel can be used on different machines

### TECHNICAL FEATURES

Adaptation of mandrel KFR / MFR / KFR-SE / MFR SE or KFS / MFS on spindle head, with or without adjustment, with or without operation of air-conditioning control. Execution according to ISO 702-1 (DIN 55028-A) or ISO 702-3 (DIN 55028-C), in size no. 5, no. 6, no. 8, no. 11 or no. 5, no. 6. Nr. 8 (A5, A6, A8, A11 or C5, C6, C8).



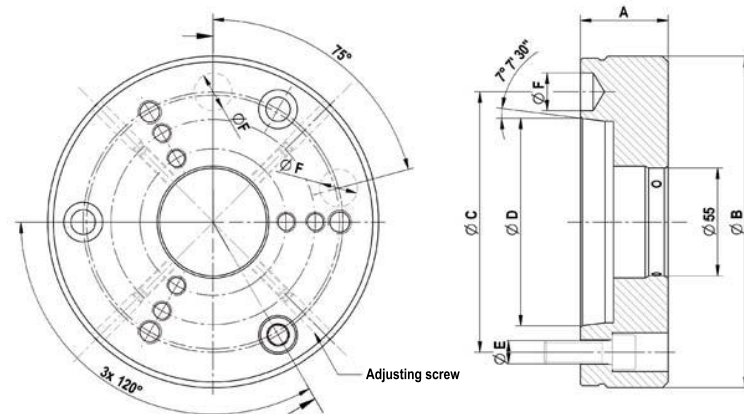
# Accessories KFR-SE / MFR-SE



C 18

**Intermediate flange ISO 702-1 (DIN 55026/55021) without adjusting screw**

	Nr. 5 (A 05)	Nr. 6 (A 06)	Nr. 8 (A 08)	Nr. 11 (A 11)
<b>Intermediate flange</b>	<b>893975</b>	<b>893976</b>	<b>893977</b>	<b>893978 ▲</b>
Design	without air-sensing	without air-sensing	without air-sensing	without air-sensing
Mount-Ø 55	+0,003/+0,001	+0,003/+0,001	+0,003/+0,001	+0,003/+0,001
A mm	45	45	50	50
Ø B	165	170	220	282
Ø C mm	104,8	133,4	171,4	235
Ø D mm	82,563	106,375	139,719	196,869
Ø E	M10	M12	M16	M20
Ø F mm	16,3	19,45	24,2	29,4

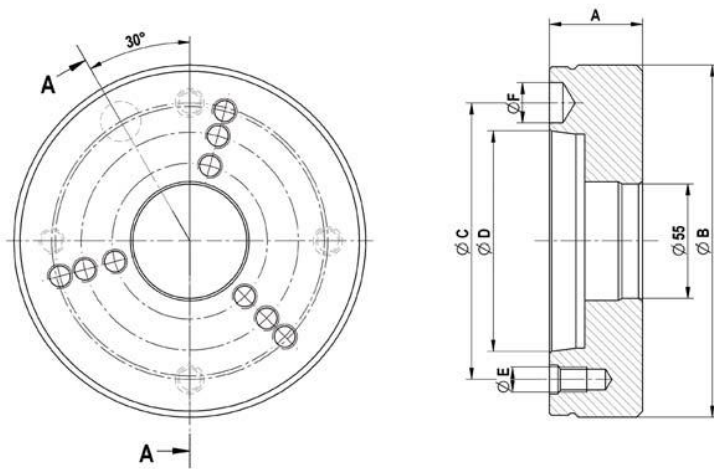


C 18

**Intermediate flange ISO 702-1 (DIN 55028) with adjusting screw**

	Nr. 5 (A 05)	Nr. 6 (A 06)	Nr. 8 (A 08)
<b>Intermediate flange</b>	<b>893979</b>	<b>893980</b>	<b>893981</b>
Design	without air-sensing	without air-sensing	without air-sensing
Mount-Ø 55	+0,05/+0,04	+0,05/+0,04	+0,05/+0,04
A mm	45	45	50
Ø B	165	170	220
Ø C mm	104,8	133,4	171,4
Ø D mm	82,563	106,375	139,719
Ø E	M10	M12	M16
Ø F mm	16,3	19,45	24,2

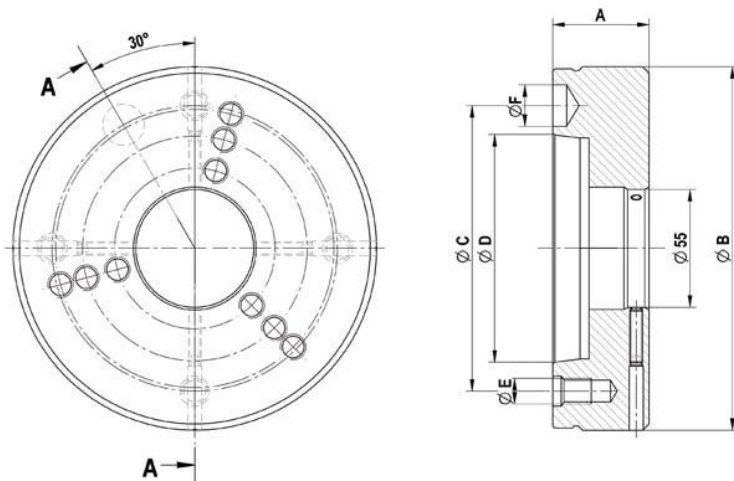
# Accessories KFR-SE / MFR-SE



C 18

**Intermediate flange ISO 702-3 (DIN 55027/55022) without adjusting screws**

	Nr. 5 (C 05)	Nr. 6 (C 06)	Nr. 8 (C 08)
Intermediate flange	893982	893983	893984
Design	without air-sensing	without air-sensing	without air-sensing
Mount- $\varnothing$ 55	+0,003/+0,001	+0,003/+0,001	+0,003/+0,001
A mm	45	45	50
$\varnothing$ B	165	170	220
$\varnothing$ C mm	104,8	133,4	171,4
$\varnothing$ D mm	82,563	106,375	139,719
$\varnothing$ E	M 10	M 12	M 16
$\varnothing$ F mm	16,3	19,45	24,2



C 18

**Intermediate flange ISO 702-3 (DIN 55027/55022) with adjusting screws**

	Nr. 5 (C 05)	Nr. 6 (C 06)	Nr. 8 (C 08)
Intermediate flange	893985	893986	893987
Design	without air-sensing	without air-sensing	without air-sensing
Mount- $\varnothing$ 55	+0,05/+0,04	+0,05/+0,04	+0,05/+0,04
A mm	45	45	50
$\varnothing$ B	165	170	220
$\varnothing$ C mm	104,8	133,4	171,4
$\varnothing$ D mm	82,563	106,375	139,719
$\varnothing$ E	M 10	M 12	M 16
$\varnothing$ F mm	16,3	19,45	24,2