

Flygt Mix-Flush System

Model 4901



Pumping Services, Inc.
An Employee Owned Company

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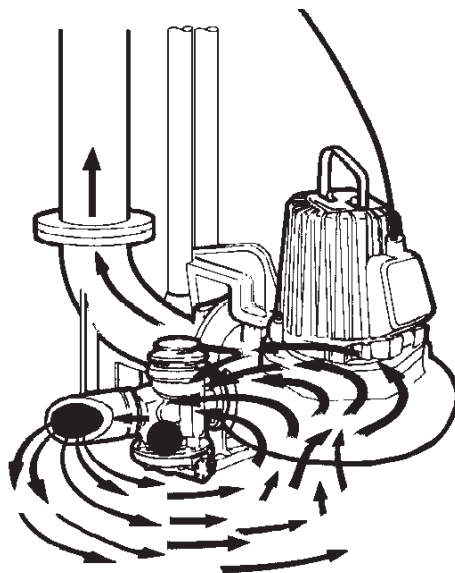


Model 4901 Flush Valve
(with 90° discharge elbow)
Part No. 556 51 01

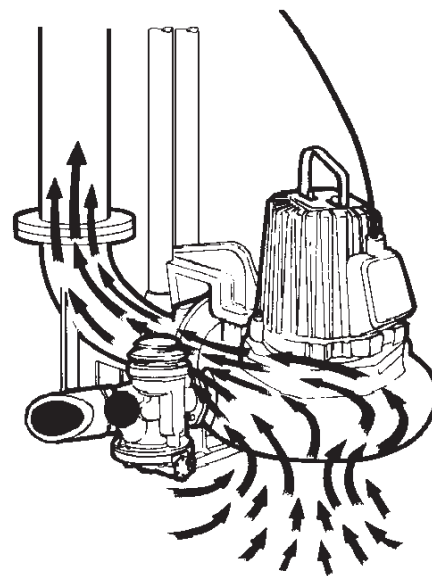
The Flygt Mix-Flush™ System automatically flushes the sump during initial operation of the pump. The system consists of the Flygt 4901 Flush Valve, Impeller and Volute. The operation of the valve depends only on the pump flow and pressure. No electrical components or cables are used with the valve. Thus, the valve is intrinsically safe and suitable for pumps used in hazardous locations Class 1, Division 1, Groups C and D.

The powerful stream of water exiting the valve violently churns up the liquid in the sump thus re-suspending any built up sludge.

The system is based on the ejector principle with a ball closing the valve in a period of 20 to 50 seconds. A means of adjustment is provided on the outside of the valve to obtain the desired flushing period.



Valve Open

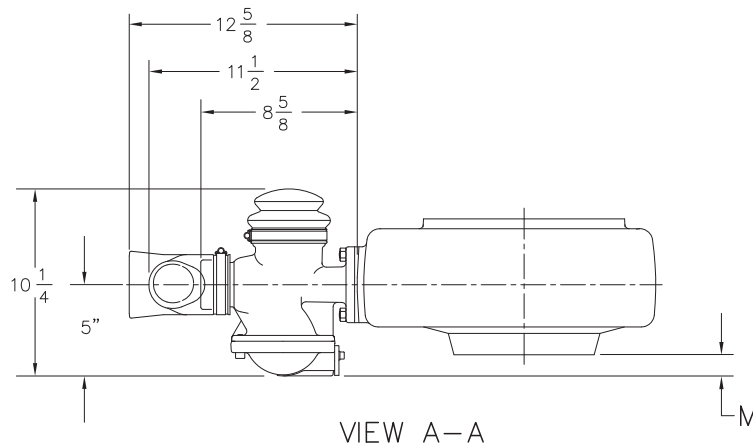
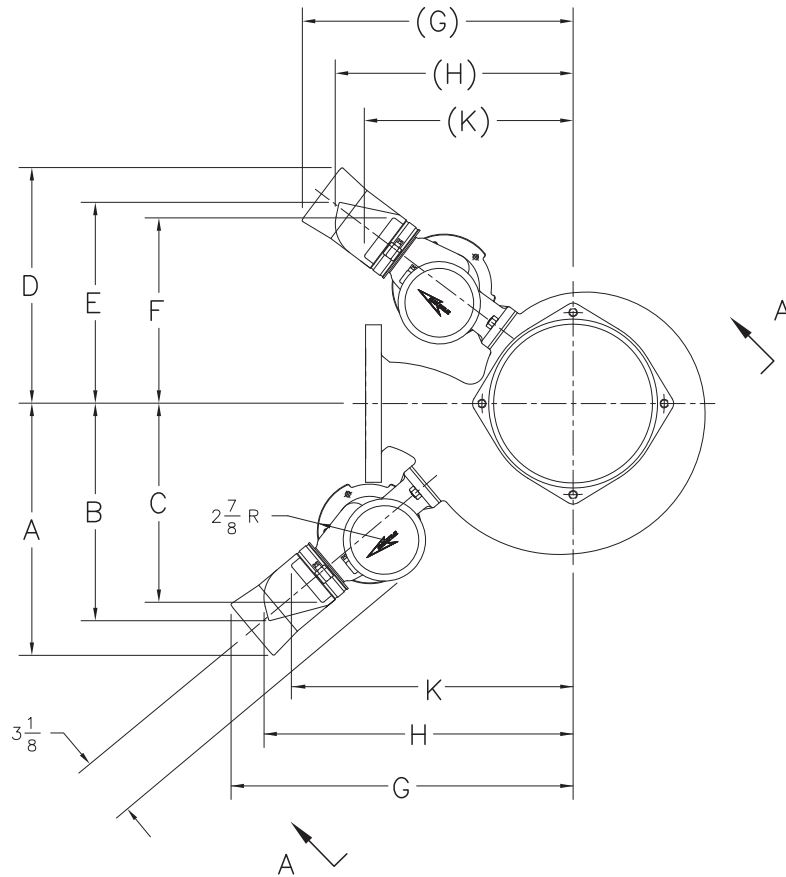


Valve Closed

Flygt Mix-Flush System

Mix-Flush Model 4901, With 90° Discharge Elbow

Standard Version, P/N 556 51 01 (Head must be above 10 feet, see individual curve)



* Flush Valve for Low Head Version, P/N 556 51 02 (Head must be above 7.5 feet and below 10 feet, see individual curve)

Note: Add 2" to Dimensions A & D and 2-3/8" to B & C when using valve with straight outlet pipe.

Flygt Mix-Flush System

Mix-Flush Model 4901, With 90° Discharge Elbow

Standard Version, P/N 556 51 01 (Head must be above 10 feet, see individual curve)

Model	Pump Housing	Pressure	A	B	C	D	E	F	G	H	K	M
3085	37975xx	LT	15 1/4	13 5/8	11 1/2				15	16 5/8	12 7/8	3/4
	38399xx	LT	13 7/8	11 7/8	11				18 7/8	17 1/8	15 5/8	1 1/4
	39890xx	MT	15	13 1/4	11 5/8				15 1/2	14	13	1 3/4
	40844xx	HT	15 3/8	13 7/8	11 1/2				12 3/8	11 1/8	10 1/2	2 5/8
	43534xx	LT	14 3/4	13	11 5/8				16 3/8	14 5/8	13 3/8	1/2
	52147xx	MT	14	12	11				15 3/4	13 7/8	12 3/8	7/8
	69328xx	MT	15	13 1/4	11 5/8				15 5/8	14	12 7/8	1 3/4
	71937xx	SH	6 5/8	5 3/4	5 1/2				19 5/8	18 1/4	15 5/8	1 3/8
72455xx	MT	20 1/8	19	16 1/8				4 3/8	4 1/8	3 7/8	1 3/4	
3102	30324xx	MT	13	11 1/8	10 3/8				18 1/4	16 3/8	14 3/4	7/8
	30335xx	LT	15 3/8	13 3/8	12 1/8				17 5/8	15 7/8	14 1/2	1 1/8
	38399xx	LT	13 7/8	11 7/8	11				18 7/8	17	15 1/2	1 1/8
	38732xx	HT/SH	14 3/4	13 5/8	10 3/4				11 5/8	11 5/8	11 5/8	1 3/4
	42962xx	MT	14 1/2	12 5/8	11 3/8				16 5/8	14 3/4	13 1/2	
	43534xx	LT	14 7/8	13	11 5/8				16 1/8	14 3/8	13 1/8	1/2
3127	30925xx	MT	15 5/8	13 5/8	12 5/8				18 7/8	17	15 5/8	1/8
	30926xx	HT/SH	15	13 3/8	11 1/8				14 7/8	13 3/4	13 1/8	1 3/8
	30927xx	LT				14 1/4	12 3/8	11 3/8	15 5/8	13 3/4	12 3/8	3/8
	30959xx	HT	14 1/4	12 3/8	11 1/8				18 3/4	16 7/8	15 1/2	2 1/4
	42644xx	MT	14 1/2	12 1/2	11 1/2				18 1/4	16 3/8	15	1/4
	43532xx	LT	16	14 1/8	12 7/8				18 3/8	16 1/2	15 1/4	
	46514xx	HT	16 1/4	14 1/4	13 1/4				17 3/4	16	14 1/2	1/2
3140	42960xx	MT				15 5/8	13 3/4	12 5/8	17 1/8	15 3/8	13 7/8	
	38105xx	LT				15	13 1/8	12 3/8	17 3/4	15 7/8	14 1/4	
	41209xx	MT	15 1/2	13 5/8	12 7/8				21 5/8	19 5/8	18 1/8	
	42961xx	MT				15 5/8	13 3/4	12 5/8	17 1/8	15 3/8	13 7/8	2 3/8
	55601xx	HT	15 3/4	13 7/8	12 3/4				18 1/4	16 3/8	14 7/8	1/2
	55601xx	HT	16 1/4	14 1/2	13 1/4				17 3/4	15 7/8	14 3/8	
3152	39101xx	HT	14	12	11 3/8				20 3/4	18 7/8	17 1/8	1/4
	40851xx	HT/SH	15 1/4	13 1/4	12 1/4				19 1/4	17 1/2	16	1/2
	41209xx	MT	15 1/2	13 5/8	12 7/8				21 5/8	19 5/8	18 1/8	
	43796xx	LT				17	15 1/8	13 7/8	17	15 1/4	13 7/8	3
	42961xx	MT				15 5/8	13 3/4	12 5/8	17 1/8	15 3/8	13 7/8	2 3/8
	55601x	HT	15 3/4	13 7/8	12 3/4				18 1/4	16 3/8	14 7/8	1/2
	60650xx	MT	15 1/2	13 5/8	12 7/8				21 5/8	19 5/8	18 1/8	1 3/4
3153	64362xx	HT				14 1/2	12 5/8	11 3/4	16 3/4	14 7/8	13 1/2	3/4
	64363xx	MT				14 1/2	12 5/8	11 3/4	16 3/4	14 7/8	13 1/2	3/4
	64364xx	LT				14 1/2	12 5/8	11 3/4	16 3/4	14 7/8	13 1/2	3/4
	65478xx	LT				16 7/8	14 7/8	13 3/4	16 7/8	15	13 3/4	
	68127xx	SH				15 3/4	13 7/8	12 1/2	15 3/4	13 7/8	12 1/2	1 1/8
	70227xx	MT				14 5/8	12 5/8	11 3/4	16 7/8	15	13 5/8	1/4
	70281xx	HT				14 5/8	12 5/8	11 3/4	16 7/8	15	13 5/8	7/8
	70284xx	SHT				15 3/4	13 7/8	12 5/8	15 3/4	13 7/8	12 5/8	7/8
	70287xx	LT 4pol				12 1/2	14 5/8	13 3/8	16 1/2	14 5/8	13 3/8	1 3/8
	70465xx	LT 6pol				17	15	13 7/8	17	15 1/8	13 7/8	2
3170	52121xx	LT	17 5/8	15 5/8	15				26 3/8	24 1/2	22 7/8	
	53523xx	MT				17	15 1/8	14	18 1/8	16 1/4	14 7/8	
	53530xx	HT				17 1/2	15 5/8	14 3/8	17 1/2	15 5/8	14 3/8	
	64915xx	MT				17	15 1/8	14	18 1/8	16 1/4	14 7/8	

* Flush Valve for Low Head Version, P/N 556 51 02 (Head must be above 7.5 feet and below 10 feet, see individual curve).

Note: Add 2" to Dimensions A & D and 2-3/8" to B & C when using valve with straight outlet pipe.

Flygt Mix-Flush System

Mix-Flush Model 4901, With 90° Discharge Elbow

Standard Version, P/N 556 51 01 (Head must be above 10 feet, see individual curve)

Model	Pump Housing	Pressure	A	B	C	D	E	F	G	H	K	M
3171	65098xx	HT				15 3/8	13 1/2	12 1/2	17 7/8	16 1/8	14 5/8	1/2
	65099xx	MT				15 3/8	13 1/2	12 1/2	17 7/8	16 1/8	14 5/8	
	66594xx	LT				17 5/8	15 3/4	14 3/8	17 5/8	15 3/4	14 3/8	
	68130xx	SH				16 3/4	14 7/8	13 5/8	16 3/4	15	13 5/8	
	70401xx	MT				15 1/2	13 5/8	12 5/8	18	16 1/8	14 3/4	1/4
	70408xx	HT				15 1/2	13 5/8	12 5/8	18	16 1/8	14 3/4	5/8
	70461xx	SHT				16 7/8	14 7/8	13 3/4	16 7/8	15	13 3/4	5/8
	70468xx	LT				16 7/8	15 3/4	14 1/2	17 5/8	15 3/4	14 1/2	3 1/8
3201	14-582402	SHH				17 1/2	15 5/8	14 3/8	17 1/2	15 3/4	14 3/8	
	38424xx	MT	17 1/4	15 3/8	14 3/4				26 5/8	14 5/8	23	3
	41211xx	HT				15 1/8	13 3/8	12 1/2	19 1/2	17 1/2	16	1
	43790xx	LT	18 3/4	16 7/8	16 1/8				29 5/8	27 5/8	26	4 3/8
	56244xx	SH	18 1/8	16 1/8	14 7/8				17 1/2	15 5/8	14 3/8	3 1/4
3202	60577xx	HT				18 1/8	16 1/4	14 7/8	18 1/8	16 1/4	14 7/8	
	60743xx	MT 50Hz				16 5/8	14 5/8	13 3/4	19 3/8	17 1/2	16	
	60744xx	MT				16 5/8	14 5/8	13 3/4	19 3/8	17 1/2	16	
	60784xx	HT				16 3/8	14 1/2	13 1/2	19 1/8	17 1/4	15 3/4	
	65112xx	LT				18 7/8	17	15 3/4	18 7/8	17 1/8	15 3/4	
	70425xx	HT				18 1/8	16 1/8	14 7/8	18 1/8	16 1/8	14 7/8	3/4
	70442xx	HT 60Hz				18 1/4	16 1/4	15	18 1/4	16 1/4	15	3/4
	70449xx	MT 50Hz				16 3/4	14 3/4	13 7/8	19 3/8	17 1/2	16 1/8	1 3/8
	70452xx	MT 60Hz				16 3/4	14 3/4	13 7/8	19 3/8	17 1/2	16 1/8	1 5/8
	70471xx	LT				19	17	15 7/8	19	17 1/8	15 7/8	4 1/8
3300	31930xx	MT				16 1/2	14 1/2	13 7/8	22 1/2	20 5/8	18 7/8	2 3/4
	31934xx	LT				16 3/8	14 3/8	13 5/8	20 7/8	18 7/8	17 3/8	1 3/4
	31936xx	HT	16 7/8	15	13 3/4				23 5/8	21 3/4	20 3/8	7/8
3301	60864xx	HT				19 1/4	17 3/8	16	19 1/4	17 3/8	16	
	60870xx	MT				19 3/8	17 1/2	16 1/8	19 3/8	17 1/2	16 1/8	
	66635xx	LT				19 1/2	17 5/8	16 1/4	19 1/2	17 5/8	16 1/4	
	66636xx	LT				20 3/8	18 5/8	17 1/4	20 3/8	18 5/8	17 1/4	
	70455xx	MT				19 3/8	17 1/2	16 1/4	19 3/8	17 1/2	16 1/4	4 1/8
	70458xx	HT				19 1/4	17 3/8	16 1/8	19 1/4	17 3/8	16 1/8	1 7/8
	70474xx	LT 6pol				18 3/4	17 5/8	16 3/8	19 1/2	17 5/8	16 3/8	4 1/4
	70477xx	LT 8pol				20 1/2	18 5/8	17 3/8	20 1/2	18 5/8	17 3/8	4 7/8
3315	70455xx	MT				19 3/8	17 1/2	16 1/4	19 3/8	17 1/2	16 1/4	4 1/8
	70474xx	LT 6pol				18 3/4	17 5/8	16 3/8	19 1/2	17 5/8	16 3/8	4 1/4
	70477xx	LT 8pol				20 1/2	18 5/8	17 3/8	20 1/2	18 5/8	17 3/8	4 7/8
	70458xx	HT										

* Flush Valve for Low Head Version, P/N 556 51 02 (Head must be above 7.5 feet and below 10 feet, see individual curve)

Note: Add 2" to Dimensions A & D and 2-3/8" to B & C when using valve with straight outlet pipe.

Flygt Mix-Flush System

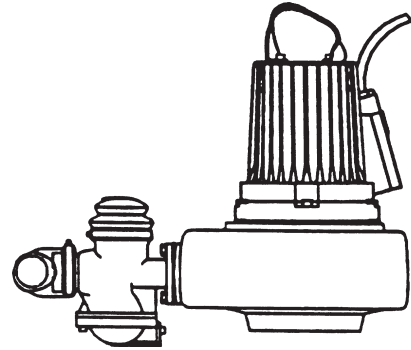
Mix-Flush Valve Specification

At least one pump in each sump shall be equipped with an automatically operating valve that will provide a mixing action within the sump at the start-up of the pumping cycle.

This valve shall be mounted directly on the pump volute and shall direct a portion of the pumpage into the sump to flush and re-suspend solids and grease by the turbulent action of its-discharge. The turbulent action caused by the flow shall also provide some sump aeration benefits. The valve shall be mounted on the pump volute so that it can be removed from the sump along with the pump during normal and routine maintenance checks and shall be positioned on the volute to provide for non-clogging operation. The valve shall be equipped with an adjustable, wear-resistant discharge nozzle which shall be used to direct flow from the valve to optimize mixing action within the sump.

The valve shall not require any external power source or control to operate, neither electric nor pneumatic. The use of the external power source is not acceptable. The valve shall be suitable for use in Class I, Division 1 hazardous locations.

The valve shall open at the beginning of each pumping cycle and shall automatically close during pump operation after a pre-selected time of operation. The valve shall operate automatically by differential pressure across the valve and shall be actuated through a self-contained hydraulic system which uses an environmentally safe fluid. A method of adjusting the valve operating time shall be provided.



Flygt Grinder Pump Mix-Flush System

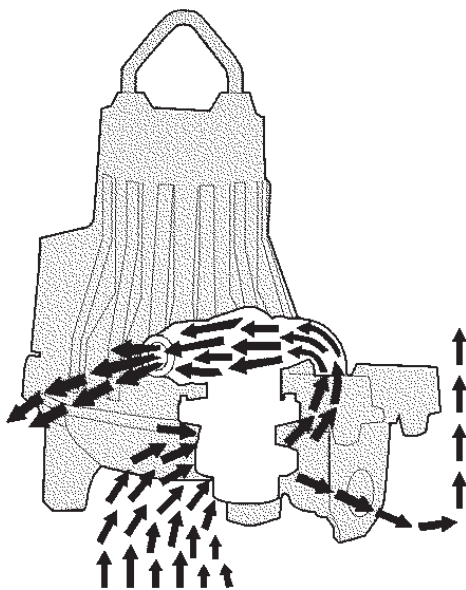
Model 4910



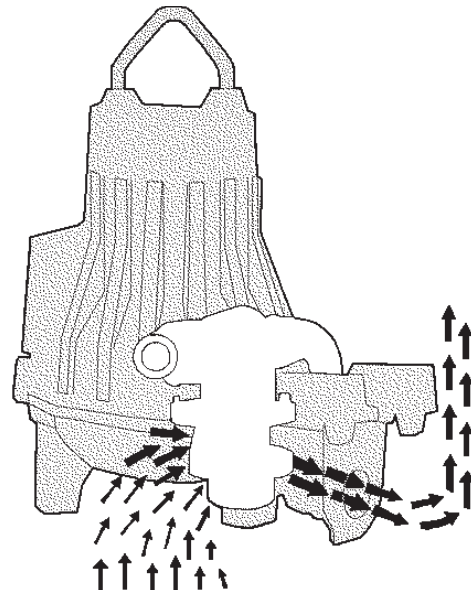
Model 4910 Flush Valve
Part No. 601 91 00

The Flygt Mix-Flush™ System automatically flushes accumulated fats and solids into suspension during initial operation of the pump. The system consists of the Flygt 4910 Flush Valve, Impeller and Volute. The operation of the valve depends only on the pump flow and pressure. No electrical components or cables are used with the valve. Thus, the valve is intrinsically safe and suitable for pumps used in hazardous locations Class 1, Division 1, Groups C and D.

At the start of each pumping cycle, the Flush Valve opens, and for approximately 20 seconds a powerful stream of water exiting the valve violently churns up the liquid in the sump thus re-suspending fat and built up sludge. As the valve closes, the pump begins its normal pumping action, draining off the sewage together with the re-suspended solids.



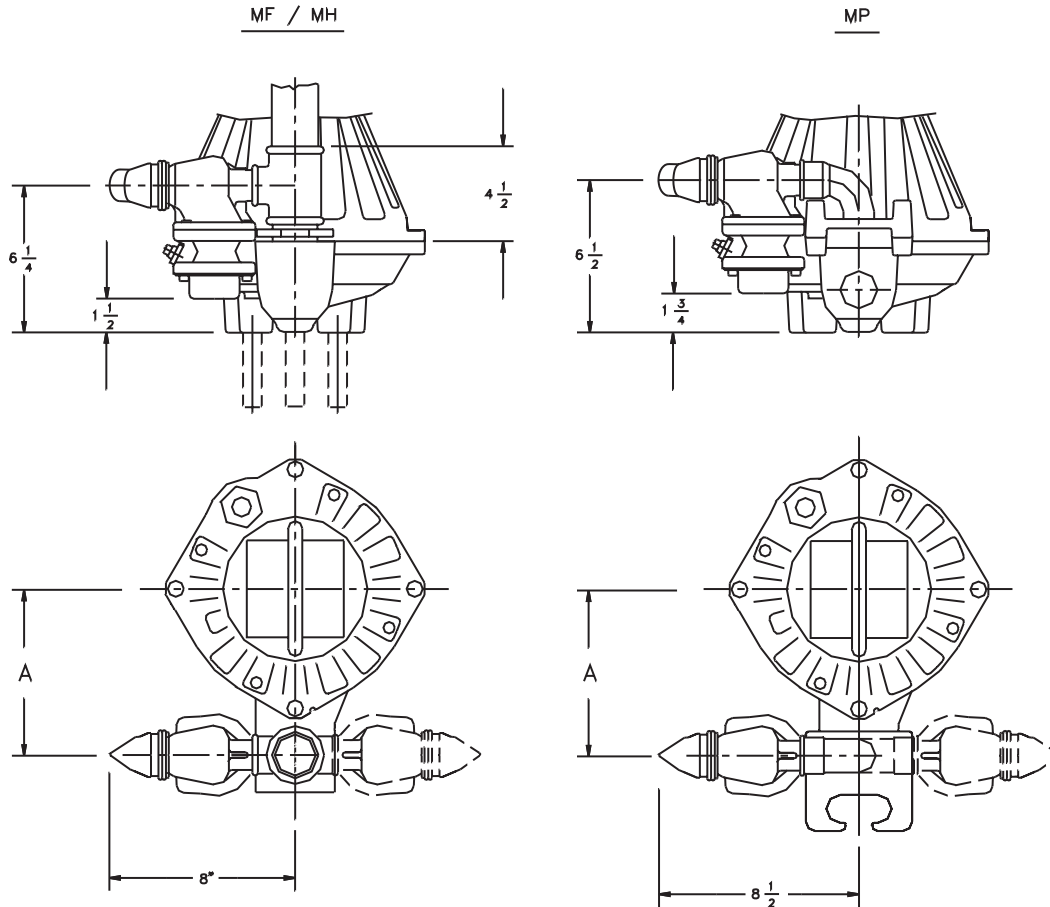
Valve Open



Valve Closed

Flygt Mix-Flush System

Grinder Pump Mix-Flush Valve - Model 4910



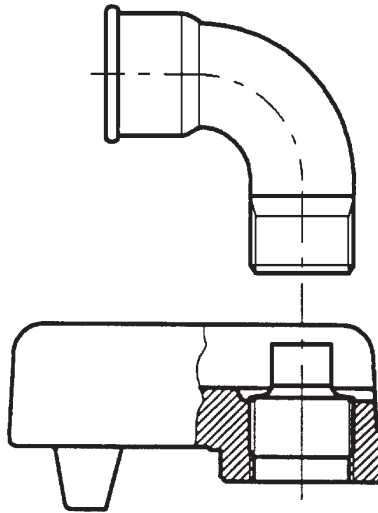
MODEL	DISCHARGE CONNECTION OUTLET SIZE	VERSION	VOLUTE	A	IMPELLER CODES
MP-3068	2"	HT	638 87 00	6"	214, 216, 218
MF-3068	1-1/2"	HT	638 85 00		
MP-3085	2"	HT	464 00 01	7"	249, 250, 252, 253 254, 257, 258, 259
MF-3085	1-1/2"	HT			
MH-3085	2"	HT			
MP-3102	2"	HT	464 00 00	7"	261, 262, 263, 267 210, 212, 216
MP-3102	2"	LT			
MF-3102	1-1/2"	HT			
MF-3102	2"	LT			
MP-3127	2"	HT	508 66 01	8-1/2"	262, 266 210, 212, 216
MP-3127	2"	LT			
MF-3127	2"	HT			
MF-3127	2"	LT			

Flygt Mix-Flush System

Grinder Pump Mix-Flush Valve Assembling Kits

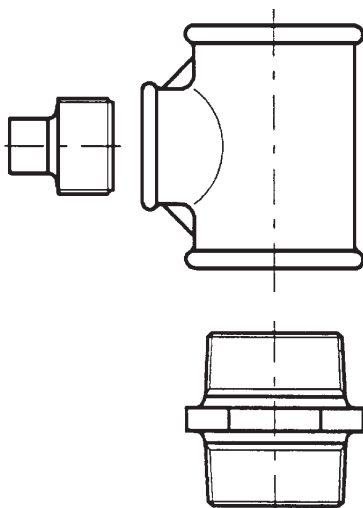
For: Model 4910 Mix-Flush Valve

**MP-3068
3085
3102
3127**



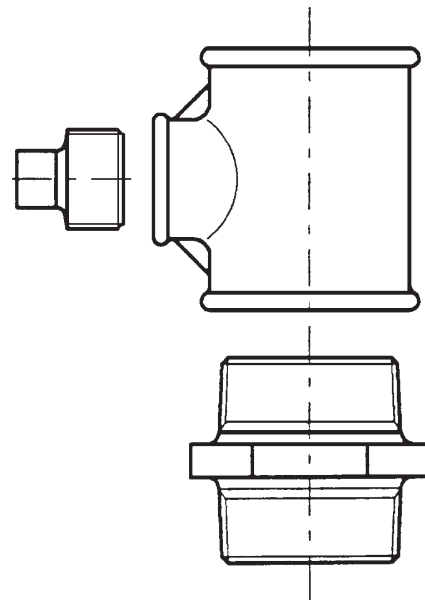
P/N: 620 11 00

**MF/MH-3085
MF-3068
3102 HT**



P/N: 620 11 01

**MF-3127
MF-3102 LT**



P/N: 620 11 02