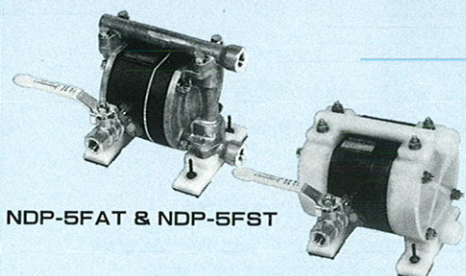
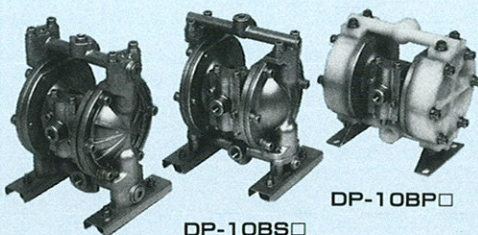


## AIR-OPERATED DOUBLE DIAPHRAGM PUMPS



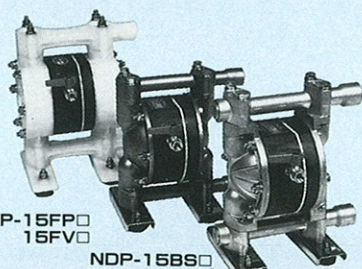
NDP-5FAT &amp; NDP-5FST

NDP-5FPT  
NDP-5FVT


DP-10BA□

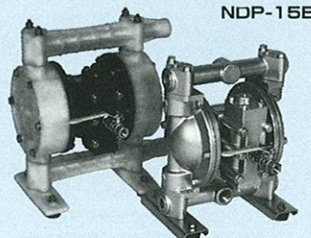
DP-10BS□

DP-10BP□

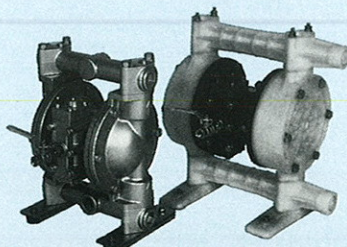

NDP-15FP□  
15FV□

NDP-15BS□

NDP-15BA□



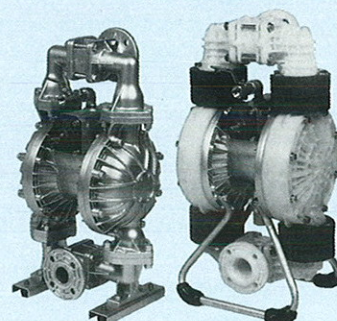
NDP-20BP□

NDP-20BA□  
20BS□

NDP-25BA□  
25BF□  
25BS□

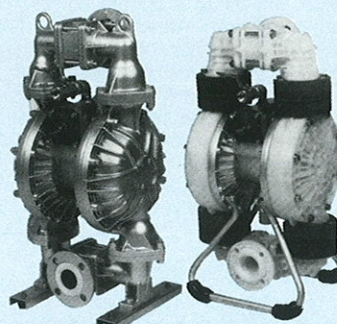
NDP-25BP□  
25BV□

PUMP MODEL	SIZE & MATERIAL	MAX. FLOW L/Min.	MAXIMUM PRESSURE kPa
NDP-5FPT	1/4"-PP/PTFE	10.6	480
NDP-5FAT	1/4"-AI/PTFE	11.5	650
NDP-5FST	1/4"-SS/PTFE	11.5	650
NDP-5FVT	1/4"-PVDF/PTFE	10.6	480
DP-10BPS	3/8"-PP/Santoprene	18	490
DP-10BAS	3/8"-AI/Santoprene	25.5	680
DP-10BSS	3/8"-SS/Santoprene	25.5	680
DP-10BPT	3/8"-PP/PTFE	18	490
DP-10BAT	3/8"-AI/PTFE	25.5	680
DP-10BST	3/8"-SS/PTFE	25.5	680
NDP-15FPS	1/2"-PP/Santoprene	48	480
NDP-15BAS	1/2"-AI/Santoprene	54	680
NDP-15BSS	1/2"-SS/Santoprene	54	680
NDP-15FPT	1/2"-PP/PTFE	48	480
NDP-15BAT	1/2"-AI/PTFE	54	680
NDP-15BST	1/2"-SS/PTFE	54	680
NDP-15FVT	1/2"-PVDF/PTFE	48	480
NDP-20BPS	3/4"-PP/Santoprene	110	480
NDP-20BAS	3/4"-AI/Santoprene	118	680
NDP-20BSS	3/4"-SS/Santoprene	118	680
NDP-20BPT	3/4"-PP/PTFE	98	480
NDP-20BAT	3/4"-AI/PTFE	104	680
NDP-20BST	3/4"-SS/PTFE	104	680
NDP-25BPS	1"-PP/Santoprene	155	490
NDP-25BAS	1"-AI/Santoprene	165	680
NDP-25BSS	1"-SS/Santoprene	165	680
NDP-25BPT	1"-PP/PTFE	160	490
NDP-25BAT	1"-AI/PTFE	165	680
NDP-25BST	1"-SS/PTFE	165	680
NDP-25BVT	1"-PVDF/PTFE	160	490
NDP-40BPS	1 1/2"-PP/Santoprene	390	480
NDP-40BAS	1 1/2"-AI/Santoprene	420	660
NDP-40BSS	1 1/2"-SS/Santoprene	435	680
NDP-40BPT	1 1/2"-PP/PTFE	390	470
NDP-40BAT	1 1/2"-AI/PTFE	370	690
NDP-40BST	1 1/2"-SS/PTFE	430	690
NDP-50BPS	2"-PP/Santoprene	550	480
NDP-50BAS	2"-AI/Santoprene	600	660
NDP-50BSS	2"-SS/Santoprene	670	680
NDP-50BPT	2"-PP/PTFE	430	460
NDP-50BAT	2"-AI/PTFE	450	650
NDP-50BST	2"-SS/PTFE	600	690
NDP-50BVT	2"-PVDF/PTFE	430	460
NDP-80BPS	3"-PP/Santoprene	720	480
NDP-80BAS	3"-AI/Santoprene	780	660
NDP-80BSS	3"-SS/Santoprene	850	680
NDP-80BPT	3"-PP/PTFE	590	470
NDP-80BAT	3"-AI/PTFE	640	690
NDP-80BST	3"-SS/PTFE	680	670

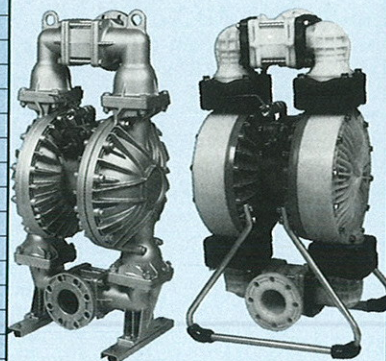
NOTE: Other materials of construction and diaphragm materials are available on request.


NDP-40BA□  
40BS□

NDP-40BP□


NDP-50BA□  
50BS□

NDP-50BP□


NDP-80BA□  
80BS□

NDP-80BP□



**Yamada has one of the most complete lines of pumps in the market. With sizes for 1/4" to 3" including 3/8" in materials like polypropylene, Kynar<sup>®</sup>, Cast Iron, Stainless Steel, Aluminum, and solid PTFE, we can accommodate any pumping need.**

## ADVANTAGES

### Extended Performance Diaphragm

All Yamada diaphragms are manufactured from high quality, virgin materials. As a result, they last up to twice as long as diaphragms found in many competitive pumps.

### Versatile Material Handling Ability: Hi-Lo Viscous, Alkali or Acid.

Pumps any product that flows or moves along a pipe from clear water and thin volatile liquids to highly viscous and abrasive or chemically aggressive materials; e.g. Adhesives, Asphalt, Bitumen, Emulsion, Latex, Resins and Polymers as well as Organic and Inorganic chemicals; virtually any product found in every industrial application.

### Minimum Maintenance Excellent Wear Resistance

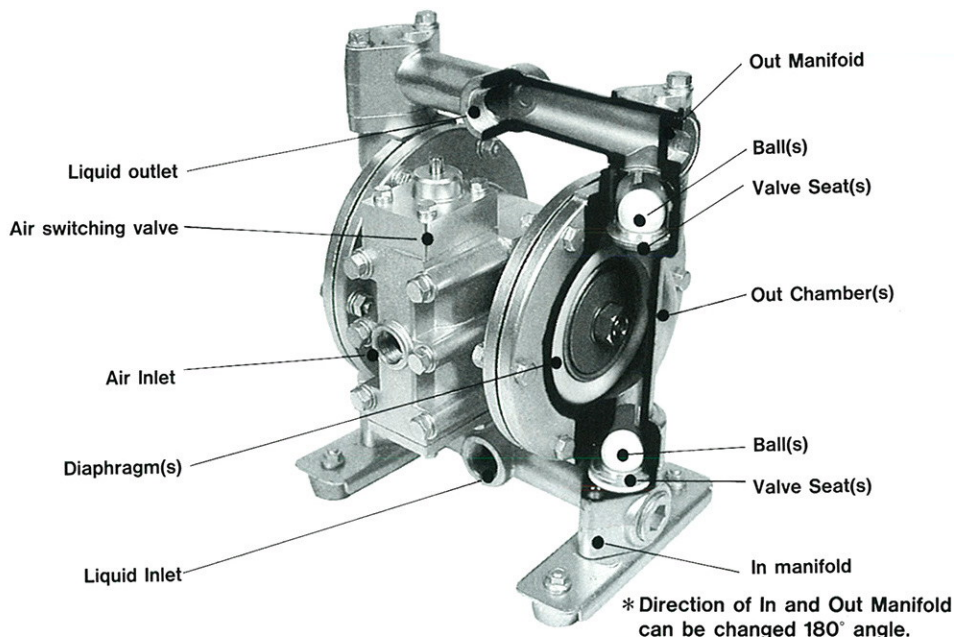
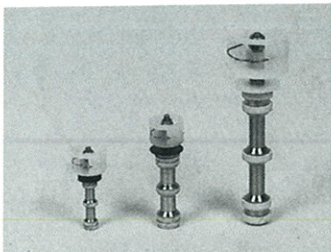
Without moving parts in contact with the liquids or rotating parts to wear, the pump is almost maintenance free. Abrasive and erosive materials can be handled without problems. Main consumable parts are diaphragms, ball valves and ball valve seats only. When it becomes necessary to replace these parts, the operation can be carried out on the spot by a competent fitter easily within 30 minutes.

### Non-Lube Air Valve

The patented air valve on all Yamada NDP-series pumps never needs lubrication. Plus it is easily replaced without disassembling the pump (Patent # 5,002,468)

### Non-Stalling Air Valve

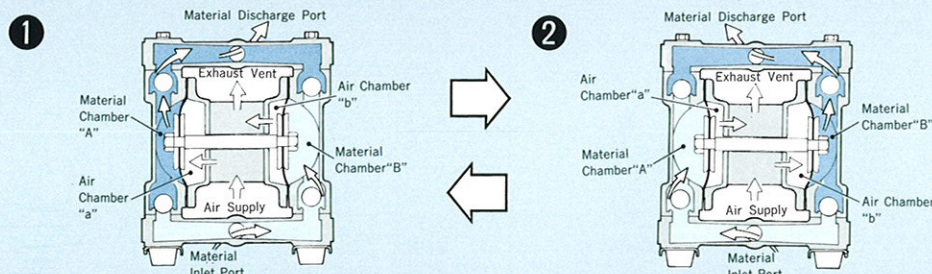
Patented design (Patent # 5,002,469) eliminates stalling. Special non-centering, spring loaded shifters ensure consistent, positive switching every stroke.



## DIAPHRAGM PUMP OPERATING PRINCIPLES

### OPERATING PRINCIPLE

YAMADA Diaphragm Pumps are simple in operating principle. Two diaphragms fixed to both ends of a center rod, actuated by air pressure, pump the material. Compressed air enters the Air chamber "a" (shown on the diagram under) moving the Center rod to the left, forcing the material out of the material chamber "A" while the material is drawn into the material chamber "B". When the Center rod is at full stroke to the left, the air transfer switch valve changes supplying air into the air chamber "b". The Center rod then moves right, forcing out the material from the material chamber "B", at the same time, drawing more material into the material chamber "A". Continual movement of the material is achieved by repeating the operation.



### Air Drive Intrinsically Safe

SPARKLESS conditions are essential in hazardous areas. So the power source of compressed air is most suitable for operation in potentially explosive environments. Also suitable for pumping volatile or inflammable liquids without special explosion protection measures. Free from electrical hazards; even handle radio active waste with appropriate safeguards. No exhaust fumes provide pollution free operation.

### Dry Start Self Priming

Completely self priming from a dry start, with suction lifts not exceeding 5 meters on fresh water. The dry running capability enables safe installations to be made where the liquid supply is likely to be made intermittent. If source runs dry, the pump continues to operate without damage by overheating or friction wear until further liquid is available. The pump may also be completely submerged or installed under flooded suction conditions.

### Flow Control Simple and Safe

Infinitely variable flow control can be simply by opening or closing a valve on the discharge, or by increasing or decreasing the air supply.

### High Lift, Distance Transfer Permissible

The pump being 1:1 ratio, discharge pressures equal to the air inlet pressure. Therefore, the maximum pressure of 0.7MPa or 7kg/cm<sup>2</sup> enables the pump to transfer to a high or distant place.

EXPORTER:

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