AlphaDynamic PUMPS

We Make The Difference

AD Flexible Impeller pump

TÜV NORD CERT Gmbh ISO 9001



AD flexible Impeller pumps

www.quantumengineering.be

AD flexible Impeller pumps

Volumetric Stainless Flexible Impeller Pumps, are mostly suitable for the transfer of delicate, fragile and viscous medium, also with solid parts in suspension

Performances

Flows: Up to 56.000 litres/hour
Viscosites: Up to 75.000 cp
Temperature of fluids: Up to 100°C
Max. differential pressure: 3 Bar



AD series pumps can be:

- Supplied with a "BY PASS" allowing regulation of pump capacity in accordance with the needs of the user.
- Supplied with DUAL Motors
- Supplied with Frequency Converter
- Supplied with Mechanical Variator
- Supplied with bare shaft
- Supplied with Dry-Running Protection
- Supplied with stainless steel trolley

Features

- Immediate priming at a depth of up to 5 meter, even when running dry
- Low speed motor, which ensures a gentle pumping action for delicate liquids
- Continuous and regular pumping action
- Capacity to handle viscous and solid-laden liquids
- High thickness steel (3/4mm) which ensures a higher mechanical and corrosion resistance and therefore a longer life
- Flow reversibility
- The cleaning and replacement of the mechanical seal and of the impeller are incredibly simple as the pump can be taken apart with ease
- Flexible impeller made of entirely non-toxic synthetic rubber (Neoprene, NBR, EPDM) and resistant to different acids
- Mechanical seal made of INOX/GRAPHITE/ NBR/ EPDM orTungsten/Tungsten/NBR/EPDM

The AD Flexible impeller pumps are widely used:

In the oenological field
Stemmed grapes, wine, must, e.t.

In the chemical industry
Paint, ink, water based glues, rubber latex, glycerine, wax, emulsion starch, liquid for photograph process, industrial discharges, polyelectrolyte, detergents e.t.c

In food processing
Honey, yogurt, beer, fruit pulp and juice, glycose, brine, syrops, melted butter, liquid sugar, eggs in liquid form, tomato pulp e.t.c

In cosmetics industry and in the production of pharmaceutical products
Cleaning lotion, cream, shampoo, liquid soap, e.t.c






Impeller made of non-toxic rubber



The impeller is made of synthetic rubber (Neoprene, EPDM, NBR) and is entirely non-toxic and resistant to several acids. Our impellers complies with the American FDA regulations related to the handling of food grade liquids

Wireless remote control



Some models have a built-in IP65 rated motor-inverter with wireless remote control. This allows to directly adjust the RPM of the motor, reducing the weight and size of the pump assembly as it doesn't require a mechanical gear unit

Pump casing formed as a single piece



All pump casings are constructed from high thickness stainless steel sheet metal, which ensures quality and long life. The pump casings undergo continuous quality controls of the welds and are internally and externally polished to ensure the highest level of hygiene

Mechanical variable speed drive



As an option AD flexible impeller pumps are available with a variable speed drive that allows the flow rate to be finely adjusted by changing the RPM of the pump. This also allows to achieve a soft pumping action to handle delicate and highly viscous liquids

Mode of operation - Advantages

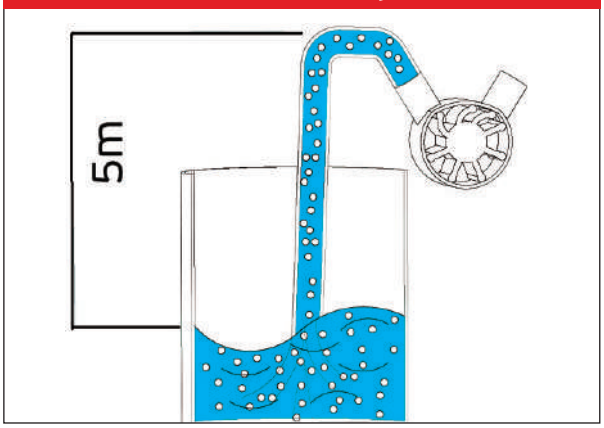
Basic pump characteristics

The Positive Displacement Flexible Impeller pumps, defuse the vane at the suction side.

As a consequence, an intense vacuum is being created and we have the possibility for automatic suction from a depth of 5 m from a dry position.

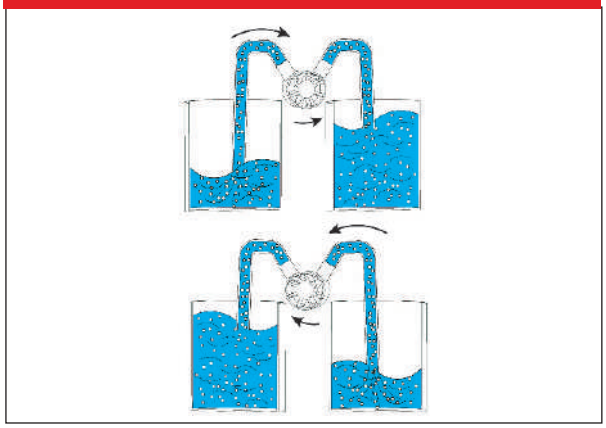
The vanes at the discharge will slightly bend, with the result being the medium to be transferred towards the exit. That way, we manage the smooth transfer of the medium at the exit without a pulse

Self priming



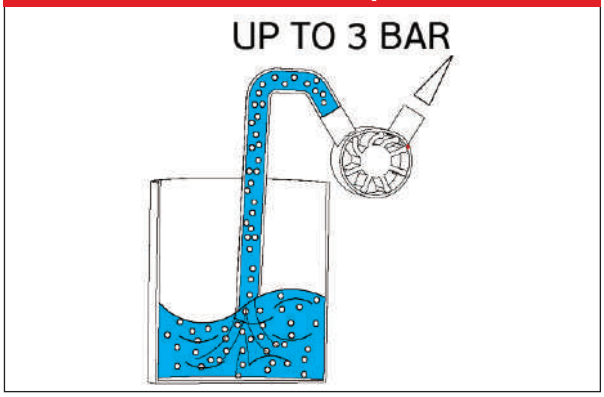
Self priming of the product up to 5m, even from a dry starting point within a few seconds.

Reversible operation



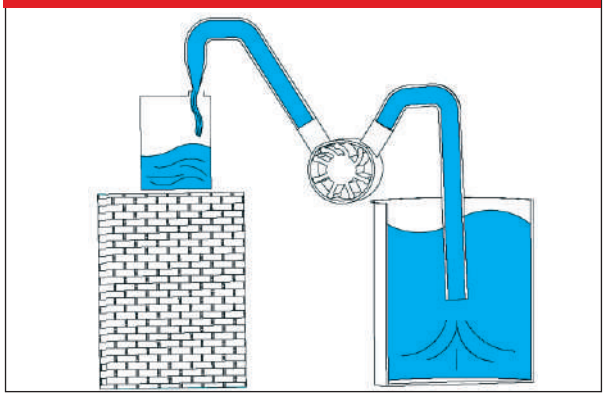
The pump can work in both the 2 directions of operation with interchange of the flow of the liquid inside the network without a problem, as many times as we want with a simple interchange of the motor direction.

Suitable for the transfer of delicate and viscous liquids



Up to 75.000 cps, even with solid suspension, without any wear out or damage

Smooth and steady pumping



of the product without pressure from the spikes (even flow rate is ideal for filling, dosing or filtration))

Performances

Advanced Models

Model	Motor HP	Rpm	Flow Rate L / min								Ports		
			2 mt	5 mt	10 mt	15 mt	20 mt	25 mt	30 mt	35 mt	BSP-M	DIN 11851	GAROLLA
AD 20.1/01/TF/0.35HP/900	0.34	900	39	38	34	31	26	20	8	-	1"	DN 25	DN 30
AD 20.1/01/TF/0.75HP/1400	0.75	1400	60	58	54	49	44	37	27	11	1"	DN 25	DN 30
AD 30.1/01/TF/1.5HP/1400	1.5	1400	147	142	133	121	107	88	52	-	1 ¼"	DN 40	DN 40
AD 30.1/01/MF/2.0HP/1400	2	1400	147	142	133	121	107	88	52	-	1 ¼"	DN 40	DN 40
AD 40.1/01/TF/2.0HP/900	2	900	189	183	172	160	146	129	106	-	1 ½"	DN 40	DN 50
AD 40.1/01/TF/3.0HP/1400	3	1400	277	267	250	233	217	200	-	-	1 ½"	DN 40	DN 50
AD 50.1/01/TF/3.0HP/900	3	900	441	418	378	335	289	-	-	-	2"	DN 50	DN 60

Classic Models

Model	Motor HP	Rpm	Flow Rate L / min								Ports		
			2 mt	5 mt	10 mt	15 mt	20 mt	25 mt	30 mt	35 mt	BSP-M	DIN 11851	GAROLLA
AD 30/01/TF/0.75HP/900	0.75	900	56	53	47	40	26	-	-	-	1 ¼"	DN 40	DN 40
AD 30/01/TF/1.0HP/1400	1	1400	76	73	67	61	52	40	-	-	1 ¼"	DN 40	DN 40
AD 40/01/TF/1.5HP/900	1.5	900	106	101	93	82	68	41	-	-	1 ½"	DN 40	DN 50
AD 40/01/TF/2.5HP/1400	2.5	1400	171	164	151	135	115	84	-	-	1 ½"	DN 40	DN 50
AD 50/01/TF/3.5HP/700	3.5	700	211	204	192	178	162	141	-	-	2"	DN 50	DN 60
AD 50/01/TF/4.0HP/900	4	900	280	272	257	241	222	200	-	-	2"	DN 50	DN 60
AD 50/01/TF/6.0HP/1400	6	1400	435	428	415	403	391	378	-	-	2"	DN 50	DN 60
AD 65/01/TF/5HP/700	5	700	602	560	483	398	301	-	-	-	2 ½"	DN 65	DN 80
AD 80/01/TF/6HP/700	6	700	922	876	791	691	562	367	-	-	3"	DN 80	DN 100

Performances

Bare Shaft Models

Model	Motor HP	Rpm	Flow Rate L / min								Ports		
			2 mt	5 mt	10 mt	15 mt	20 mt	25 mt	30 mt	35 mt	BSP-M	DIN 11851	GAROLLA
AD 30 Bare Shaft	0.75	900	56	53	47	40	26	-	-	-	1 ¼"	DN 40	DN 40
AD 40 Bare Shaft	1.5	900	106	101	93	82	68	41	-	-	1 ½"	DN 40	DN 50
AD 50 Bare Shaft	4	900	280	272	257	241	222	200	-	-	2"	DN 50	DN 60
AD 65 Bare Shaft	5	700	602	560	483	398	301	-	-	-	2 ½"	DN 65	DN 80

Frequency Converter Models (Wireless)

Model	Motor HP	Rpm	Flow Rate L / min								Ports		
			2 mt	5 mt	10 mt	15 mt	20 mt	25 mt	30 mt	35 mt	BSP-M	DIN 11851	GAROLLA
AD 40.1/05/TF/3.0HP/200-1400	3	300	60	55	45	-	-	-	-	-	1 ½"	DN 40	DN 50
		380	79	74	65	-	-	-	-	-			
		560	112	106	96	84	-	-	-	-			
		740	152	145	133	119	-	-	-	-			
		1000	200	192	177	161	144	124	-	-			
AD 50.1/05/TF/3.0HP/200-900	3	300	140	113	60	-	-	-	-	-	2"	DN 50	DN 60
		360	155	130	82	-	-	-	-	-			
		520	225	196	143	84	14	-	-	-			
		760	320	288	232	170	102	24	-	-			
		900	370	339	285	225	157	77	-	-			

Performances

Frequency Converter Models

Model	Motor HP	Rpm	Flow Rate L / min								Ports		
			2 mt	5 mt	10 mt	15 mt	20 mt	25 mt	30 mt	35 mt	BSP-M	DIN 11851	GAROLLA
AD 30/04/TF/1.0HP/200-1400	1	200	11	10	8	6	5	-	-	-	1 ¼"	DN 40	DN 40
		500	36	24	11	10	8	-	-	-			
		900	55	50	42	33	25	-	-	-			
		1400	75	70	61	55	46	23	-	-			
AD 30.1/04/TF/2.0HP/200-1400	2	200	21	20	18	-	-	-	-	-	1 ¼"	DN 40	DN 40
		450	46	43	41	38	33	-	-	-			
		700	71	69	63	61	51	46	-	-			
		1000	105	100	93	85	76	66	-	-			
		1400	146	135	121	105	91	75	55	-			
AD 40/04/TF/2.5HP/200-1400	2.5	200	25	21	16	15	10	8	-	-	1 ½"	DN 40	DN 50
		500	61	55	46	35	26	15	-	-			
		900	106	96	83	68	53	41	-	-			
		1400	170	158	141	121	103	85	-	-			
AD 40.1/04/TF/3.0HP/200-1400	3	300	63	53	46	-	-	-	-	-	1 ½"	DN 40	DN 50
		550	113	105	96	85	-	-	-	-			
		1000	200	191	175	161	146	125	-	-			
		1400	280	270	250	230	208	196	-	-			
AD 50.1/04/TF/3.0HP/200-900	3	350	150	116	83	48	10	-	-	-	2 "	DN 50	DN 60
		700	318	283	225	166	113	-	-	-			
		900	441	416	375	333	291	-	-	-			
AD 65/04/TF/5HP/200-700	5	200	146	125	93	65	-	-	-	-	2 ½"	DN 65	DN 80
		500	335	298	258	216	181	141	-	-			
		700	600	560	491	433	366	300	-	-			
AD 80/04/TF/6HP/190-700	6	200	300	266	200	133	83	16	-	-	3 "	DN 80	DN 100
		500	566	533	458	383	316	250	-	-			
		700	933	866	733	600	483	366	-	-			

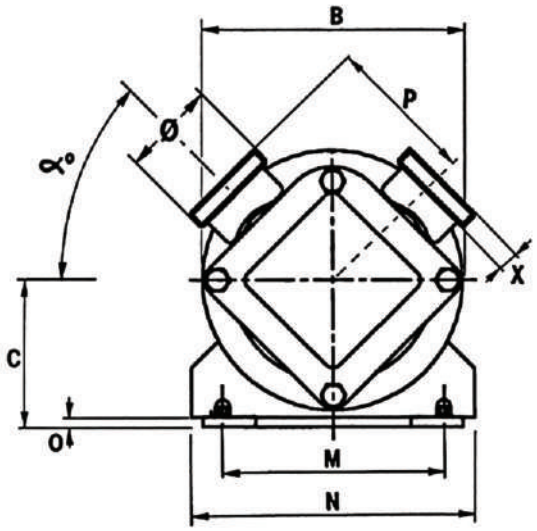
Performances

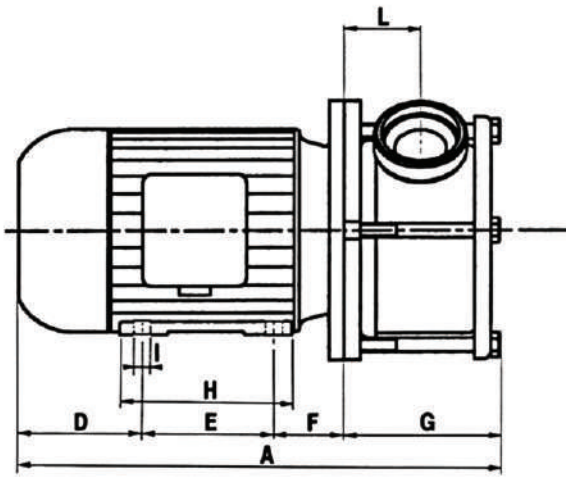
Mechanical Variator Models

Model	Motor HP	Rpm	Flow Rate L / min								Ports		
			2 mt	5 mt	10 mt	15 mt	20 mt	25 mt	30 mt	35 mt	BSP-M	DIN 11851	GAROLLA
AD 20.1/03/TF/2.0HP/200-1000	0,5	200	9	7	5	-	-	-	-	-	1 "	DN 25	DN 30
		320	14	12	10	-	-	-	-	-			
		450	18	16	14	11	8	-	-	-			
		600	25	23	21	17	13	10	-	-			
		850	36	34	32	28	24	19	-	-			
		100	44	40	35	33	28	22	0	-			
AD 30.1/03/TF/2.0HP/200-1000	1.5	200	21	20	19	-	-	-	-	-	1 ¼"	DN 40	DN 40
		320	33	32	29	-	-	-	-	-			
		450	46	44	41	37	33	29	-	-			
		600	62	60	55	51	45	39	-	-			
		700	72	69	64	59	53	46	-	-			
		850	88	85	78	72	65	56	-	-			
		1000	104	100	93	85	77	67	-	-			
AD 40.1/03/TF/3.0HP/190-1000	4	190	30	20	4	-	-	-	-	-	1 ½"	DN 40	DN 50
		340	65	55	38	21	-	-	-	-			
		500	90	82	68	53	38	21	-	-			
		660	130	121	105	90	75	59	-	-			
		1000	210	200	183	166	149	132	-	-			
AD 50.1/03/TF/4.0HP/190-900	4	190	80	68	46	16	-	-	-	-	2"	DN 50	DN 60
		340	135	121	94	61	17	-	-	-			
		500	196	179	147	111	68	13	-	-			
		900	345	321	279	231	174	101	-	-			
AD 80/03/TF/6HP/190-660	5.5	190	300	276	233	182	118	12	-	-	3"	DN 80	DN 100
		340	410	387	344	295	237	158	-	-			
		500	570	542	491	435	370	291	-	-			
		660	770	739	684	625	-	-	-	-			

Dimensions

Advanced Models

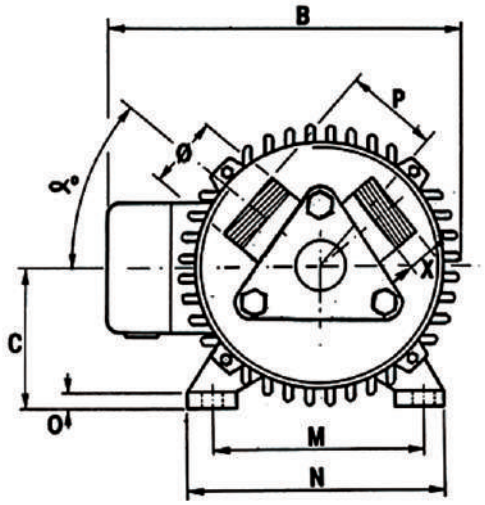


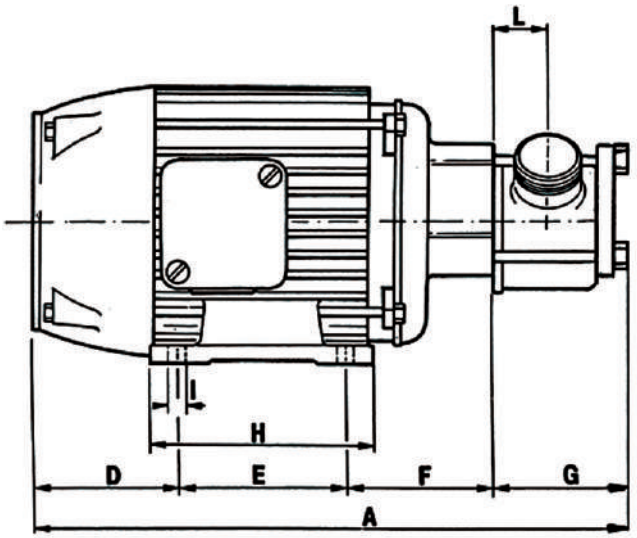


MODEL	Dimensions [mm]																		
	A	B	C	D	E	F	G	H	I	L	M	N	O	P	X	α	Ø BSP M	Ø DIN 11851	Φ GAROLLA
AD 20.1	315	160	72	90	90	45	91	105	7	53	112	132	10	56	13	45°	1"	DN 25	DN 30
AD 30.1	375	210	80	100	100	45	125	170	9	58	125	158	8	-	15	45°	1 ¼"	DN 40	DN 40
AD 40.1	430	250	130	103	140	65	135	170	12	37	165	195	47.2	160	20	45°	1 ½"	DN 40	DN 50
AD 50.1	435	250	115	100	140	70	125	170	11	54	190	231	11	110	17	45°	2"	DN 50	DN 60

Dimensions

Classic Models

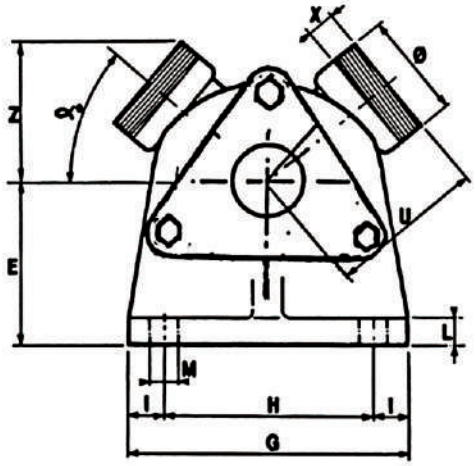


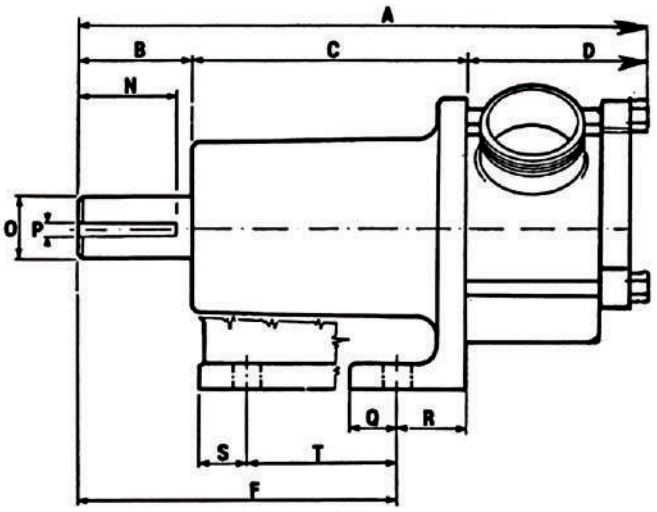


MODEL	MOTOR		Dimensions [mm]																	
	HP	RPM	A	B	C	D	E	F	G	H	I	L	M	N	O	P	X	α	Ø BSP M	Ø DIN 11851	Φ GAROLLA
AD 30	0.75	900	367	208	80	83	100	84	100	122	12	30	125	155	10	56	13	41°	1 ¼"	DN 40	DN 40
	1	1400																			
AD 40	1.5	900	445	256	99	98	140	91	116	170	17	35	160	198	14	71	15	33°	1 ½"	DN 40	DN 50
	2.5	1400																			
AD 50	3.5	700	629	337	124	147	180	145	157	225	20	54	218	256	18	92	17	40°	2"	DN 50	DN 60
	4	900																			
	6	1400	592	337	127	147	143	145	157	185	22	54	218	256	18	92	17	40°			
AD 65	5	700	587	269	132	158	178	98	164	218	12	65	216	256	17	122	15	45°	2 ½"	DN 65	DN 65
AD 80	6	700	660	250	134	190	140	120	235	218	13	85	215	261	16	160	22	45°	3"	DN 80	DN 100

Dimensions

Bare Shaft Models

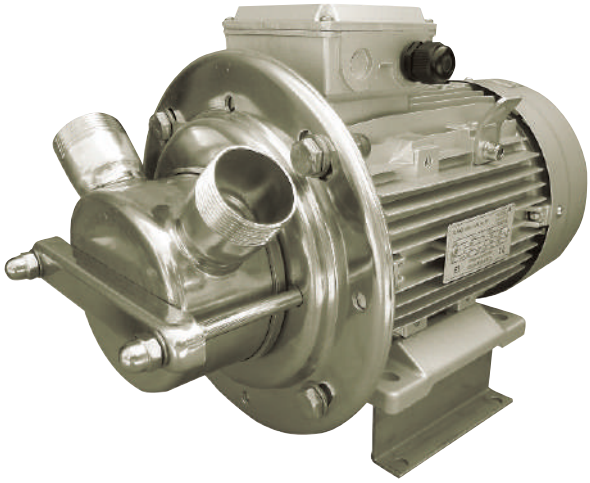




MODEL	Dimensions [mm]																						
	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R	S	T	U	X	Z	α	Ø BSP M	Ø DIN 11851	Φ GAROLLA
AD 30	250	65	82	103	57	117	113	80	14	15	9	40	25	6x6	20	30	-	-	56	13	47	41°	1 ¼"	DN 40	DN 40
AD 40	278	65	90	123	57	120	137	85	21	14	9	50	30	8x7	30	32	-	-	71	15	53	33°	1 ½"	DN 40	DN 50
AD 50	390	65	160	165	90	185	160	120	20	14	14	50	35	8x7	-	35	25	96	96	17	20	40°	2"	DN 50	DN 60
AD 65	360	48	174	135	90	172	160	120	20	14	14	40	35	8x7	-	35	25	96	140	21	130	40°	2 ½"	DN 65	DN 80

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