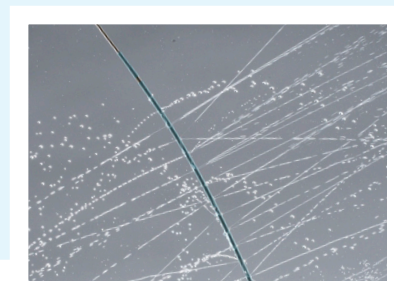


Pulse-Spray

INFUSION SYSTEM

The Pulse-Spray* infusion system by AngioDynamics supplies you with the tools you need to efficiently pulse your chosen therapeutic agent into the target vessel. It is an effective, safe and practical alternative to continuous infusion of therapeutic agents.¹

- A study showed that high pressure pulsed therapeutic agents shortened treatment time.²
- The Pulse-Spray infusion system can maximize the dispersion of the enzyme throughout the target occlusion, thereby reducing duration of treatment and reducing the systematic effects of the therapeutic agent.¹



1. Chang R, et al. Pulse Spray Treatment of Subclavian and Jugular Venous Thrombi with Recombinant Tissue Plasminogen Activator. *JVIR* 1996; 7:845-851.
2. Yusuf SW, et al. Prospective Randomised Comparative Study of Pulse Spray and Conventional Local Thrombolysis. *European Journal of Vascular and Endovascular Surgery* 1995; 10:136-141

Features of the Pulse-Spray Infusion System

- Unique fluid outlets, called Pressure Response Outlets, allow for an even distribution of fluid volume along the entire length of the clot³ resulting in a 12-fold advantage with the slit technology of the Pulse-Spray* catheter over conventional side hole catheters⁴
- Finger flange allows users to increase injection force with small 1 ml syringe, resulting in high pressure bursts
- Dual check valve ensures pulsed therapeutic agent exits only from the catheter's pressure response outlets
- Occluding ball wire occludes end hole of catheter, providing the proper force to active pressure response outlets
- Y-connector holds occluding ball wire in place during pulsed infusion
- Choice of 10 or 20 ml syringe to administer therapeutic agent during procedure

Pulse-Spray Infusion System Sets

UPN	Size	Length	Infusion Pattern	UPN	Size	Length	Infusion Pattern
H78712500421	3F	90 cm	2 cm	H78712500423	5F	45 cm	10 cm
H78712500420	3F	90 cm	5 cm	H78712500430	5F	45 cm	15 cm
H78712500419	3F	90 cm	10 cm	H78712500424	5F	45 cm	20 cm
H78712500418	3F	90 cm	20 cm	H78712500408	5F	90 cm	5 cm
H78712500422	3F	135 cm	2 cm	H78712500401	5F	90 cm	10 cm
H78712500417	3F	135 cm	5 cm	H78712500402	5F	90 cm	20 cm
H78712500416	3F	135 cm	10 cm	H78712500407	5F	90 cm	30 cm
H78712500415	3F	135 cm	20 cm	H78712500427	5F	90 cm	40 cm
H78712500414	4F	90 cm	5 cm	H78712500426	5F	90 cm	50 cm
H78712500413	4F	90 cm	10 cm	H78712500406	5F	135 cm	5 cm
H78712500412	4F	90 cm	20 cm	H78712500403	5F	135 cm	10 cm
H78712500411	4F	135 cm	5 cm	H78712500404	5F	135 cm	20 cm
H78712500410	4F	135 cm	10 cm	H78712500405	5F	135 cm	30 cm
H78712500409	4F	135 cm	20 cm	H78712500428	5F	135 cm	40 cm
H78712500429	5F	45 cm	5 cm	H78712500425	5F	135 cm	50 cm

Kit Includes: PRO* infusion catheter, dual check valve, Y-connector, 1 ml syringe with fixed male luer lock and finger flange, 10 ml and 20 ml syringes, and occluding ball wire

Pulse-Spray Occluding Wires

UPN	Description	Guidewire	Catheter Length	Floppy Tip Length
H78712400701	Occluding Ball Wire	.035"	60 cm	2 cm
H78712400702	Occluding Ball Wire	.035"	109 cm	2 cm
H78712400703	Occluding Ball Wire	.035"	154 cm	2 cm
H78712400101	Occluding Wire	.018"	145 cm	10 cm
H78712400102	Occluding Wire	.018"	180 cm	10 cm
H78712400103	Occluding Wire	.018"	260 cm	10 cm

Pulse-Spray Accessories

UPN	Description	Qty/Box
H78712401101	Y-Connector with Touhy-Borst Adaptor	5
H78712400601	1 ml Syringe with Finger Flange	10
H78712400502	Dual Check Valve	10
H78712400501	Dual Check Valve with Y Connector	5
H78710900501	Bifurcated Connecting Line Non-Braided 1050 P.S.I.	10
H78712401701	Universal Pulsing Kit	5
H78712300801	Pulse-Spray Injector Delivery Set	5

3. Cho KJ, Recinella DK. Pattern of Dispersion from a Pulse-Spray Catheter for Delivery of Thrombolytic Agents: Design, Theory and Results. *Academic Radiology* 1997; 4:210-216.
 4. Yusuf SW, et al. Immediate and Early Follow-up Results of Pulse Spray Thrombolysis in Patients with Peripheral Ischaemia. *British Journal of Surgery* 1995; 82:338-340.

Consult your AngioDynamics representative for country specific product availability.

IMPORTANT RISK INFORMATION

INDICATION FOR USE: AngioDynamics PULSE-SPRAY System, PRO Infusion Catheter, and its related components, are intended for the administration of fluids, including thrombolytic agents and contrast media, into the peripheral vasculature.

CONTRAINDICATIONS: The PULSE-SPRAY System is contraindicated for use in the coronary vasculature and is not intended for the infusion of blood or blood products.

WARNINGS AND PRECAUTIONS: The PULSE-SPRAY System, PRO Infusion Catheter, and its related components are supplied sterile and are intended for single-use only. Do not reuse or

resterilize these devices. This System should be used only by physicians who have a thorough understanding of angiography and percutaneous interventional procedures. Do not substitute a component from another manufacturer. Do not inject contrast with power injector, if Occluding Guidewire or Occluding Ball Wire is in place. The use of an introducer sheath is recommended if puncture through a synthetic graft is necessary. Refer to the product insert of the therapeutic solution for indications, contraindications, side effects and precautions.

POTENTIAL COMPLICATIONS: Adverse complications may include, but are not limited to: hematoma at the entry site, pain

and tenderness, vessel dissection or perforation, vasospasm, hemorrhage, embolism, contrast extravasation, drug reaction, allergic reaction to contrast media, neurological deficits including stroke and death, and vascular thrombosis.

CAUTION: Federal (USA) law restricts these devices to sale by or on the order of a physician.

Indications, contraindications, warnings and instructions for use can be found in the instructions for use. Observe all instructions prior to use. Failure to do so may result in patient complications or death.



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