

Flex and Rigid Lances



NLB **flexible lances** make pipe and tube cleaning a breeze, snaking around bends and curves to remove even hardened deposits. For straight pipes and tubes (heat exchangers, boilers, etc.), we also offer **rigid lances**. Both reduce risk of injury by putting distance between operators and the water jets (up to 40,000 psi, or 2,800 bar).

Following the five pages of lances and **couplings** are **rotary hand lances**. Then come accessories

to help protect operators from nozzles rebounding unexpectedly out of the pipe, such as **flex lance guards** and **back-out preventers**. A **stinger**, which blocks the opening when needed, is another option; please consult NLB for lengths and diameters.

After this section, you'll find NLB's vast selection of **tube and pipe nozzles**, designed for use with flex and rigid lances.

CHOICES FOR EVERY I.D. AND OPERATING PRESSURE

NLB flex lances have been proven time and again over the past 35 years. Key features include smooth inner core that minimizes pressure drop and a compact end connection to handle a tight bend radius.

RP hose has an abrasion-resistant

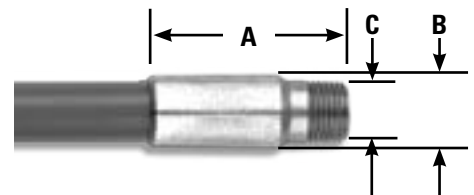
nylon outer cover with a smooth surface that reduces friction as it travels through the pipe or tube. **SRV hose** features two outer spirals of high-tensile stainless steel wire, for added kink resistance. Our **ultra-high pressure flex lance** features six

layers of this wire. NLB flex lances are stocked in 25' and 50', and are also available in lengths up to 200' (7.6m and 15.2m, up to 61m).

When specifying hose, refer to the pressure drop chart on Page 97.

How to Use This Chart:

1. Within your operating pressure, find the diameter of your tube.
2. Choose a lance that will fit in your tube and establish the length that will be required for your application. **NOTE:** The XX in the model number refers to length; 35' and 50' (10.7 m and 15.2 m) are standard.
3. Read across the chart for potential nozzles and stingers. Couplings can be found in the chart in the lower right-hand corner.



Nozzle Families



Standard for general cleaning



Triple-Row removes soft material



Button moves easily around bends



Polishing rotating action removes hard deposits and polishes

10K Flex Lances

Model No.	Inlet Connection	Nozzle Thread Connection	Standard Nozzle	Button Nozzle	Triple Row Nozzle	Polishing Nozzle	Footbox to Lance Coupling(s)	Dim. "A" Coupling Length	Dim. "B" Coupling OD	Dim. "C" Coupling ID	Bend Radius	Stinger
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22RP-XX-1/16	1/16" MNPT	1/16" MNPT	T-21	T-20	T-21	RLM-2-10K	PM17925 and NQC-22-M	1.06"	0.38"	0.12"	2.36"	RTL15-1/16-STING
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24RP-XX-1/16	1/16" MNPT	1/16" MNPT	T-21	T-20	T-21	RLM-2-10K	PM17925 and NQC-22-M	1.2"	0.44"	0.17"	2.95"	RTL15-1/16-STING
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25RP-XX	1/8" MNPT	1/8" MNPT	T-1	T-13	T-9	RLM-3-10K	PM17926 and NQC-22-M	1.28"	0.52"	0.20"	3.75"	RTL15-1/8-STING
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27RP-XX	1/4" MNPT	1/4" MNPT	T-3	T-14	T-10	RLM-4-10K	PM17927 and NQC-22-M	1.56"	0.62"	0.25"	3.50"	RTL15-1/4-STING
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28RP-XX	3/8" MNPT	3/8" MNPT	P-2	P-3	P-14	NA	PM17928 and NQC-22-M	2.95"	0.75"	0.40"	3.00"	RTL15-3/8-STING
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29RP-XX	1/2" MNPT	1/2" MNPT	P-5	P-6	P-15	RLM-5-10K	NQC-22-M	3.37"	1.00"	0.50"	4.00"	RTL15-1/2-STING
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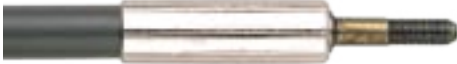




24SRV-XX	1/8" MNPT	1/8" MNPT	T-1	T-13	T-9	RLM-3-10K	PM17926 and NQC-22-M	1.10"	0.47"	0.17"	4.00"	RTL15-1/8-STING
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25SRV-XX	1/4" MNPT	1/4" MNPT	T-3	T-14	T-10	RLM-4-10K	PM17927 and NQC-22-M	2.86"	0.56"	0.20"	4.50"	RTL15-1/4-STING
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Flex and Rigid Lances

20K Flex Lances

Model No.	Inlet Connection	Nozzle Thread Connection	Standard Nozzle	Button Nozzle	Triple Row Nozzle	Polishing Nozzle	Footbox to Lance Coupling(s)	Dim. "A" Coupling Length	Dim. "B" Coupling OD	Dim. "C" Coupling ID	Bend Radius	Stinger
 44RP-XX	9/16"-18 Type M Female	MP 1/4"-28 LHM	T-1-20K	NA	NA	RLM-2-20K-AF	DM6023-129	2.10"	0.50"	0.16"	4.10"	NA
 44RP-XX-1/4	9/16"-18 Type M Female	MP 1/4"-28 RHF	*	*	*	*	DM6023-129	1.91"	0.50"	0.16"	4.10"	NA
 45RP-XX	9/16"-18 Type M Female	MP 1/4"-28 LHM	T-1-20K	NA	NA	RLM-2-20K-AF	DM6023-129	2.71"	0.60"	0.20"	5.12"	NA
 45RP-XX-3/8	9/16"-18 Type M Female	MP 3/8"-24 RHF	*	*	*	*	DM6023-129	1.98"	0.63"	0.20"	5.12"	NA
 46RP-XX	9/16"-18 Type M Female	MP 3/8"-24 LHM	T-3-20K	NA	T-9-20K	RLM-4-20K	DM6023-129	2.60"	0.67"	0.25"	6.10"	NA
 46RP-XX-3/8	9/16"-18 Type M Female	MP 3/8"-24 RHF	*	*	*	*	DM6023-129	1.83"	0.67"	0.25"	6.10"	NA
 47RP-XX	3/4"-16 Type M Female	MP 9/16"-18 LHM	T-12-20K	NA	T-10-20K	RLM-6-20K	DM6023-175	3.83"	0.95"	0.32"	6.88"	NA

* Consult NLB for nozzle options

40K Flex Lances

 PM7630-XX	3/8"-24 LHM	HP 3/8"-24 LHM	DN4133-40K	NA	NA	NA	NA	4.05"	0.82"	0.20"	6.00"	NA
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Rigid Lances

Rigid lances are available in various diameters, rated for all popular pressures. They come

in lengths of 20 feet (6m), which can be assembled, with couplings, into longer lances. Optional hand

guides (BL13033) help an operator position the lance and support it without slowing the rotation speed.

15K Rigid Lances



Model No.	Inlet Connection	Nozzle Thread Connection	Standard Nozzle	Button Nozzle	Triple Row Nozzle	Polishing Nozzle	Lance to Lance Coupling(s)
RTL15-1/16-25	1/16" MNPT	1/16" MNPT	T-21	T-20	T-21	RLM-2-10K	RTL-C-3



RTL15-1/8-25	1/8" MNPT	1/8" MNPT	T-1	T-13	T-9	RLM-3-10K	RTL-C-2
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RTL15-1/4-25	1/4" MNPT	1/4" MNPT	T-3	T-14	T-10	RLM-4-10K	RTL-C-4
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20K Rigid Lances



RTL20-1/4-25	MP 1/4"-28 LHM	MP 1/4"-28 LHM	T-1-20K	NA	NA	RLM-2-20K-AF	BM12268
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RTL20-3/8-25	MP 3/8"-24 LHM	MP 3/8"-24 LHM	T-3-20K	NA	T-9-20K	RLM-4-20K	BM13606
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RTL20-9/16-25	MP 9/16"-18 LHM	MP 9/16"-18 LHM	T-12-20K	NA	T-10-20K	RLM-6-20K	BM7684
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40K Rigid Lances



RTL40-1/4-25	HP 1/4"-28 LHM	HP 1/4"-28 LHM	CN12267-1	NA	NA	NA	BM12268
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RTL40-3/8-25	HP 3/8"-24 LHM	HP 3/8"-24 LHM	DN4133-40K	NA	NA	NA	BM7683
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RTL40-9/16-25	HP 9/16"-18 LHM	HP 9/16"-18 LHM	P-3-36K	NA	NA	NA	BM7684
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Flex and Rigid Lances

Couplings

NLB's flex and rigid lance couplings are designed to provide the smallest possible O.D. while maximizing the flow of water. There are two basic styles.

Models with female threads to join two sections of lance that have male threads on the ends, and models with male threads to join lance sections with female threads on the ends.

NLB also offers couplings with right-hand threads on one side and left-hand threads on the other to quickly join two different styles of lance.

The charts on pages 31-33 show the suggested coupling for each NLB flex and rigid lance.



Coupling	Description	Max. Diameter	Length	Tube Size
10,000 psi (700 bar)				
RTL-3	1/16" FNPT	.375"	.900"	1/16"
RTL-7	1/16" FNPT x 1/4" FNPT	NA	NA	1/4" x 1/16"
RTL-2	1/8" FNPT	.500"	.900"	1/8"
RTL-1	1/4"-28 UNF Fine Female	.315"	2.00"	1/4"
RTL-4	1/4" FNPT	.625"	1.125"	1/4"
RTL-5	3/8" FNPT	.815"	1.250"	3/8"
RTL-6	1/2" FNPT	1.0"	2.00"	1/2"
20,000 psi (1,400 bar)				
BM12268	1/4"-28 LHF	.375"	2.15"	1/4"
BM22604	1/4"-28 RHF	.375"	2.15"	1/4"
BM22605	1/4"-28 LHF X RHF	.375"	2.15"	1/4"
BL1218	1/4"-28 RHM	NA	NA	3/8"
BM13606	3/8"-24 LHF	.563"	2.00"	3/8"
BM22606	3/8"-24 RHF	.563"	2.00"	3/8"
BM22607	3/8"-24 RHF x LHF	.563"	2.00"	3/8"
BM22615	3/8" LHF x 9/16"-18" LHF	.660"	2.40"	3/8" x 9/16"
BM22616	3/8" RHF x 9/16"-18" RHF	.660"	2.40"	3/8" x 9/16"
BM20092	3/8"-24 RHM	.557"	3.25"	9/16"
BM20093	9/16"-18 RHF	.660"	2.40"	9/16"
BM20094	9/16"-18 LHF	.660"	2.40"	9/16"
BM22619	9/16"-18 LHF x RHF	.660"	2.40"	9/16"
40,000 psi (2,800 bar)				
BM12268	1/4"-28 LHF	.375"	2.15"	1/4"
BM22604	1/4"-28 RHF	.375"	2.15"	1/4"
BM22605	1/4"-28 RHF x LHF	.375"	2.15"	1/4"
BM7683	3/8"-24 LHF	.480"	2.15"	3/8"
BM22621	3/8"-24 RHF	.480"	2.15"	3/8"
BM17821	3/8"-24 RHF x LHF	.480"	2.15"	3/8"
BM22625	1/4"-28 RHM	.375"	2.50"	3/8"
BM18661	3/8"-24 LHF x 9/16"-18" LHF	.660"	2.40"	3/8" x 9/16"
BM22624	3/8"-24 RHF x 9/16"-18" RHF	.660"	2.40"	3/8" x 9/16"
BM18006	3/8"-24 RHM	.557"	3.25"	9/16"
BM7684	9/16"-18 LHF	.660"	2.40"	9/16"
BM19229	9/16"-18 RHF	.660"	2.40"	9/16"
BM17820	9/16"-18 LHF x RHF	.660"	2.40"	9/16"

For additional couplings, see Page 66.