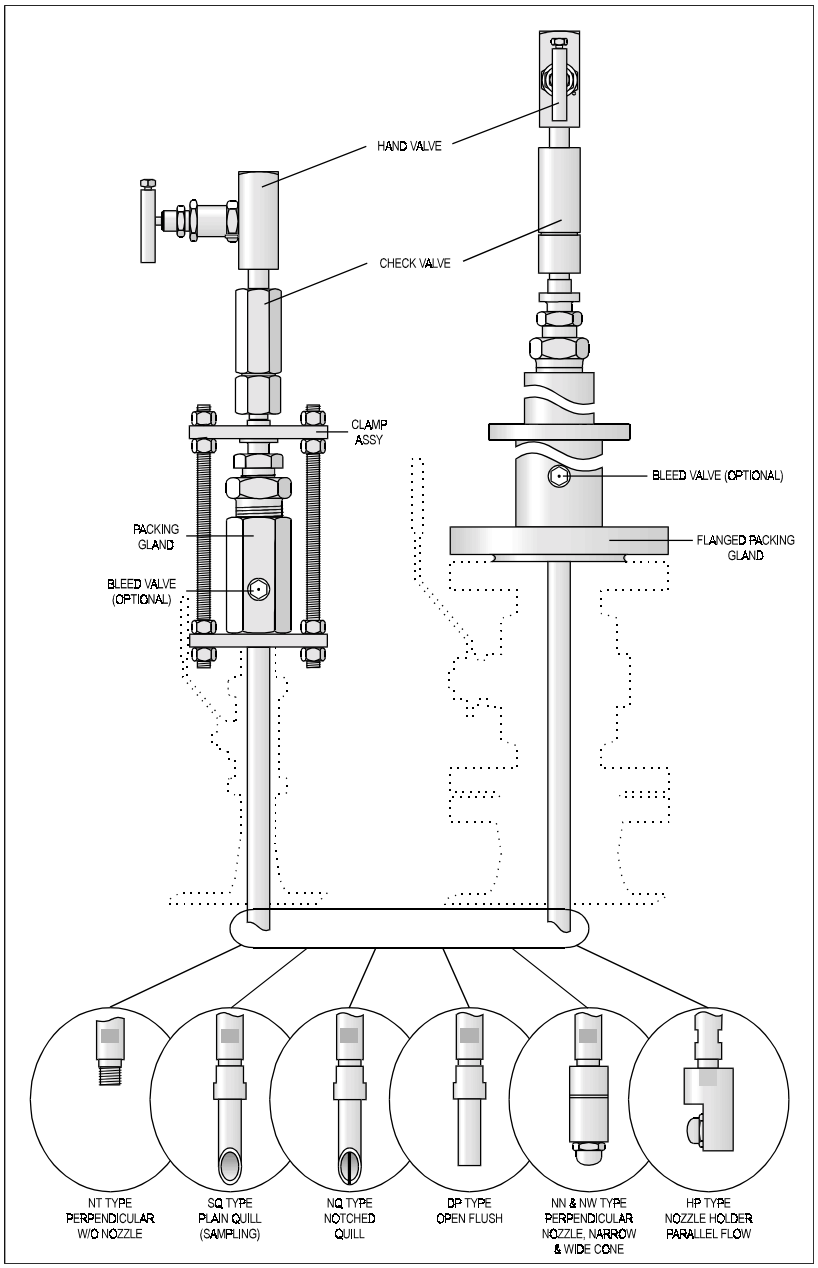
INJECTION & SAMPLING QUILLS

RC SERIES RETRACTABLE

QUILLS AND NOZZLES

CMEF017.1

A comprehensive range of 5/8" diameter retractable inserts for injection of chemicals and process sampling up to 260°C and 1000 psi with options to 450°C and 1500 psi. Standard insert tubes allow a range of quill and nozzle holder attachments to be used.



Tube wall thickness is 1/8" (3.2 mm). For packing gland material and configuration options not shown on the reverse consult data sheet CMEF.011. Use of safety clamp assembly recommended.

Applications include any process plant where treatment or sampling is performed and on-line servicing is essential. A robust, safe and simple system with a long track record in refining and petrochemical plants. This equipment may be installed by hot tapping an existing line.

Contact Cormon sales for further information, advice and design support.

Product specifications may change without notice

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PRODUCT CODE GUIDE

cormon

RI												
Retractable	**Length**		**Type**		**Quill Material**		**Options**					
Injection	**12**	12" (300mm)	**OP**	Open/flush	**B03**	Stainless Steel	**G**	c/w packing gland 1" FNPT	**C**	c/w	**V**	c/w
& Sampling	**18**	18" (450mm)	**SQ**	Plain(sampling) quill		316ss		316ss/PTFE		clamp		check
	24	24" (600mm)	**NQ**	Notched quill	**B08**	Hastelloy B2	**H**	c/w high temp. packing gland	**0**	Clamp	**0**	w/o
	30	30" (750mm)	**HP**	Nozzle holder parallel flow				1" FNPT 316ss / Graphite		not		check
	36	36 (900mm)	**NN**	Nozzle vertical narrow cone 20mm ∅			**0**	Packing not required		req'd		
	Nominal insertion		**NW**	Nozzle vertical wide (fog) cone 20mm ∅				See data sheet CMEF011 for				
	below packing gland		**NT**	Perpendicular w/o nozzle (1) 32mm ∅				other packing options				

RI	SP				
Retractable	**Spare**	**Quill Tip**		**Material**	
Injection	**or Replacement**	All tips include a blow-out prevention device			
& Sampling		**OP**	Open/flush	**B03**	Stainless Steel
		SQ	Plain(sampling) quill		316ss
		NQ	Notched quill	**B08**	Hastelloy B2
		NN	Narrow cone nozzle		
		NW	Wide cone nozzle		
		CV	Check valve 7mm port 1/4 NPT	**B03**	St. Steel 316ss

Standard packings are rated 260°c and 1000 psi. Graphite packings are rated 450°C and 1000 psi

For other packing gland configurations & materials consult data sheet CMEF011

Gas tight and 1500 psi available

(1) Various nozzle sizes available - advise injection rate data to Cormon sales.

NOZZLE PERFORMANCE TABLE

DeltaP Bar	**2**	**3**	**5**	**7**	**10**	**20**
DeltaP psi	29	43	73	101	145	290
Narrow angle nozzle Lt./min	**-**	**-**	**0.027**	**0.033**	**0.039**	**0.057**
US Gal/hr	-	-	0.42	0.52	0.62	0.9
Wide (fog) nozzle Lt/.min	**0.037**	**0.044**	**0.058**	**0.064**	**0.082**	**0.116**
US Gal/hr	0.58	0.7	0.91	1	1.3	1.84

INSERT LENGTH DATA (see method below)

Dimension	**Quills & Perp. Nozzles**					**Parallel Nozzles**				
Nom. Length (order code)	**12**	**18**	**24**	**30**	**36**	**12**	**18**	**24**	**30**	**36**
Length overall (mm)	520	670	820	970	1120	499	649	799	949	1099

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Example

CMEF.017.2

Length calculation method. The minimum length of a probe is the sum of the height of the packing assembly (P) and the travel distance to retract the probe so that the valve may be closed (T). T is equal to the sum of the length of insertion into the pipe (I), the wall thickness of the pipe (W) and the height of the branch assembly (H). The value of P is 170 mm for NPT packing glands and 280 mm for flanged packing glands. When the minimum length in millimeters overall is known, the next highest overall length may be found from the table for the insert type to be used, and its nominal length equivalent entered as the length component of the order code. Values I, W & H are site specific variables. For example: if I = 150, W = 15 and H = 250 then T = 415. For an NPT packing P = 170 therefore P+T= 585. If a Sample Quill is in use then the next highest table value is 670, and the nominal length vertically above 670 is **18**. The sum of values H + T + P gives the minimum clearance above the pipe wall to retract the probe fully. In practice an additional clearance of 100 mm provides working space. Retractor tools may require additional clearance.