

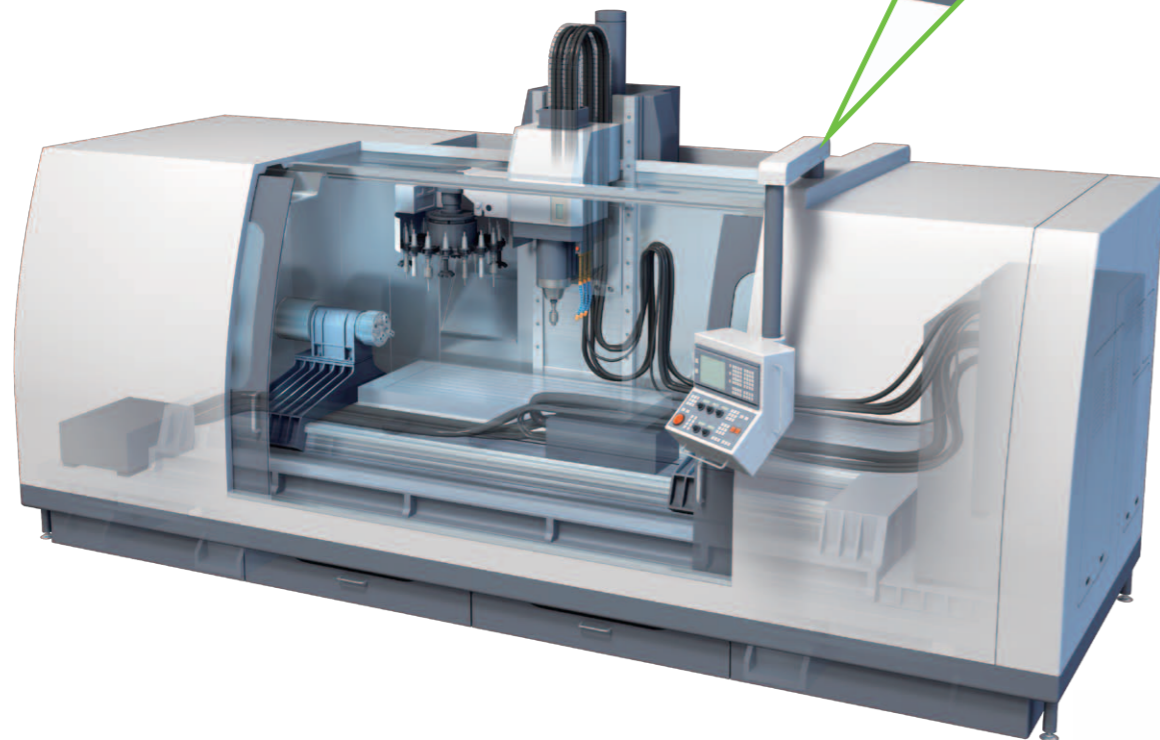
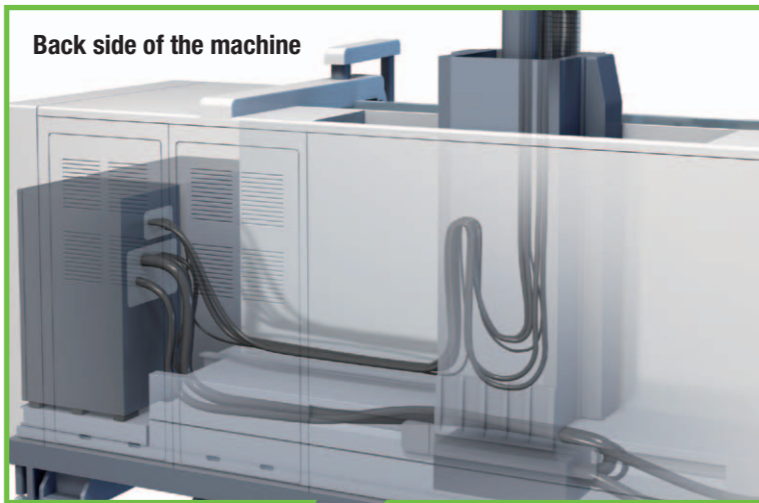
► Use/Application

General hydraulic equipment

Machine tools

- Hydraulic piping
- Coolant piping

Back side of the machine



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16033000S

The specification is subject to change for improvement without notice.

Super-flexible resin hose

Linemate™
LB70 Series

— *More flexible, more compact* —

- ▶ 15-25% more flexible than standard resin hose
- ▶ Short coupling length allows for compact piping
- ▶ Lightweight resin hose
- ▶ Excellent wear resistance
- ▶ Clean hose reduces environmental impact



NITTA CORPORATION

Nitta's super-flexible and highly compact resin hose

Super-flexible resin hose

Linemate™

LB70 Series

Most flexible

LB70 is Nitta's most flexible resin hose. It is responsive and easy to route through even the most complicated of layouts.

Lightweight

At 1/2 to 1/4 the weight of rubber hose, LB70 allows for reduced weight on equipment, leading to significant energy savings.

Compact

With a smaller outer diameter than wire-braided rubber hose, LB70 can be routed easily even in narrow places, allowing for use in more compact equipment.

Wear resistance

Featuring a polyurethane cover as its outer shell, LB70 has excellent wear resistance, reducing hose replacement frequency.

Bending radius

Since synthetic fibers are used in its reinforced layer, LB70 is resistant to repetitive bending and impact, with little flexing fatigue. In addition, it can be used at a smaller radius than wire-braided hose.



Operating temperature range (04 to 12 size): -40°C to +100°C
(16 size): -40°C to +70°C
Applicable fluid: General mineral-based hydraulic fluid, various coolants
Standard length: 04 to 08 size → 100m, 10 to 16 size → 50m

Dimensions and specifications

Part No.	Size			Max. operating pressure (MPa)	Max. impulsive pressure (MPa)	Min. burst pressure (MPa) (20°C)	Min. bending radius (mm)	Weight (g/m)
	Size No.	I.D. (mm)	O.D. (mm)					
LB70-04	04	6.4	10.5	7.0	8.8	28.0	27	60
LB70-06	06	9.5	13.9	7.0	8.8	28.0	45	90
LB70-08	08	12.7	17.4	7.0	8.8	28.0	70	120
*LB70-10	10	15.9	22.8	7.0	8.8	28.0	100	230
LB70-12	12	19.2	26.6	7.0	8.8	28.0	130	270
LB70-16	16	25.7	33.4	7.0	8.8	28.0	165	370

*Made-to-order product

**1000psi

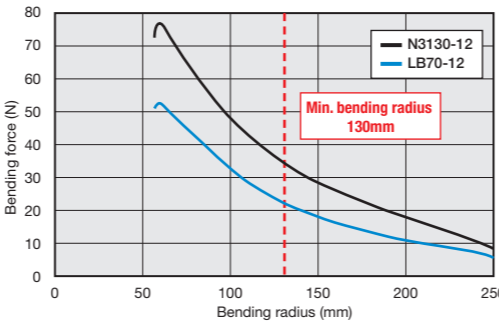
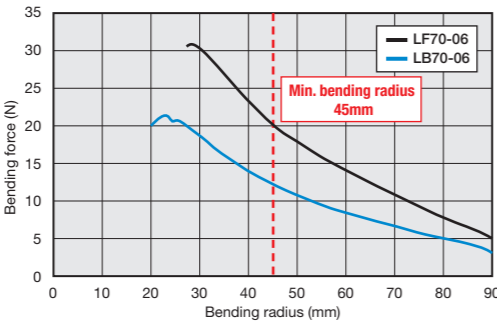
**1250psi

**4000psi

Flexibility test

Starting from a 180° bend, bending radius of hose is gradually decreased on test equipment to compare bending radius against bending force.

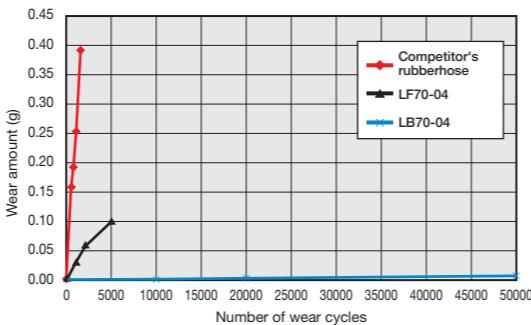
<Test conditions>
Test speed: 100mm/min Temperature: Normal temperature



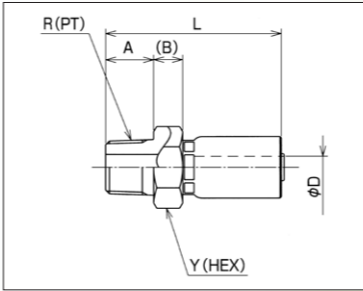
Wear test (grindstone)

The weight of a 150mm length of hose is measured after one week in a room with constant temperature and humidity. Then, the hose is placed onto testing equipment, held by a rod at the bottom, with a grinding stone against the upper surface. The hose is subjected to a set number of wear cycles, after which it is again weighed (following a one week period in a room with constant temperature and humidity). The changes to the hose after testing are then examined to form a wear comparison.

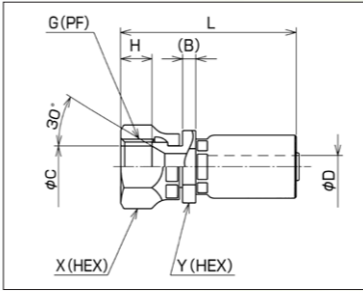
<Test conditions>
Test load: 2.5 kg Temperature: Normal temperature (23°C) Stroke: 100m
Cycle: 20 times (both ways) Grind stone: Grinding wheel for taper wear H-22 (particle size: Approx. 60)



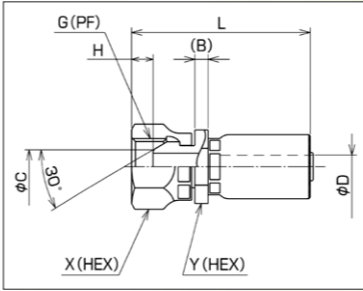
SA



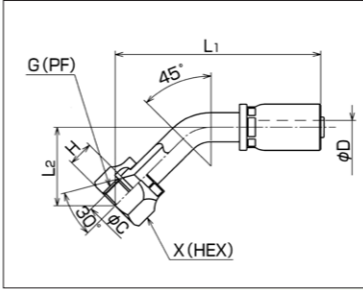
SE



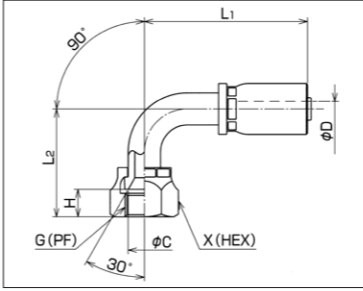
SF



AE45



AE90



Part No.	Size No.	R	A	B	Min. I.D. øD	L	Y (HEX)	Weight (g)	Pusher	Die
SA-PT-04-14	04	1/4	13	8.5	3.5	50	19	43	PSA-04	SP14-04-07
SA-PT-06-14	06	3/8	15	9.0	6.8	54	22	72	PSA-06	SP14-06-07
SA-PT-08-14	08	1/2	18	10.0	9.5	61	27	115	PSA-08	SP14-08
SA-PT-10-N30	10	3/4	20	10.0	13.0	80	32	180	PSA-10	SP07-10
SA-PT-12	12	3/4	20	10.0	16.0	82	36	220	PSA-12	SP3-12
SA-PT-16	16	1	23	10.0	20.9	100	41	340	PSA-16	SP07-16

Part No.	Size No.	G	B	C	Min. I.D. øD	H	L	X (HEX)	Y (HEX)	Weight (g)	Pusher	Die
SE-PF-04-14	04	1/4	4.0	9.3	3.5	8.0	49	19	17	55	PSE14-04	SP14-04-07
SE-PF-06-14	06	3/8	4.0	12.3	6.8	9.5	53	22	19	75	PSE14-06	SP14-06-07
SE-PF-08-14	08	1/2	4.5	16.0	9.5	12.0	61	27	24	125	PSE14-08	SP14-08
SE-PF-10-N30	10	3/4	10.5	21.0	13.1	13.0	84	32	32	220	PSE-10	SP07-10
SE-PF-12	12	3/4	10.5	21.5	16.0	13.0	87	36	36	280	PSE-12	SP3-12
SE-PF-16	16	1	11.0	27.5	20.9	15.0	105	41	41	400	PSE-16	SP07-16

Part No.	Size No.	G	B	C	Min. I.D. øD	H	L	X (HEX)	Y (HEX)	Weight (g)	Pusher	Die
SF-PF-04-14	04	1/4	4.0	7.5	3.5	5.5	49	19	17	55	PSE14-04	SP14-04-07
SF-PF-06-14	06	3/8	4.0	10.0	6.8	6.5	53	22	19	75	PSE14-06	SP14-06-07
SF-PF-08-14	08	1/2	4.5	13.2	9.5	9.0	61	27	24	125	PSE14-08	SP14-08
SF-PF-10-N30	10	3/4	10.5	19.0	13.1	9.5	84	32	32	220	PSE-10	SP07-10
SF-PF-12	12	3/4	10.5	19.0	16.0	9.5	87	36	36	280	PSE-12	SP3-12
SF-PF-16	16	1	11.0	25.4	20.9	10.0	105	41	41	410	PSE-16	SP07-16

Part No.	Size No.	G	C	Min. I.D. øD	H	L1	L2	X (HEX)	Weight (g)	Pusher	Die
AE45-G-04-14	04	1/4	9.0	3.2	8.0	61	18	19	57	PFB-01+PA-04	SP14-04-07
AE45-G-06-14	06	3/8	12.0	5.6	9.5	74	25	22	90	PFB-01+PA-06	SP14-06-07
AE45-G-08-14	08	1/2	15.5	8.7	12.0	87	29	27	143	PFB-01+PA-08	SP14-08

*Male seat type also available.

Part No.	Size No.	G	C	Min. I.D. øD	H	L1	L2	X (HEX)	Weight (g)	Pusher	Die
AE90-G-04-14	04	1/4	9.0	3.2	8.0	51	33	19	59	PFB-01+PA-04	SP14-04-07
AE90-G-06-14	06	3/8	12.0	5.6	9.5	61	45	22	98	PFB-01+PA-06	SP14-06-07
AE90-G-08-14	08	1/2	15.5	8.7	12.0	68	52	27	153	PFB-01+PA-08	SP14-08

*Male seat type also available.