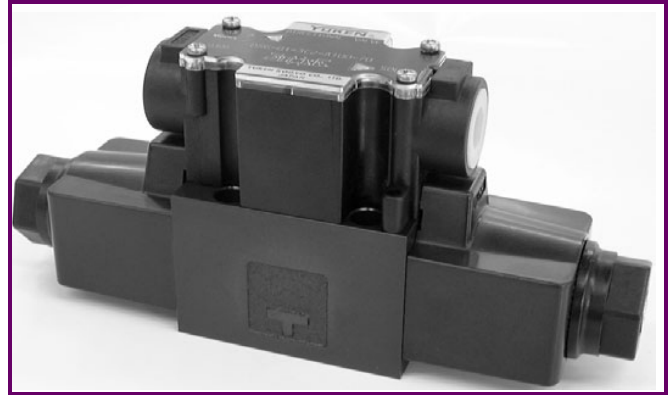


Manual Push Pin with Rubber Dust Cover

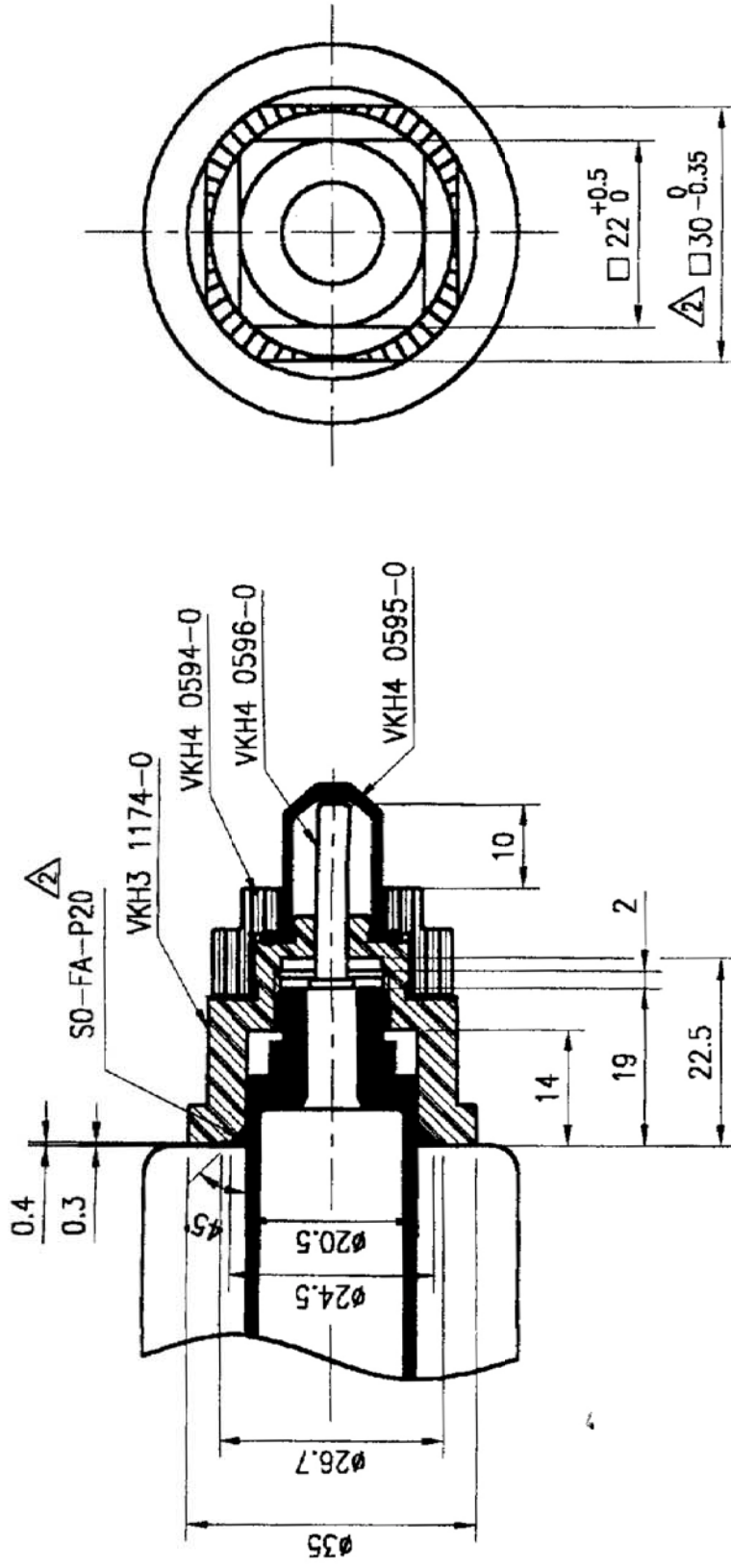
For DSG-01 Series Solenoid Operated
Directional Controls.

YUKEN



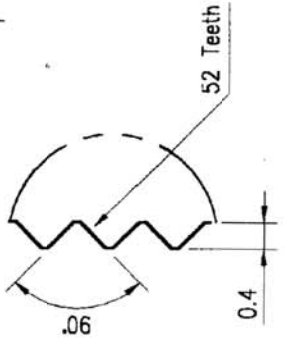
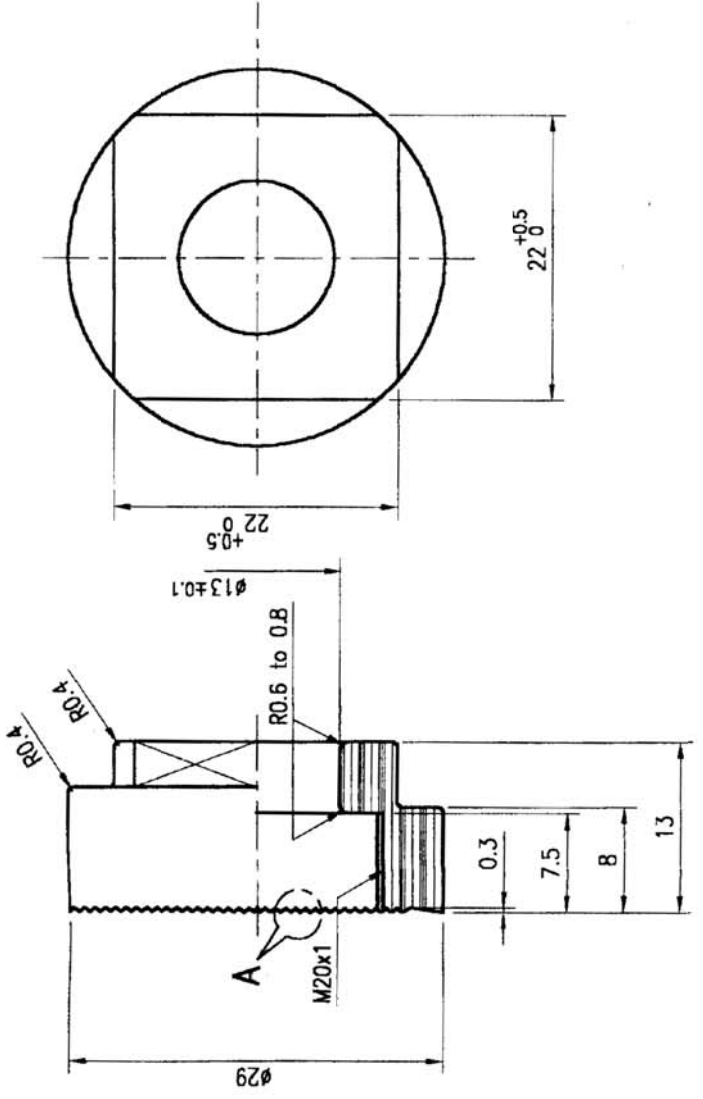
www.yuken-usa.com

ALA Industries Limited
1150 Southpoint Drive, Ste. D
Valparaiso, IN 46385-6236
Tel: 219-465-4197
Toll Free: 877-419-8536
Fax: 219-477-4194



DUST COVER ASSEMBLY
ASSEMBLY PART NUMBER: 1790SH21-VKH311740-0
Dimensions in Millimeters

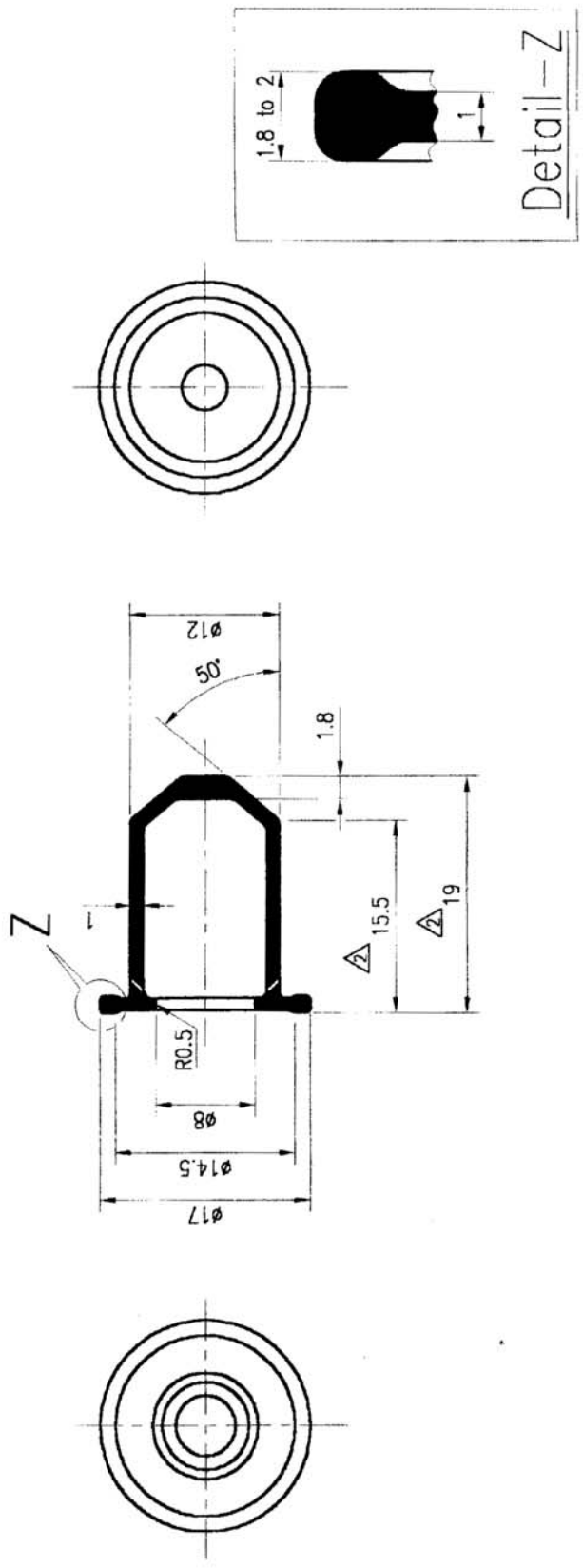
Manual Push Pin with Rubber Dust Cover.
For DSG-01 Series (D03 Mounting) Solenoid Operated Directional Controls.



Detail A

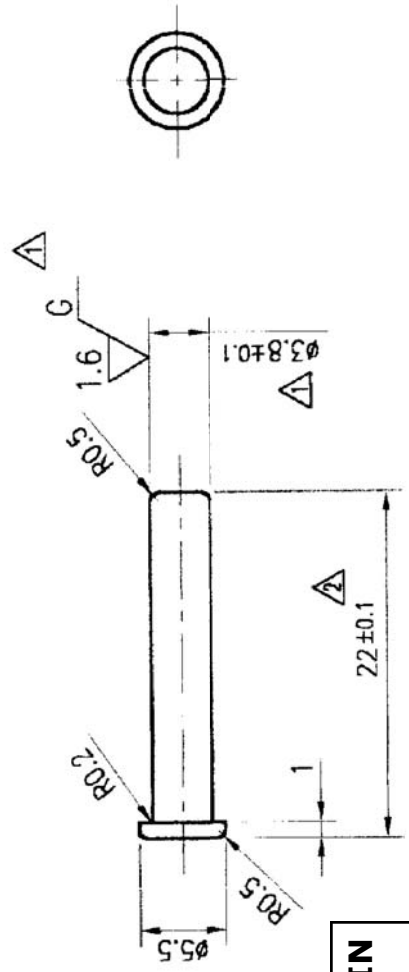
DETAIL OF CAP

Material: Nylon—6
Dimensions in Millimeters

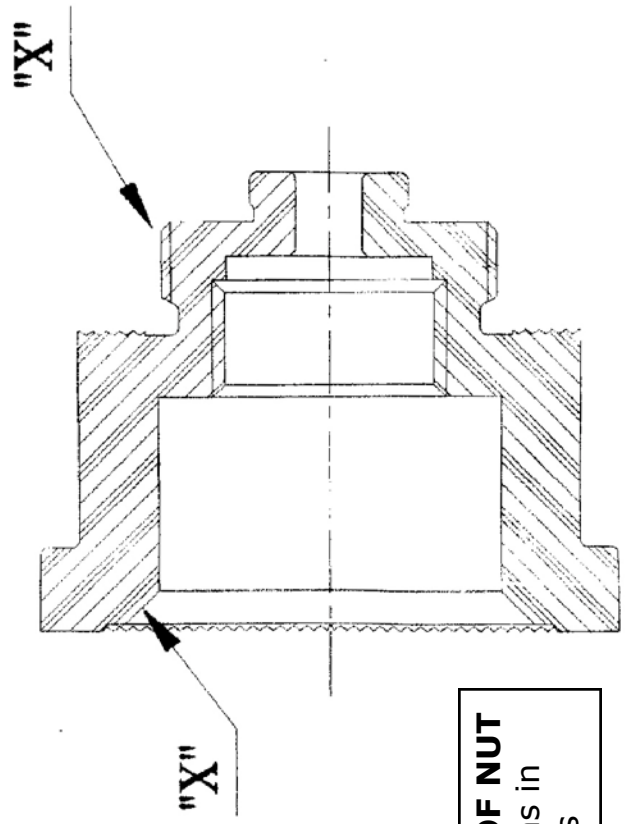


DETAIL OF RUBBER CAP
Material: VITON
Dimensions in Millimeters

Manual Push Pin with Rubber Dust Cover.
For DSG-01 Series (D03 Mounting) Solenoid Operated Directional Controls.



DETAIL OF PUSH PIN
Dimensions in Millimeters



DETAIL OF NUT
Dimensions in Millimeters

Manual Push Pin with Rubber Dust Cover.
For DSG-01 Series (D03 Mounting) Solenoid Operated Directional Controls.

MANUAL PUSH PIN WITH RUBBER DUST COVER

OPERATION TEST

1. PURPOSE:

Purpose is to know the following points during actual operation:

- i) Up to how much back pressure we are able to operate by finger pushing.
- ii) Certain back pressure how many times able to be operated without damaging the Rubber Cap (Life Test).

2. TEST RESULTS:

A) Operation test under back pressure

As a human finger operation up to how much back pressure able to operate.

Si No.	Back Pressure Kgf/cm ²	Expecting Counter Force required Kgf $F=0.317 \times \text{back Pr.}$	Operation	Remarks
1	2	0.63	Ok	“OK” able to Push the Pin by hand easily
2	3	0.951	“	
3	4	1.27	“	
4	5	1.6	“	
5	10	3.2	“	
6	12	3.8	“	
7	13	4.12	Difficult	

REMARK:

Push Pin (A) $0.38=0.1133 \text{ cm}^2$ (Manual Push Pin)

“ “ (B) $0.635 = 0.317 \text{ cm}^2$ (Iron core Push Pin)

B) Life Test

Operated by hand and observed contacted surface to Push Pin of the Rubber Cap under back pressure of

Si. No.	No. of Operating Times	Contacted surface condition
1	100	No dent marks observed
2	500	“
3	900	“
4	1000	“

3. Consideration:

1) Operation Test:

Up to 12 Kgf/cm² of back pressure of the tank port can operate the manual push pm by finger easily.

We understand back pressure of 12 Kgf/cm² will be more than enough. If required more than 12 Kgf/cm² and feel difficult to operate, we can redesign the push pm.

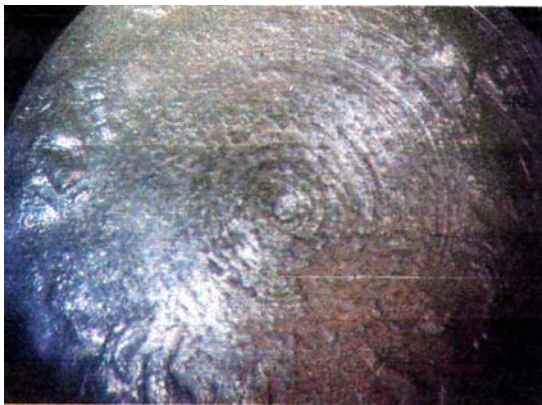
2) Life of the Rubber Cap:

Under 12 Kgf/cm² of the back pressure operated 1000 times (3 Nos. of Rubber cap).

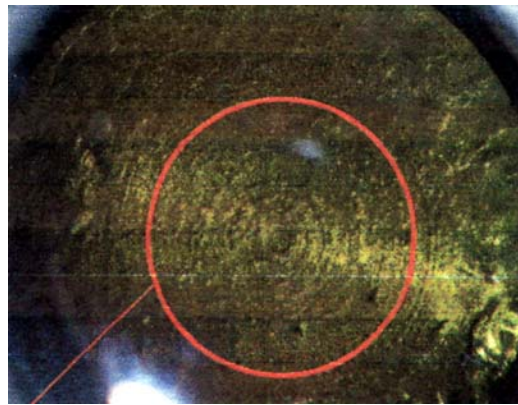
After operation turn over to inside out and observed contact area to push pm by using 20 times of magnifying glass.

No dent mark or abrasion mark observed. From this result as a manual push pin enough durability will be retained.

4. Photos



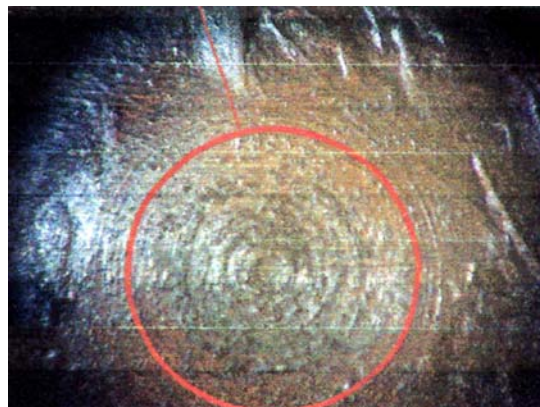
Original Sample
(Before Operations Test)



Sample 1
After 1000 Times Operations Test



Sample 2
After 1000 Times Operations Test



Sample 3
After 1000 Times Operations Test

Circled area represents push pin contact surface.

Tested by: Mr. K. N. Ashok (Valve Testing)
Mr. G. Anand (R & D)

Approved by T. Ramanuja Iyengar